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QuadGraphics


## MESSAGE TO SHAREHOLDERS

Dear Fellow Shareholder,
The print industry continues to undergo a major transformation. While the challenges facing industry participants are considerable, so are the opportunities for a strong, forward-thinking company like Quad/Graphics. We have and will continue to evolve our company to remain competitive, deliver quality work, provide an exceptional client experience, and create value for our stakeholders.

We are well-positioned to capitalize on opportunities that will allow Quad/Graphics to be successful during this transformational time in the industry through our primary strategic goals:

1. Transform the industry. First, we maximize the revenue our clients derive from their marketing spend through media channel integration. Print connects and integrates well with other media channels, and Quad/Graphics has the tools and talent to profitably provide cross-media solutions. Second, we minimize our clients' total cost of production and distribution. And, third, we pursue value-driven industry consolidation opportunities, which I'll discuss in additional detail momentarily.
2. Maximize the operational and technological excellence of our highly integrated, automated, efficient and modern manufacturing and distribution platform to develop and deploy industry-leading solutions and be a low-cost provider.
3. Empower, engage and develop employees so they enjoy each other and their work, think and act like owners, create innovative solutions, and propel the company forward.
4. Enhance financial strength and create shareholder value by continuing to focus on maximizing earnings and Free Cash Flow ${ }^{(1)}$; maintaining consistent financial policies to ensure a strong balance sheet and liquidity levels; and retain the financial flexibility we need to strategically allocate and deploy capital.

Our continued strong cash flow generation enables us to pursue acquisition and investment opportunities while also reducing debt and returning cash to our shareholders in the form of a quarterly dividend. In 2013, we:

- Generated $\$ 202$ million of Free Cash Flow ${ }^{(1)}$, which excludes the one-time benefit of the approximately $\$ 90$ million of Vertis working capital restoration.
- Reduced our underfunded pension, postretirement and multiemployer pension plan obligations by $\$ 191$ million during the year, and $\$ 360$ million since the July 2010 acquisition of Worldcolor.
- Reduced debt after the Vertis acquisition, achieving a yearend Debt Leverage Ratio ${ }^{(1)}$ of $2.44 x$, which is within our targeted range of $2.0 x$ to $2.5 x$. We have reduced debt by $\$ 388$ million since the July 2010 acquisition of Worldcolor.
- Paid an annual dividend of \$1.20 per share, further demonstrating our ongoing commitment to providing long-term shareholder returns.

Looking ahead, we believe our 2014 financial results will be impacted by ongoing industry volume and pricing pressures. Pricing pressures will be somewhat magnified in 2014 due to a larger-than-normal number of multi-year magazine and catalog contract renewals that were executed in 2013, with the resulting lower pricing impacting 2014. Separately, we also anticipate somewhat lower volumes as clients try to offset the impact of the $6 \%$ exigent postal rate increase, which went into effect on January 26,2014 . To manage through these challenges, we will continue to be disciplined in how we manage all aspects of our business. We will continue to focus on improving productivity and identifying sustainable cost reduction initiatives to remain a low-cost provider. Additionally, we will focus on strengthening our core product lines of retail inserts, catalogs, magazines, books and directories, which provide strong cash flow generation. In order to support our strategic business initiatives as the Company continues to grow in size and complexity, in early 2014 we named several executives to new or expanded roles including the alignment of General Managers with Sales leaders in our core product lines to bolster sales and increase market share. Lastly, we will focus on maintaining a strong balance sheet so we have the flexibility to adjust to changing industry conditions.

Since the 2008 recession, many industries have been impacted by a slow-growth environment. For the printing industry, the recession translated into lower volumes and excess capacity which created significant consolidation opportunities. Due to our financial strength, we were able to play a leading role as an industry consolidator, completing the Worldcolor acquisition in July 2010 and the Vertis acquisition in January 2013.

The Vertis acquisition was unique in that it signaled what we believe to be a tipping point for our industry. We capitalized on the opportunity to strengthen our position in retail inserts, direct mail and in-store marketing through the integration of Vertis and we will continue to evaluate similar opportunities as we move forward.

Consolidating acquisitions, like Worldcolor and Vertis, are one way in which we're transforming the industry by removing inefficient and underutilized capacity, and pulling out costs. Our clients also benefit from these consolidation opportunities through better control of their print-production expenses, including reduced postage through the incremental economies of scale that drive co-mail savings. Through co-mailing, we sort and bundle multiple clients' mail pieces into a single large mailstream that qualifies for U.S. Postal Service worksharing discounts. In 2013, we continued to lead the industry in co-mail volumes, processing approximately 5 billion mail pieces, including magazines, catalogs and direct marketing pieces.

Beyond consolidating acquisitions, we are pursuing growth acquisitions. These opportunities are focused on expanding our business into geographies with growing middle-class populations and into print products with higher growth potential, such as direct mail, packaging, in-store marketing, and commercial and specialty printed products.

For example, in December 2013, we acquired Proteus Packaging, a designer and manufacturer of high-end paperboard packaging, to expand our foothold in the growing packaging industry. Proteus offers creative packaging solutions for a wide variety of industries, including pharmaceutical, personal care, food, biotechnology, automotive, software and electronics. We also acquired Proteus' sister company, Transpak, which is a full-service industrial packaging company, offering crating, packaging, warehousing, distribution and logistics services to destinations around the world.

In early 2014, we completed the acquisition of UniGraphic, a premier commercial and specialty printer with in-store marketing solutions. Through this acquisition, we strengthened and expanded our presence on the East Coast, and enlarged our in-store marketing footprint, which now includes both coasts as well as the Midwest. Additionally, given our complementary operations internationally, we are better positioned than ever to service national and multi-national retailers' large-format and in-store marketing needs around the world.

We completed a compelling growth acquisition for our QuadMed subsidiary in November 2013 with the purchase of Novia CareClinics, a healthcare solutions company that specializes in developing and managing onsite and shared primary care clinics for small to medium-sized companies and the public sector. Novia's approach to employer-sponsored healthcare solutions complements our well-established QuadMed model, which excels at serving larger companies with a national presence. Through this acquisition, we fortified QuadMed's offering with a continuum of services designed to meet any employer's needs, regardless of industry segment, size or location. Further, as an employer, we will use this expanded healthcare delivery platform to partner with other employers to create shared clinics, which will create value and additional cost-savings for Quad/Graphics.

As we seek to strengthen our business and the value we create for stakeholders through acquisitions, we remain disciplined in our approach to them, only pursuing those acquisitions that 1) are a good strategic fit; 2) the economics make sense; 3) the integration plan is executable in a timely manner and without significant risk of client disruption; and 4) we are able to retain our financial strength and flexibility post-acquisition.

Where others see challenges, we see opportunities. We are a printer and media channel integrator, and we remain confident in our future and ability to leverage our strengths to bring value to our clients and shareholders, while still holding true to our values, which include, among others, believing in people, innovating and growing.

Sincerely,


J. Joel Quadracci<br>Chairman, President \& Chief Executive Officer

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# UNITED STATES <br> SECURITIES AND EXCHANGE COMMISSION <br> Washington，D．C． 20549 <br> FORM 10－K <br> <br> 囚 ANNUAL REPORT PURSUANT TO SECTION 13 OR 15（d）OF THE SECURITIES <br> <br> 囚 ANNUAL REPORT PURSUANT TO SECTION 13 OR 15（d）OF THE SECURITIES EXCHANGE ACT OF 1934 

 EXCHANGE ACT OF 1934}

For the fiscal year ended December 31， 2013
or

## TRANSITION REPORT PURSUANT TO SECTION 13 OR 15（d）OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from<br>to<br>Commission File Number 001－34806

QUAD／GRAPHICS，INC．
（Exact name of registrant as specified in its charter）

Wisconsin<br>（State or other jurisdiction of incorporation or organization）<br>（I．R．S．Employer Identification No．）<br>N61 W23044 Harry＇s Way，Sussex，Wisconsin 53089－3995<br>（Address of principal executive offices）（Zip Code）<br>（414）566－6000<br>Securities registered pursuant to Section 12（b）of the Act：



Large accelerated filer $\square$
Accelerated filer 区

> Non-accelerated filer $\square$ (Do not check if a smaller reporting company)

Smaller reporting company

Indicate by check mark whether the registrant is a shell company（as defined in Rule $12 \mathrm{~b}-2$ of the Act）．Yes $\square$ No $\boxtimes$
The aggregate market value of the class A common stock（based on the closing price of $\$ 24.10$ per share on the New York Stock Exchange，LLC）on June 28，2013，the last business day of the registrant＇s most recently completed second fiscal quarter，held by non－affiliates was $\$ 618,593,498$ ．The registrant＇s class B common stock is not listed on a national securities exchange or traded in an organized over－the－counter market，but each share of the registrant＇s class B common stock is convertible into one share of the registrant＇s class A common stock．In August 2012，all outstanding shares of the registrant＇s class C common stock were converted into shares of class A common stock．

Indicate the number of shares outstanding of each of the issuer＇s classes of common stock as of the latest practicable date．

| Class | Outstanding as of February 24，2014 |
| :---: | :---: |
| Class A Common Stock | $33,812,823$ |
| Class B Common Stock | $14,198,464$ |
| Class C Common Stock |  |
| DOCUMENTS INCORPORATED BY REFERENCE |  |

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## Forward-Looking Statements

To the extent any statements in this Annual Report on Form 10-K contain information that is not historical, these statements are forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements relate to, among other things, the objectives, goals, strategies, beliefs, intentions, plans, estimates, prospects, projections and outlook of Quad/Graphics, Inc. (the "Company" or "Quad/Graphics"), and can generally be identified by the use of words such as "may," "will," "expect," "intend," "estimate," "anticipate," "plan," "foresee," "believe" or "continue" or the negatives of these terms, variations on them and other similar expressions. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances are forward-looking statements.

These forward-looking statements are not guarantees of future performance and are subject to risks, uncertainties and other factors, some of which are beyond the control of the Company. These risks, uncertainties and other factors could cause actual results to differ materially from those expressed or implied by those forward-looking statements. Among risks, uncertainties and other factors that may impact Quad/Graphics are those described in Item 1A, "Risk Factors," of this Annual Report on Form 10-K, as such may be amended or supplemented in Part II, Item 1A, "Risk Factors," of the Company's subsequently filed Quarterly Reports on Form 10-Q, and the following:

- The impact of significant overcapacity in the highly competitive commercial printing industry, which creates downward pricing pressure and fluctuating demand for printing services;
- The inability of the Company to reduce costs and improve operating efficiency rapidly enough to meet market conditions;
- The impact of electronic media and similar technological changes including digital substitution by consumers;
- The impact of changes in postal rates, service levels or regulations;
- The impact of changing future economic conditions;
- The failure to renew long-term contracts with clients on favorable terms or at all;
- The failure of clients to perform under long-term contracts due to financial or other reasons or due to client consolidation;
- The failure to successfully identify, manage, complete and integrate acquisitions and investments, including the integration of the operations of Vertis Holdings, Inc. ("Vertis");
- The impact of increased business complexity as a result of the Company's entry into additional markets;
- The impact of fluctuations in costs (including labor-related costs, energy costs, freight rates and raw materials) and the impact of fluctuations in the availability of raw materials;
- The impact of regulatory matters and legislative developments or changes in laws, including changes in privacy and environmental laws;
- The impact on the holders of Quad/Graphics' class A common stock of a limited active market for such shares and the inability to independently elect directors or control decisions due to the voting power of the class B common stock;
- The impact of risks associated with the operations outside of the United States; and
- Significant capital expenditures may be needed to maintain the Company's platform and processes and to remain technologically and economically competitive.

Quad/Graphics cautions that the foregoing list of risks, uncertainties and other factors is not exhaustive and you should carefully consider the other factors detailed from time to time in Quad/Graphics' filings with the United States Securities and Exchange Commission ("SEC") and other uncertainties and potential events when reviewing the Company's forward-looking statements.

Because forward-looking statements are subject to assumptions and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. You are cautioned not to place undue reliance on such statements, which speak only as of the date of this Annual Report on Form 10-K. Except to the extent required by the federal securities laws, Quad/Graphics undertakes no obligation to publicly update or revise any forwardlooking statements, whether as a result of new information, future events or otherwise.

## PART I

## Item 1. Business

## Overview

Quad/Graphics is a leading global printer and media channel integrator founded in Pewaukee, Wisconsin, as a Wisconsin corporation, in 1971 by the late Harry V. Quadracci. As of December 31, 2013, the Company had approximately 25,600 employees in North America, Latin America, and Europe, and served a diverse base of approximately 8,000 clients from 147 facilities located in 20 countries. With consultative ideas, worldwide capabilities, leading-edge technology and single-source simplicity, the Company believes it has the resources and knowledge to help its clients maximize the revenue they derive from their marketing spend and minimize their total cost of print production and distribution. The Company's print and related products and services in North America, Latin America and Europe primarily include:

- Print Solutions. Includes consumer magazines, catalogs, retail inserts, special interest publications, journals, direct mail, books, directories, in-store marketing, packaging, and other commercial and specialty printed products.
- Media Solutions. Includes marketing strategy, media planning and placement, data insights, response analytics services, creative services, videography, photography, workflow solutions, digital imaging, facilities management services, digital publishing, and interactive print solutions including image recognition and near field communication technology.
- Logistics Services. Includes mailing, distribution, logistics, and data optimization and hygiene services.

Quad/Graphics has contractual relationships with leading magazine publishers, including Condé Nast, Hearst Magazines, Meredith Corporation, The National Geographic Society, Rodale Inc., Source Interlink Media, LLC, Time Inc. and Wenner Media LLC. Quad/Graphics prints retail inserts for major retailers such as Bass Pro Shops, The BonTon Stores, Inc., J.C. Penney Company, Inc., Shopko Stores Operating Co., LLC and Target Corporation; catalogs for industry-leading marketers such as American Girl, W.W. Grainger, Bluestem Brands, Colony Brands and OSP Group; and direct mail products for companies such as Charter Communications, American Eagle Outfitters, Publishers Clearing House, Inc. and Weight Watchers International, Inc. Quad/Graphics prints books for publishers such as Harlequin Enterprises Limited, The McGraw-Hill Companies, Inc. and Simon \& Schuster, Inc.; and directories for publishers such as hibu ple and Yellow Media Limited.

The Company remains focused on four primary strategic goals, which it believes will allow it to be successful despite ongoing economic and industry challenges. These goals are summarized as follows:

## 1. Transform the Industry

The Company believes it is well-positioned to transform the industry in the following three ways:

- Maximize the revenue clients derive from their marketing spend through media channel integration. As a printer and media channel integrator, Quad/Graphics uses a client-centric approach to help marketers and publishers connect strategy and content with multiple media channels to create measurable client value. Through its full range of integrated solutions, Quad/Graphics' clients benefit from better end user engagement, improved response and increased revenue derived from multichannel marketing campaigns.
- Minimize clients' total cost of production and distribution by utilizing an efficient, innovative and fullyintegrated U.S. national distribution network to provide enhanced value to clients through increased efficiency and postal cost-savings.
- Create opportunity through disciplined, value-driven industry consolidation that adds complementary capabilities, allowing the Company to provide an enhanced range of products and services and create significant efficiencies in the overall print production and distribution processes.


## 2. Maximize Operational and Technological Excellence

Quad/Graphics utilizes a disciplined return on capital framework to make significant investments in its print manufacturing platform, research and development, technological innovation and data management capabilities, resulting in what it believes is one of the most integrated, automated, efficient and modern platforms in the industry.

## 3. Empower, Engage and Develop Employees

Quad/Graphics believes that its distinct corporate culture encourages an organization-wide entrepreneurial spirit and an opportunistic mentality, where employees embrace responsibility, take ownership of projects and are encouraged to create solutions that advance the Company's strategic goals.

## 4. Enhance Financial Strength and Create Shareholder Value

Given current economic and industry challenges, Quad/Graphics believes that its strategy to enhance financial strength and create shareholder value will contribute to its long-term success. Key components of this strategy are centered on the Company's disciplined financial approach to maximize earnings and free cash flow; use of consistent financial policies to ensure it maintains a strong balance sheet and liquidity levels; and ability to retain the financial flexibility needed to strategically allocate and deploy capital.

More information regarding Quad/Graphics is available on the Company's website at www.qg.com. Quad/ Graphics is not including the information contained on or available through its website as part of, or incorporating such information by reference into, this Annual Report on Form 10-K. The Company's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to those reports are made available to the public at no charge through a link appearing on the Company's website. Quad/Graphics provides access to such materials through its website as soon as reasonably practicable after electronically filing such material with, or furnishing it to, the SEC.

## Industry

The global printing industry encompasses a wide range of sectors, including general commercial printing, newspapers and retail inserts, directories, books, direct mail, packaging, financial printing, business forms, greeting cards, and label and wrapper printing. Printing is one of the largest industries in the United States, with more than 965,000 employees and approximately 47,000 companies generating an estimated $\$ 161$ billion in annual sales, according to the Printing Industries of America/Graphic Arts Technical Foundation ("PIA/GATF") 2012 Print Market Atlas ("Print Market Atlas"). Quad/Graphics operates primarily in the commercial print portion of the printing industry. The PIA/ GATF defines this portion to include advertising printing such as direct mail, circulars, brochures, displays, inserts / pamphlets, business cards, stationery, catalogs, directories, newspapers, magazines and books. According to the Print Market Atlas, the United States commercial printing sector, excluding newspapers, is estimated to generate approximately $\$ 82$ billion in sales annually. The commercial printing industry, excluding newspapers, is also highly fragmented and competitive, with the largest 400 printers representing approximately $55 \%$ of the overall United States and Canadian market, based on the 2013 Printing Impressions PI400 and the Print Market Atlas.

Demand for printed products and related services is impacted by real gross domestic product growth, as economic activity and advertising spending are key drivers of customer demand. In times of global economic uncertainty, advertisers may reduce spending. Magazine publishers, facing diminished advertising pages, reduce total page counts; catalog marketers reduce page counts, circulation and the frequency of print campaigns; retailers curb investments in store inventory and cut back advertising; and other advertisers reduce their direct mail campaigns, particularly in the banking, insurance, credit card, real estate and nonprofit industries. In addition, the Company believes the commercial print industry has moved toward shorter print runs and increased production efficiency of products with
lower page counts and increasing complexity. This, combined with increases in postage expenses (which significantly outpaced inflation over the last 10 years) and the increased use of alternative marketing technologies have led many printing businesses to fail and the industry to undergo ongoing consolidation.

Competition in the highly fragmented printing industry remains intense. The industry has excess manufacturing capacity created by declines in industry volumes during the past recession, which in turn has created continued downward pricing pressures. In addition, digital delivery of documents and data, including the online distribution and hosting of media content and mobile technologies, offer alternatives to traditional delivery of printed documents. Increasing consumer acceptance of digital delivery of content has resulted in marketers and publishers allocating their marketing and advertising spend across the expanding selection of digital delivery options, which further reduces demand and contributes to industry overcapacity. In addition, the Company faces competition from print management firms, which look to streamline processes and reduce the overall print spend of the Company's clients, as well as from strategic marketing firms focused on helping businesses integrate multiple channels into their marketing campaigns.

Quad/Graphics believes that traditional business users of print and print-related services are focused on generating and tracking the highest returns on their marketing dollars. The Company believes that its clients receive the greatest return on their marketing and advertising dollars when they effectively utilize data to target the appropriate customers and combine digital alternatives with customized print products in a targeted, multichannel marketing campaign driven by an overall marketing strategy. Quad/Graphics believes it is well positioned as a printer to help its clients navigate through the changing media channels and connect and integrate new media with print.

Finally, the Company believes that successful commercial printing companies will invest in mailing and logistics capabilities because, for many clients, mailing and distribution represent their largest cost-typically two to three times the cost of their print expense. Therefore, Quad/Graphics believes a printer's ability to impact mailing and distribution expenses through data hygiene and sophisticated, automated printing, finishing and distribution equipment creates value for clients by minimizing their total manufacturing and distribution cost.

## Seasonality

The Company is subject to seasonality in its quarterly results as net sales and operating income, when excluding restructuring, impairment and transaction-related charges, are higher in the third and fourth quarters of the calendar year as compared to the first and second quarters. Seasonality is driven by increased magazine advertising page counts, retail inserts, catalogs and books primarily due to back-to-school and holiday related advertising and promotions. Following the 2013 acquisition of Vertis, the Company experienced increased seasonality in 2013 as the majority of Vertis revenues occur in the second half of the year, and the Company expects this seasonality impact to continue in future years.

## Strategy

Quad/Graphics remains focused on four primary strategic goals, which it believes will allow the Company to be successful despite ongoing economic and industry challenges. These four goals are as follows:

- Transform the Industry
- Maximize Operational and Technological Excellence
- Empower, Engage and Develop Employees
- Enhance Financial Strength and Create Shareholder Value


## 1. Transform the Industry

The Company believes it is well positioned to transform the industry in the following three ways:

- Maximize the Revenue Clients Derive From Their Marketing Spend Through Media Channel Integration.
- Minimize Clients' Total Cost of Production and Distribution.
- Pursue Value-Driven Industry Consolidation.

Maximize the Revenue Clients Derive From Their Marketing Spend Through Media Channel Integration. Quad/Graphics understands that its clients are faced with an ever-changing media landscape and an increasingly demanding consumer. As a printer and media channel integrator, the Company believes that it is uniquely positioned to help clients navigate today's multichannel world by capitalizing on print's ability to complement and connect with other media channels. This has created an opportunity for Quad/Graphics to help maximize the revenue clients derive from their overall marketing spend. With its consultative ideas, worldwide capabilities, leading-edge technology and singlesource simplicity, Quad/Graphics uses a client-centric approach to help marketers and publishers connect strategy and content with multiple media channels to create measurable client value. The Company's integrated solutions, which use data to leverage and connect all channels such as print (including in-store signage and point-of-purchase displays), mobile, email, the Web, tablets and e-readers, video and social media, help its clients engage consumers and readers, drive higher response rates, promote a consistent brand across channels and create returns for advertisers on their marketing dollars.

Minimize Clients' Total Cost of Production and Distribution. Quad/Graphics has made strategic capital expenditure and information technology ("IT") investments to build what it believes is one of the most efficient and innovative distribution networks in the commercial printing industry. The Company's goal, and an integral component of how Quad/Graphics creates client value, is to maintain and utilize a fully-integrated, national distribution network to help mitigate rising postage costs for its clients.

Pursue Value-Driven Industry Consolidation. Given the challenges in the printing industry, including overcapacity and some secular decline in certain product categories, Quad/Graphics' efficient manufacturing platform and financial strength provide the Company with the ability to select and execute on value-added consolidation acquisition opportunities. The Company believes this will create measurable value through the addition of complementary capabilities, allowing the Company to provide an enhanced range of products and services, and create significant efficiencies in the overall print production and distribution processes.

## 2. Maximize Operational and Technological Excellence

Quad/Graphics utilizes a disciplined return on capital framework to make significant investments in its print manufacturing platform and data management capabilities, resulting in what it believes is one of the most integrated, automated, efficient and modern manufacturing platforms in the industry. The Company has built a platform that encompasses a combination of mega plants (facilities greater than 1.0 million square feet) that produce a number of different product lines under one roof; mega zones where multiple facilities in close geographic proximity are managed as one large facility; and smaller strategically located facilities. In addition, a commitment to Lean Enterprise and a culture of continuous process improvement is a high priority throughout the Company and supports its goal of being the low-cost producer in its industry. For example, the Company's in-house research and development division has been instrumental in developing and deploying what the Company believes are industry-leading manufacturing solutions, which has allowed the Company to reduce its cost structure over the years. This includes closed-loop color systems, register guidance systems, cut-off controls and other automated controls for its press and finishing equipment.

## 3. Empower, Engage and Develop Employees

In keeping with its culture of employee empowerment, Quad/Graphics encourages all of its employees to act as entrepreneurs by taking ownership of their work and providing innovative solutions that advance the Company's strategic goals. The Company helps employees keep current on skills through education and training programs offered on the job and in the classroom. For example, the Company has a "Leading Within Quad" training program for managers and supervisors to help them develop a deeper understanding of the organization, the industry and their leadership competencies. Much of this education is developed specifically for its workforce by its in-house education division, QuadEducation, in cooperation with its Continuous Improvement and Safety business units. The Company reinforces
with employees the eight core values that drive all of its business decisions: Trust in Trust, Do the Right Thing, Innovate, Grow, Believe in People, Make Money, Have Fun, and Do Things for the Rose (i.e., do things for the sake of excellence). The Company demonstrates its care for employees through innovative benefits such as QuadMed, which focuses on prevention and wellness delivered through onsite primary care clinics and advanced telemedicine systems, as well as fitness centers, organized recreational activities, and health and wellness classes.

## 4. Enhance Financial Strength and Create Shareholder Value

Given current economic and industry challenges, the Company has taken a disciplined approach to maintaining and enhancing financial strength and creating shareholder value as a key strategic goal. This strategy is centered on the Company's ability to maximize Free Cash Flow, net earnings and Adjusted EBITDA; maintain consistent financial policies to ensure a strong balance sheet and liquidity level is maintained; and retain the financial flexibility needed to strategically allocate and deploy capital as circumstances change. Below is a summary of financial measures not prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"):

- Adjusted EBITDA is defined as EBITDA before restructuring, impairment and transaction-related charges, loss on debt extinguishment (if applicable), gain on disposal of discontinued operations, net of tax (if applicable) and loss from discontinued operations, net of tax (if applicable).
- EBITDA is defined as net earnings (loss) attributable to the Quad/Graphics common shareholders plus interest expense, income tax expense (if applicable) and depreciation and amortization, and less income tax benefit (if applicable). A reconciliation of EBITDA to net earnings (loss) attributable to Quad/Graphics common shareholders for the years ended December 31, 2013, 2012 and 2011, is included in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," of this Annual Report on Form 10-K.
- Free Cash Flow is defined as net cash provided by operating activities less purchases of property, plant and equipment. A reconciliation of Free Cash Flow to net cash provided by operating activities for the years ended December 31, 2013 and 2012, is included in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," of this Annual Report on Form 10-K.

These financial measures are important metrics by which the Company gauges the profitability and assesses the performance of its business. They should not be considered an alternative to net earnings (loss) as a measure of operating performance or to cash flows provided by operating activities as a measure of liquidity.

The priorities for capital allocation and deployment are adjusted based on prevailing circumstances and what the Company thinks is best for shareholder value creation at any particular point in time. Those priorities currently include:

- making compelling investments that drive profitable organic growth and productivity in the Company's current business, as well as executing on acquisitions through a disciplined approach that includes expansion into higher growth print product categories, expansion into growing geographic markets and pursuing value-driven industry consolidation;
- deleveraging the Company's balance sheet through debt and pension liability reduction; and
- returning capital to shareholders through dividends.


## Competitive Advantages

Quad/Graphics believes its success has been fueled by a number of key competitive advantages that drive its four primary strategic goals. These competitive advantages are: an efficient, flexible and modern manufacturing platform; leading mailing and distribution capabilities; a commitment to ongoing innovation, rapid adoption of technology and integration of new media; a client-centric approach; a disciplined and consistent financial approach; and a distinct corporate culture that empowers and engages employees to think and act like owners to drive business results.

## Efficient, Flexible and Modern Manufacturing Platform

The Company has continuously invested in its manufacturing platform through modern equipment and automation that allow for more pages to be printed for each revolution of the press, reducing the amount of time that each individual printing job takes to complete. In addition, the Company's long-standing commitment to investing in manufacturing process improvements has led to increases in productivity, reductions in waste and smaller crew sizes. The Company's investment in its manufacturing platform has consistently been based on evaluating investment opportunities on the useful economic life of the underlying equipment rather than focusing on the potential mechanical life of the equipment. This discipline is critical in an industry in which technological change can create obsolescence well before the end of the mechanical life of equipment.

Another key aspect of the Company's modern manufacturing platform is the combination of its footprint of mega plants (facilities greater than 1.0 million square feet) that produce a number of different products under one roof; mega zones where multiple facilities in close geographic proximity are managed as one large facility; and smaller strategically located facilities. The Company has continued to evolve its platform, equipping facilities to be product line agnostic, which enables the Company to maximize equipment utilization. Quad/Graphics believes that the large plant size of certain of its key printing facilities allows the Company to drive savings in certain product lines (such as magazines and catalogs) due to efficiencies of scale and from investments in automation and technology. Complementing its mega plant and mega zone footprints are smaller facilities, strategically located nearer to final distribution points for expedited delivery. This allows clients greater deadline flexibility for adjusting content or marketing strategy, especially for commercial products, direct mail and retail inserts. The Company's platform provides it with the flexibility to meet complex customer service requirements, such as quick turns for time-sensitive material, or when weather patterns threaten production or delivery in a specific area of the country.

Quad/Graphics has also focused on investments in automation designed to reduce headcount and labor costs. Capital investments in advanced applications of robotics and automation and manufacturing process improvements have allowed the Company to lower personnel costs through attrition, decrease overtime and the use of temporary labor, and complete workforce reductions.

To achieve its goal to be the industry's low-cost producer, Quad/Graphics makes a concerted effort to treat all costs as variable and maintains a stringent focus on achieving productivity improvements and sustainable cost reductions through a variety of continuous improvement programs in both manufacturing and administrative areas. The Company believes it is making progress toward this goal by remaining focused on:

- the implementation of sustainable reductions in non-labor and indirect labor spending areas;
- a disciplined approach to improving capacity utilization and productivity across the entire platform; and
- a focused effort to take out direct costs through a variety of means, including the maximization of labor mix and the expansion of continuous improvement programs to reduce waste, eliminate redundancies and shorten cycle times.

Finally, Quad/Graphics has invested in vertically-integrated, non-print capabilities to assist it in delivering lower costs for its clients, enhancing customer service levels, increasing flexibility and providing more aggregated services to each client. Such capabilities include data management, imaging, logistics and distribution, ink manufacturing, and equipment research and design. This vertical integration allows substantial control over critical links
in the overall print supply chain, such as the Company's ink manufacturing capabilities which help it control the quality, cost and availability of a key input in the printing process.

## Leading Mailing and Distribution Capabilities

Quad/Graphics creates targeted and personalized printed materials for its clients, which helps its clients increase consumer response rates, maximize their return on print spending and reduce overall costs. Quad/Graphics uses its inhouse list services bureau to analyze mail list data, demographics data, consumer transaction data and other consumerspecific data to help its clients target consumers through personalized printed materials. Personalization and targeting create the opportunity to reach the right recipients with the right (or relevant) message at the right time. The Company believes that integrating its analysis of mail list data with its logistics services allows it to reduce client freight costs for shipments to newsstands and postal centers, while providing a high level of dependability and rapid response times that are crucial to the delivery of time-sensitive materials. Further, the Company uses a national consolidation network to combine like-destination freight to maximize cost-effectiveness.

Postal rates are a significant component of many clients' cost structures and Quad/Graphics believes that postal costs influence the number of pieces that its clients print and mail. The Company has invested significantly in its mail preparation and distribution capabilities to offset increasing postage costs, and to help clients successfully navigate the ever-changing postal environment. Through its data analytics, unique software to merge mailstreams on a large scale, advanced finishing capabilities and technology, and in-house transportation and logistics operations, the Company manages the mail preparation and distribution of most of its clients' products to maximize efficiency and reduce these costs. The Company helps its U.S. clients reduce their overall postage costs through what it believes, based on information published by or otherwise made available from its competitors, is the industry's largest co-mail program. The Company's co-mail program involves the sorting and bundling of printed products to be mailed to consumers, in order to facilitate better integration with the United States Postal Service ("USPS"). The USPS offers significant worksharing discounts for this sorting, bundling and drop-shipping across approximately 300 USPS postal processing centers as it reduces handling by the USPS. By combining the products of multiple clients in the mailstream, the Company leverages the volume from all of its clients, regardless of the production facility, to achieve greater savings. In 2013, Quad/Graphics co-mailed approximately 5 billion magazines, catalogs and direct marketing pieces, earning significant discounts from the USPS on behalf of its clients.

Quad/Graphics is also able to leverage the volume of products running through its plants for further client distribution savings by coordinating and consolidating shipments from single mega plants or multiple plants that create a mega zone, and then routing those shipments directly to thousands of local newspapers, USPS processing facilities or other distribution facilities. In addition, each major United States metropolitan area is within one day's drive of at least one of the Company's strategically located facilities, providing its clients the flexibility to print closest to their end consumers.

## Commitment to Ongoing Innovation, Rapid Adoption of Technology and Integration of New Media

Quad/Graphics has had a continued commitment to research and development, manufacturing process improvements, and the rapid adoption of technological innovations and integration of new media.

From a client-facing technology perspective, Quad/Graphics believes it is at the forefront of the printing industry with creating and/or rapidly adopting solutions that help marketers and publishers integrate print with new media to drive business results. The Company's Media Solutions group is dedicated to developing, testing and delivering these innovative solutions. Media Solutions' core services include marketing strategy, media planning and placement, data insights, response analytics services, creative services, videography, photography, workflow solutions, digital imaging, facilities management services, digital publishing, and interactive print solutions including image recognition and near field communication technology. These services are seamlessly integrated to help clients optimize content, promote brand awareness and loyalty, and create experiences that connect with consumers and readers across multiple channels such as print (including in-store signage and point-of-purchase displays), mobile, email, the Web, tablets and ereaders, video and social media.

Data supports the Company's belief that offline and online channels work well together in support of a marketing strategy. According to a 2012 study by InfoTrends, marketers report an average improvement of $45 \%$ for multichannel campaigns (using print, email, Web landing pages and mobile technology) over print-only campaigns. In addition, more than $50 \%$ of marketers are utilizing three or more forms of media in their marketing campaigns, according to a 2012 InfoTrends study. According to Econsultancy's State of Integrated Marketing Report 2013, nearly 90\% of marketers describe marketing channel integration as "necessary and inevitable" for mid-sized and large organizations.

Using a client-centric approach, the Company intends to continue to redefine print communications as the foundation of how it will help clients integrate media channels by:

- consulting with clients on marketing strategies to integrate personalized, targeted print communications (including in-store signage and point-of-purchase displays), with other media channels including mobile, email, the Web, tablets and e-readers, video and social media to drive higher response rates;
- leveraging its integrated data analytics, finishing technology and logistics operations, which allow clients to create and track customized and relevant communications across channels on a cost-effective basis, with the objective of delivering higher responses at a lower cost;
- improving the cost-effectiveness of local advertising investments through an improved understanding of best customers' shopping behavior, messaging preferences and media consumption habits;
- developing workflow solutions to help clients streamline content management across multiple channels;
- deploying its interactive media capabilities, including planning, executing and monitoring interactive print campaigns, email, personalized URLs, mobile solutions and digital editions, and creating and maintaining microsites in support of effective, print-focused marketing campaigns; and
- investing in leading-edge technologies and capabilities to ensure it can provide the most desirable and effective multichannel solutions to marketers and publishers.

With respect to the Company's print manufacturing platform, Company engineers, designers and systems engineers, working closely with its press and finishing operators, have developed a range of advancements. The value of Quad/Graphics' innovations to the industry is supported by the fact that it generates revenue by supplying some of these technology solutions and consulting services to other printers. In particular, the Company believes it is an internationally known, leading manufacturer of electronic process control systems and maintains offices in the Netherlands, India, Japan and China to sell and service these products to equipment manufacturers and other printers.

Another example of Quad/Graphics' innovative approach is the integration of its imaging, manufacturing and distribution networks into a singular platform using a networked IT infrastructure. This platform—named Smartools ${ }^{\circledR}$ — provides seamless, real-time information flow across sales and estimating, production planning, scheduling, manufacturing, warehousing, logistics, invoicing, reporting and customer service.

## Client-Centric Approach

Throughout its 40-plus-year history, the Company has put its clients at the center of its operations, creating solutions clients need to meet their business objectives. The Company uses a client-centric consultative approach to help marketers and publishers take maximum advantage of the Company's full range of integrated multichannel solutions to help them better engage end users and drive improved response from print and print-related solutions. The Company's interactive print solutions, for example, connect print with mobile technologies-such as smartphones and tablets-to create compelling calls to action that drive business results. The Company will continue to evolve its offering as technologies and user preferences change.

Quad/Graphics' "high tech/high touch" approach has led to what the Company believes is an excellent client service reputation. The Company uses the latest technology and tools to better connect clients with employees and
employees with each other. Its own brand of Smartools ${ }^{\circledR}$ not only link the Company's people and equipment across its entire network of plants, but extend to the Company's clients as well, creating true, real-time communications integration. For example, the Company's Smartools® provide clients with access to the very same up-to-the-minute information used by the Company's production, customer service and sales representatives, allowing them to better manage current projects and plan future work.

Quad/Graphics pays particularly close attention to listening to what its clients say about the Company, proactively seeking their input through an annual Client Satisfaction Survey. The survey provides sound insights on clients' experience with the Company as well as ways to enhance products, services and overall value. Key concerns are addressed by an Executive Steering Committee led by the Chairman, President and CEO, demonstrating the Company's top-down commitment to client satisfaction.

## Disciplined and Consistent Financial Approach

Quad/Graphics is a controlled public company with the Harry V. Quadracci family having voting control through ownership of high-vote stock. This structure provides consistency in ownership, leadership, strategy and financial policies, and perpetuates a management culture of always striving to be "our own best investment."

Quad/Graphics believes that its disciplined financial approach of focusing on maximizing earnings and Free Cash Flow, and maintaining a strong balance sheet provides a competitive advantage. Continuous Improvement and Lean Manufacturing methodologies are among the tools that Quad/Graphics uses to improve manufacturing productivity and to ultimately maximize operating margins. The Company applies these same methodologies to its selling, general and administrative functions to create a truly Lean Enterprise. Additionally, Quad/Graphics has a culture of continuous cost reduction, which includes minimizing waste, increasing efficiencies and throughput, and simplifying and streamlining processes. The Company has been working diligently to lower its cost structure by consolidating its manufacturing platform into its most efficient facilities, as well as realizing purchasing, mailing and logistics efficiencies by centralizing and consolidating print manufacturing volumes and eliminating redundancies in its administrative and corporate operations. Quad/Graphics believes that its focused efforts to be the low-cost producer generates increased Free Cash Flow and allows the Company to focus on maintaining a strong balance sheet through debt and pension liability reductions. The Company's disciplined financial approach has resulted in strong credit metrics and has allowed the Company to structure its debt agreements to maintain high liquidity as well as to avoid refinancing risk, with the nearest significant maturity not until July 2017.

The Company takes a very disciplined approach to its capital allocation decisions. A key part of this discipline is a goal of having returns on investment exceed the cost of capital, whether the investments are related to purchasing the right equipment or investing in the right strategic growth initiatives. The Company balances the use of cash between compelling investment opportunities; deleveraging the balance sheet through debt and pension liability reductions; or returning cash back to shareholders through dividends.

When reviewing an investment opportunity, such as a consolidating acquisition, Quad/Graphics uses a disciplined, value-driven approach to ensure the following criteria are met before any opportunity is selected:

- The Company conducts a thorough review process to ensure a potential acquisition will be a good strategic fit.
- The Company ensures that the economics make sense and will create value through an enhanced range of products and services, revenue-generating solutions and increased efficiencies. Key economics include the negotiated purchase price, targeted efficiencies from integrating the companies together and the necessary cost to achieve those synergies.
- The Company makes certain that the integration plan is executable in a timely manner and without risk of significant client disruption. The Company has a holistic approach to integration and measures success with four key elements: financial metrics, client retention and satisfaction, employee integration, and IT and platform integration.
- The Company ensures that post-acquisition, it retains the financial strength and flexibility it had prior to the acquisition.


## Distinct Corporate Culture

Quad/Graphics believes that its distinct corporate culture, which evolved from a core set of values conceived by the late founder Harry V. Quadracci, drives thoughtful decision-making, especially with regard to how it manages operations and creates solutions that redefine print in a multichannel media landscape, and better positions the Company to prevail in the dynamic and competitive printing industry. The Company fosters an entrepreneurial environment by inspiring and empowering employees to own projects and enact solutions that advance the Company's goals. Employees in the United States who have been employed for at least one full calendar year also may have a beneficial ownership in the Company through Company stock held in an employee stock ownership plan, enhancing their sense of ownership. The Company believes that the empowerment, engagement and development of its employee owners foster a strong partnership approach within the business that delivers results.

Quad/Graphics invests in its employees in a variety of ways by providing technical, safety and continuous improvement training, personal improvement classes, financial and retirement planning and comprehensive health and wellness benefits. Through its own network of QuadMed primary care clinics located at larger worksite locations, the Company provides high-quality primary medical care and specialty services to employees and their families at a low cost. The Company demonstrates its commitment to wellness through onsite fitness centers at a number of printing plant locations, as well as by offering smoking cessation, weight-management and nutrition classes among other wellnessrelated programs; providing employee assistance program counseling services; and developing its own programs with financial incentives for managing chronic conditions such as diabetes and asthma (known as Well You) and promoting healthy lifestyles. QuadMed also sells this business model of healthcare services to third-party businesses.

Quad/Graphics is led by an experienced management team with a proven track record in the printing industry that is committed to preserving the Company's values-based culture. The senior management team includes individuals with long tenure with the Company augmented with seasoned industry talent realized through strategic hiring or recent acquisitions, further supported by managers and employees committed to advancing print solutions in coordination with the ever-evolving multichannel media landscape. The Company believes the experience and stability of senior management, paired with next-generation entrepreneurially minded employees, will contribute to its long-term success.

## Segment Description

Quad/Graphics operates primarily in the commercial print portion of the printing industry, with related product and service offerings designed to offer clients complete solutions for communicating their message to target audiences. The Company's operating and reportable segments are aligned with how the chief operating decision maker of the Company currently manages the business. The Company's reportable and operating segments and their product and service offerings are summarized below.

## United States Print and Related Services

The United States Print and Related Services segment is predominantly comprised of the Company's United States printing operations and is managed as one integrated platform. This includes consumer magazines, catalogs, retail inserts, special interest publications, journals, direct mail, books, directories, in-store marketing, packaging, and other commercial and specialty printed products, together with the related service offerings, including marketing strategy, media planning and placement, data insights, response analytics services, creative services, videography, photography, workflow solutions, digital imaging, facilities management services, digital publishing, interactive print solutions including image recognition and near field communication technology, mailing, distribution, logistics, and data optimization and hygiene services. This segment also includes the design, development, manufacture and service of printing-related auxiliary equipment, as well as the manufacture of ink. As a result of the divestiture of the Company's Canadian operations to Transcontinental, Inc. ("Transcontinental") on March 1, 2012 (see Note 4, "Discontinued Operations," to the consolidated financial statements in Item 8 "Financial Statements and Supplementary Data," of this

Annual Report on Form 10-K), all United States Print and Related Services segment amounts have been restated to exclude the Canadian discontinued operations. The United States Print and Related Services segment accounted for approximately $90 \%, 88 \%$ and $88 \%$ of Quad/Graphics' consolidated net sales in 2013, 2012 and 2011, respectively.

## International

The International segment consists of the Company's printing operations in Europe and Latin America, including operations in Poland, Argentina, Brazil, Chile, Colombia, Mexico and Peru. This segment provides printed products and related services consistent with the United States Print and Related Services segment, with the exception of printing-related auxiliary equipment, which is included in the United States Print and Related Services segment. The International segment accounted for approximately $10 \%, 12 \%$ and $12 \%$ of the Company's consolidated net sales in 2013, 2012 and 2011, respectively.

## Corporate

Corporate consists of unallocated general and administrative activities and associated expenses including, in part, executive, legal and finance.

For additional financial information by segment and geographic area, see Note 25, "Segment Information," and Note 26, "Geographic Area and Product Information," to the consolidated financial statements, respectively, in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K.

## Competition

The printing industry, with approximately 47,000 companies in the United States, is highly fragmented and competitive. Although there has been industry consolidation, particularly in the past decade, the largest 400 printers in the printing industry (excluding newspaper printing) still only represent approximately $55 \%$ of the United States and Canadian market, according to the 2013 Printing Impressions PI400 and the 2012 Print Market Atlas. According to the December 2013 Printing Impressions PI400, Quad/Graphics was the second largest commercial printer in the United States as measured by revenue.

In addition to being in a highly fragmented industry, the Company also faces competition due to the increased accessibility and quality of digital alternatives to traditional delivery of printed documents through the online distribution and hosting of media content, and the digital distribution of documents and data. In addition, the Company faces competition from print management firms, which look to streamline processes and reduce the overall print spend of the Company's clients, as well as from strategic marketing firms focused on helping businesses integrate multiple channels into their marketing campaigns.

Across Quad/Graphics' range of products and services, competition is based on a number of factors, including the following:

- total price of printing, materials and distribution;
- quality;
- range of services offered, including the ability to provide multichannel marketing campaigns;
- distribution capabilities;
- customer service;
- availability to schedule work on appropriate equipment;
- on-time production and delivery; and
- state-of-the-art technology to meet a client's business objectives.


## Clients

Quad/Graphics enjoys long-standing relationships with a diverse base of clients, which includes both national and regional corporations in North America, Latin America and Europe. The Company's clients include industry-leading blue chip companies that operate in a wide range of industries and serve both businesses and consumers, including retailers, publishers and direct marketers. The Company's relationships with its largest clients average more than 16 years in duration and Quad/Graphics typically signs multi-year print agreements with these clients.

In 2013, Quad/Graphics served approximately 8,000 clients, and its 10 largest clients accounted for approximately $15 \%$ of consolidated sales, with none representing more than $5 \%$ individually. The Company believes that its large and diverse client base, broad geographic coverage and extensive range of printing and print-related capabilities are competitive strengths.

## Patents, Trademarks and Trade Names

Quad/Graphics operates research and development facilities that support the development of new equipment, process improvements, raw materials and content management, and distribution technologies to better meet client needs and improve operating efficiencies. The Company continues to innovate within the printing and print-related industry and, as a result, has developed what it believes to be one of the most powerful patent portfolios in the print industry.

Quad/Graphics currently holds or has rights to commercialize a wide variety of worldwide patents and applications relating to its business. The Company intends to continue to file patent applications that it believes will help ensure the continued strength of the Company and its portfolio. Additionally, the Company markets products, services and capabilities under a number of trademarks and trade names. Quad/Graphics aggressively defends its intellectual property rights and intends to continue to do so in the future.

## Raw Materials

The primary raw materials that Quad/Graphics uses in its print business are paper, ink and energy.
The majority of paper used by the Company is supplied directly by its clients. For those clients that do not directly supply their own paper, Quad/Graphics makes use of its purchasing efficiencies to supply paper by negotiating with leading paper suppliers, uses a wide variety of paper grades, weights and sizes, and does not rely on any one supplier. In addition, the Company generally includes price adjustment clauses in sales contracts for paper and other critical raw materials in the printing process. Although these clauses generally mitigate paper price risk, higher paper prices and tight paper supplies may have an impact on clients' demand for printed products. Quad/Graphics' working capital requirements, including the impact of seasonality, is partially mitigated through the direct purchasing of paper by the majority of Quad/Graphics' clients.

Quad/Graphics produces the majority of ink used in its print production, allowing it to control the quality, cost and supply of key inputs. Raw materials for the ink manufacturing process are purchased externally from a variety of suppliers.

Quad/Graphics generally cannot pass on to clients the impact of higher electric and natural gas energy prices on its manufacturing costs, and increases in energy prices result in higher manufacturing costs for certain of its operations. The Company mitigates its risk through natural gas hedges when appropriate. In its logistic operations, however, the Company is able to pass a substantial portion of any increase in fuel prices directly to its clients.

## Environmental Stewardship

As the owner, lessee or operator of various real properties and facilities, Quad/Graphics is subject to various federal, state and local environmental laws and regulations, including those relating to air emissions; waste generation, handling, management and disposal; and remediation of contaminated sites. Historically, compliance with these laws and regulations has not had a material adverse effect on the Company's results of operations, financial position or cash flows. Compliance with existing or new environmental laws and regulations may require the Company to make future expenditures.

Quad/Graphics strives to be the leader in the printing industry in adopting new technologies and processes to protect the environment. The Company believes it has long been known for its environmental stewardship. In the past decade alone, the Company has been awarded more than 25 major environmental achievement honors, both on a state and national level. Quad/Graphics' proactive approach to incorporate holistic practices has also positively impacted operating costs through the reduction of waste, energy use, emissions and labor, as well as through the implementation of water conservation solutions. The Company has also undertaken steps to reduce greenhouse gas emissions from its manufacturing processes and to improve fuel efficiency and reduce emissions in its fleet of Company-owned tractor trailers.

## Employees

As of December 31, 2013, Quad/Graphics had approximately 25,600 employees in North America, Latin America and Europe. Within the United States, there were approximately 21,200 employees of which approximately 1,300 were covered by a collective bargaining agreement. Outside of the United States, there were approximately 4,400 employees, of which approximately 1,900 were either governed by agreements that apply industry-wide, by a collective bargaining agreement or through works councils or similar agreements. Quad/Graphics believes that its employee relations are good and that the Company maintains an employee-centric culture.

## Business Acquisitions

On December 18, 2013, the Company completed the acquisition of Wisconsin based Proteus Packaging Corporation ("Proteus") as well as its sister company Transpak Corporation ("Transpak"). Proteus is a designer and manufacturer of high-end paperboard packaging, offering packaging solutions for a wide variety of industries, including automotive, biotechnology, food, personal care, pharmaceuticals, software and electronics. Transpak is a full-service industrial packaging company, offering crating, packaging, warehousing, distribution and logistics services to destinations worldwide.

On November 7, 2013, the Company completed the acquisition of Novia CareClinics, LLC ("Novia"), an Indianapolis, Indiana healthcare solutions company. Novia develops and manages onsite and shared primary care clinics for small to medium sized companies and the public sector, such as school districts and city and county governments. Novia operates 50 clinics located throughout Indiana and four other states focusing on delivering advanced health and wellness solutions to employees and dependents.

On January 16, 2013, the Company completed the acquisition of substantially all of the assets of Vertis, which included a payment for current assets that were in excess of normalized working capital requirements. Vertis was a leading provider of retail advertising inserts, direct marketing and in-store marketing solutions. The acquisition of Vertis enhanced the Company's position as a leader in the production of retail advertising inserts, direct marketing and in-store marketing solutions that the Company can provide to its clients and enhanced its integrated offerings.

## Executive Officers of Quad/Graphics

The following table sets forth the names, ages (as of February 27, 2014) and positions of Quad/Graphics' executive officers.

| Name | Age | Position |
| :---: | :---: | :---: |
| J. Joel Quadracci | 45 | Chairman, President and Chief Executive Officer |
| David A. Blais. | 51 | Executive Vice President of Sales and Client Services |
| John C. Fowler | 63 | Executive Vice President and Chief Financial Officer |
| Thomas J. Frankowski. | 53 | Executive Vice President of Manufacturing \& Operations and President of Europe |
| Craig C. Faust | 46 | President of Commercial and Specialty |
| Steven D. Jaeger | 49 | President of Quad/Direct and Corporate Vice President of Information \& Technology |
| David K. Riebe | 52 | President of Logistics \& Distribution |
| Tony Scaringi | 46 | President and General Manager of Latin America |
| David J. Honan | 45 | Vice President, Controller \& Chief Accounting Officer |
| Jennifer J. Kent | 42 | Vice President \& General Counsel |
| Maura D. Packham | 45 | Vice President of Marketing \& Communications |
| Kelly A. Vanderboom. | 39 | Vice President \& Treasurer |

Mr. Quadracci has been a director of Quad/Graphics since 2003, its President since January 2005, its President and Chief Executive Officer since July 2006, and its Chairman, President and Chief Executive Officer since January 2010. Mr. Quadracci joined Quad/Graphics in 1991 and, prior to becoming President and Chief Executive Officer, served in various capacities, including Sales Manager, Regional Sales Strategy Director, Vice President of Print Sales, Senior Vice President of Sales \& Administration, and President and Chief Operating Officer. Mr. Quadracci is the brother of Kathryn Quadracci Flores, a director of the Company, and the brother-in-law of Christopher B. Harned, a director of the Company. Quad/Graphics believes that Mr. Quadracci's experience in the printing industry and in leadership positions with the Company qualifies him for service as a director of the Company.

Mr. Blais has been Executive Vice President of Sales and Client Services since January 2012 and previously served as Executive Vice President and President of Magazines and Catalogs since July 2010. Mr. Blais was Senior Vice President of Sales \& Administration from May 2005 to July 2010, Quad/Graphics' Vice President of Operations from 1999 to May 2005, and in various other capacities since he joined the Company in 1984.

Mr. Fowler joined Quad/Graphics in 1980 as its Vice President and Controller, which at the time was the Company's top financial position. Mr. Fowler was named Senior Vice President and Chief Financial Officer in May 2005, and became Executive Vice President and Chief Financial Officer in July 2010. Prior to joining Quad/Graphics, Mr. Fowler worked for Arthur Andersen LLP for six years.

Mr. Frankowski has been Executive Vice President of Manufacturing \& Operations and President of Europe since July 2010. Mr. Frankowski was Senior Vice President of Manufacturing from 2004 to July 2010, President of Quad/Graphics Europe, Quad/Graphics' Polish subsidiary, from 2008 to July 2010, and he served in various other capacities since he joined Quad/Graphics in 1979.

Mr. Faust has been President of Commercial and Specialty since May 2011 and previously served as President and CEO of HGI Company since November 2010. Prior to joining Quad/Graphics, Mr. Faust was the President, Founder and CEO of HGI Company since 2003. Prior thereto, Mr. Faust was Divisions President of Consolidated Graphics.

Mr. Jaeger has served as President of Quad/Direct since August 2007 and as Corporate Vice President of Information \& Technology for Quad/Graphics since 2013 and previously served as Vice President of Information Systems \& Infrastructure from 2007 to 2012. Prior thereto, Mr. Jaeger had been Quad/Graphics' Vice President of

Information Systems from 1998 to 2006 and had worked in various other capacities since he joined the Company in 1994. Prior to joining Quad/Graphics, Mr. Jaeger worked for Andersen Consulting for eight years.

Mr. Riebe has served as Quad/Graphics' President of Logistics \& Distribution since July 2010. Prior thereto, Mr. Riebe was Vice President of Distribution from 1999 to July 2010 and served as Corporate Director of Distribution from 1987 to 1999. He joined Quad/Graphics in 1984.

Mr. Scaringi joined Quad/Graphics as its Chief Financial Officer of Latin America in July 2010 and became President \& General Manager of Latin America in August 2011. Prior to joining Quad/Graphics, Mr. Scaringi served World Color Press Inc. ("World Color Press") as Vice President of Finance and Administration for Latin America from 2002 to 2010. Mr. Scaringi joined World Color Press in 1993 and held various positions in auditing until 1997 and then in Latin America since 1997.

Mr. Honan has served as Quad/Graphics' Controller since he joined the Company in May 2009. He became Vice President and Controller in December 2009 and was named Chief Accounting Officer in July 2010. Prior to joining Quad/Graphics, Mr. Honan served as Vice President, General Manager and Chief Financial Officer of Journal Community Publishing Group, a subsidiary of media conglomerate Journal Communications Inc., for five years. Before joining Journal Community Publishing Group, Mr. Honan worked in executive-level roles in investor relations and corporate development at Newell Rubbermaid, a global marketer of consumer and commercial products. Mr. Honan also worked at the accounting firm Arthur Andersen LLP for 11 years.

Ms. Kent has served as Quad/Graphics' Vice President and General Counsel since December 2013 and as its Assistant General Counsel since she joined the Company in August 2010. Prior to joining Quad/Graphics, Ms. Kent was Associate General Counsel at Harley-Davidson Motor Company from March 2003 to July 2010. Prior thereto, Ms. Kent served as an Assistant U.S. Attorney for the Eastern District of Wisconsin and practiced law at Foley \& Lardner LLP, a Milwaukee-based law firm.

Ms. Packham joined Quad/Graphics in July 2010 as its Vice President of Marketing \& Communications. Prior to joining Quad/Graphics, Ms. Packham served as World Color Press' Vice President of Marketing for the Marketing Solutions Group from 2003 to 2009. In 2010, Ms. Packham was named World Color Press' Vice President of Marketing for North America. She joined World Color Press in 1995 as a senior financial analyst.

Mr. Vanderboom has served as Quad/Graphics' Treasurer since 2007 and as its Vice President \& Treasurer since 2008. Prior to becoming Quad/Graphics' Vice President \& Treasurer, Mr. Vanderboom served as Director of Treasury, Risk \& Planning from 2006 until 2007, as Controller of Quad/Graphics' Distribution and Facilities departments from 2004 until 2006, and as Controller of Quad/Graphics' Parcel Direct subsidiary.

On February 4, 2014, the Company named several executives to new or expanded roles to support its strategic business initiatives as the Company has grown in size and complexity. These appointments are effective on March 1, 2014, and are as follows: (1) Mr. Blais was named Executive Vice President of Global Procurement and Platform Strategy, (2) Mr. Fowler was named Vice Chairman and Executive Vice President of Strategy and Corporate Development, (3) Mr. Frankowski was named Chief Operating Officer, (4) Mr. Jaeger was named Executive Vice President, President of Direct Marketing and Media Solutions and Chief Information Officer, (5) Mr. Honan was named Vice President and Chief Financial Officer and (6) Mr. Vanderboom expanded his role to include President of Logistics in addition to Vice President and Treasurer.

Executive officers of the Company are elected by and serve at the discretion of the Company's board of directors. Other than described above, there are no family relationships between any directors or executive officers of Quad/Graphics.

## Item 1A. Risk Factors

You should carefully consider each of the risks described below, together with all of the other information contained in this Annual Report on Form 10-K, before making an investment decision with respect to Quad/Graphics' securities. If any of the following risks develop into actual events, the Company's business, financial condition or results of operations could be materially and adversely affected and you may lose all or part of your investment.

## Quad/Graphics operates in a highly competitive industry.

The industry in which the Company operates is highly competitive. The printing industry, with approximately 47,000 companies in the United States, is highly fragmented. Although there has been industry consolidation, particularly in the past decade, the largest 400 printers in the printing industry (excluding newspaper printing) still only represent approximately $55 \%$ of the United States and Canadian markets, according to the 2013 Printing Impressions PI400 and the PIA/GATF 2012 Print Market Atlas. The Company competes for commercial business not only with large and mid-sized printers, but also with smaller regional printers. In certain circumstances, due primarily to factors such as freight rates and client preference for local services, printers with better access to certain regions of a given country may be preferred by clients in such regions.

In recent years, the printing industry has experienced a reduction in demand for printed materials and overcapacity due to various factors including adverse economic conditions and competition from alternative sources of communication, including email, the Web, electronic readers, interactive television and electronic retailing. The impacts of overcapacity and intense competition have led to continued downward pricing pressures. Printing industry revenues may continue to decrease in the future. Some of the industries that the Company services have been subject to consolidation efforts, leading to a smaller number of potential clients. Furthermore, if the smaller clients of Quad/ Graphics are consolidated with larger companies using other printing companies, the Company could lose its clients to competing printing companies.

The printing industry is highly competitive and expected to remain so. Any failure on the part of the Company to compete effectively in the markets it serves could have a material adverse effect on its results of operations, financial condition or cash flows and could require changes to the way it conducts its business or require it to reassess strategic alternatives involving its operations.

## Significant downward pricing pressure and fluctuating demand for printing services caused by factors outside of the Company's control may adversely affect the Company.

The Company has experienced significant downward pricing pressures for printing services in the past, and pricing for printing services has declined significantly in recent years. Such pricing may continue to decline from current levels. In addition, demand for printing services has fluctuated in recent years and may continue to fluctuate. Any increases in the supply of printing services or decreases in demand could cause prices to continue to decline, and prolonged periods of low prices, weak demand and/or excess supply could have a material adverse effect on the Company's business growth, results of operations and liquidity.

## Quad/Graphics may not be able to reduce costs and improve its operating efficiency rapidly enough to meet market conditions.

Because the markets in which the Company competes are highly competitive, Quad/Graphics will need to continue to improve its operating efficiency in order to maintain or improve its profitability. There is no assurance that the Company will be able to do so in the future. In addition, the need to reduce ongoing operating costs have and, in the future, may continue to result in significant up-front costs to reduce workforce, close or consolidate facilities, or upgrade equipment and technology.

## The impact of electronic media and similar technological changes including the substitution of printed products for digital content may continue to adversely affect the results of the Company's operations.

The media landscape is experiencing rapid change due to the impact of electronic media and digital content on printed products. Improvements in the accessibility and quality of digital media through the online distribution and hosting of media content, mobile technologies, e-reader technologies, electronic retailing and the digital distribution of documents and data has resulted and may continue to result in increased consumer substitution. Continued consumer acceptance of such digital media, as an alternative to print materials, is uncertain and difficult to predict and may decrease the demand for the Company's printed products, result in reduced pricing for its printing services and additional excess capacity in the printing industry and adversely affect the results of the Company's operations.

## Changes in postal rates, postal regulations and postal services may adversely impact demand for Quad/Graphics' products and services.

Postal costs are a significant component of the cost structures of many of the Company's clients, and potential clients, and postal rate changes can influence the number of pieces that these clients will be willing to mail. Any resulting decline in print volumes mailed could have an adverse effect on the Company's business. In addition, integrated distribution with the postal service is an important component of the Company's business. Any material change in the current service levels provided by the postal service could impact the demand that clients have for print services. The USPS has reported net losses in the last five fiscal years and has estimated a net loss for its current fiscal year and, as a result, has come under increased pressure to adjust its postal rates and service levels. Late in 2013, the USPS went before the Postal Regulatory Commission ("PRC") and requested to increase postage due to "exigent" circumstances. The PRC granted the USPS with the authority to increase rates through a temporary two-year surcharge. This action by the USPS resulted in postage rates being increased by $6.0 \%$ on January 26, 2014. The increase includes the normal and expected annual Consumer Price Index ("CPI") increase of $1.7 \%$ and an additional $4.3 \%$ temporary exigency-based increase. This unexpected increase may cause some of the Company's clients to reduce mail volumes and explore the use of alternative sources of communication.

## Future declines in economic conditions may adversely affect the Company's results of operations.

In general, demand for the Company's products and services is highly related to general economic conditions in the markets our clients serve. Declines in economic conditions in the United States or in other countries in which the Company operates may adversely impact the Company's financial results and these impacts may be material. Because such declines in demand are difficult to predict, the Company or the industry may have increased excess capacity as a result. An increase in excess capacity has resulted and may continue to result in declines in prices for the Company's products and services. In addition, a prolonged decline in the global economy and an uncertain economic outlook has and could further reduce the demand in the printing industry. Economic weakness and constrained advertising spending have resulted, and may in the future result, in decreased revenue, operating margin, earnings and growth rates and difficulty in managing inventory levels and collecting accounts receivable. The Company has experienced, and expects to experience in the future, excess capacity and lower demand due to economic factors affecting consumers' and businesses' spending behavior. Uncertainty about future economic conditions makes it difficult for the Company to predict results of operations, financial position and cash flows and to make strategic decisions regarding the allocation and deployment of capital.

A significant portion of Quad/Graphics' revenues are derived from long-term contracts with clients, which may not be renewed on similar terms and conditions, or may not be renewed at all. In addition, clients may not perform under such contracts for their duration due to financial or other reasons or due to client consolidation. The failure to renew such contracts on similar terms or at all or the failure of clients to perform under such contracts could materially adversely affect Quad/Graphics' results of operations, financial condition and cash flows.

The Company has historically derived a significant portion of its revenue from long-term contracts with significant clients. If the Company loses significant clients, is unable to renew such contracts on similar terms and conditions, or at all, or is not awarded new long-term contracts with important clients in the future, its results of operations, financial condition and cash flows may be adversely affected.

The Company is exposed to risks of loss in the event of nonperformance by its clients. Some of the Company's clients are highly leveraged or otherwise subject to their own operating and regulatory risks. Even if the Company's credit review and analysis mechanisms work properly, the Company may experience financial losses and loss of future business if its clients become bankrupt, insolvent or otherwise are unable to pay the Company for its work performed. Any increase in the nonpayment or nonperformance by clients could adversely affect the Company's results of operations and financial condition.

Certain of the industries in which the Company's clients operate are seeing consolidation. When client consolidation occurs, it is possible that the volume of work performed by the Company for a client after the consolidation will be less than it was before the consolidation or that the client's work will be completely moved to competitors. Any such reduction or loss of work could adversely affect the Company's results of operations and financial condition.

## If Quad/Graphics fails to identify, manage, complete and integrate acquisitions, investment opportunities or other significant transactions, it may adversely affect the Company's future results.

As part of Quad/Graphics growth strategy, the Company may pursue acquisitions of, investment opportunities in or other significant transactions with companies that are complementary to the Company's business. In order to pursue this strategy successfully, the Company must identify attractive acquisition or investment opportunities, successfully complete the transaction, some of which may be large and complex, and manage post-closing issues such as integration of the acquired company or employees. Quad/Graphics may not be able to identify or complete appealing acquisition or investment opportunities given the intense competition for these transactions. Even if the Company identifies and completes suitable corporate transactions, the Company may not be able to successfully address inherent risks in a timely manner, or at all. These inherent risks include, among other things: (1) failure to successfully integrate the purchased operations, technologies, products or services and maintain uniform standard controls, policies and procedures; (2) substantial unanticipated integration costs; (3) loss of key employees including those of the acquired business; (4) diversion of management's attention from other operations; (5) failure to retain the clients of the acquired business; (6) failure to achieve any projected synergies and performance targets; (7) additional debt and/or assumption of known or unknown liabilities; (8) potential dilutive issuances of equity securities; and (9) a write-off of goodwill, client lists, other intangibles and amortization of expenses. If the Company fails to successfully integrate an acquisition, the Company may not realize all or any of the anticipated benefits of the acquisition, and our future results of operations could be adversely affected. In addition, the diversion of management's attention from the Company's other operations due to these acquisitions and integration effort could adversely affect its business and have a negative financial impact.

## Quad/Graphics entry into additional markets increases the complexity of the Company's business, and if the Company is unable to successfully adapt its business processes as required by these new markets, the Company will be at a competitive disadvantage and its ability to grow will be adversely affected.

As the Company expands its product line to provide additional marketing and publishing channels, the overall complexity of the Company's business increases at an accelerated rate and the Company becomes subject to different market dynamics. The new markets into which Quad/Graphics is expanding, or may expand, may have different characteristics from the markets in which the Company currently competes. These different characteristics may include, among other things, demand volume requirements, demand seasonality, product generation development rates, client concentrations and performance and compatibility requirements. The Company's failure to make the necessary adaptations to its business model to address these different characteristics, complexities and new market dynamics could adversely affect the Company's operating results.

## Quad/Graphics may be adversely affected by increases in its operating costs, including the cost and availability of raw materials, labor-related costs, fuel and other energy costs and freight rates.

Paper, ink and energy are the primary raw materials used by the Company in the operation of its business. The price of such raw materials has fluctuated over time and has caused fluctuations in the Company's net sales and cost of sales. This volatility may continue and Quad/Graphics may experience increases in the costs of its raw materials in the future as prices in the overall paper, ink and energy markets are expected to remain beyond its control.

In general, the Company has been able to pass along increases in the cost of paper to many of its clients. If the Company is unable to continue to pass along increases in the cost of paper to its clients, future increases in paper costs would adversely affect its margins and profits. If Quad/Graphics passes along increases in the cost of paper and the price of the Company's products and services increases as a result, client demand could be adversely affected and thereby negatively impact Quad/Graphics' financial performance.

Quad/Graphics is dependent upon the vendors within the Company's supply chain to maintain a steady supply of inventory, parts and materials. Many of the Company's products are dependent upon a limited number of suppliers, and significant disruptions could adversely affect operations. Under recent market conditions, including the tightening credit market, it is possible that one or more of the Company's suppliers will be unable to fulfill their operating obligations due to financial hardships, liquidity issues or other reasons related to the prolonged market recovery.

Due to the significance of paper in the Company's business, it is dependent on the availability of paper. In periods of high demand, certain paper grades have been in short supply, including grades used in the Company's business. In addition, during periods of tight supply, many paper producers allocate shipments of paper based upon historical purchase levels of customers. Although Quad/Graphics generally has not experienced significant difficulty in obtaining adequate quantities of paper, unforeseen developments in the overall paper markets could result in a decrease in the supply of paper and could adversely affect the Company's revenues or profits.

In addition, the Company may not be able to resell waste paper and other by-products or the prices received for their sale may decline substantially.

The Company has less frequently been able to pass along increases in the cost of ink and energy to its clients. If the Company is unable to pass along increases in the cost of ink and energy, future increases in these items would adversely affect its margins and profits. If Quad/Graphics is able to pass along increases in the costs of ink and energy and the price of the Company's products and services increases as a result, client demand could be adversely affected and thereby negatively impact Quad/Graphics' financial performance.

Labor represents a significant component of the cost structure of Quad/Graphics. Increases in wages, salaries and benefits, such as medical, dental, pension and other post-retirement benefits, may impact the Company's financial performance. Changes in interest rates, investment returns or the regulatory environment may impact the amounts the Company will be required to contribute to the pension plans that it sponsors and may affect the solvency of these pension plans.

Freight rates and fuel costs also represent a significant component of the Company's cost structure. In general, the Company has been able to pass along increases in the cost of freight and fuel to many of its clients. If the Company is not able to pass along a substantial portion of increases in freight rates or in the price of fuel, future increases in these items would adversely impact the Company's margin and profits. If Quad/Graphics passes along increases in the cost of freight and fuel and the price of the Company's products and services increases as a result, client demand could be adversely affected and thereby negatively impact Quad/Graphics' financial performance.

Quad/Graphics and its facilities are subject to various consumer protection and privacy laws and regulations, and will become subject to additional laws and regulations in the future, which may subject the Company to material liability, require it to incur material costs or otherwise adversely affect its results of operations.

Quad/Graphics and its clients may be subject to various United States and foreign consumer protection, information security, data privacy and "do not mail" requirements at the federal, states, provincial and local levels. Regulatory authorities around the world are considering a number of legislative and regulatory proposals concerning data protection and privacy. In addition, the interpretation and application of consumer and data protection laws in the United States and elsewhere are often fluid and uncertain. To the extent that the Company or its clients become subject to additional or more stringent requirements, demand for the Company's services may decrease, which could adversely affect the Company's results of operations. In addition, such laws may be interpreted and applied in a manner inconsistent with our internal policies. If so, in addition to the possibility of fines, this could result in an order requiring that we change our data practices, which could have an adverse effect on our business and results of operations. Complying with these various laws could cause us to incur substantial costs or require us to change our business practices in a manner adverse to our business.

## If Quad/Graphics is not able to take advantage of technological developments in the printing industry on a timely basis, the Company may experience a decline in the demand for its services, be unable to implement its business strategy and experience reduced profits.

The printing industry is experiencing rapid change as new technologies are developed that offer clients an array of choices for their marketing and publication needs. In order to grow and remain competitive, the Company will need to adapt to future changes in technology, enhance the Company's existing offerings and introduce new offerings to address the changing demands of clients. If Quad/Graphics is unable to meet future challenges from competing technologies on a timely basis or at an acceptable cost, the Company could lose clients to competitors. In general, the development of new communication channels inside and outside the printing and media solutions industry requires the Company to anticipate and respond to the varied and continually changing demands of clients. The Company may not be able to accurately predict technological trends or the success of new services in the market.

## Currently, there is a limited active market for Quad/Graphics' class A common stock and, as a result, shareholders may be unable to sell their class A common stock without losing a significant portion of their investment.

The Company's class A common stock has been traded on The New York Stock Exchange, LLC ("NYSE") under the symbol "QUAD" since July 6, 2010. However, there is currently a limited active market for the class A common shares. The Company cannot predict the extent to which investor interest in the Company will lead to the development of an active trading market for its class A common stock on the NYSE or how liquid that market will become. If a more active trading market does not develop, shareholders may have difficulty selling any class A common stock without negatively affecting the stock price and thereby losing a significant portion of their investment.

## Changes in the legal and regulatory environment could limit the Company's business activities, increase its operating costs, reduce demand for its products or result in litigation.

The conduct of the Company's businesses is subject to various laws and regulations administered by federal, state and local government agencies in the United States, as well as to foreign laws and regulations administered by government entities and agencies in markets in which the Company operates. These laws and regulations and interpretations thereof may change, sometimes dramatically, as a result of political, economic or social events. Such regulatory environment changes may include changes in environmental laws, requirements of United States and foreign occupational health and safety laws, accounting standards and taxation requirements. Changes in laws, regulations or governmental policy and the related interpretations may alter the environment in which Quad/Graphics does business and, therefore, may impact its results or increase its costs or liabilities.

In addition, the Company and its subsidiaries are party to a variety of legal and environmental remediation obligations arising in the normal course of business, as well as environmental remediation and related indemnification proceedings in connection with certain historical activities, former facilities and contractual obligations of acquired
businesses. Permits are required for the operation of certain parts of the Company's business, and these permits are subject to renewal, modification and, in some circumstances, revocation. Due to regulatory complexities, uncertainties inherent in litigation and the risk of unidentified contaminants on current and former properties, the potential exists for remediation, liability and indemnification costs to differ materially from the costs the Company has estimated. Quad/ Graphics cannot assure you that the Company's costs in relation to these matters will not exceed its established liabilities or otherwise have an adverse effect on its results of operations.

Various laws and regulations addressing climate change are being considered at the federal and state levels. Proposals under consideration include limitations on the amount of greenhouse gas that can be emitted (so-called "caps") together with systems of trading allowed emissions capacities. The impacts of such proposals could have a material adverse impact on the Company's financial condition and results of operations.

## An other than temporary decline in operating results and enterprise value could lead to non-cash impairment charges due to the impairment of goodwill, other intangible assets and property, plant and equipment.

The Company has a material amount of goodwill, other intangible assets and property, plant and equipment on its balance sheet, due in part to acquisitions. As of December 31, 2013, the Company had the following long-lived assets on its consolidated balance sheet included in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K:

- Goodwill, representing the excess of the total purchase price for its acquisitions over the fair value of the net assets acquired, of $\$ 773.1$ million;
- Other intangible assets, primarily representing the fair value of customer relationships acquired, of $\$ 221.8$ million; and
- Property, plant and equipment of $\$ 1,925.5$ million.

As of December 31, 2013, these assets represented approximately 70\% of the Company's total assets. The Company evaluates goodwill for impairment on an annual basis or more frequently if impairment indicators are present based on the estimated fair value of each reporting unit. The Company assesses impairment of other intangible assets and property, plant and equipment based upon the expected future cash flows of the respective assets. These valuations include management's estimates of sales, profitability, cash flow generation, capital structure, cost of debt, interest rates, capital expenditures and other assumptions. A decline in expected profitability, significant negative industry or economic trends, inability to effectively integrate acquired businesses, unexpected significant changes or planned changes in use of the assets or in entity structure, and divestitures may adversely impact the assumptions used in the valuations. As a result, the recoverability of these assets could be called into question and the Company could be required to write down or write off these assets. Such an occurrence could have a material adverse effect on the Company's results of operations and financial position and could result in the Company being in non-compliance with certain of its debt facility covenants (see "Quad/Graphics' debt facilities include various covenants imposing restrictions that may affect the Company's ability to operate its business" below).

## There are risks associated with the Company's operations outside of the United States.

Although the substantial majority of the Company's business activity takes place in the United States, a portion of Quad/Graphics net sales are derived from operations in foreign countries. The Company has wholly-owned subsidiaries, majority-owned controlled subsidiaries and other ownership investments in Argentina, Brazil, Chile, Colombia, India, Mexico, Peru and Poland. Net sales from the Company's wholly-owned and majority-owned controlled subsidiaries outside of the United States accounted for approximately $10 \%, 12 \%$ and $12 \%$ of its consolidated net sales for the years ended December 31, 2013, 2012 and 2011, respectively.

As a result, the Company is subject to the risks inherent in conducting business outside of the United States, including, but not limited to: the impact of economic and political instability; fluctuations in currency values, foreigncurrency exchange rates, devaluation and conversion restrictions; exchange control regulations and other limits on our
ability to import raw materials or finished product; tariffs and other trade barriers; political and economic instability; trade restrictions and economic embargoes by the United States or other countries; social unrest, acts of terrorism, force majeure, war or other armed conflicts; inflation and fluctuations in interest rates; language barriers; difficulties in staffing, training, employee retention and managing international operations; logistical and communications challenges; differing local business practices and cultural consideration; restrictions on the ability to repatriate funds; foreign ownership restrictions and the potential for nationalization or expropriation of property or other resources; longer accounts receivable payment cycles; potential adverse tax consequences and being subject to different legal and regulatory regimes that may preclude or make more costly certain initiatives or the implementation of certain elements of its business strategy. Any international expansion or acquisition that the Company undertakes could amplify these risks related to operating outside of the United States.

Quad/Graphics is exposed to the economic and political conditions in Argentina. The Argentine economy has experienced significant volatility in recent decades, characterized by periods of low or negative growth, high and variable levels of inflation and currency devaluation. As a consequence, the Company's business and operations have been, and could be in the future, affected from time to time to varying degrees by economic and political developments and other material events affecting the Argentine economy.

The Company could be adversely affected by engaging in business practices that are in violation of United States and foreign anti-corruption regulations such as the United States Foreign Corrupt Practices Act. The Company operates in parts of the world with developing economies that have experienced governmental corruption to some degree, and in certain circumstances, strict compliance with anti-corruption laws may conflict with local customs and practices. There can be no assurance that all of our employees, contractors or agents, including those representing us in countries where practices which violate anti-corruption laws may be customary, will not take actions in violation of our policies and procedures. The failure to comply with the laws governing international business practices may result in substantial penalties and fines.

## Quad/Graphics may be required to make capital expenditures to maintain its platform and processes and to remain technologically and economically competitive, which may increase its costs or disrupt its operations.

The Company may need to make significant capital expenditures as it develops and continues to maintain its platform and processes. The Company also may be required to make capital expenditures to develop and integrate new technologies to remain technologically and economically competitive. In order to accomplish this effectively, the Company will need to deploy its resources efficiently, maintain effective cost controls and bear potentially significant market and raw material risks. If the Company's revenues decline, it may impact the Company's ability to expend the capital necessary to develop and implement new technology and be economically competitive. Debt or equity financing, or cash generated from operations, may not be available or sufficient for these requirements or for other corporate purposes or, if debt or equity financing is available, it may not be on terms favorable to the Company.

## Quad/Graphics' debt facilities include various covenants imposing restrictions that may affect the Company's ability to operate its business.

On September 1, 1995, and as last amended on January 26, 2006, Quad/Graphics entered into a Senior Secured Note Agreement (the "Master Note and Security Agreement") pursuant to which the Company has issued over time senior notes in an aggregate principal amount of $\$ 1.13$ billion in various tranches. As of December 31, 2013, the borrowings outstanding under the Master Note and Security Agreement were $\$ 490.2$ million. On July 26, 2011, and as last amended on December 19, 2012, the Company entered into a $\$ 1.5$ billion debt financing agreement with certain lenders. The $\$ 1.5$ billion debt financing agreement includes three different loan facilities, a Term Loan A, a Term Loan B , and a revolving credit facility. The revolving credit facility in the amount of $\$ 850.0$ million and the Term Loan A in the aggregate amount of $\$ 450.0$ million each had an initial term of five years that was extended an additional year as part of the December 19, 2012 amendment to mature on July 25,2017 . The Term Loan B in the amount of $\$ 200.0$ million has a term of seven years and matures on July 25, 2018.

As of December 31, 2013, the Company's various lending arrangements included certain financial covenants. In addition to the financial covenants, the debt facilities also include certain limitations on acquisitions, indebtedness,
liens, dividends and repurchases of capital stock. If the Company's total leverage ratio is greater than 3.00 to 1.00 (total leverage ratio as defined in the debt financing agreement), the Company is prohibited from making greater than $\$ 120.0$ million of annual dividend payments, capital stock repurchases and certain other payments. If the total leverage ratio is less than 3.00 to 1.00 , there are no such restrictions.

As of December 31, 2013, the Company was in compliance with all financial covenants in its debt agreements. While the Company currently expects to be in compliance in future periods with all of the financial covenants, there can be no assurance that these covenants will continue to be met. The Company's failure to maintain compliance with the covenants could prevent the Company from borrowing additional amounts and could result in a default under any of the debt agreements. Such default could cause the outstanding indebtedness to become immediately due and payable, by virtue of cross-acceleration or cross-default provisions.

## Quad/Graphics' revenue is subject to cyclical and seasonal variations.

The Company's business is seasonal, with Quad/Graphics recognizing the majority of its operating income in the third and fourth quarters of the financial year, primarily as a result of the increased magazine advertising page counts and retail inserts, catalogs and books from back-to-school and holiday related advertising and promotions. Within any year, this seasonality could adversely affect the Company's cash flows and results of operations.

## The Company has significant liabilities with respect to defined benefit pension plans and other postretirement benefits that could grow in the future and cause the Company to incur additional costs.

As a result of the 2010 acquisition of World Color Press, the Company sponsors defined benefit pension plans for certain of its employees in the United States. The majority of the plans' assets are held in North American and global equities and fixed income or debt securities. The asset allocation as of December 31, 2013, was approximately $67 \%$ equity securities and $33 \%$ debt securities.

As of December 31, 2013, the Company had underfunded pension and other postretirement benefit liabilities of approximately $\$ 111$ million for defined benefit plans and other postretirement benefits plans in the United States. Under current United States pension law, pension funding deficits are generally required to be funded over a seven-year period. In 2014, under current pension law, the contributions required to such plans are expected to total approximately $\$ 40$ million. These pension deficits may increase or decrease depending on changes in the levels of interest rates, pension plan investment performance, pension legislation and other factors. Declines in global, and in particular North American, equity markets would increase the Company's potential pension funding obligations. Any significant increase in the Company's required contributions could have a material adverse impact on its business, financial condition, results of operations and cash flows.

In addition to the single employer defined benefit plans described above, the Company participates in multiemployer pension plans ("MEPPs") in the United States. Prior to the acquisition of World Color Press by Quad/ Graphics, World Color Press received notice that certain plans in which it participated were in critical status, as defined in Section 432 of the Internal Revenue Code of 1986, as amended (the "Internal Revenue Code"). As a result, the Company could have been subject to increased contribution rates associated with these plans or other MEPP's suffering from declines in their funding levels. Due to the significantly underfunded status of the United States multiemployer plans and the potential increased contribution rates, the Company withdrew from participation in these multiemployer plans and has replaced these pension benefits with a Company-sponsored "pay as you go" defined contribution plan, which is historically the form of retirement benefit provided to the Company's employees.

As of December 31, 2013, the Company estimates and has recorded in its financial statements a pre-tax withdrawal liability for all United States multiemployer plans of approximately $\$ 73.0$ million in the aggregate. Until discussions with the multiemployer plans' trustees are concluded, the exact amount of the withdrawal liability will not be known, and, as such, a difference from the recorded estimate could have an adverse effect on the Company's results of operations, financial position and cash flows.

Holders of class A common stock are not able to independently elect directors of Quad/Graphics or control any of the Company's management policies or business decisions or its decisions to issue additional shares, declare and pay dividends or enter into corporate transactions because the holders of class A common stock have substantially less voting power than the holders of the Company's class B common stock, all of which is owned by certain members of the Quadracci family, trusts for their benefit or other affiliates of Quad/Graphics, whose interests may be different from the holders of class $A$ common stock.

The Company's outstanding stock is divided into two classes of common stock: class A common stock ("class A stock") and class B common stock ("class B stock"). The class B stock has ten votes per share on all matters and the class A stock is entitled to one vote per share. As of February 24, 2014, the class B stock constitutes approximately $81 \%$ of Quad/Graphics' total voting power. As a result, holders of class B stock are able to exercise a controlling influence over the Company's business, have the power to elect its directors and indirectly control decisions such as whether to issue additional shares, declare and pay dividends or enter into corporate transactions. All of the class B stock is owned by certain members of the Quadracci family or trusts for their benefit, whose interests may differ from the interests of the holders of class A stock.

Approximately $90 \%$ of the outstanding class B stock is held of record by the Quad/Graphics Voting Trust, and that constitutes approximately $73 \%$ of the Company's total voting power. The trustees of the Quad/Graphics Voting Trust have the authority to vote the stock held by the Quad/Graphics Voting Trust. Accordingly, the trustees of the Quad/ Graphics Voting Trust are able to exercise a controlling influence over the Company's business, have the power to elect its directors and indirectly control decisions such as whether to issue additional shares, declare and pay dividends or enter into corporate transactions.

## Quad/Graphics is a controlled company within the meaning of the rules of the NYSE and, as a result, it relies on exemptions from certain corporate governance requirements that provide protection to shareholders of other companies.

Since the Quad/Graphics Voting Trust owns more than $50 \%$ of the total voting power of the Company's stock, the Company is considered a controlled company under the corporate governance listing standards of the NYSE. As a controlled company, an exception under the NYSE listing standards exempts the Company from the obligation to comply with certain of the NYSE's corporate governance requirements, including the requirements:

- that a majority of the Company's board of directors consist of independent directors, as defined under the rules of the NYSE;
- that the Company have a corporate governance and nominating committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities; and
- that the Company have a compensation committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities.

Accordingly, for so long as Quad/Graphics is a controlled company, holders of class A stock will not have the same protections afforded to shareholders of companies that are subject to all of the corporate governance requirements of the NYSE.

## The Company is heavily dependent on its Chief Executive Officer, its management team and key personnel.

The Company's continued success depends, in part, on the retention, recruitment and continued contributions of key management, finance, sales and marketing personnel, some of whom could be difficult to replace. The Company's success is largely dependent upon its senior management team, led by its Chief Executive Officer and other key managers. The loss of any one or more of such persons could have an adverse effect on the Company's business and financial condition.

## The Company may not be able to utilize deferred tax assets to offset future taxable income.

As of December 31, 2013, the Company had deferred tax assets, net of valuation allowances, of $\$ 344.4$ million on the consolidated balance sheet included in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K. The Company expects to utilize the deferred tax assets to reduce consolidated income tax liabilities over a period of time not to exceed 20 years. However, the Company may not be able to fully utilize the deferred tax assets if its future taxable income and related income tax liability is insufficient to permit their use. In addition, in the future, the Company may be required to record a valuation allowance against the deferred tax assets if the Company believes it is unable to utilize them, which would have an adverse effect on the Company's results of operations and financial position.

## Quad/Graphics may be adversely affected by interest rates and foreign exchange rates.

As of December 31, 2013, $63 \%$ of the Company's borrowings were subject to variable interest rates. As a result, the Company is exposed to market risks associated with fluctuations in interest rates, and increases in interest rates could adversely affect the Company.

Because a portion of the Company's operations are outside of the United States, significant revenues and expenses are denominated in local currencies. Although operating in local currencies may limit the impact of currency rate fluctuations on the results of operations of the Company's non-U.S. subsidiaries and business units, fluctuations in such rates may affect the translation of these results into the Company's consolidated financial statements. To the extent revenues and expenses are not in the applicable local currency, the Company may enter into foreign exchange forward contracts to hedge the currency risk. There can be no assurance, however, that the Company's efforts at hedging will be successful. There is always a possibility that attempts to hedge currency risks will lead to greater losses than predicted.

## Quad/Graphics may be adversely affected by strikes and other labor protests.

As of December 31, 2013, Quad/Graphics had a total of approximately 25,600 employees, of which approximately 3,200 were covered by a collective bargaining agreement. As of December 31, 2013, the Company had eleven collective bargaining agreements in the United States and ten agreements outside of the United States that are either industry-wide individual collective bargaining agreements or works councils or similar arrangements.

While the Company believes its employee relations are good and that the Company maintains an employeecentric culture, and there has not been any material disruption in operations resulting from labor disputes, the Company cannot be certain that it will be able to maintain a productive and efficient labor environment. The Company cannot predict the outcome of any future negotiations relating to the renewal of the collective bargaining agreements, nor can there be any assurance that work stoppages, strikes or other forms of labor protests pending the outcome of any future negotiations will not occur. A strike or other forms of labor protest affecting a series of major plants in the future could materially disrupt the Company's operations and result in a material adverse impact on its financial condition, results of operations and cash flows, which could force the Company to reassess its strategic alternatives involving certain of its operations.

## Item 1B. Unresolved Staff Comments

The Company has no unresolved staff comments to report pursuant to this item.

## Item 2. Properties

Quad/Graphics' corporate office is located in owned office space in Sussex, Wisconsin. In addition, as of December 31, 2013, the Company leased or owned 117 facilities in the United States, some of which have multiple buildings and warehouses, and these United States facilities encompassed approximately $27,130,000$ square feet. As of December 31, 2013, the Company leased or owned 30 international facilities encompassing approximately $2,824,000$ square feet in Canada, Latin America and Europe. Of the facilities, approximately 21,437,000 square feet of space is owned, while the remaining $8,517,000$ square feet is leased. The following table lists, as of December 31, 2013, the Company's principal manufacturing facilities, all of which are owned except where noted:


| Location |  | Size (Square Feet) |
| :---: | :---: | :---: |
| International |  |  |
| Wyszkow, Poland. |  | 616,000 |
| São Paulo, Brazil |  | 361,000 |
| Xochimilco, Mexico |  | 275,000 |
| Buenos Aires, Argentina |  | 270,000 |
| Santiago, Chile. |  | 237,000 |
| Lima, Peru . . . |  | 207,000 |
| Ipojuca (Recife), Brazil |  | 173,000 |
| Pilar, Argentina |  | 116,000 |
| Bogota, Colombia+ |  | 114,000 |

$+\quad$ Leased facility
++ Includes both owned and leased facilities

## Item 3. Legal Proceedings

Quad/Graphics is subject to various legal actions, administrative proceedings and claims arising out of the ordinary course of business. Quad/Graphics believes that such unresolved legal actions, proceedings and claims will not materially adversely affect its results of operations, financial condition or cash flows.

## Item 4. Mine Safety Disclosures

Not applicable.

## PART II

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

## Capital Stock and Dividends

Quad/Graphics' authorized capital stock consists of 80.0 million shares of class A stock; 80.0 million shares of class B stock; 20.0 million shares of class C common stock; and 0.5 million shares of preferred stock. The Company's outstanding capital stock as of December 31, 2013, consisted of 33.8 million shares of class A stock; 14.2 million shares of class B stock; no shares of class C common stock; and no shares of preferred stock. As of February 24, 2014, there were 1,255 record holders of the class A stock and 26 record holders of the class B stock.

The Company's class A stock is listed on the NYSE under the symbol "QUAD". The class A stock is entitled to one vote per share.

The Company's class B stock is held by certain members of the Quadracci family or trusts for their benefit (and can only be voluntarily transferred to the Company or to a member of the Quadracci "family group," as defined in the Company's amended and restated articles of incorporation; and any transfer in violation of the Company's amended and restated articles of incorporation results in the automatic conversion of such class B stock into class A stock). The class B stock is entitled to ten votes per share. Each share of class B stock may, at the option of the holder, be converted at any time into one share of class A stock. There is no public trading market for the class B stock.

The Company's class C common stock was held by the Quad/Graphics Employee Stock Ownership Plan ("ESOP") (and can only be owned by, or transferred to, a Company employee benefit plan which is intended to satisfy the qualification requirements of Section 401 of the Internal Revenue Code). In August 2012, all outstanding shares of class C stock were converted into shares of class A stock.

Pursuant to the Company's amended and restated articles of incorporation, each outstanding class of common stock has equal rights with respect to cash dividends. Pursuant to the Company's $\$ 1.5$ billion debt financing agreement, the Company is subject to limitations on dividends and repurchases of capital stock. If the Company's total leverage ratio (as defined in the Company's $\$ 1.5$ billion debt financing agreement) is greater than 3.00 to 1.00 , the Company is prohibited from making greater than $\$ 120.0$ million of annual dividend payments, capital stock repurchases and certain other payments. If the total leverage ratio is less than 3.00 to 1.00 , there are no such restrictions. For the twelve months ended December 31, 2013, there were no such restrictions as the Company's leverage ratio was 2.39 to 1.00 under its most restrictive covenant.

The high and low closing sales prices of the Company's class A stock during each quarter and the quarterly dividends paid per share of each class of common stock then outstanding during the years ended December 31, 2013 and 2012, are contained in the chart below:

|  | Dividends Paid ${ }^{(1)}$ |  |  |  | Class A Closing Stock Prices |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 2013 |  |  |  | 2012 |  |  |  |
|  | 2013 |  | 2012 |  | High |  | Low |  | High |  | Low |  |
| First Quarter | \$ | 0.30 | \$ | 0.25 | \$ | 24.42 | \$ | 20.15 | \$ | 16.22 | \$ | 11.75 |
| Second Quarter |  | 0.30 |  | 0.25 |  | 24.56 |  | 19.69 |  | 14.38 |  | 11.91 |
| Third Quarter. |  | 0.30 |  | 0.25 |  | 33.84 |  | 24.30 |  | 19.89 |  | 14.55 |
| Fourth Quarter. |  | 0.30 |  | 2.25 |  | 36.56 |  | 24.02 |  | 20.65 |  | 14.55 |

(1) Includes a special dividend of $\$ 2.00$ per share which was declared and paid in December 2012.

## Securities Authorized For Issuance Under Equity Compensation Plans

See Item 12, "Security Ownership of Certain Beneficial Owners and Management and Related Shareholder Matters," of this Annual Report on Form 10-K for certain information regarding the Company's equity compensation plans.

## Issuer Purchases of Equity Securities

On September 6, 2011, the Company's board of directors authorized a share repurchase program of up to $\$ 100.0$ million of the Company's outstanding class A stock. Under the authorization, share repurchases may be made at the Company's discretion, from time to time, in the open market and/or in privately negotiated transactions as permitted by federal securities laws and other legal requirements. The timing, manner, price and amount of any repurchase will depend on economic and market conditions, share price, trading volume, applicable legal requirements and other factors. The program may be suspended or discontinued at any time. There were no stock repurchases made during the year ended December 31, 2013. As of December 31, 2013, there were $\$ 91.8$ million of authorized repurchases remaining under the program.

## Stock Performance Information

The following graph compares cumulative shareholder return on Quad/Graphics' class A stock since July 6, 2010 (the date on which Quad/Graphics' class A stock was first publicly traded), as compared to the Standard \& Poor's MidCap 400 Index and Standard \& Poor's 1500 Commercial Printing Index over the same period. The graph assumes a $\$ 100.00$ investment in our common stock at $\$ 48.00$, which was the closing market price per share on the first day of trading. It also assumes that all dividends are reinvested. The comparison in the graph below is based upon historical stock performance and should not be considered indicative of future stockholder returns.


## Indexed Returns



## Item 6. Selected Financial Data

The selected consolidated statements of operations data for the years ended December 31, 2013, 2012 and 2011, and the selected consolidated balance sheets data at December 31, 2013 and 2012, are derived from the audited consolidated financial statements of the Company included in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K. The selected consolidated statements of operations data for the years ended December 31, 2010 and 2009, and the consolidated balance sheets data at December 31, 2011, 2010 and 2009, are derived from audited consolidated financial statements not included herein.

| SELEC |  | NANCIAL <br> pt per sh |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2013 |  | 2012 |  | 2011 |  | 2010 |  | 2009 |  |
| Consolidated Statements of Operations Data: |  |  |  |  |  |  |  |  |  |  |
| Net sales | \$ | 4,795.9 | \$ | 4,094.0 | \$ | 4,324.6 | \$ | 3,185.8 | \$ | 1,788.5 |
| Operating income ${ }^{(1)}$ |  | 142.2 |  | 106.5 |  | 156.9 |  | 61.6 |  | 112.4 |
| Net earnings (loss) attributable to Quad/Graphics common shareholders: |  |  |  |  |  |  |  |  |  |  |
| From continuing operations ${ }^{(1)}$ |  | 32.5 |  | 56.6 |  | (8.3) |  | (245.5) ${ }^{(2)}$ |  | 52.8 |
| From discontinued operations ${ }^{(3)}$ |  | - |  | 30.8 |  | (38.6) |  | (4.6) |  | - |
| Net earnings (loss) ${ }^{(1)}$ | \$ | 32.5 | \$ | 87.4 | \$ | (46.9) | \$ | $(250.1){ }^{(2)}$ | \$ | 52.8 |
| Earnings (loss) per diluted share attributable to Quad/Graphics common shareholders: |  |  |  |  |  |  |  |  |  |  |
| From continuing operations. | \$ | 0.65 | \$ | 1.13 | \$ | (0.18) | \$ | (6.55) | \$ | 1.81 |
| From discontinued operations |  | - |  | 0.65 |  | (0.82) |  | (0.12) |  | - |
| Earnings (loss) per diluted share . | \$ | 0.65 | \$ | 1.78 | \$ | (1.00) | \$ | (6.67) | \$ | 1.81 |
| Consolidated Balance Sheets Data: |  |  |  |  |  |  |  |  |  |  |
| Total assets. | \$ | 4,165.7 | \$ | 4,098.9 | \$ | 4,735.2 | \$ | 4,947.0 | \$ | 2,109.2 |
| Long-term debt and capital lease obligations (excluding current portion) |  | 1,272.2 |  | 1,227.0 |  | 1,367.7 |  | 1,461.6 |  | 765.5 |
| Other Financial Data: |  |  |  |  |  |  |  |  |  |  |
| Dividends per share of common stock ${ }^{(4)}$. . . . . . . . . . . . . . . | \$ | 1.20 | \$ | 3.00 | \$ | 0.60 | \$ | 0.50 | \$ | 0.50 |
| Cash distributions per share of common stock in connection with the acquisition of World Color Press. |  | - |  | - |  | - |  | 4.98 |  | - |

(1) Includes restructuring, impairment and transaction-related charges of $\$ 95.3$ million, $\$ 118.3$ million, $\$ 114.0$ million, $\$ 147.5$ million and $\$ 11.2$ million for the years ended December 31, 2013, 2012, 2011, 2010 and 2009, respectively.
(2) In connection with the July 2, 2010, acquisition of World Color Press and the public registration of the Quad/Graphics class A stock, the Company changed the tax status of certain entities within the Quad/Graphics legal structure to C corporation status under the provisions of the Internal Revenue Code. From that point forward, these entities are subject to federal and state income taxes. The impact from the conversion to C corporation status resulted in the recognition of net short-term deferred tax assets of $\$ 23.6$ million, net long-term deferred tax liabilities of $\$ 223.3$ million, an increase in accumulated other comprehensive loss due to the impact of foreign currency translation of $\$ 0.8$ million, and recognition of income tax expense for the year ended December 31,2010 of $\$ 200.5$ million.
(3) The results of operations of the Company's Canadian operations have been reported as discontinued operations for all periods presented. Loss from discontinued operations, net of tax, decreased $\$ 35.4$ million during the year ended December 31, 2012, to a $\$ 3.2$ million loss, which primarily reflects the sale of the Company's Canadian operations on March 1, 2012, and the effect of reporting two months of activity as opposed to twelve months for the year ended December 31, 2011. This $\$ 3.2$ million loss was offset by a gain on disposal of discontinued operations, net of tax, of $\$ 34.0$ million, resulting in $\$ 30.8$ million of earnings from discontinued operations for the year ended December 31, 2012.
(4) Dividends per share of common stock in 2012 includes a special dividend of $\$ 2.00$ per share, which was declared and paid in December 2012. Excludes aggregate tax distributions declared to S corporation shareholders of $\$ 2.7$ million, $\$ 5.2$ million and $\$ 18.0$ million for the years ended December 31, 2011, 2010 and 2009, respectively. There were no tax distributions declared to S corporation shareholders for the years ended December 31, 2013 and 2012. Amounts also exclude the July 2, 2010 cash distribution of $\$ 4.98$ per share of class A stock, class B stock and class C stock to the pre-World Color Press acquisition shareholders of Quad/Graphics.

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

The following discussion of the financial condition and results of operations of Quad/Graphics should be read together with the Quad/Graphics audited consolidated financial statements for each of the three years in the period ended December 31, 2013, including the notes thereto, included in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K. This discussion contains forward-looking statements that reflect the Company's plans, estimates and beliefs. The Company's actual results could differ materially from those discussed in these forwardlooking statements. Factors that could cause or contribute to these differences include, but are not limited to, those discussed in "Forward-Looking Statements" and Item 1A, "Risk Factors," included earlier within this Annual Report on Form 10-K.

Management's discussion and analysis of financial condition and results of operations is provided as a supplement to the Company's consolidated financial statements and accompanying notes to help provide an understanding of the Company's financial condition, the changes in the Company's financial condition and the Company's results of operations. This discussion and analysis is organized as follows:

- Overview. This section includes a general description of the Company's business and segments, an overview of key performance metrics the Company's management measures and utilizes to evaluate business performance, and an overview of trends affecting the Company, including management's actions related to the trends.
- Results of Operations. This section contains an analysis of the Company's results of operations by comparing the results for (1) the year ended December 31, 2013, to the year ended December 31, 2012, and (2) the year ended December 31, 2012, to the year ended December 31, 2011. The comparability of the Company's results of operations between periods was significantly impacted by acquisitions and dispositions. The results of operations for Vertis are included in the Company's consolidated results prospectively from the date of acquisition, January 16, 2013. In addition, the Company entered into a definitive agreement with Transcontinental in 2011 to, among other things, acquire Transcontinental's Mexican operations in exchange for the Company's Canadian operations. The results of operations for Transcontinental's Mexican operations are included in the Company's consolidated results prospectively from the date of acquisition, September 8, 2011. The results of the Company's Canadian operations have been reported as discontinued operations for all periods presented. Forward-looking statements providing a general description of recent and projected industry and company developments that are important to understanding the Company's results of operations are included in this section. This section also provides a discussion of EBITDA and EBITDA margin, non-GAAP financial measures that the Company uses to assess the performance of its business.
- Liquidity and Capital Resources. This section provides an analysis of the Company's capitalization, cash flows, a statement about off-balance sheet arrangements, and a discussion and table of outstanding debt and commitments. The cash flows of the Company's Canadian operations have not been reported as discontinued operations and thus are included in all cash flow analysis through the disposition date of March 1, 2012. Forward-looking statements important to understanding the Company's financial condition are also included in this section. This section also provides a discussion of Free Cash Flow and Debt Leverage Ratio, non-GAAP financial measures that the Company uses to assess liquidity and capital allocation and deployment.
- Critical Accounting Policies and Estimates. This section contains a discussion of the accounting policies that the Company's management believes are important to the Company's financial condition and results of operations, as well as allowances and reserves that require significant judgment and estimates on the part of the Company's management. In addition, all of the Company's significant accounting policies, including critical accounting policies, are summarized in Note 1, "Basis of Presentation and Summary of Significant Accounting Policies," to the consolidated financial statements in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K.
- New Accounting Pronouncements. This section provides a discussion of new accounting pronouncements and the anticipated impact of those accounting pronouncements to the Company's consolidated financial statements.


## Overview

## Business Overview

Quad/Graphics is a leading global printer and media channel integrator. With consultative ideas, worldwide capabilities, leading-edge technology and single-source simplicity, the Company believes it has the resources and knowledge to help its clients maximize the revenue they derive from their marketing spend and minimize their total cost of print production and distribution. The Company's print and related products and services in North America, Latin America and Europe primarily include:

- Print Solutions. Includes consumer magazines, catalogs, retail inserts, special interest publications, journals, direct mail, books, directories, in-store marketing, packaging, and other commercial and specialty printed products.
- Media Solutions. Includes marketing strategy, media planning and placement, data insights, response analytics services, creative services, videography, photography, workflow solutions, digital imaging, facilities management services, digital publishing, and interactive print solutions including image recognition and near field communication technology.
- Logistics Services. Includes mailing, distribution, logistics and data optimization and hygiene services.

Quad/Graphics remains focused on four primary strategic goals, which it believes will allow the Company to be successful despite ongoing economic and industry challenges. These goals are summarized as follows:

- Transform the Industry. The Company believes it is well-positioned to transform the industry in the following three ways:

1. Maximize the revenue clients derive from their marketing spend through media channel integration. As a printer and media channel integrator, Quad/Graphics uses a client-centric approach to help marketers and publishers connect strategy and content with multiple media channels to create measurable client value. Through its full range of integrated solutions, Quad/Graphics' clients benefit from better end user engagement, improved response and increased revenue derived from multichannel marketing campaigns.
2. Minimize clients' total cost of production and distribution by utilizing an efficient, innovative and fully-integrated U.S. national distribution network to provide enhanced value to clients through increased efficiency and postal cost-savings.
3. Create opportunity through disciplined, value-driven industry consolidation that adds complementary capabilities, allowing the Company to provide an enhanced range of products and services, and create significant efficiencies in the overall print production and distribution processes.

- Maximize Operational and Technological Excellence. Quad/Graphics utilizes a disciplined return on capital framework to make significant investments in its print manufacturing platform, research and development, technological innovation and data management capabilities, resulting in what it believes is one of the most integrated, automated, efficient and modern platforms in the industry.
- Empower, Engage and Develop Employees. Quad/Graphics believes that its distinct corporate culture encourages an organization-wide entrepreneurial spirit and an opportunistic mentality, where employees
embrace responsibility, take ownership of projects and are encouraged to create solutions that advance the Company's strategic goals.
- Enhance Financial Strength and Create Shareholder Value. Given current economic and industry challenges, Quad/Graphics believes that its strategy to enhance financial strength and create shareholder value will contribute to its long-term success. Key components of this strategy are centered on the Company's disciplined financial approach to maximize earnings and Free Cash Flow; use of consistent financial policies to ensure it maintains a strong balance sheet and liquidity levels; and ability to retain the financial flexibility needed to strategically allocate and deploy capital.

Quad/Graphics operates primarily in the commercial print portion of the printing industry, with related product and service offerings designed to offer clients complete solutions for communicating their message to target audiences. The Company's operating and reportable segments are aligned with how the chief operating decision maker of the Company currently manages the business. The Company's reportable and operating segments are summarized below.

The United States Print and Related Services segment is predominantly comprised of the Company's United States printing operations. This segment is managed as one integrated platform and includes all of the product and related service offerings described above. As a result of the divestiture of the Company's Canadian operations to Transcontinental on March 1, 2012 (see Note 4, "Discontinued Operations," to the consolidated financial statements in Item 8 "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K), all United States Print and Related Services segment amounts have been restated to exclude the Canadian discontinued operations. The United States Print and Related Services segment accounted for approximately $90 \%$ of the Company's consolidated net sales during the year ended December 31, 2013.

The International segment consists of the Company's printing operations in Europe and Latin America, including operations in Poland, Argentina, Brazil, Chile, Colombia, Mexico and Peru. This segment provides printed products and related services consistent with the United States Print and Related Services segment, with the exception of printing-related auxiliary equipment, which is included in the United States Print and Related Services segment. The International segment accounted for approximately $10 \%$ of the Company's consolidated net sales during the year ended December 31, 2013.

Corporate consists of unallocated general and administrative activities and associated expenses including, in part, executive, legal and finance.

## Key Performance Metrics Overview

The Company's management believes the ability to generate net sales growth, profit increases and positive cash flow are key indicators of the successful execution of the Company's business strategy and will increase shareholder value. The Company uses period over period net sales growth, EBITDA, EBITDA margin, net cash provided by operating activities, Free Cash Flow and Debt Leverage Ratio as metrics to measure operating performance, financial condition and liquidity. EBITDA, EBITDA margin, Free Cash Flow and Debt Leverage Ratio are non-GAAP financial measures (see the definitions of EBITDA, EBITDA margin and the reconciliation of net earnings (loss) attributable to Quad/Graphics common shareholders to EBITDA in the "Results of Operations" section below, and see the definitions of Free Cash Flow and Debt Leverage Ratio, the reconciliation of net cash provided by operating activities to Free Cash Flow, and the calculation of Debt Leverage Ratio in the "Liquidity and Capital Resources" section below).

Net sales growth. The Company uses period over period net sales growth as a key performance metric. The Company's management assesses net sales growth based on the ability to generate increased net sales through increased sales to existing clients, sales to new clients, sales of new or expanded solutions to existing and new clients and opportunities to expand sales through strategic investments, including acquisitions.

EBITDA and EBITDA margin. The Company uses EBITDA and EBITDA margin as metrics to assess operating performance. The Company's management assesses EBITDA and EBITDA margin based on the ability to increase revenues while controlling variable expense growth.

Net cash provided by operating activities. The Company uses net cash provided by operating activities as a metric to assess liquidity. The Company's management assesses net cash provided by operating activities based on the ability to meet recurring cash obligations while increasing available cash to fund integration and restructuring requirements including acquired operations and other cost reduction activities, as well as to fund capital expenditures, debt service requirements, World Color Press single employer pension plan contributions, World Color Press MEPPs withdrawal liabilities, acquisitions and other investments in future growth and shareholder dividends. Net cash provided by operating activities can be significantly impacted by the timing of non-recurring or infrequent receipts or expenditures.

Free Cash Flow. The Company uses Free Cash Flow as a metric to assess liquidity and capital deployment. The Company's management assesses Free Cash Flow as a measure to quantify cash available for strategic capital allocation and deployment through investments in the business (capital expenditures and acquisitions), for strengthening the balance sheet (debt and pension liability reduction), and returning capital to the shareholders (dividends and share repurchases). The priorities for capital allocation and deployment will change as circumstances dictate for the business, and Free Cash Flow can be significantly impacted by the Company's restructuring activities and other unusual items, such as payments related to completing the World Color Press bankruptcy process.

Debt Leverage Ratio. The Company uses the Debt Leverage Ratio as a metric to assess liquidity and the flexibility of its balance sheet. Consistent with other liquidity metrics, the Company monitors the Debt Leverage Ratio as a measure to determine the appropriate level of debt the Company believes is optimal to operate its business and, accordingly, to quantify debt capacity available for strategic capital allocation and deployment through investments in the business (capital expenditures and acquisitions), for strengthening the balance sheet (debt and pension liability reduction), and returning capital to the shareholders (dividends and share repurchases). The priorities for capital allocation and deployment will change as circumstances dictate for the business, and the Debt Leverage Ratio can be significantly impacted by the amount and timing of large expenditures requiring debt financing, as well as changes in profitability.

## Overview of Trends Affecting Quad/Graphics

Competition in the highly fragmented printing industry remains intense. The industry has excess manufacturing capacity created by declines in industry volumes during the past recession which, in turn, has created continued downward pricing pressures. In addition, digital delivery of documents and data, including the online distribution and hosting of media content and mobile technologies, offer alternatives to traditional delivery of printed documents. Increasing consumer acceptance of digital delivery of content has resulted in marketers and publishers allocating their marketing and advertising spend across the expanding selection of digital delivery options, which further reduces demand and contributes to industry overcapacity. The Company also faces competition from print management firms, which look to streamline processes and reduce the overall print spend of the Company's clients, as well as from strategic marketing firms focused on helping businesses integrate multiple channels into their marketing campaigns.

The Company believes that a disciplined approach for capital management and a strong balance sheet are critical to be able to invest in profitable growth opportunities and technological advances, thereby providing the highest return for shareholders. Management currently is balancing the use of cash between compelling investment opportunities, deleveraging the Company's balance sheet (through reduction in debt and pension and postretirement obligations), and returns to shareholders (including a quarterly shareholder dividend that increased from $\$ 0.25$ per share in 2012 to $\$ 0.30$ per share in 2013 , as well as a $\$ 2.00$ per share special dividend totaling $\$ 93.5$ million paid in December 2012). The Company increased consolidated debt and capital leases by $\$ 56.1$ million during the year ended December 31, 2013, due primarily to the $\$ 235.4$ million of net cash paid for the Vertis acquisition in January 2013 and the $\$ 43.1$ million paid for the Proteus Packaging acquisition in December 2013, partially offset by debt repayments with the Company's cash generated from operations. Since the Company completed the World Color Press acquisition in July 2010, the Company has reduced debt and capital leases by $\$ 388$ million and has reduced the obligations for pension, postretirement and MEPPs by $\$ 360$ million.

The Company has been working diligently to lower its cost structure by consolidating its manufacturing platform into its most efficient facilities, as well as realizing purchasing, mailing and logistics efficiencies by centralizing and consolidating print manufacturing volumes and eliminating redundancies in its administrative and corporate operations. These efforts include the deployment of the Company's Smartools ${ }^{\circledR}$ platform to streamline workflows and improve data visibility across the consolidated platform. In addition, restructuring actions initiated by the Company beginning in 2010 have resulted in the announcement of 21 plant closures, including the closures of Marengo, Iowa and Pomona, California which were announced January 10, 2014, and have reduced headcount by approximately 6,800 .

Upon completion of the January 2013 acquisition of Vertis, the Company began to integrate its operations, technologies, products and services in order to realize synergy savings. Restructuring actions initiated by the Company in order to realize the anticipated synergy savings will result in additional costs, but the Company's integration goal is to maintain a ratio of approximately one dollar of cost for each dollar of synergy savings achieved.

In addition to cost savings through acquisition-related synergies, the Company continues its focus on cost reductions through Lean Manufacturing and Continuous Improvement initiatives, both on the production floor and administrative support, in order to achieve improved efficiencies, reduce waste, lower overall operating costs, enhance quality and timeliness and create a safer work environment for the Company's employees.

Postal costs are a significant component of the cost structures of many of the Company's clients and potential clients, and postal rate changes can influence the number of pieces that these clients are willing to print and mail. In January 2014, the USPS implemented a temporary two-year exigent postage rate increase of $6.0 \%$ (includes the normal and expected annual CPI increase of $1.7 \%$ and an additional $4.3 \%$ temporary exigent increase). Quad/Graphics has invested significantly in its mail preparation and distribution capabilities to mitigate the impact of increases in postage costs, and to help clients successfully navigate the ever-changing postal environment. Through its data analytics, unique software to merge mailstreams on a large scale, advanced finishing capabilities and technology, and in-house transportation and logistics operations, the Company manages the mail preparation and distribution of most of its clients' products to maximize efficiency and partially reduce these costs, however the net impact of increasing postal costs may create a decrease in client demand for print and mail products.

In this increasingly multichannel marketplace, the Company believes that the printing industry will need to make capital investments in new technologies, such as those to deliver targeted and customized print solutions and to deploy multichannel marketing campaigns through the integration of new media. The Company believes its ongoing commitment to technology has been paramount in delivering high-quality and relevant offerings to its customers, as well as driving production efficiencies in response to continued downward print pricing pressures. The Company invested $\$ 150$ million in capital projects in 2013, and intends to invest $\$ 150$ million to $\$ 175$ million in new capital projects in 2014.

When making capital investment decisions, management undertakes a thorough process aimed at driving the strongest contribution to long-term profitability, whether those are fixed asset additions as discussed above, organic growth opportunities, acquisitions or divestitures. Some recent examples of the Company's acquisition and divestiture activity is as follows:

- On December 18, 2013, the Company completed the $\$ 49$ million acquisition of Wisconsin-based Proteus as well as its sister company Transpak. Proteus is a designer and manufacturer of high-end paperboard packaging, offering packaging solutions for a wide variety of industries, including automotive, biotechnology, food, personal care, pharmaceuticals, software and electronics. Transpak is a full-service industrial packaging company, offering crating, packaging, warehousing, distribution and logistics services to destinations worldwide. Through the acquisition of the two companies, Quad/Graphics expanded its capabilities to serve the packaging market.
- On November 7, 2013, the Company completed the $\$ 14$ million acquisition of Novia, an Indianapolis, Indiana healthcare solutions company. Novia develops and manages onsite and shared primary care clinics for small to medium sized companies and the public sector, such as school districts and city and county
governments. Novia operates 50 clinics located throughout Indiana and four other states focusing on delivering advanced health and wellness solutions to employees and dependents.
- On January 16, 2013, the Company completed the $\$ 265$ million acquisition of substantially all of the assets of Vertis, a provider of retail advertising inserts, direct marketing and in-store marketing solutions. The $\$ 265$ million purchase price included the payment of $\$ 95$ million for current assets that were in excess of normalized working capital requirements, for a net purchase price of $\$ 170$ million. The Company believes the acquisition of Vertis strengthened its client offering with an enhanced range of products and services, and also increased manufacturing flexibility and distribution efficiencies from an extended geographic footprint in the United States.
- On March 28, 2012, the Company entered into a $\$ 18$ million strategic partnership with India-based Manipal Technologies Limited ("ManipalTech") through the purchase of a minority equity ownership interest. ManipalTech is one of India's largest providers of printing services and supports clients' marketing, branding and communication needs through print services and technology solutions. The strategic investment expanded Quad/Graphics' geographic reach to Asia and broadened its product and service scope.
- On March 1, 2012, the Company and Transcontinental completed a $\$ 64$ million business exchange transaction pursuant to which Quad/Graphics acquired Transcontinental's Mexican operations in exchange for the Company's Canadian operations. As part of the Canadian transaction, Transcontinental assumed pension and post-retirement obligations pertaining to the Canadian employees. With the acquisition of Trancontinental's Mexican operations, the Company believes it will be able to create an industry-leading print platform in an economy with a higher growth rate than that of Canada, and also achieve beneficial synergy savings through operational consolidation. The Company completed the acquisition of Transcontinental's Mexican operations on September 8, 2011, and completed the sale of its Canadian operations to Transcontinental on March 1, 2012.

The Company is subject to seasonality in its quarterly results as net sales and operating income, when excluding restructuring, impairment and transaction-related charges, are higher in the third and fourth quarters of the calendar year as compared to the first and second quarters. Seasonality is driven by increased magazine advertising page counts, retail inserts, catalogs and books primarily due to back-to-school and holiday related advertising and promotions. Following the 2013 acquisition of Vertis, the Company experienced increased seasonality in 2013 as the majority of Vertis revenues occur in the second half of the year, and the Company expects this seasonality impact to continue in future years.

## Results of Operations for the Year Ended December 31, 2013 Compared to the Year Ended December 31, 2012

## Summary Results

The Company's operating income from continuing operations, operating margin, net earnings attributable to Quad/Graphics common shareholders and diluted earnings per share attributable to Quad/Graphics common shareholders for the year ended December 31, 2013, changed from the year ended December 31, 2012, as follows (dollars in millions, except per share data):

|  | Operating Income from Continuing Operations |  | Operating Margin | Net Earnings Attributable to Quad/Graphics Common Shareholders |  | Earnings Per Share Attributable to Quad/ <br> Graphics Common ShareholdersDiluted |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For the year ended December 31, 2012 | \$ | 106.5 | 2.6 \% | \$ | 87.4 | \$ | 1.78 |
| 2013 restructuring, impairment and transaction-related charges ${ }^{(1)}$. . . . . |  | (95.3) | (2.0)\% |  | (57.2) |  | (1.19) |
| 2012 restructuring, impairment and transaction-related charges ${ }^{(2)}$ |  | 118.3 | 2.9 \% |  | 71.0 |  | 1.50 |
| Increase in interest expense ${ }^{(3)}$. |  | N/A | N/A |  | (0.9) |  | (0.02) |
| Increase in income tax expense ${ }^{(4)}$ |  | N/A | N/A |  | (41.1) |  | (0.86) |
| Loss from discontinued operations in 2012, net of tax ${ }^{(5)}$ |  | N/A | N/A |  | 3.2 |  | 0.07 |
| Gain on disposal of discontinued operations in 2012, net of tax ${ }^{(6)}$ |  | N/A | N/A |  | (34.0) |  | (0.72) |
| Decrease attributable to investments in unconsolidated entities and noncontrolling interests, net of $\operatorname{tax}^{(7)}$. |  | N/A | N/A |  | (3.5) |  | (0.07) |
| Increase in operating income ${ }^{(8)}$. |  | 12.7 | (0.5)\% |  | 7.6 |  | 0.16 |
| For the year ended December 31, 2013 | \$ | 142.2 | 3.0 \% | \$ | 32.5 | \$ | 0.65 |

(1) Restructuring, impairment and transaction-related charges of $\$ 95.3$ million incurred during the year ended December 31, 2013 included:
a. $\quad \$ 15.7$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs;
b. $\quad \$ 21.8$ million of impairment charges: including (1) $\$ 10.1$ million of land and building impairment charges primarily related to the Corinth, Mississippi; Marengo, Iowa and Mexico City, Mexico plant closures and (2) $\$ 11.7$ million of machinery and equipment impairment charges related to facility consolidations including Dubuque, Iowa; Jonesboro, Arkansas; Pittsburg, California and Vancouver, British Columbia, Canada, as well as other capacity reduction restructuring initiatives;
c. $\quad \$ 4.0$ million of transaction-related charges consisting of professional service fees for business acquisition and divestiture activities, primarily related to the acquisitions of Vertis, Proteus and Transpak;
d. $\quad \$ 25.2$ million of acquisition-related integration costs primarily related to preparing existing facilities to meet new production requirements resulting from work transferring from closed plants, as well as other costs related to the integration of the acquired companies; and
e. $\quad \$ 28.6$ million of other restructuring charges, including costs to maintain and exit closed facilities, as well as lease exit charges, presented net of a $\$ 2.1$ million pension plan settlement gain.

The Company expects to incur additional restructuring and integration costs in future reporting periods in connection with the restructuring program that began in 2010 related to eliminating excess manufacturing capacity and properly aligning its cost structure as part of the integration of the July 2, 2010 World Color Press acquisition, the September 8, 2011 Transcontinental Mexico acquisition, the January 16, 2013 Vertis acquisition and other cost reduction programs.
(2) Restructuring, impairment and transaction-related charges of $\$ 118.3$ million incurred during the year ended December 31, 2012 included:
a. $\quad \$ 27.2$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs;
b. $\quad \$ 23.0$ million of impairment charges including: (1) $\$ 13.1$ million of land and building impairment charges primarily related to the Limerick, Ireland; Mt. Morris, Illinois; Pila, Poland; Richmond, Virginia and Stillwater, Oklahoma plant closures and (2) $\$ 9.9$ million of machinery and equipment impairment charges related to facility consolidations including Jonesboro, Arkansas; Mexico City, Mexico; Pila, Poland and Stillwater, Oklahoma, as well as other capacity reduction restructuring initiatives;
c. $\quad \$ 4.1$ million of transaction-related charges consisting of professional service fees for business acquisition and divestiture activities, primarily related to the acquisition of Vertis and the business exchange transaction with Transcontinental;
d. $\$ 44.6$ million of acquisition-related integration costs primarily related to preparing existing facilities to meet new production requirements resulting from work transferring from closed plants, as well as other costs related to the integration of the acquired companies; and
e. $\quad \$ 19.4$ million of other restructuring charges, including costs to maintain and exit closed facilities, as well as lease exit charges, presented net of a $\$ 12.8$ million curtailment gain as a result of the amendment to postretirement medical benefit plans and a $\$ 2.4$ million gain on the collection of a note receivable related to a settlement of a disputed preacquisition World Color Press note receivable.
(3) Interest expense increased $\$ 1.5$ million ( $\$ 0.9$ million net of tax) during the year ended December 31, 2013, to $\$ 85.5$ million. This change was due to an increase in debt levels in 2013 as compared to 2012 primarily related to funding the purchase price for the Vertis acquisition, partially offset by a lower weighted average interest rate on borrowings.
(4) Income tax expense, excluding the tax attributable to restructuring, impairment and transactions-related charges (included as part of (1) and (2) above), tax attributable to interest expense (included as part of (3) above) and operating income (included as part of (8) below), increased $\$ 41.1$ million during 2013, primarily due to a $\$ 43.5$ million benefit recorded during 2012 from decreasing the liability recorded for unrecognized tax benefits related to the settlement of Internal Revenue Service ("IRS") audits and the expiration of the applicable statutes of limitations. This benefit did not recur during the year ended December 31, 2013.
(5) Loss from discontinued operations, net of tax, of $\$ 3.2$ million during the year ended December 31, 2012, did not recur during the year ended December 31, 2013, due to the completion of the sale of the Company's Canadian operations to Transcontinental on March 1, 2012.
(6) Gain on disposal of discontinued operations, net of tax, of $\$ 34.0$ million during the year ended December 31, 2012, did not recur during the year ended December 31, 2013, due to the completion of the sale of the Company's Canadian operations to Transcontinental on March 1, 2012.
(7) The decrease attributable to investments in unconsolidated entities and noncontrolling interests, net of tax, of $\$ 3.5$ million during the year ended December 31, 2013, was primarily due to a $\$ 4.8$ million decrease in earnings from unconsolidated entities (predominantly related to lower equity earnings at Plural), partially offset by the exclusion of $\$ 1.3$ million of noncontrolling interest in the Company's consolidated statements of operations related to the Company's $85 \%$ ownership of certain operations in Argentina.
(8) Operating income, excluding restructuring, impairment and transaction-related charges, increased $\$ 12.7$ million ( $\$ 7.6$ million, net of tax) primarily due to incremental net earnings resulting from the Vertis acquisition, partially offset by a decline in net earnings from lower print volumes and lower print pricing in product lines owned more than a year as a result of continued pricing pressure from excess manufacturing capacity in the printing industry. The following discussion provides additional details.

## Operating Results from Continuing Operations

The following table sets forth certain information from the Company's consolidated statements of operations on an absolute dollar basis and as a relative percentage of total net sales for each noted period, together with the relative percentage change in such information between the periods set forth below:


## Net Sales

Product sales increased $\$ 548.0$ million, or $15.1 \%$, for the year ended December 31, 2013, compared to the year ended December 31, 2012, primarily due to increased product sales resulting from the Vertis acquisition, partially offset by lower print volumes and lower print pricing in product lines owned more than a year as a result of continued pricing pressure from excess capacity in the printing industry, lower paper sales and negative impact from foreign currency translation.

Service sales, which primarily consist of imaging, logistics and distribution services, increased $\$ 153.9$ million, or $33.8 \%$, for the year ended December 31, 2013, compared to the year ended December 31, 2012, primarily due to additional service sales from logistics and distribution services and media solutions resulting from the Vertis acquisition, as well as increases in media solutions and logistics and distribution services owned more than a year.

## Cost of Sales

Cost of product sales increased $\$ 511.8$ million, or $18.0 \%$, for the year ended December 31, 2013, compared with the year ended December 31, 2012, primarily due to the Vertis acquisition, partially offset by lower cost of sales due to a decrease in sales due to reduced print volumes from product lines owned more than a year and cost reduction activities.

Cost of product sales as a percentage of net sales increased from $69.6 \%$ for the year ended December 31, 2012, to $70.1 \%$ for the year ended December 31, 2013, primarily due to the Vertis acquisition, which operates with lower gross margins than the Company's historical gross margins, and lower print volumes and lower print pricing in product lines owned more than a year as a result of continued pricing pressure from excess manufacturing capacity in the printing
industry. The increase in cost of product sales as a percentage of net sales was partially offset by synergy savings related to the Vertis integration and other cost reduction activities.

Cost of service sales increased $\$ 106.6$ million, or $31.8 \%$, for the year ended December 31, 2013, compared with the year ended December 31, 2012, primarily due to additional cost of service sales resulting from the Vertis acquisition.

Cost of service sales as a percentage of net sales increased from $8.2 \%$ for the year ended December 31, 2012, to $9.2 \%$ for the year ended December 31, 2013, primarily due to the Vertis acquisition, which operates with lower gross margins than the Company's historical gross margins.

## Selling, General and Administrative Expenses

Selling, general and administrative expenses increased $\$ 68.9$ million, or $19.9 \%$, for the year ended December 31, 2013, compared with the year ended December 31, 2012, primarily due to $\$ 65.6$ million in additional selling, general and administrative expenses predominantly resulting from administrative functions at the acquired Vertis manufacturing plants as well as a $\$ 6.9$ million increase in losses from foreign currency movements. These increases were partially offset by a $\$ 2.8$ million gain on the sale of Quad/Graphics' Brazilian operations in January 2013 to the Company's existing Brazilian joint venture with Plural Editora e Grafica ("Plural") and $\$ 0.8$ million in other net miscellaneous cost decreases. Selling, general and administrative expenses as a percentage of net sales increased from $8.4 \%$ to $8.6 \%$ between years due to the items discussed in the preceding sentence.

## Restructuring, Impairment and Transaction-Related Charges

Restructuring, impairment and transaction-related charges decreased $\$ 23.0$ million, or $19.4 \%$, for the year ended December 31, 2013, compared with the year ended December 31, 2012, primarily due to a $\$ 19.4$ million decrease in acquisition-related integration costs, a $\$ 11.5$ million decrease in employee termination charges, a $\$ 1.2$ million decrease in impairment charges and a $\$ 0.1$ million decrease in transaction-related charges, partially offset by a $\$ 9.2$ million increase in other restructuring charges.

Restructuring, impairment and transaction-related charges of $\$ 95.3$ million incurred in the year ended December 31, 2013, included: (1) $\$ 15.7$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs, (2) $\$ 21.8$ million of impairment charges, including $\$ 10.1$ million of land and building impairment charges primarily related to the Corinth, Mississippi; Marengo, Iowa and Mexico City, Mexico plant closures and $\$ 11.7$ million of machinery and equipment impairment charges related to facility consolidations including Dubuque, Iowa; Jonesboro, Arkansas; Pittsburg, California and Vancouver, British Columbia, Canada, as well as other capacity reduction restructuring initiatives, (3) $\$ 4.0$ million of transaction-related charges consisting of professional service fees for business acquisition and divestiture activities, primarily related to the acquisitions of Vertis, Proteus and Transpak, (4) $\$ 25.2$ million of acquisition-related integration costs primarily related to preparing existing facilities to meet new production requirements resulting from work transferring from closed plants, as well as other costs related to the integration of the acquired companies and (5) $\$ 28.6$ million of other restructuring charges, including costs to maintain and exit closed facilities, as well as lease exit charges, presented net of a $\$ 2.1$ million pension plan settlement gain.

Restructuring, impairment and transaction-related charges of $\$ 118.3$ million incurred in the year ended December 31, 2012, included: (1) $\$ 27.2$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs, (2) $\$ 23.0$ million of impairment charges, including $\$ 13.1$ million of land and building impairment charges primarily related to the Limerick, Ireland; Mt. Morris, Illinois; Pila, Poland; Richmond, Virginia and Stillwater, Oklahoma plant closures and $\$ 9.9$ million of machinery and equipment impairment charges related to facility consolidations including Jonesboro, Arkansas; Mexico City, Mexico; Pila, Poland and Stillwater, Oklahoma, as well as other capacity reduction restructuring initiatives, (3) $\$ 4.1$ million of transactionrelated charges consisting of professional service fees for business acquisition and divestiture activities, primarily related to the acquisition of Vertis and the business exchange transaction with Transcontinental, (4) $\$ 44.6$ million of acquisitionrelated integration costs primarily related to preparing existing facilities to meet new production requirements resulting from work transferring from closed plants, as well as other costs related to the integration of the acquired companies and
(5) $\$ 19.4$ million of other restructuring charges, including costs to maintain and exit closed facilities, as well as lease exit charges, presented net of a $\$ 12.8$ million curtailment gain as a result of the amendment to postretirement medical benefit plans and a $\$ 2.4$ million gain on the collection of a note receivable related to a settlement of a disputed pre-acquisition World Color Press note receivable.

## Depreciation and Amortization

Depreciation and amortization increased $\$ 1.9$ million, or $0.6 \%$, for the year ended December 31, 2013, compared with the year ended December 31, 2012, primarily due to increased capital expenditures and additional depreciation and amortization related to the Vertis acquisition, partially offset by an increase in fully depreciated property, plant and equipment.

## EBITDA and EBITDA Margin-Consolidated

EBITDA and EBITDA margin for the year ended December 31, 2013, compared to the year ended December 31, 2012, were as follows:

|  | Year Ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2013 |  |  | 2012 |  |  |
|  |  | Amount | \% of Net Sales |  | Amount | \% of Net Sales |
|  | (dollars in millions) |  |  |  |  |  |
| EBITDA and EBITDA margin. | \$ | 481.8 | 10.0\% | \$ | 478.5 | 11.7\% |

EBITDA increased $\$ 3.3$ million for the year ended December 31, 2013, compared to the year ended December 31, 2012, primarily due to the margin impact of a $\$ 701.9$ million, or $17.1 \%$, increase in net sales substantially resulting from the Vertis acquisition, $\$ 23.0$ million of decreased restructuring, impairment and transaction-related charges and a $\$ 3.2$ million loss from discontinued operations, net of tax, recorded during the year ended December 31, 2012, that did not recur in 2013. These impacts were partially offset by $\$ 68.9$ million of increased selling, general and administrative expenses as a result of the Vertis acquisition, the margin impact of lower print volumes and lower print pricing in product lines owned more than a year, and a $\$ 34.0$ million gain on disposal of discontinued operations, net of tax, recorded during the year ended December 31, 2012, that did not recur in 2013. While EBITDA increased, EBITDA margin decreased from $11.7 \%$ for the year ended December 31, 2012 to $10.0 \%$ for the year ended December 31, 2013 primarily due to the acquired Vertis operations, which operate with lower gross margins than the Company's historical gross margins, and the margin impact from lower print pricing in product lines owned more than a year.

EBITDA represents net earnings attributable to Quad/Graphics common shareholders, plus (i) interest expense, (ii) income tax expense (if applicable) and (iii) depreciation and amortization, and less income tax benefit (if applicable). EBITDA margin represents EBITDA as a percentage of net sales. EBITDA and EBITDA margin are presented to provide additional information regarding Quad/Graphics' performance and because both are important measures by which Quad/Graphics gauges the profitability and assesses the performance of its business. EBITDA and EBITDA margin are not measures of financial performance in accordance with GAAP. EBITDA and EBITDA margin should not be considered alternatives to net earnings as a measure of operating performance or to cash flows provided by operating activities as a measure of liquidity. Quad/Graphics' calculation of EBITDA and EBITDA margin may be different from the calculations used by other companies and therefore comparability may be limited. A reconciliation of EBITDA to net earnings attributable to Quad/Graphics common shareholders follows:

|  | Year Ended December 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2013 |  | 2012 |  |
|  | (dollars in millions) |  |  |  |
| Net earnings attributable to Quad/Graphics common shareholders ${ }^{(1)}$ | \$ | 32.5 | \$ | 87.4 |
| Interest expense |  | 85.5 |  | 84.0 |
| Income tax expense (benefit). |  | 23.3 |  | (31.5) |
| Depreciation and amortization. |  | 340.5 |  | 338.6 |
| EBITDA. | \$ | 481.8 | \$ | 478.5 |

(1) Net earnings attributable to Quad/Graphics common shareholders includes the effects of:
a. Restructuring, impairment and transaction-related charges of $\$ 95.3$ million and $\$ 118.3$ million for the years ended December 31, 2013 and 2012, respectively;
b. Loss from discontinued operations, net of tax, was $\$ 3.2$ million for the year ended December 31, 2012. EBITDA from discontinued operations was $\$(3.2)$ million for the year ended December 31, 2012, and included restructuring, impairment and transaction-related charges of $\$ 1.7$ million for the year ended December 31, 2012; and
c. Gain on disposal of discontinued operations, net of tax of $\$ 34.0$ million for the year ended December 31, 2012.

## United States Print and Related Services

The following table summarizes net sales, operating income, operating margin and certain items impacting comparability within the United States Print and Related Services segment:


## Net Sales

Product sales for the United States Print and Related Services segment increased $\$ 594.9$ million, or $18.9 \%$, for the year ended December 31, 2013, compared to the year ended December 31, 2012, primarily due to increased product
sales resulting from the Vertis acquisition, partially offset by lower print volumes and lower print pricing in product lines owned more than a year as a result of continued pricing pressure from excess capacity in the printing industry and lower paper sales.

Service sales for the United States Print and Related Services segment increased $\$ 146.9$ million, or $32.9 \%$, for the year ended December 31, 2013, compared to the year ended December 31, 2012, primarily due to additional service sales from logistics and distribution services and media solutions resulting from the Vertis acquisition, as well as increases in media solutions and logistics and distribution services owned more than a year.

## Operating Income

Operating income for the United States Print and Related Services segment increased \$14.2 million, or 6.6\%, for the year ended December 31, 2013, compared to the year ended December 31, 2012, primarily due to the Vertis acquisition, partially offset by the margin impact of lower print volumes and lower print pricing in product lines owned more than a year as a result of continued pricing pressure from excess capacity in the printing industry, and $\$ 3.8$ million in increased restructuring, impairment and transaction-related charges.

Operating margin for the United States Print and Related Services segment decreased from $6.0 \%$ for the year ended December 31, 2012, to $5.3 \%$ for the year ended December 31, 2013, primarily due to the Vertis acquisition, which operates with lower gross margins than the Company's historical gross margins, lower print volumes and pricing as discussed in the preceding paragraph and increased restructuring, impairment and transaction-related charges.

## Restructuring, Impairment and Transaction-Related Charges

Restructuring, impairment and transaction-related charges for the United States Print and Related Services segment for the year ended December 31, 2013, were $\$ 52.3$ million, consisting of: (1) $\$ 10.0$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs, (2) $\$ 15.6$ million of impairment charges, including $\$ 5.3$ million of land and building impairment charges primarily related to the Corinth, Mississippi and Marengo, Iowa plant closures and $\$ 10.3$ million of machinery and equipment impairment charges related to facility consolidations including Dubuque, Iowa; Jonesboro, Arkansas; Pittsburg, California and Vancouver, British Columbia, Canada, as well as other capacity reduction restructuring initiatives and (3) $\$ 26.7$ million of other restructuring charges, including costs to maintain and exit closed facilities, as well as lease exit charges, presented net of a $\$ 2.1$ million pension plan settlement gain.

Restructuring, impairment and transaction-related charges for the United States Print and Related Services segment for the year ended December 31, 2012, were $\$ 48.5$ million, consisting of: (1) $\$ 20.2$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs, (2) $\$ 11.9$ million of impairment charges, including $\$ 7.0$ million of land and building impairment charges primarily related to the Mt. Morris, Illinois; Richmond, Virginia and Stillwater, Oklahoma plant closures and $\$ 4.9$ million of machinery and equipment impairment charges related to facility consolidations including Jonesoboro, Arkansas and Stillwater, Oklahoma, as well as other capacity reduction restructuring initiatives and (3) \$16.4 million of other restructuring charges including costs to maintain and exit closed facilities, as well as lease exit charges, presented net of a $\$ 12.8$ million curtailment gain as a result of the amendment to postretirement medical benefit plans and a $\$ 2.4$ million gain on the collection of a note receivable related to a settlement of a disputed pre-acquisition World Color Press note receivable.

## International

The following table summarizes net sales, operating loss, operating margin, certain items impacting comparability and equity in earnings (loss) of unconsolidated entities within the International segment:


## Net Sales

Product sales for the International segment decreased $\$ 46.9$ million, or $9.6 \%$, for the year ended December 31, 2013, compared to the year ended December 31, 2012, primarily due to the sale of Quad/Graphics' Brazilian operations in January 2013 to the Company's existing Brazilian joint venture with Plural, which reduced product sales by $\$ 19.9$ million, $\$ 17.2$ million of lower sales in Europe related predominantly to lower paper sales and print volumes and $\$ 8.1$ million of lower sales in Mexico.

Service sales for the International segment increased $\$ 7.0$ million, or $79.5 \%$, for the year ended December 31, 2013, compared to the year ended December 31, 2012, primarily due to an increase in logistics revenue in Europe.

## Operating Loss

Operating loss for the International segment decreased $\$ 17.1$ million, or $69.0 \%$, for the year ended December 31, 2013, compared to the year ended December 31, 2012, primarily due to a $\$ 16.7$ million decrease in restructuring, impairment and integration expenses, a $\$ 3.7$ million reduction in operating losses from 2012 in Brazil, and a $\$ 2.8$ million gain on the sale of Quad/Graphics' Brazilian operations in January 2013. These reductions in operating loss were partially offset by a $\$ 4.8$ million decrease in equity earnings of unconsolidated entities, as discussed below.

## Restructuring, Impairment and Transaction-Related Charges

Restructuring, impairment and transaction-related charges for the International segment for the year ended December 31, 2013, were $\$ 9.6$ million, consisting of: (1) $\$ 2.9$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs, (2) $\$ 6.2$ million of impairment charges, including $\$ 4.8$ million of land and building impairment charges primarily related to the Mexico City, Mexico plant closure and $\$ 1.4$ million of machinery and equipment impairment charges related to facility consolidations in Pila, Poland, as well as other capacity reduction restructuring initiatives, (3) \$(0.2) million of an adjustment for updated estimates related to employee related liabilities for the integration of Transcontinental's Mexican operations and (4) $\$ 0.7$ million of other restructuring charges.

Restructuring, impairment and transaction-related charges for the International segment for the year ended December 31, 2012, were $\$ 26.3$ million, consisting of: (1) $\$ 7.0$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs, (2) \$11.1 million of
impairment charges, including $\$ 6.1$ million of land and building impairment charges primarily related to the Limerick, Ireland and Pila, Poland plant closures and $\$ 5.0$ million of machinery and equipment impairment charges related to facility consolidations including Mexico City, Mexico and Pila, Poland, as well as other capacity reduction restructuring initiatives, (3) $\$ 5.6$ million of integration costs primarily related to the integration of the acquired companies and (4) $\$ 2.6$ million of other restructuring charges.

## Equity in Earnings (Loss) of Unconsolidated Entities

Investments in entities where Quad/Graphics has the ability to exert significant influence, but not control, are accounted for using the equity method of accounting. The Company holds a $49 \%$ ownership interest in Plural, a commercial printer based in São Paulo, Brazil. In January 2013, the Company sold $100 \%$ of its ownership interest in Quad/Graphics Nordeste Industria Gráfica LTDA. and Quad/Graphics São Paulo Industria Gráfica S.A. to Plural (see Note 11, "Equity Method Investments in Unconsolidated Entities," to the consolidated financial statements in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K for further discussion). The Company also holds a $50 \%$ interest in a joint venture based in Santiago, Chile, Quad/Graphics Chile S.A. ("Chile"), that was acquired as part of the World Color Press acquisition. The equity in earnings (loss) of unconsolidated entities in the International segment decreased $\$ 4.8$ million for the year ended December 31, 2013 compared to the year ended December 31 , 2012, primarily due to a $\$ 4.7$ million decrease in equity earnings at Plural.

## Corporate

The following table summarizes unallocated operating expenses presented as Corporate:

|  |  | Year Ended December 31, |  |  |  |  | \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2013 | 2012 |  |  |  |  |
|  |  | (dollars in millions) |  |  |  |  |  |
|  |  | Amount |  | Amount |  |  |  |
| Operating expenses (including restructuring, impairment and transaction-related charges). | \$ | 80.8 | \$ | 85.2 | \$ | (4.4) | (5.2)\% |
| Restructuring, impairment and transaction-related charges |  | 33.4 |  | 43.5 |  | (10.1) | (23.2)\% |

Corporate operating expenses decreased $\$ 4.4$ million, or $5.2 \%$, for the year ended December 31, 2013, compared with the year ended December 31, 2012, primarily due to a $\$ 10.1$ million decrease in restructuring, impairment and transaction-related charges, partially offset by a $\$ 5.3$ million increase in employee related costs (of which $\$ 4.0$ million was an increase in non-cash stock-based compensation expense) and $\$ 0.4$ million of other net miscellaneous expense increases.

Corporate restructuring, impairment and transaction-related charges for the year ended December 31, 2013, were $\$ 33.4$ million, consisting of: (1) $\$ 2.8$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs, (2) \$4.0 million of transaction-related charges consisting of professional service fees for business acquisition and divestiture activities, primarily related to the acquisitions of Vertis, Proteus and Transpak, (3) $\$ 25.4$ million of acquisition-related integration costs primarily related to preparing existing facilities to meet new production requirements resulting from work transferring from closed plants, as well as other costs related to the integration of the acquired companies and (4) $\$ 1.2$ million of other restructuring charges.

Corporate restructuring, impairment and transaction-related charges for the year ended December 31, 2012, were $\$ 43.5$ million, consisting of: (1) $\$ 4.1$ million of transaction-related charges consisting of professional service fees for business acquisition and divestiture activities, primarily related to the acquisition of Vertis and the business exchange transaction with Transcontinental, (2) $\$ 39.0$ million of acquisition-related integration costs primarily related to preparing existing facilities to meet new production requirements resulting from work transferring from closed plants, as well as other costs related to the integration of the acquired companies and (3) $\$ 0.4$ million of other restructuring charges.

## Results of Operations for the Year Ended December 31, 2012 Compared to the Year Ended December 31, 2011

## Summary Results

The Company's operating income from continuing operations, operating margin, net earnings (loss) attributable to Quad/Graphics common shareholders and diluted earnings (loss) per share attributable to Quad/Graphics common shareholders for the year ended December 31, 2012, changed from the year ended December 31, 2011, as follows (dollars in millions, except per share data):

|  | Operating Income from Continuing Operations |  | Operating Margin | Net Earnings (Loss) Attributable to Quad/Graphics Common Shareholders |  | Earnings (Loss) Per Share Attributable to Quad/ <br> Graphics Common ShareholdersDiluted |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For the year ended December 31, 2011 | \$ | 156.9 | 3.6 \% | \$ | (46.9) | \$ | (1.00) |
| 2012 restructuring, impairment and transaction-related charges ${ }^{(1)} \ldots$. |  | (118.3) | (2.9)\% |  | (71.0) |  | (1.50) |
| 2011 restructuring, impairment and transaction- related charges ${ }^{(2)} \ldots$. . |  | 114.0 | 2.6 \% |  | 68.4 |  | 1.45 |
| Decrease in interest expense ${ }^{(3)}$ |  | N/A | N/A |  | 14.4 |  | 0.31 |
| Loss on debt extinguishment in $2011{ }^{(4)}$ |  | N/A | N/A |  | 20.4 |  | 0.43 |
| Decrease in income tax expense ${ }^{(5)}$ |  | N/A | N/A |  | 57.5 |  | 1.22 |
| Decrease in loss from discontinued operations, net of tax ${ }^{(6)}$ |  | N/A | N/A |  | 35.4 |  | 0.75 |
| Gain on disposal of discontinued operations, net of tax, in $2012^{(7)}$ |  | N/A | N/A |  | 34.0 |  | 0.72 |
| Decrease in operating income ${ }^{(8)}$ |  | (46.1) | (0.7)\% |  | (24.8) |  | (0.60) |
| For the year ended December 31, 2012 | \$ | 106.5 | 2.6 \% | \$ | 87.4 | \$ | 1.78 |

(1) Restructuring, impairment and transaction-related charges of $\$ 118.3$ million incurred during the year ended December 31, 2012, included:
a. $\quad \$ 27.2$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs;
b. $\quad \$ 23.0$ million of impairment charges including: (1) $\$ 13.1$ million of land and building impairment charges primarily related to the Limerick, Ireland; Mt. Morris, Illinois; Pila, Poland; Richmond, Virginia and Stillwater, Oklahoma plant closures and (2) $\$ 9.9$ million of machinery and equipment impairment charges related to facility consolidations including Jonesboro, Arkansas; Mexico City, Mexico; Pila, Poland and Stillwater, Oklahoma, as well as other capacity reduction restructuring initiatives;
c. $\quad \$ 4.1$ million of transaction-related charges consisting of professional service fees for business acquisition and divestiture activities, primarily related to the acquisition of Vertis and the business exchange transaction with Transcontinental;
d. $\$ 44.6$ million of acquisition-related integration costs primarily related to preparing existing facilities to meet new production requirements resulting from work transferring from closed plants, as well as other costs related to the integration of the acquired companies; and
e. $\quad \$ 19.4$ million of other restructuring charges, including costs to maintain and exit closed facilities, as well as lease exit charges, presented net of a $\$ 12.8$ million curtailment gain as a result of the amendment to postretirement medical benefit plans and a $\$ 2.4$ million gain on the collection of a note receivable related to a settlement of a disputed preacquisition World Color Press note receivable.

The Company expects to incur additional restructuring and integration costs in future reporting periods in connection with the restructuring program that began in 2010 related to eliminating excess manufacturing capacity and properly aligning its cost structure as part of the integration of the July 2, 2010 World Color Press acquisition, the September 8, 2011 Transcontinental Mexico acquisition, the January 16, 2013 Vertis acquisition and other cost reduction programs.
(2) Restructuring, impairment and transaction-related charges of $\$ 114.0$ million incurred during the year ended December 31, 2011, included:
a. $\$ 29.5$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs;
b. $\$ 13.8$ million of impairment charges including: (1) $\$ 3.6$ million of land and building impairment charges related to the Stillwater, Oklahoma plant closure and (2) $\$ 10.2$ million of machinery and equipment impairment charges related to facility consolidations including Corinth, Mississippi; Mt. Morris, Illinois and Pila, Poland, as well as other capacity reduction restructuring initiatives;
c. $\quad \$ 2.9$ million of transaction-related charges consisting of professional service fees for business acquisition and divestiture activities, primarily related to the business exchange transaction with Transcontinental;
d. $\$ 45.7$ million of acquisition-related integration costs, net of a $\$ 15.6$ million gain on the collection of a note receivable for the June 2008 sale of World Color Press' European operations; and
e. $\quad \$ 22.1$ million of other restructuring charges including costs to maintain and exit closed facilities, as well as lease exit charges.
(3) Interest expense decreased $\$ 24.0$ million ( $\$ 14.4$ million net of tax) during the year ended December 31, 2012, to $\$ 84.0$ million. This change was due to a reduction in debt in 2012 and lower interest rates as a result of the $\$ 1.5$ billion debt financing agreement entered into on July 26, 2011.
(4) A non-recurring $\$ 34.0$ million loss on debt extinguishment ( $\$ 20.4$ million net of tax) was recognized as part of the $\$ 1.5$ billion debt financing agreement entered into on July 26, 2011. The $\$ 34.0$ million loss represents certain debt issuance costs that were expensed.
(5) Income tax expense decreased $\$ 57.5$ million due primarily to the reversal of $\$ 43.5$ million of income tax provisions related to a $\$ 30$ million settlement of a IRS audit of pre-acquisition tax years for World Color Press and $\$ 13.5$ million in reserves that are no longer required due to lapses of applicable statutes of limitations. See Note 15, "Income Taxes," to the consolidated financial statements in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K for additional information.
(6) Loss on discontinued operations, net of tax, decreased $\$ 35.4$ million during the year ended December 31, 2012, to a $\$ 3.2$ million loss primarily due to 10 fewer months of results from Canadian operations in 2012, as the Canadian discontinued operations were sold on March 1, 2012.
(7) Gain on disposal of discontinued operations, net of tax, was $\$ 34.0$ million during the year ended December 31, 2012, due to the completion of the sale of the Company's Canadian operations to Transcontinental on March 1, 2012.
(8) Operating income decreased $\$ 46.1$ million primarily due to the margin impact of a $\$ 230.6$ million, or $5.3 \%$, decline in net sales, partially offset by $\$ 76$ million in incremental synergy savings from the integration of World Color Press' operations, $\$ 59.9$ million in reduced selling, general and administrative costs and $\$ 6.0$ million in reduced depreciation and amortization expense. The following discussion provides additional details.

## Operating Results from Continuing Operations

The following table sets forth certain information from the Company's consolidated statements of operations on an absolute dollar basis and as a relative percentage of total net sales for each noted period, together with the relative percentage change in such information between the periods set forth below:


## Net Sales

Product sales decreased $\$ 187.0$ million, or $4.9 \%$, for the year ended December 31, 2012, compared to the year ended December 31, 2011, primarily due to a $4 \%$ reduction in sales from the combination of lower print volumes and lower pricing as a result of continued pricing pressure from excess manufacturing capacity in the printing industry and a $1 \%$ reduction in sales from lower paper and byproduct sales.

Service sales, which primarily consist of imaging, logistics and distribution services, decreased $\$ 43.6$ million, or $8.7 \%$, for the year ended December 31, 2012, compared to the year ended December 31, 2011, primarily due to lower sales on logistics and distribution services and media solutions due primarily to lower related print volumes.

## Cost of Sales

Cost of product sales decreased $\$ 73.4$ million, or $2.5 \%$, for the year ended December 31, 2012, compared with the year ended December 31, 2011, primarily due to decreased print volumes and synergy savings related to labor, purchasing and other manufacturing expenses as a result of the Company's World Color Press integration restructuring programs.

Cost of product sales as a percentage of net sales increased from $67.6 \%$ for the year ended December 31, 2011, to $69.6 \%$ for the year ended December 31,2012 , primarily due to lower print pricing as a result of continued pricing pressure from excess manufacturing capacity in the printing industry and lower pricing on byproduct recoveries. The increase in cost of product sales as a percentage of net sales was partially offset by synergy cost savings related to the World Color Press integration.

Cost of service sales decreased $\$ 45.2$ million, or $11.9 \%$, for the year ended December 31, 2012, compared with the year ended December 31, 2011, primarily due to lower sales on logistics and distribution services and media solutions.

Cost of service sales as a percentage of net sales decreased from $8.8 \%$ for the year ended December 31, 2011, to $8.2 \%$ for the year ended December 31, 2012, primarily due to lower labor costs related to cost reduction activities.

Selling, General and Administrative Expenses
Selling, general and administrative expenses decreased $\$ 59.9$ million, or $14.7 \%$, for the year ended December 31, 2012, compared with the year ended December 31, 2011, primarily due to $\$ 11$ million in synergy savings from the World Color Press integration, $\$ 11$ million in lower employee related costs associated with non-integration cost reduction activities, $\$ 10$ million in lower bad debt expense (mostly related to a change in payment terms for an existing customer), a $\$ 8$ million decrease in legal and environmental reserves (primarily related to the sale of vacant facilities), $\$ 4$ million in lower information technology related expenses and $\$ 3$ million in lower professional fee expense and other net miscellaneous spending reductions. Selling, general and administrative expenses as a percentage of net sales decreased from $9.4 \%$ to $8.4 \%$ between years due to the items discussed in the preceding sentence.

## Restructuring, Impairment and Transaction-Related Charges

Restructuring, impairment and transaction-related charges increased $\$ 4.3$ million, or $3.8 \%$, for the year ended December 31, 2012, compared with the year ended December 31, 2011, primarily due to a $\$ 9.2$ million increase in impairment charges and a $\$ 1.2$ million increase in transaction-related charges, partially offset by a $\$ 2.7$ million decrease in other restructuring charges, a $\$ 2.3$ million decrease in employee termination charges and a $\$ 1.1$ million decrease in acquisition-related integration costs.

Restructuring, impairment and transaction-related charges of $\$ 118.3$ million incurred in the year ended December 31, 2012, included: (1) $\$ 27.2$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs, (2) $\$ 23.0$ million of impairment charges, including $\$ 13.1$ million of land and building impairment charges primarily related to the Limerick, Ireland; Mt. Morris, Illinois; Pila, Poland; Richmond, Virginia and Stillwater, Oklahoma plant closures and $\$ 9.9$ million of machinery and equipment impairment charges related to facility consolidations including Jonesoboro, Arkansas; Mexico City, Mexico; Pila, Poland and Stillwater, Oklahoma, as well as other capacity reduction restructuring initiatives, (3) $\$ 4.1$ million of transactionrelated charges consisting of professional service fees for business acquisition and divestiture activities, primarily related to the acquisition of Vertis and the business exchange transaction with Transcontinental, (4) $\$ 44.6$ million of acquisitionrelated integration costs primarily related to preparing existing facilities to meet new production requirements resulting from work transferring from closed plants, as well as other costs related to the integration of the acquired companies and (5) $\$ 19.4$ million of other restructuring charges, including costs to maintain and exit closed facilities, as well as lease exit charges, presented net of a $\$ 12.8$ million curtailment gain as a result of the amendment to postretirement medical benefit plans and a $\$ 2.4$ million gain on the collection of a note receivable related to a settlement of a disputed pre-acquisition World Color Press note receivable.

Restructuring, impairment and transaction-related charges of $\$ 114.0$ million incurred in the year ended December 31, 2011, included: (1) $\$ 29.5$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs, (2) $\$ 13.8$ million of impairment charges including $\$ 3.6$ million of land and building impairment charges related to the Stillwater, Oklahoma plant closure and $\$ 10.2$ million of machinery and equipment impairment charges related to facility consolidations including Corinth, Mississippi; Mt. Morris, Illinois and Pila, Poland, as well as other capacity reduction restructuring initiatives, (3) \$2.9 million of transaction-related charges consisting of professional service fees for business acquisition and divestiture activities, primarily related to the business exchange transaction with Transcontinental, (4) $\$ 45.7$ million of acquisition-related integration costs, net of a $\$ 15.6$ million gain on the collection of a note receivable for the June 2008 sale of World Color Press' European operations and (5) $\$ 22.1$ million of other restructuring charges including costs to maintain and exit closed facilities, as well as lease exit charges.

## Depreciation and Amortization

Depreciation and amortization decreased $\$ 6.0$ million, or $1.7 \%$, for the year ended December 31, 2012, compared with the year ended December 31, 2011, primarily due to decreased capital expenditures for property, plant and equipment, and the impact of the Company's restructuring activities.

## EBITDA and EBITDA Margin-Consolidated

EBITDA and EBITDA margin for the year ended December 31, 2012, compared to the year ended December 31, 2011, were as follows:


EBITDA increased $\$ 46.8$ million for the year ended December 31, 2012, primarily due to: (1) $\$ 76.0$ million in incremental synergy savings from integrating World Color Press' operations, (2) $\$ 59.9$ million of decreased selling, general and administrative expenses, (3) a $\$ 34.0$ million gain on the disposal of the Canadian discontinued operations recorded on March 1, 2012, (4) a $\$ 34.0$ million loss on debt extinguishment recorded in 2011 related to the $\$ 1.5$ billion debt financing agreement that did not recur in 2012 and (5) a $\$ 35.4$ million reduction in loss from discontinued operations due to the sale of the Canadian operations to Transcontinental on March 1, 2012. These impacts were partially offset by margin impact of a $\$ 230.6$ million, or $5.3 \%$, decline in net sales and $\$ 4.3$ million of increased restructuring, impairment and transaction-related charges. The results of these impacts also increased EBITDA margin to $11.7 \%$ for the year ended December 31, 2012, compared to $10.0 \%$ for the year ended December 31, 2011.

EBITDA represents net earnings (loss) attributable to Quad/Graphics common shareholders, plus (i) interest expense, (ii) income tax expense (if applicable) and (iii) depreciation and amortization, and less income tax benefit (if applicable). EBITDA margin represents EBITDA as a percentage of net sales. EBITDA and EBITDA margin are presented to provide additional information regarding Quad/Graphics' performance and because both are important measures by which Quad/Graphics gauges the profitability and assesses the performance of its business. EBITDA and EBITDA margin are not measures of financial performance in accordance with GAAP. EBITDA and EBITDA margin should not be considered alternatives to net earnings (loss) as a measure of operating performance or to cash flows provided by operating activities as a measure of liquidity. Quad/Graphics' calculation of EBITDA and EBITDA margin may be different from the calculations used by other companies and therefore comparability may be limited. A reconciliation of EBITDA to net earnings (loss) attributable to Quad/Graphics common shareholders follows:

|  | Year Ended December 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  | 2011 |  |
|  | (dollars in millions) |  |  |  |
| Net earnings (loss) attributable to Quad/Graphics common shareholders ${ }^{(1)}$. | \$ | 87.4 | \$ | (46.9) |
| Interest expense |  | 84.0 |  | 108.0 |
| Income tax expense (benefit). |  | (31.5) |  | 26.0 |
| Depreciation and amortization. |  | 338.6 |  | 344.6 |
| EBITDA. | \$ | 478.5 | \$ | 431.7 |

(1) Net earnings (loss) attributable to Quad/Graphics common shareholders includes the effects of:
a. Restructuring, impairment and transaction-related charges of $\$ 118.3$ million and $\$ 114.0$ million for the years ended December 31, 2012 and 2011, respectively;
b. Loss on debt extinguishment of $\$ 34.0$ million for the year ended December 31, 2011;
c. Loss from discontinued operations, net of tax, was $\$ 3.2$ million and $\$ 38.6$ million for the years ended December 31, 2012 and 2011, respectively. EBITDA from discontinued operations was $\$(3.2)$ million and $\$(25.6)$ million for the years ended December 31, 2012, and 2011, respectively, and includes restructuring, impairment and transaction-related charges of $\$ 1.7$ million and $\$ 45.1$ million for the years ended December 31, 2012 and 2011, respectively.
d. Gain on disposal of discontinued operations, net of tax of $\$ 34.0$ million for the year ended December 31, 2012.

## United States Print and Related Services

The following table summarizes net sales, operating income, operating margin and certain items impacting comparability within the United States Print and Related Services segment:


## Net Sales

Product sales for the United States Print and Related Services segment decreased $\$ 186.8$ million, or $5.6 \%$, for the year ended December 31, 2012, compared to the year ended December 31, 2011, primarily due to $4 \%$ reduction in sales from the combination of lower print volumes and lower pricing as a result of continued pricing pressure from excess manufacturing capacity in the printing industry and a $1 \%$ net reduction in sales from lower paper and byproduct sales.

Service sales for the United States Print and Related Services segment decreased $\$ 41.4$ million, or $8.5 \%$, for the year ended December 31, 2012, compared to the year ended December 31, 2011, primarily due to lower sales on logistics and distribution services and media solutions primarily due to lower related print volumes.

## Operating Income

Operating income for the United States Print and Related Services segment decreased $\$ 55.1$ million, or 20.3\%, for the year ended December 31, 2012, compared to the year ended December 31, 2011, primarily due to the margin impact of the $\$ 228.2$ million decrease in net sales, partially offset by $\$ 76$ million in synergy savings from the World Color Press integration, $\$ 50.2$ million in lower selling, general and administrative expenses and $\$ 6.8$ million decrease in restructuring, impairment and transaction-related charges.

Operating margin for the United States Print and Related Services segment decreased from 7.1\% for the year ended December 31, 2011, to $6.0 \%$ for the year ended December 31, 2012, primarily due to the reasons discussed in the preceding paragraph.

## Restructuring, Impairment and Transaction-Related Charges

Restructuring, impairment and transaction-related charges for the United States Print and Related Services segment for the year ended December 31, 2012, were $\$ 48.5$ million, consisting of: (1) $\$ 20.2$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs, (2) $\$ 11.9$ million of impairment charges, including $\$ 7.0$ million of land and building impairment charges primarily related to the Mt. Morris, Illinois; Richmond, Virginia and Stillwater, Oklahoma plant closures and $\$ 4.9$ million of machinery and equipment impairment charges related to facility consolidations including Jonesoboro, Arkansas and Stillwater, Oklahoma, as well as other capacity reduction restructuring initiatives and (3) \$16.4 million of other restructuring charges including costs to maintain and exit closed facilities, as well as lease exit charges, presented net of a $\$ 12.8$ million curtailment gain as a result of the amendment to postretirement medical benefit plans and a $\$ 2.4$ million gain on the collection of a note receivable related to a settlement of a disputed pre-acquisition World Color Press note receivable.

Restructuring, impairment and transaction-related charges for the United States Print and Related Services segment for the year ended December 31, 2011, were $\$ 55.3$ million, consisting of: (1) $\$ 23.0$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs, (2) $\$ 12.7$ million of impairment charges, including $\$ 3.6$ million of land and building impairment charges related to the Stillwater, Oklahoma plant closure and $\$ 9.1$ million of machinery and equipment impairment charges related to facility consolidations including Corinth, Mississippi and Mt. Morris, Illinois, as well as other capacity reduction restructuring initiatives, (3) $\$ 0.8$ million of acquisition-related integration costs and (4) $\$ 18.8$ million of other restructuring charges including costs to maintain and exit closed facilities, as well as lease exit charges.

## International

The following table summarizes net sales, operating loss, operating margin, certain items impacting comparability and equity in earnings of unconsolidated entities within the International segment:

|  | Year Ended December 31, |  |  |  |  |  | \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  | 2011 |  |  |  |  |
|  | (dollars in millions) |  |  |  |  |  |  |
|  | Amount |  | Amount |  | \$ Change |  |  |
| Net sales: |  |  |  |  |  |  |  |
| Products | \$ | 487.3 | \$ | 487.5 | \$ | (0.2) | - \% |
| Services. |  | 8.8 |  | 11.0 |  | (2.2) | (20.0)\% |
| Operating loss (including restructuring, impairment and transaction-related charges). |  | (24.8) |  | (19.4) |  | (5.4) | (27.8)\% |
| Operating margin. |  | (5.0)\% |  | (3.9)\% |  | N/A | N/A |
| Restructuring, impairment and transaction-related charges |  | 26.3 |  | 7.3 |  | 19.0 | 260.3 \% |
| Equity in earnings of unconsolidated entities |  | 2.3 |  | 3.1 |  | (0.8) | (25.8)\% |

## Net Sales

Product sales for the International segment decreased $\$ 0.2$ million for the year ended December 31, 2012, compared to the year ended December 31, 2011, primarily due to a $\$ 22$ million increase in net sales in Mexico as a result of the acquisition of the Transcontinental Mexico operations, partially offset by a $\$ 22$ million, or $5 \%$, negative impact from foreign exchange.

## Operating Loss

Operating loss for the International segment increased $\$ 5.4$ million, or $27.8 \%$, for the year ended December 31, 2012, compared to the year ended December 31, 2011, primarily due to a $\$ 19.0$ million increase in restructuring, impairment and transaction-related charges primarily related to the Transcontinental Mexico acquisition, partially offset by margin improvement in Poland as a result of the restructuring actions.

## Restructuring, Impairment and Transaction-Related Charges

Restructuring, impairment and transaction-related charges for the International segment for the year ended December 31, 2012, were $\$ 26.3$ million, consisting of: (1) $\$ 7.0$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs, (2) $\$ 11.1$ million of impairment charges, including $\$ 6.1$ million of land and building impairment charges primarily related to the Limerick, Ireland and Pila, Poland plant closures and $\$ 5.0$ million of machinery and equipment impairment charges related to facility consolidations including Mexico City, Mexico and Pila, Poland, as well as other capacity reduction restructuring initiatives, (3) $\$ 5.6$ million of integration costs primarily related to the integration of the acquired companies and (4) $\$ 2.6$ million of other restructuring charges.

Restructuring, impairment and transaction-related charges for the International segment for the year ended December 31, 2011, were $\$ 7.3$ million, consisting of: (1) $\$ 3.1$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs, (2) $\$ 1.1$ million of impairment charges for machinery and equipment and (3) \$3.1 million of other restructuring charges.

## Equity in Earnings of Unconsolidated Entities

Investments in entities where Quad/Graphics has the ability to exert significant influence but not control are accounted for using the equity method of accounting. The Company holds a $49 \%$ ownership interest in Plural, a commercial printer based in São Paulo, Brazil, as well as a $50 \%$ interest in a joint venture in Chile that was acquired as part of the World Color Press acquisition. The equity in earnings of unconsolidated entities in the International segment decreased $\$ 0.8$ million for the year ended December 31, 2012, primarily due to lower earnings at Plural due to a decline in volumes related to economic slowdown in Brazil.

## Corporate

The following table summarizes unallocated operating expenses presented as Corporate:

|  |  | Year Ended December 31, |  |  |  |  | \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2012 | 2011 |  |  |  |  |
|  |  | (dollars in millions) |  |  |  |  |  |
|  | Amount |  | Amount |  | \$ Change |  |  |
| Operating expenses (including restructuring, impairment and transaction-related charges) | \$ | 85.2 | \$ | 95.3 | \$ | (10.1) | (10.6)\% |
| Restructuring, impairment and transaction-related charges |  | 43.5 |  | 51.4 |  | (7.9) | (15.4)\% |

Corporate operating expenses decreased $\$ 10.1$ million, or $10.6 \%$, for the year ended December 31, 2012, compared with the year ended December 31, 2011, primarily due to a $\$ 7.9$ million decrease in restructuring, impairment and transaction-related charges, and cost reduction activities which resulted in lower labor and professional service costs.

Corporate restructuring, impairment and transaction-related charges for the year ended December 31, 2012, were $\$ 43.5$ million, consisting of: (1) $\$ 4.1$ million of transaction-related charges consisting of professional service fees for business acquisition and divestiture activities, primarily related to the acquisition of Vertis and the business exchange transaction with Transcontinental, (2) $\$ 39.0$ million of acquisition-related integration costs primarily related to preparing existing facilities to meet new production requirements resulting from work transferring from closed plants, as well as other costs related to the integration of the acquired companies and (3) $\$ 0.4$ million of other restructuring charges.

Corporate restructuring, impairment and transaction-related charges for the year ended December 31, 2011, were $\$ 51.4$ million, consisting of: (1) $\$ 3.4$ million of employee termination charges related to workforce reductions through facility consolidations and involuntary separation programs, (2) $\$ 2.9$ million of transaction-related charges consisting of professional service fees for business acquisitions and divestitures activities, primarily related to the business exchange transaction with Transcontinental, (3) $\$ 44.9$ million of acquisition-related integration costs, net of a $\$ 15.6$ million gain on the collection of a note receivable for the June 2008 sale of World Color Press' European operations and (4) \$0.2 million of other restructuring charges.

## Liquidity and Capital Resources

The Company utilizes cash flows from operating activities and borrowings under its credit facilities to satisfy its liquidity and capital requirements. The Company believes its expected future cash flows from operating activities and unused available capacity under the revolving credit facility, net of issued letters of credit, of $\$ 596.2$ million as of December 31, 2013, provide sufficient resources to fund ongoing operating requirements and the integration and restructuring requirements related to acquired operations, as well as future capital expenditures, debt service requirements, World Color Press single employer pension plan contributions, World Color Press MEPPs withdrawal payments, investments in future growth to create value for its shareholders and shareholder dividends. Borrowings under the $\$ 850.0$ million revolving credit facility were $\$ 209.8$ million as of December 31, 2013, and peak borrowings were $\$ 334.0$ million during the year ended December 31, 2013.

## Net Cash Provided by Operating Activities

## Year Ended December 31, 2013 Compared to Year Ended December 31, 2012

Net cash provided by operating activities was $\$ 441.1$ million for the year ended December 31, 2013, compared to $\$ 354.2$ million for the year ended December 31,2012 , resulting in a $\$ 86.9$ million increase in cash provided by operating activities. The increase was primarily due to a $\$ 81.4$ million increase in cash flows from changes in operating assets and liabilities and a $\$ 4.5$ million increase in dividends from unconsolidated entities. The changes in operating assets and liabilities is primarily due to an estimated $\$ 90$ million of increased accounts payable and accrued liabilities from the restoration of normalized working capital levels after the acquisition of Vertis (which was acquired without a normalized level of trade accounts payable and certain liabilities).

## Year Ended December 31, 2012 Compared to Year Ended December 31, 2011

Net cash provided by operating activities was $\$ 354.2$ million for the year ended December 31, 2012, compared to $\$ 371.1$ million for the year ended December 31, 2011, resulting in a $\$ 16.9$ million decrease in cash provided by operating activities. The decrease was primarily due to a decrease in cash flows from the discontinued Canadian operations, which were sold on March 1, 2012, partially offset by lower working capital of $\$ 11$ million.

## Net Cash Used in Investing Activities

## Year Ended December 31, 2013 Compared to Year Ended December 31, 2012

Net cash used in investing activities was $\$ 430.6$ million for the year ended December 31, 2013, compared to $\$ 70.1$ million for the year ended December 31, 2012, resulting in a $\$ 360.5$ million increase in cash used in investing activities. The increase was primarily due to a $\$ 285.3$ million increase in cash invested in acquiring businesses. The 2013 acquisitions included the $\$ 235.4$ million net cash outlay related to the acquisition of Vertis on January 16, 2013 (which represents the total $\$ 265.4$ million Vertis purchase price less a $\$ 25.9$ million payment made during the fourth quarter of 2012 and less $\$ 4.1$ million of cash acquired). The Company also acquired Proteus and Transpak on December 18,2013 , and made a cash payment of $\$ 43.1$ million as part of the acquisition consideration. In addition to cash invested to complete acquisitions, other factors causing the increase in cash used in investing activities include: (1) a $\$ 50.0$ million refund of the deposit related to the Transcontinental acquisition received during 2012 that did not recur during 2013 and (2) a $\$ 46.0$ million increase in purchases of property, plant and equipment in 2013. These impacts were partially offset by the $\$ 18.1$ million ManipalTech cost method investment made on March 28, 2012.

## Year Ended December 31, 2012 Compared to Year Ended December 31, 2011

Net cash used in investing activities was $\$ 70.1$ million for the year ended December 31, 2012, compared to $\$ 184.3$ million for the year ended December 31, 2011, resulting in a $\$ 114.2$ million decrease in cash used in investing activities. The decrease was primarily due to the $\$ 50.0$ million deposit related to the Transcontinental Mexico acquisition. As the deposit was made in 2011 and was refunded back to the Company in 2012, the impact to cash used in investing activities was a $\$ 100.8$ million improvement. In addition, there was a $\$ 64.8$ million decrease in capital expenditures related primarily to the integration of World Color Press operations. These decreased uses of cash were partially offset by the $\$ 18.1$ million ManipalTech cost method investment entered into on March 28, 2012 and the $\$ 25.9$ million deposit made in 2012 related to the Vertis agreement to be held in escrow and applied to the purchase price upon closure of the deal.

## Net Cash Used in Financing Activities

## Year Ended December 31, 2013 Compared to Year Ended December 31, 2012

Net cash used in financing activities was $\$ 10.2$ million for the year ended December 31, 2013, compared to $\$ 285.6$ million for the year ended December 31, 2012, resulting in a $\$ 275.4$ million decrease in cash used in financing activities. The decrease was primarily due to net debt borrowings of $\$ 41.3$ million in 2013 , compared to net debt repayments of $\$ 121.0$ million in 2012 , representing a $\$ 162.3$ million decrease in net cash used in financing activities. In addition, cash dividend payments decreased $\$ 95.4$ million between years due to a $\$ 93.5$ million, or $\$ 2.00$ per share, special dividend paid in December 2012, and World Color Press bankruptcy claim payments on unsecured notes to be issued decreased \$10.4 million in 2013.

## Year Ended December 31, 2012 Compared to Year Ended December 31, 2011

Net cash used in financing activities was $\$ 285.6$ million for the year ended December 31, 2012, compared to $\$ 173.5$ million for the year ended December 31, 2011, resulting in a $\$ 112.1$ million increase in cash used in financing activities. The increase was primarily due to a $\$ 123.6$ million increase in dividend payments due primarily to a $\$ 93.5$ million, or $\$ 2.00$ per share special dividend paid in December 2012. In addition, debt payments in 2012 increased by $\$ 11.5$ million versus 2011, as part of the Company's effort to reduce debt in 2012 (reduced total debt by $\$ 120$ million in 2012). These increases in net cash used in financing activities were partially offset by reduced debt issuance costs of $\$ 9.4$ million associated with the Company's $\$ 1.5$ billion debt financing agreement completed on July 26, 2011, and $\$ 8.2$ million in reduced purchases of class A stock under the Company's $\$ 100$ million share repurchase program.

## Free Cash Flow

Free Cash Flow is defined as net cash provided by operating activities less purchases of property, plant and equipment.

The Company's management assesses Free Cash Flow as a measure to quantify cash available for (1) strategic capital allocation and deployment through investments in the business (capital expenditures and acquisitions), (2) strengthening the balance sheet (debt and pension liability reduction) and (3) returning capital to the shareholders (dividends and share repurchases). The priorities for capital allocation and deployment will change as circumstances dictate for the business, and Free Cash Flow can be significantly impacted by the Company's restructuring activities and other unusual items, such as payments related to completing the World Color Press bankruptcy process.

Free Cash Flow is a non-GAAP measure. Free Cash Flow should not be considered an alternative to cash flows provided by operating activities as a measure of liquidity. Quad/Graphics' calculation of Free Cash Flow may be different from similar calculations used by other companies and, therefore, comparability may be limited.

Free Cash Flow for the year ended December 31, 2013, compared to the year ended December 31, 2012, was as follows:

|  | Year Ended December 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2013 |  | 2012 |  |
|  | (dollars in millions) |  |  |  |
| Net cash provided by operating activities ${ }^{(1)}$. | \$ | 441.1 | \$ | 354.2 |
| Less: purchases of property, plant and equipment. |  | (149.5) |  | (103.5) |
| Free Cash Flow | \$ | 291.6 | \$ | 250.7 |

(1) Net cash provided by operating activities includes:
a. Net restructuring payments of $\$ 79.9$ million and $\$ 113.4$ million for the years ended December 31, 2013 and 2012, respectively. For the year ended December 31, 2012, net restructuring payments are presented net of restructuring cash receipts of $\$ 14.7$ million related to the collection of a disputed pre-acquisition World Color Press note receivable; and
b. Bankruptcy payments of $\$ 8.6$ million and $\$ 10.4$ million for the years ended December 31, 2013 and 2012, respectively.

Free Cash Flow increased $\$ 40.9$ million for the year ended December 31, 2013, compared to the year ended December 31, 2012, due to a $\$ 86.9$ million increase in net cash provided by operating activities primarily as a result of an estimated $\$ 90$ million of increased accounts payable and accrued liabilities from the restoration of normalized working capital levels after the acquisition of Vertis (which was acquired without a normalized level of trade accounts payable and certain liabilities). This was partially offset by a $\$ 46.0$ million increase in capital expenditures. See the "Net Cash Provided by Operating Activities" section above for further explanations of the increase in operating cash flows.

## Debt Leverage Ratio

Debt Leverage Ratio is defined as total debt and capital lease obligations divided by the sum of: (1) the last twelve months of EBITDA (see the definition of EBITDA and the reconciliation of net earnings (loss) attributable to Quad/Graphics common shareholders to EBITDA in the "Results of Operations" section above), (2) restructuring, impairment and transaction-related charges, (3) loss from discontinued operations, net of tax, and less (4) gain on disposal of discontinued operations, net of tax.

The Company uses the Debt Leverage Ratio as a metric to assess liquidity and the flexibility of its balance sheet. Consistent with other liquidity metrics, the Company monitors the Debt Leverage Ratio as a measure to determine the appropriate level of debt the Company believes is optimal to operate its business and, accordingly, to quantify debt capacity available for strategic capital allocation and deployment through investments in the business (capital expenditures and acquisitions), for strengthening the balance sheet (debt and pension liability reduction), and returning capital to the shareholders (dividends and share repurchases). The priorities for capital allocation and deployment will change as circumstances dictate for the business, and the Debt Leverage Ratio can be significantly impacted by the amount and timing of large expenditures requiring debt financing, as well as changes in profitability.

Debt Leverage Ratio is a non-GAAP measure, and should not be considered an alternative to cash flows provided by operating activities as a measure of liquidity. Quad/Graphics' calculation of the Debt Leverage Ratio may be different from similar calculations used by other companies and, therefore, comparability may be limited.

The Debt Leverage Ratio calculated below differs from the leverage ratio included in the Company's debt covenant calculations (see Note 16, "Debt," for further information on debt covenants), as the debt covenant leverage ratio includes letters of credit as debt, excludes non-cash stock-based compensation expense from EBITDA and includes certain pro forma historical results of acquisitions and divestitures in EBITDA.

The Debt Leverage Ratio for the year ended December 31, 2013, compared to the year ended December 31, 2012, was as follows:

|  | Year Ended December 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2013 |  | 2012 |  |
|  | (dollars in millions) |  |  |  |
| Total debt and capital lease obligations on the consolidated balance sheets. | \$ | 1,406.8 | \$ | 1,350.7 |
| Divided by: EBITDA as adjusted for purposes of calculating Debt Leverage Ratio |  | 577.1 |  | 566.0 |
| Debt Leverage Ratio |  | 2.44 x |  | 2.39 x |

The calculation of EBITDA as adjusted for purposes of calculating Debt Leverage Ratio for the years ended December 31, 2013 and 2012, was as follows:

|  | Year Ended December 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2013 |  | 2012 |  |
|  | (dollars in millions) |  |  |  |
| EBITDA. | \$ | 481.8 | \$ | 478.5 |
| Restructuring, impairment and transaction-related charges. |  | 95.3 |  | 118.3 |
| Loss from discontinued operations, net of tax. |  | - |  | 3.2 |
| Gain on disposal of discontinued operations, net of tax |  | - |  | (34.0) |
| EBITDA as adjusted for purposes of calculating Debt Leverage Ratio | \$ | 577.1 | \$ | 566.0 |

The Debt Leverage Ratio increased 0.05 x at December 31, 2013, compared to December 31, 2012, primarily due to increased borrowings to fund acquisitions. The Debt Leverage Ratio at December 31, 2013 of 2.44x is within management's desired target Debt Leverage Ratio range of 2.0 x to 2.5 x , although the Company may operate at above or below the Debt Leverage Ratio target range depending on the timing of strategic investments.

## Description of Significant Outstanding Debt Obligations as of December 31, 2013

As of December 31, 2013, the Company utilized a combination of debt instruments to fund cash requirements, including:

- \$1.5 Billion Debt Financing Agreement discussed further below which includes:
- $\quad \$ 850.0$ million revolving credit facility ( $\$ 209.8$ million outstanding as of December 31, 2013);
- $\quad \$ 450.0$ million Term Loan A ( $\$ 416.3$ million outstanding as of December 31, 2013); and
- $\$ 200.0$ million Term Loan B (\$194.8 million outstanding as of December 31, 2013);
- Master Note and Security Agreement (\$490.2 million outstanding as of December 31, 2013); and
- Facilities Agreement - a $\$ 94.9$ million foreign currency denominated facilities agreement including both term loan and revolving credit facility components (total of $\$ 60.5$ million outstanding as of December 31, 2013).


## \$1.5 Billion Debt Financing Agreement

On July 26, 2011, and as last amended on December 19, 2012, the Company entered into a $\$ 1.5$ billion debt financing agreement with certain lenders to reduce the Company's borrowing costs with lower interest rates and to create more flexibility with a higher revolving credit capacity and improvement in financial terms. The $\$ 1.5$ billion debt financing agreement includes three different loan facilities, a Term Loan A, a Term Loan B, and a revolving credit facility.

The revolving credit facility in the amount of $\$ 850.0$ million and the Term Loan A in the aggregate amount of $\$ 450.0$ million each had an initial term of five years that was extended an additional year as part of the December 19, 2012 amendment to mature on July 25, 2017. The Term Loan B in the amount of $\$ 200.0$ million has a term of seven years maturing on July 25,2018 , subject to certain required amortization. At any time when the Company's total leverage is 3.00 to 1.00 or greater, the Company is obligated to prepay the two term loan facilities from the net proceeds of asset sales, casualty losses, and certain indebtedness for borrowed money, or from a portion of its excess cash flow, subject to certain exceptions.

Borrowings under the revolving facility and Term Loan A loans made under the $\$ 1.5$ billion debt financing agreement bear interest at London Interbank Offered Rate ("LIBOR") plus $2.25 \%$, or $1.25 \%$ in excess of an alternate base rate, and Term Loan B loans bear interest at LIBOR plus 3.00\%, with a LIBOR floor of $1.00 \%$, or $2.00 \%$ in excess of an alternative base rate at the Company's option.

The $\$ 1.5$ billion debt financing agreement is secured by substantially all of the unencumbered assets of the Company. The $\$ 1.5$ billion debt financing agreement also requires the Company to provide additional collateral to the lenders in certain limited circumstances.

## Master Note and Security Agreement (sometimes referred to as senior notes)

On September 1, 1995, and as last amended on January 26, 2006, the Company entered into the Master Note and Security Agreement pursuant to which the Company has issued over time senior notes in an aggregate principal amount of $\$ 1.13$ billion in various tranches. These senior notes have a weighted-average interest rate of $7.47 \%$ at December 31, 2013, which is fixed to maturity, and interest is payable semiannually. Principal payments commenced September 1997 and extend through April 2036. The notes are collateralized by certain United States land, buildings and press and finishing equipment under the terms of the Master Note and Security Agreement. At December 31, 2013, the borrowings outstanding were $\$ 490.2$ million.

## Facilities Agreement

On December 16, 2008, Quad/Winkowski Sp. z o.o. ("Quad/Winkowski") entered into a secured facilities agreement (the "Facilities Agreement"). The Facilities Agreement includes a Euro denominated term loan of $\$ 78.3$ million that expires on December 16, 2015 (which was used to refinance Quad/Winkowski's then existing indebtedness) and a multicurrency revolving credit facility for $\$ 16.6$ million that was renewed in 2013 and will expire on December 16, 2014, (which is used for Quad/Winkowski's working capital and general business needs). At December 31, 2013, the borrowings outstanding on the Euro denominated term loan were $\$ 58.2$ million. At December 31, 2013, the borrowings outstanding on the multicurrency revolving credit facility were $\$ 2.3$ million, leaving $\$ 14.3$ million available for future borrowings. The terms of the Facilities Agreement include a guarantee by Quad/ Graphics and a security agreement that includes collateralizing substantially all of the Quad/Winkowski assets. The facilities bear interest at the aggregate of the Euro Interbank Offered Rate ("EURIBOR") or the Warsaw Interbank Offered Rate ("WIBOR") and margin. The weighted-average interest rate of the Euro denominated term loan was $2.74 \%$ at December 31, 2013. The weighted-average interest rate of the multicurrency revolving credit facility was $4.16 \%$ at December 31, 2013.

## Covenants and Compliance

As of December 31, 2013, the Company's various lending arrangements included certain financial covenants (all financial terms, numbers and ratios in this Covenants and Compliance section are as defined in the Company's debt agreements). Among these covenants, the Company was required to maintain the following as of December 31, 2013 (for each covenant, the most restrictive measurement has been included below):

- On a rolling twelve-month basis, the total leverage ratio, defined as total consolidated debt to consolidated EBITDA (as defined in the debt financing agreement), shall not exceed 3.50 to 1.00 (for the twelve months ended December 31, 2013, the Company's leverage ratio was 2.39 to 1.00 ).
- On a rolling twelve-month basis, the minimum interest coverage ratio, defined as consolidated EBITDA to consolidated cash interest expense, shall not be less than 3.50 to 1.00 (for the twelve months ended December 31, 2013, the Company's interest coverage ratio was 7.34 to 1.00 ).
- On a rolling twelve-month basis, the fixed charge coverage ratio, defined as consolidated EBITDA and rent expense to interest and rent expense, shall not be less than 1.50 to 1.00 (for the twelve months ended December 31, 2013, the Company's fixed charge coverage ratio was 4.26 to 1.00 ).
- Consolidated net worth of at least $\$ 745.8$ million plus $40 \%$ of positive consolidated net income cumulatively for each year. As of December 31, 2013, consolidated net worth must be at least $\$ 793.9$ million (as of December 31, 2013, the Company's consolidated net worth under the most restrictive covenant per the various debt agreements was $\$ 1.21$ billion).

In addition to those covenants, the $\$ 1.5$ billion debt financing agreement also includes certain limitations on acquisitions, indebtedness, liens, dividends and repurchases of capital stock. If the Company's total leverage ratio is greater than 3.00 to 1.00 (total leverage ratio as defined in the debt financing agreement), the Company is prohibited from making greater than $\$ 120.0$ million of annual dividend payments, capital stock repurchases and certain other payments. If the total leverage ratio is less than 3.00 to 1.00 , there are no such restrictions.

As of December 31, 2013, the Company was in compliance with all financial covenants in its debt agreements. While the Company currently expects to be in compliance in future periods with all of the financial covenants, there can be no assurance that these covenants will continue to be met. The Company's failure to maintain compliance with the covenants could prevent the Company from borrowing additional amounts and could result in a default under any of the debt agreements. Such default could cause the outstanding indebtedness to become immediately due and payable, by virtue of cross-acceleration or cross-default provisions.

## Net Pension and Postretirement Benefit Obligations

The net underfunded pension, postretirement and MEPPs benefit obligations decreased by $\$ 190.9$ million during the year ended December 31, 2013, from $\$ 377.9$ million at December 31, 2012, to $\$ 187.0$ million at December 31, 2013. The Company is focused on reducing its net benefit obligation on these underfunded plans by making cash contributions to the plans, and, during 2013, made cash contributions of $\$ 41.0$ million to the singleemployer pension plans and required monthly payments of $\$ 14.4$ million to the MEPPs. In addition, there was a $\$ 133.6$ million decrease in net underfunded liabilities as a result of the December 31, 2013 actuarial valuation. That decrease was primarily attributable to an increase in the liability discount rate, as well as actual 2013 asset returns exceeding the expected return on plan assets.

## Share Repurchase Program

On September 6, 2011, the Company's board of directors authorized a share repurchase program of up to $\$ 100.0$ million of the Company's outstanding class A stock. Under the authorization, share repurchases may be made at the Company's discretion, from time to time, in the open market and/or in privately negotiated transactions as permitted by federal securities laws and other legal requirements. The timing, manner, price and amount of any repurchase will depend on economic and market conditions, share price, trading volume, applicable legal requirements and other factors. The program may be suspended or discontinued at any time. There were no stock repurchases made during the year ended December 31, 2013. As of December 31, 2013, there were $\$ 91.8$ million of authorized repurchases remaining under the program.

## Risk Management

For a discussion of the Company's exposure to market risks and management of those market risks, see Item 7A, "Quantitative and Qualitative Disclosures About Market Risk," of this Annual Report on Form 10-K.

## Off-Balance Sheet Arrangements

Except as set forth below in the Contractual Obligations and Other Commitments table and in Note 17, "Lease Obligations," to the consolidated financial statements in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K (including operating leases and future interest on debt and capital leases to be incurred), the Company has no off-balance sheet arrangements, financings or special purpose entities that the Company expects to have a material current or future effect on financial condition, changes in financial condition, results of operations, liquidity, capital expenditures, capital resources or significant components of sales or expenses.

## Contractual Obligations and Other Commitments

The Company's contractual cash obligations at December 31, 2013, were as follows (in millions):

|  | Payments Due by Period |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  | 2014 |  | 2015 |  | 2016 |  | 2017 |  | 2018 |  | Thereafter |  |
| Debt obligations ${ }^{(1)}$ | \$ | 1,703.6 | \$ | 189.1 | \$ | 218.1 | \$ | 163.4 | \$ | 571.0 | \$ | 250.8 | \$ | 311.2 |
| Pension and postretirement benefits ${ }^{(2)}$ |  | 150.1 |  | 44.6 |  | 37.5 |  | 29.9 |  | 22.7 |  | 15.4 |  | - |
| Operating lease obligations |  | 200.4 |  | 44.5 |  | 36.7 |  | 30.8 |  | 25.7 |  | 18.4 |  | 44.3 |
| Capital lease obligations ${ }^{(3)}$ |  | 14.4 |  | 7.5 |  | 2.8 |  | 2.3 |  | 1.8 |  | - |  | - |
| Purchase obligations ${ }^{(4)}$ |  | 32.7 |  | 32.7 |  | - |  | - |  | - |  | - |  | - |
| Acquisitions of businesses ${ }^{(5)}$. |  | 6.0 |  | 6.0 |  | - |  | - |  | - |  | - |  | - |
| Total ${ }^{(6)(7)}$. | \$ | 2,107.2 | \$ | 324.4 | \$ | 295.1 | \$ | 226.4 | \$ | 621.2 | \$ | 284.6 | \$ | 355.5 |

(1) Debt obligations include $\$ 310.3$ million for anticipated future interest payments. With respect to the variable interest rate portions of the debt, the interest amounts were calculated by applying the December 31, 2013, weighted-average interest rate to determine the value of future interest payments. For the Master Note and Security Agreement, the weighted-average interest rate of the notes was applied to the average principal balance outstanding for each time period. Amounts included in "Thereafter" include principal payments and estimated interest expense through 2036.
(2) For the pension and postretirement benefits, contributions and benefit payments to be funded from Company assets included in the table have been actuarially estimated over a five year period. While benefit payments under these benefit plans are expected to continue beyond 2018, the Company believes that an estimate beyond this period is unreasonable. The contractual obligations table above does not include a $\$ 73.0$ million estimated withdrawal liability for the U.S. World Color Press MEPPs due to the uncertainty with the amount and timing of any potential withdrawal liability payment. During 2014, the Company is required to make payments of $\$ 14.4$ million, pending no settlement. See Note 20, "Employee Retirement Plans," to the consolidated financial statements in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K for further discussion of the withdrawal from the MEPPs.
(3) Capital lease obligations include $\$ 0.9$ million for anticipated future interest payments.
(4) Purchase obligations consist primarily of $\$ 30.2$ million in firm commitments to purchase press and finishing equipment, as well as $\$ 2.5$ million of other purchase obligations.
(5) Acquisition of businesses represents a deferred payment associated with the acquisition of Proteus Packaging and Transpak Corporation. This deferred payment will be made in 2014 based upon the finalization of the valuation of the net assets. See Note 3, "Acquisitions and Strategic Investments," to the consolidated financial statements in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K for further discussion.
(6) The contractual obligations table above does not include reserves for uncertain tax positions recorded in accordance with the accounting guidance on uncertainties in income taxes. The Company has taken tax positions for which the ultimate amount and the year(s) any necessary payments will be made that pertain to those tax positions is uncertain. The reserve for uncertain tax positions prior to interest and penalties is $\$ 44.5$ million as of December 31,2013 . The Company has also recorded accruals for interest and penalties related to uncertain tax positions of $\$ 4.1$ million and $\$ 0.5$ million, respectively, as of December 31,2013 .
(7) The contractual obligations table above does not include the share repurchase program as no repurchases are required under the program. See the "Share Repurchase Program" section above for further discussion, including the maximum potential cash payments under the program.

## Critical Accounting Policies and Estimates

The Company's consolidated financial statements are prepared in accordance with GAAP. The Company's most critical accounting policies are those that are most important to the portrayal of its financial condition and results of operations, and which require the Company to make its most difficult and subjective estimates. Management is required to make judgments and estimates that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the statements, and the reported amounts of revenues and expenses during the reporting period. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances. The Company's management believes that such judgments and estimates are made with consistent and appropriate methods based on information available at the time, and that any reasonable deviation from those judgments and estimates would not have a material impact on the Company's consolidated financial position or results of operations. Actual results may differ from these estimates under different assumptions or conditions. To the extent that the estimates used differ from actual results, adjustments to the consolidated statements of operations and corresponding consolidated balance sheets would be necessary. These adjustments would be made in future statements.

The Company has identified the following as its critical accounting policies and estimates.

## Revenue Recognition

The Company recognizes its printing revenues upon transfer of title and the passage of risk of loss, which is generally upon shipment to the customer. Under agreements with certain customers, products may be stored by the Company for future delivery. In these situations, the Company may receive warehouse management fees for the services it provides. In certain of these cases, delivery and billing schedules are outlined in the customer agreement and product revenue is recognized when manufacturing is complete, title and risk of loss transfer to the customer, and there is a reasonable assurance as to collectability. Product returns are not significant because the majority of products are customized; however, the Company accrues for the estimated amount of customer allowances at the time of sale based on historical experience and known trends.

Revenue from services is recognized as services are performed. Revenues related to the Company's imaging operations, which include digital content management, photography, color services and page production, are recognized in accordance with the terms of the contract, typically upon completion of the performed service and acceptance by the customer. With respect to the Company's logistics operations, which include the delivery of printed material, the Company recognizes revenue upon completion of the delivery of services.

The Company also manufactures printing-related auxiliary equipment to ensure industry-leading technology for its own printing operations as well as to sell to other businesses. Revenue is generally recognized for the equipment sales at time of shipment. Revenue from services related to the installation of equipment at customer sites are recognized upon completion of the installation. Payments can be received from customers during the manufacture of equipment and prior to shipment, or in the case of the installation services prior to completion of the installation. In all cases when payments are received in advance of meeting the applicable revenue recognition criteria, deferred revenue is recorded until the revenue recognition criteria are subsequently met.

Services account for greater than $10 \%$ of the Company's consolidated net sales; therefore, net sales and related costs of sales of products and services have been included as separate line items in the consolidated statements of operations in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K.

Certain revenues earned by the Company require judgment to determine if revenue should be recorded gross as a principal or net of related costs as an agent. Billings for third-party shipping and handling costs, primarily in the Company's logistics operations, and out-of-pocket expenses are recorded gross in net sales and cost of sales in the consolidated statements of operations in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K. Many of the Company's operations process materials, primarily paper, that may be supplied directly by customers or may be purchased by the Company and sold to customers. No revenue is recognized for customer-supplied paper. Revenues for Company-supplied paper are recognized on a gross basis.

## Impairment of Goodwill

The allocation of the purchase price for business combinations requires management estimates and judgment as to expectations for future cash flows of the acquired business and the allocation of those cash flows to identifiable assets and liabilities assumed, including valuations performed by third-party appraisers when appropriate, in determining the estimated fair value for purchase price allocation purposes. Goodwill is measured as the excess of the purchase price over the fair value assigned to the identifiable assets acquired and liabilities assumed. Changes in management's estimates or judgments, including changes based on actual results differing from the estimates and judgments used in the purchase price allocation process, could result in an impairment charge, and such a charge could have a material adverse effect on the Company's results of operations.

Accounting guidance requires that goodwill impairment is to be tested at the reporting unit level on at least an annual basis. Within its reportable segments, the Company has identified three reporting units: (1) United States, (2) Latin America and (3) Europe. As of December 31, 2013, goodwill totaled $\$ 773.1$ million, of which $\$ 746.2$ million was allocated to the United States reporting unit and $\$ 26.9$ million was allocated to the Latin America reporting unit. The European reporting unit has no goodwill allocated to it.

The Company performs its annual goodwill impairment test as of October 31, or more frequently if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying value. A multi-step method is used for determining goodwill impairment, which includes the option of first performing a qualitative assessment to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of the reporting unit is less than its carrying amount. The Company did not apply this optional qualitative assessment in its annual goodwill impairment test.

In the first step, the Company compares the estimated fair value of each reporting unit with goodwill allocated to it to its carrying amount, including the goodwill. Fair value is determined using an equal weighting of both the income and market approaches. Under the income approach, the Company determines fair value based on estimated future cash flows discounted by an estimated weighted-average cost of capital, which reflects the overall level of inherent risk and the rate of return an outside investor would expect to earn. Under the market approach, the Company derives the fair value of the reporting units based on market multiples of comparable publicly-traded companies. This fair value determination is categorized as Level 3 in the fair value hierarchy (see Note 18, "Financial Instruments and Fair Value Measurements," to the consolidated financial statements in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K for the definition of Level 3 inputs). If the carrying amount of such reporting unit exceeds the estimated fair value, step two is completed to determine the amount of the impairment charge.

Step two requires the allocation of the estimated fair value of the reporting unit to the assets, including any unrecognized intangible assets, and liabilities in a hypothetical purchase price allocation. Any remaining unallocated fair value represents the implied fair value of the goodwill, which is then compared to the corresponding carrying value of the goodwill to compute the goodwill impairment charge. The Company's methodologies for valuing goodwill are applied consistently on a year-over-year basis. The assumptions used in performing the 2013 impairment calculations were evaluated in light of market and business conditions. The Company continues to believe that the discounted cash flow model and market multiples model provide a reasonable and meaningful fair value estimate based upon the reporting units' projections of future operating results and cash flows and replicates how market participants would value the Company's reporting units.

The Company conducted its annual impairment assessment of the United States and Latin America reporting units as of October 31, 2013, the date of the annual assessment. In performing the annual impairment assessment, fair value was determined using an equal weighting of both the income and market approaches. Significant assumptions used under the income approach included: estimated future cash flows including expected future revenue growth, profit margins, capital expenditures, and working capital levels, a weighted average cost of capital of $9.2 \%$ for the United States reporting unit and $12.9 \%$ for the Latin America reporting unit and terminal value multiples. Estimated future cash flows were based on the Company's internal projection models, industry projections and other assumptions deemed reasonable by management. Significant assumptions used under the market approach included: a control premium based on similar transactions, selection of the guideline public companies and selected market multiples. Management concluded that no impairment existed as of October 31, 2013, because the estimated fair value of each of the Company's United States and Latin America reporting units exceeded its carrying amount. No additional indications of impairment have been identified between October 31, 2013, and December 31, 2013.

In addition, the Company performed a sensitivity analysis as of October 31, 2013, on the material assumptions used in the discounted cash flow valuation models for the two reporting units to which goodwill has been allocated. Further, in performing the annual goodwill impairment assessment, the percentage by which estimated fair value exceeded carrying value was more than $10 \%$ in both the United States and Latin America reporting units. Based on the goodwill impairment assessments performed, no goodwill impairment charge pertaining to goodwill from continuing operations has been required to be recorded during the years ended December 31, 2013, 2012 or 2011. However, the Company recorded a $\$ 13.9$ million goodwill impairment charge during the third quarter of 2011 for the then pending sale of the Canadian discontinued operations, due to the carrying value of the Canadian net assets exceeding the estimated fair value of the Mexican assets acquired from Transcontinental. The goodwill impairment loss is included in loss from discontinued operations, net of tax, in the consolidated statement of operations for the year ended December 31, 2011, included in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K.

## Impairment of Property, Plant and Equipment and Finite-lived Intangible Assets

The Company performs impairment evaluations of its long-lived assets, of which the most significant are property, plant and equipment and the customer relationship intangible assets recorded in conjunction with an acquisition (such as Vertis and World Color Press), whenever business conditions, events or circumstances indicate that those assets may be impaired, including whether the estimated useful life of such long-lived assets may warrant revision or whether the remaining balance of an asset may not be recoverable. Assessing the impairment of long-lived assets requires the Company to make important estimates and assumptions, including, but not limited to, the expected future cash flows that the assets will generate, how the assets will be used based on the strategic direction of the Company, their remaining useful life and their residual value, if any. Considerable judgment is also applied in incorporating the potential impact of the current economic climate on customer demand and selling prices, the cost of production and the limited activity on secondary markets for the assets and on the cost of capital. When the estimated future undiscounted cash flows to be generated by the assets are less than the carrying value of the long-lived assets, the assets are written down to fair value and a charge is recorded to current operations. The Company uses internal undiscounted cash flow estimates, quoted market prices when available and independent appraisals, as appropriate, to determine fair value. Based on the assessments completed during the years ended December 31, 2013, 2012 and 2011 the Company recognized total fixed asset impairment charges of $\$ 21.8$ million, $\$ 23.0$ million and $\$ 13.8$ million, respectively, primarily related to the Company's closure and exit from 21 manufacturing facilities (including the closures of Marengo, Iowa and Pomona,

California announced on January 10, 2014), as well as other capacity reduction restructuring initiatives. There were no impairment charges recorded during the years ended December 31, 2013, 2012 or 2011 for the customer relationship intangibles.

The Company continues to monitor groups of assets to identify any new events or changes in circumstances that could indicate that their carrying values are not recoverable, particularly in light of potential declines in profitability that may result from the highly competitive industry landscape and continued uncertainty in the global economy. In the event that there are significant and unanticipated changes in circumstances, such as significant adverse changes in business climate, adverse actions by regulators, unanticipated competition, loss of key customers and/or changes in technology or markets, or that actual results differ from management's estimates, a provision for impairment could be required in a future period.

## Pension and Postretirement Benefit Plans

As a result of the acquisition of World Color Press, the Company acquired multiple underfunded pension and postretirement defined benefit plans. Pension plan costs are determined using actuarial methods and are funded through contributions determined in accordance with the projected benefit method pro-rated on service. The Company records amounts relating to its pension and postretirement benefit plans based on calculations which include various actuarial assumptions including discount rates, mortality, assumed rates of return, compensation increases, turnover rates and health care cost trend rates. The Company reviews its actuarial assumptions on an annual basis and modifies the assumptions based on current rates and trends when it is appropriate to do so. The effects of modifications are recognized immediately on the consolidated balance sheets, but are generally amortized into operating income over future periods, with the deferred amount recorded in accumulated other comprehensive loss on the consolidated balance sheets included in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K. The Company believes that the assumptions utilized in recording its obligations under its plans are reasonable based on its experience, market conditions and input from its actuaries and investment advisors. When an event gives rise to both a curtailment and a settlement, the curtailment is accounted for prior to the settlement. The Company's measurement date to measure the defined benefit plan assets and the projected benefit obligation is December 31. For the purposes of calculating the expected return on plan assets, those assets are valued at fair value.

The Company determines its assumption for the discount rate to be used for purposes of computing annual service and interest costs for each pension plan based on an index of high-quality corporate bond yields and matchedfunding yield curve analysis as of that date. The weighted-average discount rate used to determine benefit obligations for the pension plans at December 31, 2013, was $4.8 \%$, and for the postretirement benefit plans was $3.6 \%$.

The Company employs a total return on investment approach for its pension plans whereby a diversified mix of equities and fixed income investments are used to maximize the long-term pension plan assets. The intent of this strategy is to outperform the growth in plan liabilities over the long run, such that plan contributions can be decreased, balanced with maintaining a lower degree of investment risk. Risk tolerance is established through careful consideration of plan liabilities, plan funded status, and corporate financial condition. Equity investments are diversified across geography and market capitalization through investments in U.S. large-capitalization stocks, U.S. small-capitalization stocks and international securities. Investment risk is measured and monitored on an ongoing basis through annual liability measurements, periodic asset/liability studies and quarterly investment portfolio reviews. The expected longterm rate of return for plan assets is based upon many factors including expected asset allocations, historical asset returns, current and expected future market conditions and risk. The target asset allocation for plan assets on a weightedaverage basis are $65 \%$ equity securities and $35 \%$ fixed-income. The actual asset allocation as of December 31, 2013, was approximately $67 \%$ equity securities and $33 \%$ debt securities. The expected return on plan assets assumption at December 31, 2013 and 2012 was $6.5 \%$ for the Company's funded United States pension plans. Certain pension plans and all postretirement benefit plans are unfunded (those plans do not hold plan assets).

The health care cost trend rates used in valuing the Company's postretirement medical benefit obligations are established based upon actual health care cost trends and consultation with actuaries and benefit providers. At December 31, 2013, the current weighted average health care cost trend rate assumption for the United States postretirement plans was $7.5 \%$ for both pre-age and post-age 65 participants. The current trend rate gradually decreases
to an ultimate trend rate of $5.0 \%$. A one percentage point increase in the assumed health care cost trend rate would increase the postretirement benefit obligation by $\$ 0.1$ million and would not have a significant impact on the postretirement benefit service and interest cost components. A one percentage point decrease in the assumed health care cost trend rate would decrease the postretirement benefit obligation by $\$ 0.1$ million and would not have a significant impact on the postretirement benefit service and interest cost components.

The Company also participated in MEPPs as a result of the acquisition of World Color Press. Due to the significant underfunded status of the MEPPs, the Company has withdrawn from all significant MEPPs and replaced these union sponsored "promise to pay in the future" defined benefit plans with a Company sponsored "pay as you go" defined contribution plan, which is historically the form of retirement benefit provided to Quad/Graphics employees. As a result of the decision to withdraw, the Company recorded an estimated withdrawal liability for the MEPPs as part of the purchase price allocation process based on information received from the MEPP's trustees. The estimated withdrawal liability will be updated as new withdrawal liability projections are provided from each plan's trustees until the final withdrawal liability is determined. The exact amount of the withdrawal liability could be higher or lower than the estimate depending on, among other things, the nature and timing of any triggering events and the funded status of the plans at that time.

## Accounting for Income Taxes

The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of items reported in the financial statements. Under this method, deferred tax assets and liabilities are measured based on the differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the effective date of enactment.

The Company records net deferred tax assets to the extent the Company believes these assets will more likely than not be realized. This determination is based upon all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax planning strategies, and recent financial operations. The realization of deferred tax assets depends upon the Company's ability to generate future taxable income. The Company has recorded deferred tax assets related to domestic and foreign tax loss and credit carryforwards. The Company evaluates these deferred tax assets by tax jurisdiction. The utilization of these tax assets is limited by the amount of taxable income expected to be generated within the allowable carryforward period, and other factors. Accordingly, management has provided a valuation allowance to reduce certain of these deferred tax assets when management has concluded that, based on the weight of available evidence, it is more likely than not that the deferred tax assets will not be fully realized. If actual results differ from these estimates, or the estimates are adjusted in future periods, adjustments to the valuation allowance might need to be recorded.

The Company is regularly audited by foreign and domestic tax authorities. These audits occasionally result in proposed assessments where the ultimate resolution might result in the Company owing additional taxes, including in some cases, penalties and interest. The Company recognizes a tax position in its consolidated financial statements when it is more likely than not that the position would be sustained upon examination by tax authorities. This recognized tax position is then measured at the largest amount of benefit that is greater than fifty-percent likely of being recognized upon ultimate settlement. The Company recognizes interest and penalties related to unrecognized tax benefits in income tax expense.

The determination of the Company's worldwide tax provision and related tax assets and liabilities requires the use of significant judgment, estimates, and the interpretation of complex tax laws. In the ordinary course of business, there are transactions and calculations where the final tax outcome is uncertain. While the Company believes it has the appropriate support for the positions taken, certain positions may be successfully challenged by taxing authorities. The Company applies the provisions of the authoritative guidance on accounting for uncertain tax positions to determine the appropriate amount of tax benefits to be recognized with respect to uncertain tax positions. These tax positions are reflected in the consolidated financial statements included in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K. The determination of the Company's worldwide tax provision includes the impact of
any changes to the amount of tax benefits recognized with respect to uncertain tax positions. Although management believes that its estimates are reasonable, the final outcome of uncertain tax positions may be materially different from that which is reflected in the Company's historical financial statements.

## New Accounting Pronouncements

In March 2013, the Financial Accounting Standards Board ("FASB") issued new guidance on the accounting for the cumulative translation adjustment upon derecognition of certain subsidiaries or group of assets within a foreign entity or of an investment in a foreign entity. Under this new guidance, the release of cumulative translation adjustments into net income is required when an entity ceases to have a controlling financial interest resulting in the complete or substantially complete liquidation of a subsidiary or group of assets within a foreign entity. This guidance is effective prospectively for fiscal years beginning after December 15, 2013, with early adoption permitted. The Company has adopted this guidance effective January 1, 2013, and determined that it did not have a material impact on the Company's consolidated financial position, results of operations or cash flows.

In February 2013, the FASB issued new guidance on the disclosure requirements for items reclassified out of accumulated other comprehensive income. Under this new guidance, an entity is required to provide information about the amounts reclassified out of accumulated other comprehensive income by component. In addition, an entity is required to present, either on the face of the financial statements or in the notes, significant amounts reclassified out of accumulated other comprehensive income by the respective line items of net income, but only if the amount reclassified is required to be reclassified in its entirety in the same reporting period. For amounts that are not required to be reclassified in their entirety to net income, an entity is required to cross-reference to other disclosures that provide additional details about those amounts. The Company adopted this guidance effective January 1, 2013. The adoption of this guidance does not change the current requirements for reporting net income or other comprehensive income, and did not have a material impact on the Company's consolidated financial position, results of operations or cash flows. See Note 24, "Accumulated Other Comprehensive Income (Loss)," to the consolidated financial statements in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K for the required disclosure.

## Item 7A. Quantitative and Qualitative Disclosures About Market Risk

The Company is exposed to a variety of market risks which may adversely impact the Company's results of operations and financial condition, including changes in interest and foreign currency exchange rates, changes in the economic environment that would impact credit positions and changes in the prices of certain commodities. The Company's management takes an active role in the risk management process and has developed policies and procedures that require specific administrative and business functions to assist in the identification, assessment and control of various risks. These risk management strategies may not fully insulate the Company from adverse impacts due to market risks.

## Interest Rate Risk

The Company is exposed to interest rate risk on variable rate debt obligations and price risk on fixed rate debt and capital leases. As of December 31, 2013, the Company had fixed rate debt and capital leases outstanding of $\$ 520.1$ million at a current weighted average interest rate of $7.4 \%$ and variable rate debt outstanding of $\$ 886.7$ million at a current weighted average interest rate of $3.1 \%$. The variable rate debt outstanding at December 31, 2013, is primarily comprised of the $\$ 1.5$ billion variable rate debt financing agreement entered into in July 2011, including $\$ 416.3$ million outstanding on the $\$ 450.0$ million term loan A, $\$ 194.8$ million outstanding on the $\$ 200.0$ million term loan B and $\$ 209.8$ million outstanding on the $\$ 850.0$ million revolving credit facility, as well as $\$ 60.5$ million outstanding of international variable rate debt. The term loan B bears interest primarily based on LIBOR; however, it is subject to a $1.0 \%$ LIBOR minimum rate and thus the interest rate on the term loan B will not begin to fluctuate until LIBOR exceeds that percentage. At December 31, 2013, LIBOR was significantly lower than the $1.0 \%$ LIBOR minimum rate, and as a result the interest on the term loan B would not fluctuate with a $10 \%$ increase in the market interest rate. Excluding the term loan B, a hypothetical change in the interest rate of $10 \%$ from the Company's current weighted average interest rate on variable rate debt obligations of $3.1 \%$ would not have a material impact on the Company's interest expense. A hypothetical $10 \%$ change in market interest rates would change the fair value of fixed rate debt at December 31, 2013, by approximately $\$ 15.7$ million.

## Foreign Currency Risk and Translation Exposure

The Company is exposed to the impact of foreign currency fluctuations in certain countries in which it operates. The exposure to foreign currency movements is limited in most countries because the operating revenues and expenses of its various subsidiaries and business units are substantially in the local currency of the country in which they operate. Although operating in local currencies may limit the impact of currency rate fluctuations on the results of operations of the Company's non-U.S. subsidiaries and business units, fluctuations in such rates may affect the translation of these results into the Company's consolidated financial statements. To the extent revenues and expenses are not in the applicable local currency, the Company may enter into foreign exchange forward contracts to hedge the currency risk.

The Company's hedging operations have historically not been material, and gains or losses from these operations have not been material to the Company's results of operations, financial position or cash flows. The Company does not use derivative financial instruments for trading or speculative purposes.

These international operations are subject to risks typical of international operations, including, but not limited to, differing economic conditions, changes in political climate, potential restrictions on the movement of funds, differing tax structures, and other regulations and restrictions. Accordingly, future results could be adversely impacted by changes in these or other factors.

## Credit Risk

Credit risk is the possibility of loss from a customer's failure to make payments according to contract terms. Prior to granting credit, each customer is evaluated in an underwriting process, taking into consideration the prospective customer's financial condition, past payment experience, credit bureau information and other financial and qualitative factors that may affect the customer's ability to pay. Specific credit reviews and standard industry credit scoring models are used in performing this evaluation. Customers' financial condition is continuously monitored as part of the normal course of business. Some of the Company's customers are highly leveraged or otherwise subject to their own operating and regulatory risks. Based on those customer account reviews and due to the continued uncertainty of the global economy, the Company has established an allowance for doubtful accounts of $\$ 58.9$ million as of December 31, 2013.

The Company has a large, diverse customer base and the credit risk from customer concentration has further decreased after the acquisitions of World Color Press and Vertis with the addition of new customers, geographies and products the Company now produces. The Company does not have a high degree of concentration with any single customer account. During the year ended December 31, 2013, the Company's largest customer accounted for less than $5 \%$ of the Company's net sales. Even if the Company's credit review and analysis mechanisms work properly, the Company may experience financial losses in its dealings with customers and other parties. Any increase in nonpayment or nonperformance by customers could adversely impact the Company's results of operations and financial condition. Economic disruptions could result in significant future charges.

## Commodity Risk

The primary raw materials used by the Company are paper, ink and energy. At this time, the Company's supply of raw materials is readily available from numerous suppliers; however, based on market conditions, that could change in the future. The Company generally buys these raw materials based upon market prices that are established with the vendor as part of the purchase process.

The majority of paper used in the printing process is supplied directly by the Company's customers. For those customers that do not supply paper, the Company generally includes price adjustment clauses in sales contracts. The Company produces the majority of ink used in its print production. Raw materials for the ink manufacturing process are purchased externally from a variety of suppliers. The Company generally includes price adjustment clauses for ink and other critical raw materials in the printing process in its sales contracts.

The Company generally cannot pass on to customers the impact of higher electric and natural gas energy prices on its manufacturing costs, and increases in energy prices result in higher manufacturing costs for certain of its operations. The Company mitigates its risk through natural gas hedges when appropriate. In its logistic operations, however, the Company is able to pass a substantial portion of any increase in fuel prices directly to its customers.

As a result, management believes a hypothetical $10 \%$ change in the price of paper and other raw materials would not have a significant direct impact on the Company's consolidated annual results of operations or cash flows; however, significant increases in commodity pricing or tight supply could influence future customers' demand for printed products. Inflation has not had a significant impact on the Company historically.
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## Item 8. Financial Statements and Supplementary Data

## Quarterly Financial Data (Unaudited)

The following table sets forth selected financial information for each of the eight quarters in the two-year period ended December 31, 2013. This unaudited information has been prepared by the Company on the same basis as the consolidated financial statements and includes all normal recurring adjustments necessary to present this information fairly when read in conjunction with the Company's audited consolidated financial statements and the notes thereto.

## UNAUDITED INTERIM FINANCIAL INFORMATION (In millions, except per share data)

|  | Year Ended December 31, |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FirstQuarter |  | Second Quarter |  | Third Quarter |  | Fourth Quarter |  | Full Year |  |
| 2013 |  |  |  |  |  |  |  |  |  |  |
| Net sales ${ }^{(1)}$ | \$ | 1,129.5 | \$ | 1,110.8 | \$ | 1,206.0 | \$ | 1,349.6 | \$ | 4,795.9 |
| Operating income (loss) from continuing operations ${ }^{(1)}$. |  | (0.9) |  | (5.2) |  | 44.4 |  | 103.9 |  | 142.2 |
| Net earnings (loss) ${ }^{(1)}$ |  | (14.1) |  | (27.6) |  | 12.6 |  | 60.0 |  | 30.9 |
| Net earnings (loss) attributable to Quad/Graphics common shareholders ${ }^{(1)}$. |  | (14.0) |  | (27.2) |  | 13.0 |  | 60.7 |  | 32.5 |
| Earnings (loss) per diluted share attributable to Quad/Graphics common shareholders. |  | (0.31) |  | (0.59) |  | 0.26 |  | 1.24 |  | 0.65 |
| Closing stock price high |  | 24.42 |  | 24.56 |  | 33.84 |  | 36.56 |  | 36.56 |
| Closing stock price low . |  | 20.15 |  | 19.69 |  | 24.30 |  | 24.02 |  | 19.69 |
| Closing stock price at quarter-end. |  | 23.94 |  | 24.10 |  | 30.36 |  | 27.23 |  | 27.23 |
| 2012 |  |  |  |  |  |  |  |  |  |  |
| Net sales ${ }^{(1)}$ | \$ | 989.6 | \$ | 934.2 | \$ | 1,039.7 | \$ | 1,130.5 | \$ | 4,094.0 |
| Operating income (loss) from continuing operations ${ }^{(1)}$. |  | 1.9 |  | (9.6) |  | 59.1 |  | 55.1 |  | 106.5 |
| Net earnings (loss) from continuing operations ${ }^{(1)}$ |  | 15.4 |  | (20.8) |  | 39.7 |  | 22.0 |  | 56.3 |
| Loss from discontinued operations, net of tax ${ }^{(2)}$ |  | (3.2) |  | - |  | - |  | - |  | (3.2) |
| Gain (loss) on disposal of discontinued operations, net of tax ${ }^{(2)}$. |  | 35.3 |  | - |  | - |  | (1.3) |  | 34.0 |
| Net earnings (loss). |  | 47.5 |  | (20.8) |  | 39.7 |  | 20.7 |  | 87.1 |
| Net earnings (loss) attributable to Quad/Graphics common shareholders ${ }^{(1)}$. |  | 47.4 |  | (20.8) |  | 39.8 |  | 21.0 |  | 87.4 |
| Earnings (loss) per diluted share attributable to Quad/Graphics common shareholders |  |  |  |  |  |  |  |  |  |  |
| Continuing operations |  | 0.33 |  | (0.44) |  | 0.84 |  | 0.42 |  | 1.13 |
| Discontinued operations |  | 0.68 |  | - |  | - |  | (0.03) |  | 0.65 |
| Earnings (loss) per diluted share attributable to Quad/Graphics common shareholders. |  | 1.01 |  | (0.44) |  | 0.84 |  | 0.39 |  | 1.78 |
| Closing stock price high |  | 16.22 |  | 14.38 |  | 19.89 |  | 20.65 |  | 20.65 |
| Closing stock price low . |  | 11.75 |  | 11.91 |  | 14.55 |  | 14.55 |  | 11.75 |
| Closing stock price at quarter-end. . |  | 13.90 |  | 14.38 |  | 16.96 |  | 20.39 |  | 20.39 |

[^1]
## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Quad/Graphics, Inc. and subsidiaries
Sussex, WI

We have audited the accompanying consolidated balance sheets of Quad/Graphics, Inc. and subsidiaries (the "Company") as of December 31, 2013 and 2012, and the related consolidated statements of operations, comprehensive income (loss), redeemable equity, common stock and other equity and non-controlling interests, and cash flows for each of the three years in the period ended December 31, 2013. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements based on our audits.

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

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Quad/Graphics, Inc. and subsidiaries at December 31, 2013 and 2012, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2013, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2013, based on Internal Control-Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 27, 2014 expressed an unqualified opinion on the Company's internal control over financial reporting.
/s/ Deloitte \& Touche LLP
Milwaukee, Wisconsin
February 27, 2014

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Quad/Graphics, Inc. and subsidiaries Sussex, WI

We have audited the internal control over financial reporting of Quad/Graphics, Inc. and subsidiaries (the "Company") as of December 31, 2013, based on Internal Control-Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission. As described in Management's Report on Internal Control Over Financial Reporting, management excluded from its assessment the internal control over financial reporting at the business units acquired from Vertis Holdings, Inc. ("Vertis"), which were acquired on January 16, 2013. The business activities that were excluded from the assessment constitute approximately $15 \%$ of consolidated total current assets and approximately $20 \%$ of consolidated net sales and consolidated cost of sales as of and for the year ended December 31, 2013. Accordingly, our audit did not include the internal control over financial reporting for these business activities at Vertis. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

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

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

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

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2013, based on the criteria established in Internal Control - Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended December 31, 2013 of the Company and our report dated February 27, 2014 expressed an unqualified opinion on those financial statements.
/s/ Deloitte \& Touche LLP
Milwaukee, Wisconsin
February 27, 2014

## QUAD/GRAPHICS, INC. CONSOLIDATED STATEMENTS OF OPERATIONS (in millions, except per share data)

|  | Year Ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2013 |  | 2012 |  | 2011 |  |
| Net sales |  |  |  |  |  |  |
| Products. | \$ | 4,186.6 | \$ | 3,638.6 | \$ | 3,825.6 |
| Services . |  | 609.3 |  | 455.4 |  | 499.0 |
| Total net sales |  | 4,795.9 |  | 4,094.0 |  | 4,324.6 |
| Cost of sales |  |  |  |  |  |  |
| Products. |  | 3,360.1 |  | 2,848.3 |  | 2,921.7 |
| Services. |  | 441.8 |  | 335.2 |  | 380.4 |
| Total cost of sales |  | 3,801.9 |  | 3,183.5 |  | 3,302.1 |
| Operating expenses |  |  |  |  |  |  |
| Selling, general and administrative expenses |  | 416.0 |  | 347.1 |  | 407.0 |
| Depreciation and amortization |  | 340.5 |  | 338.6 |  | 344.6 |
| Restructuring, impairment and transaction-related charges |  | 95.3 |  | 118.3 |  | 114.0 |
| Total operating expenses. |  | 4,653.7 |  | 3,987.5 |  | 4,167.7 |
| Operating income from continuing operations. | \$ | 142.2 | \$ | 106.5 | \$ | 156.9 |
| Interest expense. |  | 85.5 |  | 84.0 |  | 108.0 |
| Loss on debt extinguishment. |  | - |  | - |  | 34.0 |
| Earnings from continuing operations before income taxes and equity in earnings (loss) of unconsolidated entities |  | 56.7 |  | 22.5 |  | 14.9 |
| Income tax expense (benefit) |  | 23.3 |  | (31.5) |  | 26.0 |
| Earnings (loss) from continuing operations before equity in earnings (loss) of unconsolidated entities |  | 33.4 |  | 54.0 |  | (11.1) |
| Equity in earnings (loss) of unconsolidated entities |  | (2.5) |  | 2.3 |  | 3.1 |
| Net earnings (loss) from continuing operations | \$ | 30.9 | \$ | 56.3 | \$ | (8.0) |
| Loss from discontinued operations, net of tax |  | - |  | (3.2) |  | (38.6) |
| Gain on disposal of discontinued operations, net of tax |  | - |  | 34.0 |  | - |
| Net earnings (loss) | \$ | 30.9 | \$ | 87.1 | \$ | (46.6) |
| Net (earnings) loss attributable to noncontrolling interests. |  | 1.6 |  | 0.3 |  | (0.3) |
| Net earnings (loss) attributable to Quad/Graphics common shareholders | \$ | 32.5 | \$ | 87.4 | \$ | (46.9) |
| Earnings (loss) per share attributable to Quad/Graphics common shareholders: |  |  |  |  |  |  |
| Basic: |  |  |  |  |  |  |
| Continuing operations. | \$ | 0.67 | \$ | 1.14 | \$ | (0.18) |
| Discontinued operations |  | - |  | 0.66 |  | (0.82) |
| Earnings (loss) per share attributable to Quad/Graphics common shareholders. | \$ | 0.67 | \$ | 1.80 | \$ | (1.00) |
| Diluted: |  |  |  |  |  |  |
| Continuing operations . | \$ | 0.65 | \$ | 1.13 | \$ | (0.18) |
| Discontinued operations |  | - |  | 0.65 |  | (0.82) |
| Earnings (loss) per share attributable to Quad/Graphics common shareholders. . | \$ | 0.65 | \$ | 1.78 | \$ | $\xrightarrow{(1.00)}$ |
| Weighted average number of common shares outstanding: |  |  |  |  |  |  |
| Basic |  | 47.0 |  | 46.8 |  | 47.1 |
| Diluted. |  | 48.0 |  | 47.2 |  | 47.1 |

See accompanying Notes to Consolidated Financial Statements.

# QUAD/GRAPHICS, INC. CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS) (in millions) 

|  | Year Ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2013 |  | 2012 |  | 2011 |  |
| Net earnings (loss) | \$ | 30.9 | \$ | 87.1 | \$ | (46.6) |
| Other comprehensive income (loss) |  |  |  |  |  |  |
| Translation adjustments: |  |  |  |  |  |  |
| Foreign currency translation adjustments |  | (21.0) |  | 6.5 |  | (26.2) |
| Translation of long-term loans to foreign subsidiaries |  | 0.8 |  | (1.6) |  | 0.1 |
| Revaluation gain on sale of businesses |  | (2.4) |  | - |  | - |
| Translation adjustments, net |  | (22.6) |  | 4.9 |  | (26.1) |
| Pension and other postretirement benefit plans: |  |  |  |  |  |  |
| Net gain (loss) arising during period. |  | 133.6 |  | (28.7) |  | (110.5) |
| Amortization of prior service credit included in net earnings (loss) |  | (5.7) |  | (3.4) |  | (3.5) |
| Amortization of net actuarial (gain) loss included in net earnings (loss) |  | 0.3 |  | (0.1) |  | 0.4 |
| Plan curtailments/settlements included in net earnings (loss) |  | (2.1) |  | (12.7) |  | 11.8 |
| Pension and other postretirement benefit plans, net |  | 126.1 |  | (44.9) |  | (101.8) |
| Other comprehensive income (loss), before tax |  | 103.5 |  | (40.0) |  | (127.9) |
| Income tax benefit (expense) related to items of other comprehensive income (loss) |  | (48.7) |  | 17.3 |  | 37.5 |
| Other comprehensive income (loss), net of tax |  | 54.8 |  | (22.7) |  | (90.4) |
| Total comprehensive income (loss). |  | 85.7 |  | 64.4 |  | (137.0) |
| Less: comprehensive loss attributable to noncontrolling interests |  | 1.6 |  | 0.4 |  | - |
| Comprehensive income (loss) attributable to Quad/Graphics common shareholders . | \$ | 87.3 | \$ | 64.8 | \$ | (137.0) |

See accompanying Notes to Consolidated Financial Statements.

## QUAD/GRAPHICS, INC. CONSOLIDATED BALANCE SHEETS (in millions, except per share data)

|  | $\begin{gathered} \text { December 31, } \\ 2013 \end{gathered}$ |  | $\begin{gathered} \text { December 31, } \\ 2012 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| ASSETS |  |  |  |  |
| Cash and cash equivalents | \$ | 13.1 | \$ | 16.9 |
| Receivables, less allowances for doubtful accounts of $\$ 58.9$ at December 31, 2013 and $\$ 70.8$ at December 31, 2012 |  | 698.9 |  | 585.1 |
| Inventories |  | 272.5 |  | 242.9 |
| Prepaid expenses and other current assets . |  | 37.2 |  | 74.6 |
| Deferred income taxes |  | 48.1 |  | 55.7 |
| Short-term restricted cash |  | 4.5 |  | 14.8 |
| Total current assets. |  | 1,074.3 |  | 990.0 |
| Property, plant and equipment-net |  | 1,925.5 |  | 1,926.4 |
| Goodwill |  | 773.1 |  | 768.6 |
| Other intangible assets-net |  | 221.8 |  | 229.9 |
| Long-term restricted cash |  | 51.5 |  | 45.7 |
| Equity method investments in unconsolidated entities |  | 57.1 |  | 72.0 |
| Other long-term assets |  | 62.4 |  | 66.3 |
| Total assets. | \$ | 4,165.7 | \$ | 4,098.9 |
| LIABILITIES AND SHAREHOLDERS' EQUITY |  |  |  |  |
| Accounts payable. | \$ | 401.0 | \$ | 285.8 |
| Amounts owing in satisfaction of bankruptcy claims |  | 2.5 |  | 9.3 |
| Accrued liabilities |  | 350.7 |  | 334.0 |
| Short-term debt and current portion of long-term debt |  | 127.6 |  | 113.3 |
| Current portion of capital lease obligations. |  | 7.0 |  | 10.4 |
| Total current liabilities. |  | 888.8 |  | 752.8 |
| Long-term debt. |  | 1,265.7 |  | 1,211.7 |
| Unsecured notes to be issued. |  | 18.0 |  | 23.8 |
| Capital lease obligations |  | 6.5 |  | 15.3 |
| Deferred income taxes. |  | 395.2 |  | 363.9 |
| Other long-term liabilities |  | 303.9 |  | 495.7 |
| Total liabilities. |  | 2,878.1 |  | 2,863.2 |
| Commitments and contingencies (Note 13) |  |  |  |  |
| Quad/Graphics common stock and other equity (Note 23) |  |  |  |  |
| Preferred stock, \$0.01 par value; Authorized: 0.5 million shares; Issued: None. . . . . . . . . . . . . . . . . . . . . . |  | - |  | - |
| Common stock, Class A, $\$ 0.025$ par value; Authorized: 80.0 million shares; Issued: 40.0 million shares at December 31, 2013 and 2012 |  | 1.0 |  | 1.0 |
| Common stock, Class B, $\$ 0.025$ par value; Authorized: 80.0 million shares; Issued: 15.0 million shares at December 31, 2013 and 2012 |  | 0.4 |  | 0.4 |
| Common stock, Class C, $\$ 0.025$ par value; Authorized: 20.0 million shares; Issued: 0.5 million shares at December 31, 2013 and 2012 |  | - |  | - |
| Additional paid-in capital . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 983.1 |  | 985.6 |
| Treasury stock, at cost, 7.5 million shares at December 31, 2013 and 8.3 million shares at December 31, 2012 |  | (248.8) |  | (279.3) |
| Retained earnings. |  | 558.8 |  | 588.1 |
| Accumulated other comprehensive loss. |  | (5.6) |  | (60.4) |
| Quad/Graphics common stock and other equity |  | 1,288.9 |  | 1,235.4 |
| Noncontrolling interests. |  | (1.3) |  | 0.3 |
| Total common stock and other equity and noncontrolling interests |  | 1,287.6 |  | 1,235.7 |
| Total liabilities and shareholders' equity . | \$ | 4,165.7 | \$ | 4,098.9 |

See accompanying Notes to Consolidated Financial Statements.

## QUAD/GRAPHICS, INC. CONSOLIDATED STATEMENTS OF CASH FLOWS (in millions)

|  | Year Ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2013 |  | 2012 |  | 2011 |  |
| OPERATING ACTIVITIES |  |  |  |  |  |  |
| Net earnings (loss) | \$ | 30.9 | \$ | 87.1 | \$ | (46.6) |
| Adjustments to reconcile net earnings (loss) to net cash provided by operating activities: |  |  |  |  |  |  |
| Depreciation and amortization |  | 340.5 |  | 338.6 |  | 353.0 |
| Impairment and other non-cash integration charges. |  | 21.8 |  | 23.0 |  | 27.7 |
| Amortization of debt issuance costs and original issue discount |  | 4.1 |  | 4.5 |  | 8.6 |
| Loss on debt extinguishment |  | - |  | - |  | 34.0 |
| Stock-based compensation charges. |  | 18.6 |  | 13.4 |  | 14.9 |
| Curtailment/settlement gain on pension/postretirement benefit plans |  | (2.1) |  | (12.7) |  | - |
| Gain on disposal of discontinued operations, net of tax. . . |  | - |  | (34.0) |  | - |
| Gain on sales or disposal of property, plant and equipment. |  | (0.8) |  | (0.6) |  | (0.7) |
| Deferred income taxes |  | (11.1) |  | (13.6) |  | 36.5 |
| Equity in (earnings) loss of unconsolidated entities . |  | 2.5 |  | (2.3) |  | (3.1) |
| Dividends from unconsolidated entities |  | 5.0 |  | 0.5 |  | 7.5 |
| Changes in operating assets and liabilities-net of acquisitions: |  |  |  |  |  |  |
| Receivables. |  | 25.7 |  | 103.4 |  | 82.9 |
| Inventories. |  | 0.5 |  | 8.6 |  | (2.5) |
| Prepaid expenses and other current assets |  | 15.2 |  | 33.9 |  | (33.6) |
| Accounts payable and accrued liabilities |  | 63.0 |  | (105.4) |  | (96.9) |
| Other |  | (72.7) |  | (90.2) |  | (10.6) |
| Net cash provided by operating activities. |  | 441.1 |  | 354.2 |  | 371.1 |
| INVESTING ACTIVITIES |  |  |  |  |  |  |
| Purchases of property, plant and equipment. |  | (149.5) |  | (103.5) |  | (168.3) |
| Cost investment in unconsolidated entities. |  | (2.5) |  | (18.1) |  | - |
| Proceeds from the sale of property, plant and equipment. |  | 8.8 |  | 23.5 |  | 16.0 |
| Transfers from restricted cash. |  | 4.5 |  | 15.4 |  | 24.6 |
| Deposit paid related to Vertis acquisition (Note 3). |  | - |  | (25.9) |  | - |
| Deposit refunded (paid) related to business exchange transaction (Note 3). |  | - |  | 50.0 |  | (50.8) |
| Purchase price payments on business exchange transaction (Note 3) |  | - |  | (4.9) |  | - |
| Acquisition of businesses-net of cash acquired |  | (291.9) |  | (6.6) |  | (5.8) |
| Net cash used in investing activities . |  | (430.6) |  | (70.1) |  | (184.3) |
| FINANCING ACTIVITIES |  |  |  |  |  |  |
| Proceeds from issuance of long-term debt |  | - |  | - |  | 649.0 |
| Payments of long-term debt |  | (102.7) |  | (74.6) |  | (759.7) |
| Payments of capital lease obligations |  | (9.8) |  | (21.0) |  | (15.6) |
| Borrowings on revolving credit facilities |  | 1,628.8 |  | 270.3 |  | 896.4 |
| Payments on revolving credit facilities. . |  | $(1,475.0)$ |  | (295.7) |  | (879.6) |
| Payment of debt issuance costs. . |  | - |  | (2.1) |  | (11.5) |
| Bankruptcy claim payments on unsecured notes to be issued |  | (4.5) |  | (14.9) |  | (13.8) |
| Proceeds from issuance of common stock |  | 7.2 |  | 0.1 |  | 1.6 |
| Purchase of treasury stock |  | - |  | - |  | (8.2) |
| Tax benefit on stock option activity |  | 2.2 |  | 4.1 |  | 0.9 |
| Payment of cash dividends. |  | (56.4) |  | (151.8) |  | (28.2) |
| Payment of tax distributions. |  | - |  | - |  | (4.8) |
| Net cash used in financing activities. |  | (10.2) |  | (285.6) |  | (173.5) |
| Effect of exchange rates on cash and cash equivalents. |  | (4.1) |  | (7.2) |  | (8.2) |
| Net increase (decrease) in cash and cash equivalents. |  | (3.8) |  | (8.7) |  | 5.1 |
| Cash and cash equivalents at beginning of year . |  | 16.9 |  | 25.6 |  | 20.5 |
| Cash and cash equivalents at end of year | \$ | 13.1 | \$ | 16.9 | \$ | 25.6 |

See accompanying Notes to Consolidated Financial Statements.

QUAD/GRAPHICS, INC.

## CONSOLIDATED STATEMENTS OF REDEEMABLE EQUITY, COMMON STOCK AND OTHER EQUITY AND NONCONTROLLING INTERESTS (in millions)



See accompanying Notes to Consolidated Financial Statements.

QUAD/GRAPHICS, INC.
CONSOLIDATED STATEMENTS OF REDEEMABLE EQUITY, COMMON STOCK AND OTHER EQUITY AND NONCONTROLLING INTERESTS (continued) (in millions)


See accompanying Notes to Consolidated Financial Statements.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

## Note 1. Basis of Presentation and Summary of Significant Accounting Policies

Nature of Operations-Quad/Graphics, Inc. and its subsidiaries (the "Company" or "Quad/Graphics") operates primarily in the commercial print portion of the printing industry as a printer of consumer magazines, catalogs, retail inserts, special interest publications, journals, direct mail, books, directories, in-store marketing, packaging, and other commercial and specialty printed products. The Company also provides media solutions and logistics services for its customers. The Company's products and services are sold primarily throughout the United States, Europe and Latin America to catalogers, publishers and retailers. Additionally, the Company manufactures printing-related auxiliary equipment that is sold to original equipment manufacturers and printing companies throughout the world.

Principles of Consolidation and Basis of Presentation-The accompanying consolidated financial statements include the accounts of the Company and its wholly-owned and majority-owned controlled subsidiaries and have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). The results of operations and accounts of businesses acquired are included in the consolidated financial statements from the dates of acquisition (see Note 3, "Acquisitions and Strategic Investments"). Investments in entities where the Company has both the ability to exert significant influence but not control and an ownership interest of $50 \%$ or less but more than $20 \%$ are accounted for using the equity method of accounting. Investments in entities where the Company does not exert significant influence or control and has an ownership interest of less than $20 \%$ are accounted for using the cost method of accounting. Intercompany transactions and balances have been eliminated in consolidation.

Discontinued Operations-The results of operations of the Company's Canadian operations have been reported as discontinued operations for all periods presented. As the sale of the Canadian operations was completed on March 1, 2012, the corresponding Canadian assets and liabilities are no longer included in the consolidated balance sheets at December 31, 2013 or 2012. In accordance with the authoritative literature, the Company has elected to not separately disclose the cash flows related to the Canadian discontinued operations. See Note 4, "Discontinued Operations," for information about the Company's sale of the Canadian operations.

Foreign Operations-Assets and liabilities denominated in foreign currencies are translated into U.S. dollars at the exchange rate existing at the respective balance sheet dates. Income and expense items are translated at the average rates during the respective periods. Translation adjustments resulting from fluctuations in exchange rates are recorded as a separate component of accumulated other comprehensive income (loss) on the consolidated statements of redeemable equity, common stock and other equity and noncontrolling interests while transaction gains and losses are recorded in selling, general and administrative expenses on the consolidated statements of operations. Foreign exchange transactions resulted in gains/(losses) of \$(5.7) million, \$0.4 million and \$(4.5) million for the years ended December 31, 2013, 2012 and 2011, respectively. The Company's international operations are conducted in Europe through Quad/Winkowski Sp. Z o.o. ("Quad/Winkowski"), as well as in the following Latin American countries: Argentina, Brazil, Chile, Colombia, Mexico and Peru. The Company owns $85 \%$ of certain operations in Argentina, consolidates those amounts into the Company's consolidated financial statements and presents the $15 \%$ not owned by the Company as noncontrolling interest. The Company owns $49 \%$ of the operations in Brazil and $50 \%$ of the operations in Chile, and accounts for those entities using the equity method of accounting (see Note 11, "Equity Method Investments in Unconsolidated Entities," for further discussion). There are no other significant noncontrolling interests or unconsolidated entities.

Use of Estimates-The preparation of consolidated financial statements requires the use of management's estimates and assumptions that affect the reported assets and liabilities, disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting periods. Actual results could differ from these estimates. Estimates are used when accounting for items and matters including, but not limited to: allowances for doubtful accounts, inventory obsolescence, asset valuations and useful lives, goodwill, pension and postretirement benefits, self-insurance reserves, stock-based compensation, taxes, restructuring and other provisions and contingencies.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

Revenue Recognition-The Company recognizes its printing revenues upon transfer of title and the passage of risk of loss, which is generally upon shipment to the customer. Under agreements with certain customers, products may be stored by the Company for future delivery. In these situations, the Company may receive warehouse management fees for the services it provides. In certain of these cases, delivery and billing schedules are outlined in the customer agreement and product revenue is recognized when manufacturing is complete, title and risk of loss transfer to the customer, and there is a reasonable assurance as to collectability. Product returns are not significant because the majority of products are customized; however, the Company accrues for the estimated amount of customer allowances at the time of sale based on historical experience and known trends.

Revenue from services is recognized as services are performed. Revenues related to the Company's imaging operations, which include digital content management, photography, color services and page production, are recognized in accordance with the terms of the contract, typically upon completion of the performed service and acceptance by the customer. Revenues related to the Company's logistics operations, which includes the delivery of printed material, are recognized upon completion of the delivery of services.

The Company also manufactures printing-related auxiliary equipment to ensure industry-leading technology for its own printing operations, as well as to sell to other businesses. Revenue is generally recognized for the equipment sales at time of shipment. Revenue from services related to the installation of equipment at customer sites are recognized upon completion of the installation. Payments can be received from customers during the manufacture of equipment and prior to shipment or in the case of the installation services prior to completion of the installation. In all cases when payments are received in advance of meeting the applicable revenue recognition criteria, deferred revenue is recorded until the criteria for revenue recognition are subsequently met.

Services account for greater than $10 \%$ of the Company's consolidated net sales; therefore, net sales and related costs of sales of products and services have been included as separate line items in the consolidated statements of operations.

Certain revenues earned by the Company require judgment to determine if revenue should be recorded gross as a principal or net of related costs as an agent. Billings for third-party shipping and handling costs, primarily in the Company's logistics operations, and out-of-pocket expenses are recorded gross in net sales and cost of sales in the consolidated statements of operations. Many of the Company's operations process materials, primarily paper, that may be supplied directly by customers or may be purchased by the Company and sold to customers. No revenue is recognized for customer-supplied paper. Revenues for Company-supplied paper are recognized on a gross basis.

Byproduct Recoveries-The Company records the sale of byproducts as net product sales in the consolidated statements of operations.

Financial Instruments-The Company uses derivative financial instruments for the purpose of hedging commodity and foreign exchange exposures that exist as part of ongoing business operations, including natural gas forward purchase contracts and foreign exchange contracts. As a policy, the Company does not engage in speculative or leveraged transactions, nor does the Company hold or issue financial instruments for trading purposes.

Derivative instruments are recorded on the consolidated balance sheets as either assets or liabilities measured at their fair value. If the derivative is designated as a fair value hedge, the changes in the fair value of the derivative and of the hedged item attributable to the hedged risk are recognized in earnings. If the derivative is designated as a cash flow hedge, the effective portion of the changes in the fair value of the derivative are recorded as a component of accumulated other comprehensive income (loss) and recognized in the consolidated statements of operations when the hedged item affects earnings.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

The ineffective portions of the changes in the fair value of hedges are recognized in earnings. Cash flows from derivatives that are accounted for as cash flow or fair value hedges are included in the consolidated statements of cash flows in the same category as the item being hedged.

Fair Value Measurement-The Company applies fair value accounting for all assets and liabilities that are recognized or disclosed at fair value in its consolidated financial statements on a recurring basis. Fair value represents the amount that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities that are required to be recorded at fair value, the Company considers the principal or most advantageous market and the market-based risk measurements or assumptions that market participants would use in pricing the asset or liability. See Note 18, "Financial Instruments and Fair Value Measurements," for further discussion.

Research and Development-Research and development costs related to the development of new products or the adaptation of existing products are expensed as incurred, included in cost of sales and totaled $\$ 13.4$ million, $\$ 13.2$ million and $\$ 16.9$ million during the years ended December 31, 2013, 2012 and 2011, respectively.

Cash and Cash Equivalents-The Company considers all highly liquid investments with original maturities of three months or less to be cash equivalents.

Receivables-Receivables are stated net of allowances for doubtful accounts. No single customer comprised more than $5 \%$ of the Company's consolidated net sales in 2013, 2012 or 2011 or $5 \%$ of the Company's consolidated receivables as of December 31, 2013 or 2012. Specific customer provisions are made when a review of significant outstanding amounts, utilizing information about customer creditworthiness and current economic trends, indicates that collection is doubtful. In addition, provisions are made at differing rates, based upon the age of the receivable and the Company's historical collection experience. See Note 7, "Receivables," for further discussion on the transactions affecting the allowances for doubtful accounts.

Inventories-Inventories include material, labor, and plant overhead and are stated at the lower of cost or market. At December 31, 2013 and 2012, all inventories were valued using the first-in, first-out ("FIFO") method. See Note 8, "Inventories," for a breakdown of the components of the Company's inventories.

Property, Plant and Equipment-Property, plant and equipment are recorded at cost, and are depreciated over the estimated useful lives of the assets using the straight-line method for financial reporting purposes. See Note 9, "Property, Plant and Equipment," for a breakdown of the components of the Company's property, plant and equipment. Major improvements that extend the useful lives of existing assets are capitalized and charged to the asset accounts. Repairs and maintenance, which do not significantly improve or extend the useful lives of the respective assets, are expensed as incurred. Leasehold improvements are depreciated over the shorter of the lease term or the estimated useful life of the respective asset.

| Asset Category | Range of Useful Lives |
| :---: | :---: |
| Buildings. | 10 to 40 Years |
| Machinery and equipment. | 5 to 15 Years |
| Other | 3 to 10 Years |

Other Intangible Assets-Identifiable intangible assets are recognized apart from goodwill and are amortized over their estimated useful lives.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

Impairment of Long-Lived and Other Intangible Assets-The Company evaluates long-lived assets and other intangible assets (of which the most significant are property, plant and equipment and customer relationship intangible assets) whenever events and circumstances have occurred that indicate the carrying value of an asset may not be recoverable. Determining whether impairment has occurred typically requires various estimates and assumptions, including determining which cash flows are directly related to the potentially impaired asset, the useful life over which cash flows will occur, their amount and the asset's residual value, if any. In turn, measurement of an impairment loss requires a determination of recoverability, which is generally estimated by the ability to recover the balance of the assets from expected future operating cash flows on an undiscounted basis. If impairment is determined to exist, any related impairment loss is calculated based on the difference in the fair value and carrying value of the asset.

Goodwill-Goodwill is reviewed annually for impairment as of October 31, or more frequently if events or changes in circumstances indicate that it is more likely than not that the fair value of a reporting unit is below its carrying value. In performing this analysis, the Company compares each reporting unit's fair value estimated based on comparable company market valuations and/or expected future discounted cash flows to be generated by the reporting unit to its carrying value. If the carrying value exceeds the reporting unit's fair value, the Company performs a fair value measurement calculation to determine the impairment loss, which would be charged to operations in the period identified. See Note 6, "Goodwill and Other Intangible Assets," for further discussion.

Income Taxes-The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of items reported in the financial statements. Under this method, deferred tax assets and liabilities are measured based on the differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the effective date of enactment.

The Company records net deferred tax assets to the extent the Company believes these assets will more likely than not be realized. This determination is based upon all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax planning strategies, and recent financial operations. If the Company determines that a deferred income tax asset will not be fully realized in the future, then a valuation allowance is established or increased to reflect the amount at which the asset will more likely than not be realized, which would increase the Company's provision for income taxes. In a period after a valuation allowance has been established, if the Company determines the related deferred income tax assets will be realized in the future in excess of their net recorded amount, then an adjustment to reduce the related valuation allowance will be made, which would reduce the Company's provision for income taxes.

The Company is regularly audited by foreign and domestic tax authorities. These audits occasionally result in proposed assessments where the ultimate resolution might result in the Company owing additional taxes, including in some cases, penalties and interest. The Company recognizes a tax position in its consolidated financial statements when it is more likely than not that the position would be sustained upon examination by tax authorities. This recognized tax position is then measured at the largest amount of benefit that is greater than fifty-percent likely of being recognized upon ultimate settlement. The Company recognizes interest and penalties related to unrecognized tax benefits in income tax expense.

The determination of the Company's worldwide tax provision and related tax assets and liabilities requires the use of significant judgment, estimates, and the interpretation of complex tax laws. In the ordinary course of business, there are transactions and calculations where the final tax outcome is uncertain. While the Company believes it has the appropriate support for the positions taken, certain positions may be successfully challenged by taxing authorities. The Company applies the provisions of the authoritative guidance on accounting for uncertain tax positions to determine the appropriate amount of tax benefits to be recognized with respect to uncertain tax positions. The determination of the

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

Company's worldwide tax provision includes the impact of any changes to the amount of tax benefits recognized with respect to uncertain tax positions. See Note 15, "Income Taxes," for further discussion.

Pension and Postretirement Plans-The Company assumed certain underfunded defined benefit pension and postretirement benefit plans as part of the 2010 World Color Press acquisition. Pension plan costs are determined using actuarial methods and are funded through contributions. The Company records amounts relating to its pension and postretirement benefit plans based on calculations which include various actuarial assumptions including discount rates, mortality, assumed rates of return, compensation increases, turnover rates and health care cost trend rates. The Company reviews its actuarial assumptions on an annual basis and modifies the assumptions based on current rates and trends when it is appropriate to do so. The effects of modifications are recognized immediately on the consolidated balance sheets, but are generally amortized into operating income over future periods, with the deferred amount recorded in accumulated other comprehensive income (loss) on the consolidated balance sheets. The Company believes that the assumptions utilized in recording its obligations under its plans are reasonable based on its experience, market conditions and input from its actuaries and investment advisors. For the purposes of calculating the expected return on plan assets, those assets are valued at fair value. When an event gives rise to both a curtailment and a settlement, the curtailment is accounted for prior to the settlement. The Company's measurement date to measure the defined benefit plan assets and the projected benefit obligation is December 31.

In addition, as a result of the acquisition of World Color Press, the Company participated in multiemployer pension plans ("MEPPs"). Due to the significant underfunded status of the MEPPs, the Company has withdrawn from all significant MEPPs and replaced these union sponsored "promise to pay in the future" defined benefit plans with a Company sponsored "pay as you go" defined contribution plan, which is historically the form of retirement benefit provided to Quad/Graphics employees. As a result of the decision to withdraw, the Company recorded an estimated withdrawal liability for the MEPPs as part of the purchase price allocation process based on information received from the MEPPs trustees. The estimated withdrawal liability will be updated as new withdrawal liability projections are provided from each plan's trustees until the final withdrawal liability is determined and paid. The exact amount of its withdrawal liability could be higher or lower than the estimate depending on, among other things, the nature and timing of any triggering events and the funded status of the plans at that time. See Note 20, "Employee Retirement Plans," for further discussion.

Stock-Based Compensation-The Company recognizes stock-based compensation expense over the vesting period for all stock-based awards made to employees and directors based on the fair value of the instrument at the time of grant. See Note 22, "Equity Incentive Programs," for further discussion.

Accumulated Other Comprehensive Income (Loss)—Accumulated other comprehensive income (loss) consists of unrecognized actuarial gains and losses and prior service costs for pension and postretirement plans and foreign currency translation adjustments and is presented in the consolidated statements of redeemable equity, common stock and other equity and noncontrolling interests. See Note 24, "Accumulated Other Comprehensive Income (Loss)," for further discussion.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

Supplemental Cash Flow Information-Certain supplemental cash flow information related to the Company consists of the following at December 31, 2013, 2012 and 2011:

| Interest paid, net of amounts capitalized. | 2013 |  | 2012 |  | 2011 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | 74.2 | \$ | 75.5 | \$ | 94.4 |
| Income taxes paid (refunded) |  | 22.9 |  | (34.5) |  | 18.7 |
| Non-cash investing and financing activities: |  |  |  |  |  |  |
| Leased equipment purchased through term loan (see Note 16). |  | 12.8 |  | - |  | - |
| Acquisitions of businesses (see Note 3): |  |  |  |  |  |  |
| Fair value of assets acquired, net of cash. | \$ | 389.9 | \$ | 8.7 | \$ | 68.0 |
| Liabilities assumed. |  | (74.1) |  | (2.1) |  | (15.5) |
| Goodwill |  | 8.0 |  | - |  | 11.1 |
| Deposit paid in 2012 related to Vertis acquisition. |  | (25.9) |  | - |  | - |
| Deferred payment for Proteus and Transpak acquisition (see Note 3) |  | (6.0) |  | - |  | - |
| Purchase price payable on business exchange transaction |  | - |  | - |  | (62.4) |
| Fair value of assets acquired, net of cash, other acquisitions |  | - |  | - |  | 4.6 |
| Acquisition of businesses-net of cash acquired | \$ | 291.9 | \$ | 6.6 | \$ | 5.8 |

## Note 2. New Accounting Pronouncements

In March 2013, the Financial Accounting Standards Board ("FASB") issued new guidance on the accounting for the cumulative translation adjustment upon derecognition of certain subsidiaries or group of assets within a foreign entity or of an investment in a foreign entity. Under this new guidance, the release of cumulative translation adjustments into net income is required when an entity ceases to have a controlling financial interest resulting in the complete or substantially complete liquidation of a subsidiary or group of assets within a foreign entity. This guidance is effective prospectively for fiscal years beginning after December 15, 2013, with early adoption permitted. The Company has adopted this guidance effective January 1, 2013, and determined that it did not have a material impact on the Company's consolidated financial position, results of operations or cash flows.

In February 2013, the FASB issued new guidance on the disclosure requirements for items reclassified out of accumulated other comprehensive income. Under this new guidance, an entity is required to provide information about the amounts reclassified out of accumulated other comprehensive income by component. In addition, an entity is required to present, either on the face of the financial statements or in the notes, significant amounts reclassified out of accumulated other comprehensive income by the respective line items of net income, but only if the amount reclassified is required to be reclassified in its entirety in the same reporting period. For amounts that are not required to be reclassified in their entirety to net income, an entity is required to cross-reference to other disclosures that provide additional details about those amounts. The Company adopted this guidance effective January 1, 2013. The adoption of this guidance does not change the current requirements for reporting net income or other comprehensive income, and did not have a material impact on the Company's consolidated financial position, results of operations or cash flows. See Note 24, "Accumulated Other Comprehensive Income (Loss)," for the required disclosure.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

## Note 3. Acquisitions and Strategic Investments

## 2013 Acquisitions and Strategic Investments

On December 18, 2013, the Company completed the acquisition of Wisconsin-based Proteus Packaging ("Proteus") as well as its sister company Transpak Corporation ("Transpak"), for $\$ 49.1$ million. Payments of $\$ 43.1$ million were made at the close date and the remaining $\$ 6.0$ million of purchase price represents the Company's current estimate for a deferred payment to be made in 2014 based upon the finalization of the valuation of the net assets. The $\$ 6.0$ million deferred payment is recorded in accrued liabilities on the consolidated balance sheet.

Proteus is a designer and manufacturer of high-end paperboard packaging, offering packaging solutions for a wide variety of industries, including automotive, biotechnology, food, personal care, pharmaceuticals, software and electronics. Transpak is a full-service industrial packaging company, offering crating, packaging, warehousing, distribution and logistics services to destinations worldwide.

This acquisition was accounted for using the acquisition method of accounting. The Company recorded the preliminary allocation of the purchase price to the acquired tangible and identifiable intangible assets and liabilities assumed based on their fair values as of the acquisition date. Goodwill resulting from this acquisition, which is deductible for tax purposes, has been recorded within the United States Print and Related Services segment based on the amount by which the purchase price exceeds the fair value of the net assets acquired. The preliminary purchase price allocation is as follows:

|  | Preliminary Purchase Price Allocation |  |
| :---: | :---: | :---: |
| Accounts receivable | \$ | 4.4 |
| Other current assets. |  | 5.9 |
| Property, plant and accrued liabilities. |  | 13.3 |
| Identifiable intangible assets. |  | 24.0 |
| Accounts payable and accrued liabilities |  | (3.7) |
| Other long-term liabilities. |  | (2.8) |
| Goodwill |  | 8.0 |
| Preliminary purchase price | \$ | 49.1 |

The preliminary purchase price allocation is based on valuations performed to determine the fair value of the net assets as of the acquisition date. The valuation of the net assets acquired of $\$ 49.1$ million was classified as Level 3 in the valuation hierarchy (see Note 18, "Financial Instruments and Fair Value Measurements," for the definition of Level 3 inputs). Identifiable customer relationship intangible assets are amortized on a straight-line basis over six years. The results of operations of the acquired businesses have been included since the acquisition date in the accompanying consolidated financial statements. Pro forma information related to this acquisition is not included because the impact on the Company's consolidated results of operations is considered to be immaterial. Proteus' and Transpak's operations are included in the United States Print and Related Services segment.

On November 7, 2013, the Company completed the $\$ 13.5$ million acquisition of Novia CareClinics, LLC ("Novia"), an Indianapolis, Indiana healthcare solutions company. Novia develops and manages onsite and shared primary care clinics for small to medium sized companies and the public sector, such as school districts and city and county governments. Of the $\$ 13.5$ million purchase price, $\$ 13.0$ million has been recorded for identifiable customer relationship intangible assets through the preliminary purchase price allocation. Identifiable customer relationship intangible assets are amortized on a straight-line basis over six years. Pro forma information related to this acquisition is

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

not included because the impact on the Company's consolidated results of operations is considered to be immaterial. Novia's operations are included in the United States Print and Related Services segment.

On January 16, 2013, the Company completed the acquisition of substantially all of the assets of Vertis Holdings Inc. ("Vertis") for $\$ 265.4$ million, pursuant to the terms of the Asset Purchase Agreement ("Asset Agreement"). Vertis was a leading provider of retail advertising inserts, direct marketing and in-store marketing solutions. The acquisition of Vertis enhanced the Company's position as a leader in the production of retail advertising inserts, direct marketing and in-store marketing solutions that the Company can provide to its clients and enhanced its integrated offerings. The purchase of Vertis was accounted for using the acquisition method of accounting under GAAP. As an asset acquisition, the Company did not acquire certain assets and assume certain liabilities of Vertis and its subsidiaries in the transaction, including, among other liabilities, their underfunded pension and retirement obligations. The Company used cash on hand and borrowings under its revolving credit facility to finance the acquisition.

In October, 2012, the Company made a $\$ 25.9$ million deposit to be held in escrow, in accordance with the terms of the Asset Agreement. As of December 31, 2012, the deposit was classified in prepaid expenses and other current assets in the consolidated balance sheets. This deposit was applied to the purchase price upon the January 16, 2013 consummation of the acquisition.

To facilitate the intended sale, Vertis, along with its subsidiaries, filed voluntary petitions for relief under Chapter 11 of the United States Bankruptcy Code and, at the same time, filed documents seeking the U.S. Bankruptcy Court's approval of the proposed Asset Agreement to the Company. Completion of the acquisition was subject to such U.S. Bankruptcy Court approval as well as customary conditions and regulatory approvals, including the expiration or termination of the applicable waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976.

The Asset Agreement with the Company comprised the initial stalking horse bid in the U.S. Bankruptcy Courtsupervised auction process under Section 363 of the United States Bankruptcy Code. Vertis and its advisors evaluated any competing bids that were submitted in order to ensure it received the highest and best offer for its assets. On November 26, 2012 Vertis filed a notice with the U.S. Bankruptcy Court naming Quad/Graphics as the successful bidder. On December 6, 2012, the U.S. Bankruptcy Court approved the sale agreement with Vertis. The acquisition was completed on January 16, 2013.

The following unaudited pro forma combined financial information presents the Company's results as if the Company had acquired Vertis on January 1, 2012. The unaudited pro forma information has been prepared with the following considerations:
(1) The unaudited pro forma condensed consolidated financial information has been prepared using the acquisition method of accounting under existing GAAP. The Company is the acquirer for accounting purposes.
(2) The pro forma combined financial information does not reflect any operating cost synergy savings that the combined company may achieve as a result of the acquisition, the costs necessary to achieve these operating synergy savings or additional charges necessary as a result of the integration.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

|  | Year Ended December 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2013(pro forma) |  | 2012(pro forma) |  |
| Pro forma net sales. | \$ | 4,834.0 | \$ | 5,166.7 |
| Pro forma net earnings from continuing operations attributable to common shareholders. |  | 28.7 |  | 59.0 |
| Pro forma diluted earnings per share from continuing operations attributable to common shareholders |  | 0.58 |  | 1.18 |

During the period under Quad/Graphics ownership, Vertis' financial results were included in the consolidated statements of operations. Vertis' operations are included in the United States Print and Related Services segment. Disclosure of the financial results of Vertis since the acquisition date is not practicable as it is not being operated as a standalone business, and has been combined with the Company's existing operations.

The Company recorded the allocation of the purchase price to tangible and identifiable assets acquired and liabilities assumed, including certain contingent liabilities, based on their fair values as of the January 16, 2013 acquisition date. The final purchase price allocation is as follows:

|  | Purchase Price Allocation |  |
| :---: | :---: | :---: |
| Cash and cash equivalents. | \$ | 4.1 |
| Accounts receivable |  | 133.4 |
| Other current assets. |  | 40.5 |
| Property, plant and equipment |  | 127.8 |
| Identifiable intangible assets. |  | 25.6 |
| Current liabilities. |  | (54.0) |
| Other long-term liabilities. |  | (12.0) |
| Purchase price. | \$ | 265.4 |

The allocation of the purchase price and unaudited pro forma condensed consolidated financial information is based on valuations performed to determine the fair value of the net assets as of the acquisition date. The valuation of the net assets acquired of $\$ 265.4$ million was classified as Level 3 in the valuation hierarchy (see Note 18, "Financial Instruments and Fair Value Measurements," for the definition of Level 3 inputs). Identifiable customer relationship intangible assets are amortized on a straight-line basis over six years.

## 2012 Acquisitions and Strategic Investments

On March 28, 2012, the Company entered into a strategic partnership with India-based Manipal Technologies Limited ("ManipalTech") whereby Quad/Graphics paid $\$ 18.1$ million for a minority equity ownership interest in ManipalTech. ManipalTech is one of India's largest providers of printing services and supports clients' marketing, branding and communication needs through print services and technology solutions. The Company's investment in ManipalTech is accounted for as a cost method investment and is recorded within other long-term assets in the consolidated balance sheets.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

## 2011 Acquisitions and Strategic Investments

On July 12, 2011, the Company and Transcontinental Inc. ("Transcontinental") entered into a definitive agreement whereby Quad/Graphics acquired $100 \%$ of Transcontinental's Mexican operations in exchange for the Company's Canadian operations. Transcontinental's Mexican operations printed magazines, catalogs, retail inserts, books and other printed materials, and employed approximately 900 people among its three facilities in Azcapotzalco, Toluca and Xochimilco, Mexico. The Transcontinental Mexican operations are included within the International segment.

The Company completed the acquisition of Transcontinental's Mexican operations on September 8, 2011, and completed the sale of the Company's Canadian operations on March 1, 2012. See Note 4, "Discontinued Operations," for further discussion of the sale of the Canadian discontinued operations.

In connection with the acquisition of Transcontinental's Mexican operations, the definitive agreement required the Company to deposit 50.0 million Canadian dollars with Transcontinental until the Canadian operations sale was completed. The Company elected to hedge the foreign currency exchange rate exposure related to the 50.0 million Canadian dollar deposit by entering into short-term foreign currency forward exchange contracts. The Company hedged this foreign currency exposure until the March 1, 2012, sale of Canadian net assets and refund of the 50.0 million Canadian dollar deposit occurred. During the year ended December 31, 2012, $\$ 1.6$ million of realized mark-to-market losses on the derivative contracts were offset by $\$ 1.6$ million of transaction gains on translation of the foreign currency denominated deposit within selling, general and administrative expenses. During the year ended December 31, 2011, $\$ 0.5$ million of unrealized mark-to-market loss and $\$ 2.2$ million of realized mark-to-market gain on the derivative contracts were offset by the $\$ 1.7$ million transaction losses on translation of the foreign currency denominated deposit within selling, general and administrative expenses. The fair value determination of the foreign currency forward exchange contracts was categorized as Level 2 in the fair value hierarchy (see Note 18, "Financial Instruments and Fair Value Measurements," for the definition of Level 2 inputs).

The Company's determination of the Mexican acquired operations' fair value was $\$ 63.6$ million. Of the $\$ 63.6$ million purchase price, $\$ 6.1$ million was paid in cash ( $\$ 1.2$ million was paid in 2011 and $\$ 4.9$ million was paid in 2012). The remaining purchase price of $\$ 57.5$ million was satisfied by the exchange transaction of the Company's Canadian business.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

This acquisition was accounted for using the acquisition method of accounting. The Company recorded the allocation of the purchase price to the acquired tangible and identifiable intangible assets and liabilities assumed based on their fair values as of the acquisition date. Goodwill resulting from this acquisition, none of which is deductible for tax purposes, has been recorded within the International segment based on the amount by which the purchase price exceeds the fair value of the net assets acquired. The final purchase price allocation is as follows:

|  | Purchase Price Allocation |  |
| :---: | :---: | :---: |
| Accounts receivable | \$ | 15.3 |
| Other current assets. |  | 11.9 |
| Property, plant and equipment |  | 35.7 |
| Identifiable intangible assets. |  | 4.6 |
| Other long-term assets |  | 0.5 |
| Accounts payable and accrued liabilities |  | (14.9) |
| Other long-term liabilities. |  | (0.6) |
| Goodwill . |  | 11.1 |
| Purchase price. | \$ | 63.6 |

The purchase price allocation is based on valuations performed to determine the fair value of the net assets as of the acquisition date. The purchase price of $\$ 63.6$ million was estimated by utilizing a discounted cash flow model, following an income approach that incorporates various assumptions including expected future revenue growth, profit margins, capital expenditures, working capital levels and a weighted-average cost of capital. The nonrecurring fair value measurement was classified as Level 3 in the valuation hierarchy (see Note 18, "Financial Instruments and Fair Value Measurements," for the definition of Level 3 inputs). Purchased identifiable intangible assets will be amortized on a straight-line basis over six years. The results of operations of the acquired businesses have been included since the respective dates of acquisition in the accompanying consolidated financial statements. Pro forma information related to the acquisition is not included because the impact on the Company's consolidated results of operations is considered to be immaterial.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

## Note 4. Discontinued Operations

On March 1, 2012, the Company completed the sale of its Canadian operations to Transcontinental (see Note 3, "Acquisitions and Strategic Investments," for a description of the business exchange transaction). Transcontinental assumed pension and post-retirement obligations pertaining to approximately 1,500 Canadian employees, located among the seven facilities sold to Transcontinental. The gain on disposal of discontinued operations, net of tax, was finalized in 2012, and determined as follows:

|  | As of <br> December 31, 2012 |  |
| :---: | :---: | :---: |
| Fair value of the acquired Transcontinental Mexican operations | \$ | 63.6 |
| Cash paid to Transcontinental. |  | (6.1) |
| Net proceeds |  | 57.5 |
| Net assets of discontinued operations. |  | (27.2) |
| Cumulative translation adjustment of discontinued operations |  | 3.7 |
| Gain on disposal of discontinued operations, net of tax ${ }^{(1)}$ | \$ | 34.0 |

(1) For tax purposes the disposal of discontinued operations resulted in a long-term capital loss, for which a deferred tax asset was recorded. An offsetting valuation allowance against the deferred tax asset was recorded to reflect the expected value at which the asset will be recovered.

As the sale of the Canadian operations was completed on March 1, 2012, there were no results of operations of the Canadian operations for the year ended December 31, 2013. The following table summarizes the results of operations of the Canadian operations, which are included in the loss from discontinued operations in the consolidated statements of operations for the years ended December 31, 2012 and 2011:


Prior to the March 1, 2012 closing, the Company continued to execute restructuring events related to plant closures, workforce reductions and other restructuring initiatives, as well as transaction costs related to the sale of the Canadian operations. Due to these initiatives, the Company has recognized $\$ 1.7$ million and $\$ 45.1$ million in restructuring, impairment and transaction-related costs for the years ended December 31, 2012 and 2011, respectively, within discontinued operations in the consolidated statements of operations. The 2011 restructuring expense included a $\$ 17.9$ million charge to recognize a pension curtailment loss and a $\$ 13.9$ million goodwill impairment charge in the third quarter of 2011 for the pending sale of the Canadian discontinued operations due to the carrying value of the Canadian net assets exceeding the estimated fair value of the Mexican net assets acquired from Transcontinental.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

## Note 5. Restructuring, Impairment and Transaction-Related Charges

The Company recorded restructuring, impairment and transaction-related charges for the years ended December 31, 2013, 2012 and 2011 as follows:

|  | 2013 |  | 2012 |  | 2011 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employee termination charges | \$ | 15.7 | \$ | 27.2 | \$ | 29.5 |
| Impairment charges . |  | 21.8 |  | 23.0 |  | 13.8 |
| Transaction-related charges. |  | 4.0 |  | 4.1 |  | 2.9 |
| Integration costs |  | 25.2 |  | 44.6 |  | 45.7 |
| Other restructuring charges . |  | 28.6 |  | 19.4 |  | 22.1 |
| Total. | \$ | 95.3 | \$ | 118.3 | \$ | 114.0 |

The costs related to these activities have been recorded on the consolidated statements of operations as restructuring, impairment and transaction-related charges. See Note 25, "Segment Information," for restructuring, impairment and transaction-related charges by segment.

## Restructuring Charges

The Company began a restructuring program in 2010 related to eliminating excess manufacturing capacity and properly aligning its cost structure. Since 2010, and including the two plant closures announced in January 2014 discussed below, the Company has announced a total of 21 plant closures and has reduced headcount by approximately 6,800.

During the year ended December 31, 2013, the Company announced the closures of the Bristol, Pennsylvania; Dubuque, Iowa; Pittsburg, California; and Vancouver, British Columbia, Canada plants. In addition, the Marengo, Iowa and Pomona, California plants were announced for closure on January 10, 2014. As a result of these and other restructuring programs, the Company recorded the following charges for the year ended December 31, 2013:

- Employee termination charges of $\$ 15.7$ million were recorded by the Company during the year ended December 31, 2013. The Company reduced its workforce through facility consolidations and involuntary separation programs.
- Integration costs of $\$ 25.2$ million were recorded by the Company during the year ended December 31, 2013. Integration costs were primarily related to preparing existing facilities to meet new production requirements resulting from work transferring from closed plants, as well as other costs related to the integration of the acquired companies.
- Other restructuring charges of $\$ 28.6$ million were recorded by the Company during the year ended December 31, 2013, which consisted of: (1) $\$ 14.4$ million of vacant facility carrying costs, (2) $\$ 6.2$ million of equipment and infrastructure removal costs from closed plants and (3) $\$ 10.1$ million of lease exit charges. Other restructuring charges are presented net of a $\$ 2.1$ million pension plan settlement gain.


## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

During the year ended December 31, 2012, the Company announced the closures of Jonesboro, Arkansas; Limerick, Ireland, and two plants in Mexico City, Mexico. As a result of these and other restructuring programs, the Company recorded the following charges for the year ended December 31, 2012:

- Employee termination charges of $\$ 27.2$ million were recorded by the Company during the year ended December 31, 2012. The Company reduced its workforce through facility consolidations and involuntary separation programs.
- Integration costs of $\$ 44.6$ million were recorded by the Company during the year ended December 31, 2012. Integration costs were primarily related to preparing existing facilities to meet new production requirements resulting from work transferring from closed plants, as well as other costs related to the integration of the acquired companies.
- Other restructuring charges of $\$ 19.4$ million were recorded by the Company during the year ended December 31, 2012, which consisted of: (1) $\$ 19.3$ million of vacant facility carrying costs, (2) $\$ 7.3$ million of equipment and infrastructure removal costs from closed plants and (3) $\$ 8.0$ million of lease exit charges. Other restructuring charges are presented net of a $\$ 12.8$ million curtailment gain resulting from an amendment to the postretirement medical benefit plan and a $\$ 2.4$ million gain on the collection of a note receivable related to a settlement of a disputed pre-acquisition World Color Press note receivable during the year ended December 31, 2012.

During the year ended December 31, 2011, the Company announced the closures of the Richmond, Virginia; Stillwater, Oklahoma; Buffalo, New York; and Mt. Morris, Illinois plants. As a result of these and other restructuring programs, the Company recorded the following charges for the year ended December 31, 2011:

- Employee termination charges of $\$ 29.5$ million were recorded by the Company during the year ended December 31, 2011. The Company reduced its workforce through facility consolidations and involuntary separation programs.
- Integration costs of $\$ 45.7$ million were recorded by the Company during the year ended December 31, 2011. Integration costs were primarily related to preparing existing facilities to meet new production requirements resulting from work transferring from closed plants, as well as other costs related to the integration of the acquired companies. Integration costs include $\$ 6.4$ million of stock-based compensation expense related to the termination and liquidation of stock options and the grant of new options (see Note 22, "Equity Incentive Programs"). Included in integration costs is a $\$ 15.6$ million gain on the collection of a note receivable for the June 2008 sale of World Color Press' European operations during December 31, 2011.
- Other restructuring charges of $\$ 22.1$ million were recorded by the Company during the year ended December 31, 2011, which consisted of: (1) $\$ 15.1$ million of vacant facility carrying costs, (2) $\$ 7.7$ million of equipment and infrastructure removal costs from closed plants and (3) $\$ 6.3$ million of lease exit charges. Other restructuring charges are presented net of a postretirement benefit obligation curtailment gain of $\$ 7.0$ million during the year ended December 31, 2011.

The restructuring charges recorded are based on plans that have been committed to by management and are, in part, based upon management's best estimates of future events. Changes to the estimates may require future restructuring charges and adjustments to the restructuring liabilities. The Company expects to incur additional restructuring charges related to these and other initiatives.

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

## Impairment Charges

The Company recognized impairment charges of $\$ 21.8$ million during the year ended December 31, 2013, consisting of (1) $\$ 10.1$ million of land and building impairment charges primarily related to the Corinth, Mississippi; Marengo, Iowa and Mexico City, Mexico plant closures and (2) $\$ 11.7$ million of machinery and equipment impairment charges related to facility consolidations including Dubuque, Iowa; Jonesboro, Arkansas; Pittsburg, California and Vancouver, British Columbia, Canada, as well as other capacity reduction restructuring initiatives.

The Company recognized impairment charges of $\$ 23.0$ million during the year ended December 31, 2012, consisting of (1) \$13.1 million of land and building impairment charges primarily related to the Limerick, Ireland; Mt. Morris, Illinois; Pila, Poland; Richmond, Virgina and Stillwater, Oklahoma plant closures and (2) \$9.9 million of machinery and equipment impairment charges related to facility consolidations including Jonesboro, Arkansas; Mexico City, Mexico; Pila, Poland and Stillwater, Oklahoma, as well as other capacity reduction restructuring initiatives.

The Company recognized impairment charges of $\$ 13.8$ million during the year ended December 31, 2011, consisting of (1) $\$ 3.6$ million of land and building impairment charges related to the Stillwater, Oklahoma plant closure and (2) $\$ 10.2$ million of machinery and equipment impairment charges related to facility consolidations including Corinth, Mississippi; Mt. Morris, Illinois and Pila, Poland, as well as other capacity reduction restructuring initiatives.

The fair values of the impaired assets were determined by the Company to be Level 3 under the fair value hierarchy (see Note 18, "Financial Instruments and Fair Value Measurements," for the definition of Level 3 inputs) and were estimated based on broker quotes and internal expertise related to current marketplace conditions. These assets were adjusted to their estimated fair values at the time of impairment.

## Transaction-Related Charges

The Company incurs transaction-related charges primarily consisting of professional service fees related to business acquisition and divestiture activities. The Company recognized transaction-related charges of $\$ 4.0$ million during the year ended December 31, 2013, which primarily includes fees for the acquisitions of Vertis, Proteus and Transpak. The Company recognized transaction-related charges of $\$ 4.1$ million during the year ended December 31, 2012, which primarily includes fees for the acquisition of Vertis and the business exchange transaction with Transcontinental. The Company recognized transaction-related charges of $\$ 2.9$ million during the year ended December 31, 2011, which primarily includes fees for the business exchange transaction with Transcontinental. The transaction-related charges were expensed as incurred in accordance with the applicable accounting guidance on business combinations.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

## Reserves for Restructuring, Impairment and Transaction-Related Charges

Activity impacting the Company's reserves for restructuring, impairment and transaction-related charges for the years ended December 31, 2013 and 2012 was as follows:

|  | $\qquad$ |  | Impairment Charges |  | TransactionRelated Charges |  | Integration Costs |  | Other Restructuring Charges |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance at January 1, 2012. | \$ | 9.3 | \$ | - | \$ | - | \$ | 18.2 | \$ | 26.7 | \$ | 54.2 |
| Expense from continuing operations |  | 27.2 |  | 23.0 |  | 4.1 |  | 44.6 |  | 19.4 |  | 118.3 |
| Cash payments. |  | (30.4) |  | - |  | (3.2) |  | (59.3) |  | (34.3) |  | (127.2) |
| Non-cash adjustments |  | - |  | (23.0) |  | - |  | - |  | 11.0 |  | (12.0) |
| Balance at December 31, 2012. | \$ | 6.1 | \$ | - | \$ | 0.9 | \$ | 3.5 | \$ | 22.8 | \$ | 33.3 |
| Expense from continuing operations |  | 15.7 |  | 21.8 |  | 4.0 |  | 25.2 |  | 28.6 |  | 95.3 |
| Cash payments. . . |  | (17.0) |  | - |  | (4.7) |  | (25.0) |  | (33.2) |  | (79.9) |
| Non-cash adjustments |  | - |  | (21.8) |  | - |  | - |  | 1.1 |  | (20.7) |
| Balance at December 31, 2013. | \$ | 4.8 | \$ | - | \$ | 0.2 | \$ | 3.7 | \$ | 19.3 | \$ | 28.0 |

The Company's restructuring, impairment and transaction-related reserves at December 31, 2013 included a short-term and a long-term component. The short-term portion is comprised of $\$ 15.1$ million included in accrued liabilities (see Note 12, "Accrued Liabilities") and $\$ 1.4$ million included in accounts payable in the consolidated balance sheets as the Company expects these reserves to be paid within the next twelve months. The long-term portion of $\$ 11.5$ million is included in other long-term liabilities (see Note 19, "Other Long-Term Liabilities") in the consolidated balance sheets, of which $\$ 8.5$ million is classified in restructuring reserves and $\$ 3.0$ million is classified in MEPPs withdrawal liability.

## Note 6. Goodwill and Other Intangible Assets

Goodwill is tested annually for impairment as of October 31 or more frequently if events or changes in circumstances indicate that it is more likely than not that the fair value of a reporting unit is below its carrying value. The Company completed its annual goodwill impairment assessment of the United States and Latin America reporting units, which included comparing the carrying amount of net assets, including goodwill, of each reporting unit to its respective fair value as of October 31, 2013, the annual assessment date. The European reporting unit does not have goodwill associated with it.

Fair value was determined using an equal weighting of both the income and market approaches. This fair value determination was categorized as Level 3 in the fair value hierarchy (see Note 18, "Financial Instruments and Fair Value Measurements," for the definition of Level 3 inputs). Under the income approach, the Company determined fair value based on estimated future cash flows discounted by an estimated weighted-average cost of capital, which reflects the overall level of inherent risk and the rate of return an outside investor would expect to earn. Under the market approach, the Company derived the fair value of the reporting units based on market multiples of comparable publicly-traded companies. Management concluded that no impairment existed as of October 31, 2013, because the estimated fair value of each of the Company's United States and Latin America reporting units exceeded the respective carrying amounts. The fair value of the reporting units exceed their respective carrying values by greater than ten percent. No additional indications of impairment have been identified between October 31, 2013, and December 31, 2013.

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Goodwill at December 31, 2013 and 2012 did not include any accumulated impairment losses. No goodwill impairment was recorded related to continuing operations during the years ended December 31, 2013, 2012 or 2011. However, a $\$ 13.9$ million goodwill impairment was recorded related to the Canadian discontinued operations in the year ended December 31, 2011 (see Note 4, "Discontinued Operations," for further information).

Activity impacting the Company's goodwill for the years ended December 31, 2013 and 2012 was as follows:

|  | United States Print and Related Services |  | International |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance at January 1, 2012 | \$ | 757.4 | \$ | 29.7 | \$ | 787.1 |
| World Color Press acquisition ${ }^{(1)}$. |  | (19.2) |  | - |  | (19.2) |
| Translation adjustment |  | - |  | 0.7 |  | 0.7 |
| Balance at December 31, 2012 | \$ | 738.2 | \$ | 30.4 | \$ | 768.6 |
| Acquisitions (see Note 3) |  | 8.0 |  | - |  | 8.0 |
| Sale of business (see Note 11) |  | - |  | (0.5) |  | (0.5) |
| Translation adjustment. |  | - |  | (3.0) |  | (3.0) |
| Balance at December 31, 2013 | \$ | 746.2 | \$ | 26.9 | \$ | 773.1 |

(1) The Company recorded an adjustment to correct deferred tax liabilities related to property, plant and equipment associated with the acquisition of World Color Press resulting in a $\$ 19.2$ million reduction in goodwill.

The components of other intangible assets at December 31, 2013 and 2012 were as follows:

|  | December 31, 2013 |  |  |  |  |  |  | December 31, 2012 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Weighted } \\ \text { Average } \\ \text { Amortization } \\ \text { Period (Years) } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Gross } \\ & \text { Carrying } \\ & \text { Amount } \end{aligned}$ |  | Accumulated Amortization |  | Net BookValue |  |  | Gross Carrying Amount |  | Accumulated Amortization |  | Net Book |  |
| Finite-lived intangible assets: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trademarks, patents, licenses and agreements. | 5 | \$ | 6.5 | \$ | (5.2) | \$ | 1.3 | 5 | \$ | 10.5 | \$ | (9.4) | \$ | 1.1 |
| Customer relationships..... | 6 |  | 444.9 |  | (226.4) |  | 218.5 | 6 |  | 383.6 |  | (158.7) |  | 224.9 |
| Capitalized software. | 5 |  | 4.3 |  | (3.6) |  | 0.7 | 5 |  | 4.1 |  | (2.6) |  | 1.5 |
| Acquired technology | 5 |  | 7.3 |  | (6.0) |  | 1.3 | 5 |  | 8.0 |  | (5.6) |  | 2.4 |
| Total finite-lived intan | ible assets . . . | \$ | 463.0 | \$ | (241.2) | \$ | 221.8 |  | \$ | 406.2 | \$ | (176.3) | \$ | 229.9 |

During the year ended December 31, 2013, the gross carrying amount of intangible assets increased primarily due to $\$ 63.0$ million of customer relationship intangible assets related to acquisitions as discussed in Note 3, "Acquisitions and Strategic Investments." The gross carrying amount and accumulated amortization within other intangible assets-net in the consolidated balance sheets at December 31, 2013 and 2012, differs from the value originally recorded at purchase due to the effects of currency fluctuations between the purchase date and December 31, 2013 and 2012.

## QUAD/GRAPHICS, INC.

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 (In millions, except share and per share data and unless otherwise indicated)Amortization expense for other intangible assets was $\$ 70.3$ million, $\$ 66.3$ million and $\$ 65.8$ million for the years ended December 31, 2013, 2012 and 2011, respectively. The following table outlines the estimated future amortization expense related to intangible assets as of December 31, 2013:

|  | Amortization Expense |  |
| :---: | :---: | :---: |
| 2014. | \$ | 75.7 |
| 2015. |  | 75.0 |
| 2016. |  | 43.4 |
| 2017. |  | 11.0 |
| 2018. |  | 10.4 |
| 2019. |  | 6.3 |
| Total | \$ | 221.8 |

## Note 7. Receivables

Transactions affecting the allowances for doubtful accounts during the years ended December 31, 2013, 2012 and 2011 were as follows:

|  | 2013 |  | 2012 |  | 2011 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance at beginning of year. | \$ | 70.8 | \$ | 73.7 | \$ | 85.5 |
| Reclassify Canadian allowance to discontinued operations |  | - |  | - |  | (4.7) |
| Acquisitions . |  | - |  | 0.2 |  | 2.7 |
| Provisions. |  | 10.4 |  | 3.2 |  | 13.3 |
| Write-offs. |  | (15.4) |  | (6.8) |  | (19.6) |
| Divestitures |  | (6.4) |  | - |  | - |
| Translation and other. |  | (0.5) |  | 0.5 |  | (3.5) |
| Balance at end of year. | \$ | 58.9 | \$ | 70.8 | \$ | 73.7 |

## Note 8. Inventories

The components of the Company's inventories at December 31, 2013 and 2012 were as follows:

|  | 2013 |  | 2012 |  |
| :---: | :---: | :---: | :---: | :---: |
| Raw materials and manufacturing supplies . | \$ | 174.9 | \$ | 154.2 |
| Work in process |  | 46.6 |  | 45.1 |
| Finished goods. |  | 51.0 |  | 43.6 |
| Total. | \$ | 272.5 | \$ | 242.9 |

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

## Note 9. Property, Plant and Equipment

The components of the Company's property, plant and equipment at December 31, 2013 and 2012 were as follows:

|  | 2013 |  | 2012 |  |
| :---: | :---: | :---: | :---: | :---: |
| Land . | \$ | 145.8 | \$ | 136.1 |
| Buildings |  | 937.8 |  | 904.6 |
| Machinery and equipment |  | 3,509.9 |  | 3,415.0 |
| Other |  | 213.1 |  | 208.7 |
| Construction in progress |  | 32.6 |  | 28.2 |
|  |  | 4,839.2 |  | 4,692.6 |
| Less: Accumulated depreciation |  | $(2,913.7)$ |  | (2,766.2) |
| Total. | \$ | 1,925.5 | \$ | $\underline{\text { 1,926.4 }}$ |

Other consists of computer equipment, vehicles, furniture and fixtures, leasehold improvements and communication related equipment. During the year ended December 31, 2013, there was a $\$ 141.1$ million increase in property, plant and equipment related to the acquisitions of Vertis, Proteus and Transpak (see Note 3, "Acquisitions and Strategic Investments").

The Company recorded impairment charges of $\$ 21.8$ million, $\$ 23.0$ million and $\$ 13.8$ million during the years ended December 31, 2013, 2012 and 2011, respectively, to reduce the carrying amounts of certain buildings and production equipment no longer utilized to fair value (see Note 5, "Restructuring, Impairment and Transaction-Related Charges").

The Company recognized depreciation expense of $\$ 270.2$ million, $\$ 272.3$ million and $\$ 278.8$ million for the years ended December 31, 2013, 2012 and 2011, respectively.

## Assets Held for Sale

Certain closed facilities are considered held for sale. The net book value of the assets held for sale was $\$ 5.6$ million and $\$ 4.2$ million as of December 31, 2013 and 2012, respectively. These assets were valued at their fair value, less the estimated costs to sell. The fair values were determined by the Company to be Level 3 under the fair value hierarchy (see Note 18, "Financial Instruments and Fair Value Measurements," for the definition of Level 3 inputs) and were estimated based on broker quotes and internal expertise related to current marketplace conditions. Assets held for sale are included in prepaid expenses and other current assets in the consolidated balance sheets.

## Note 10. Restricted Cash

The components of the Company's restricted cash at December 31, 2013 and 2012 were as follows:

|  | 2013 |  | 2012 |  |
| :---: | :---: | :---: | :---: | :---: |
| Defeasance of unsecured notes to be issued (see Note 14) | \$ | 56.0 | \$ | 60.5 |
| Less: short-term restricted cash |  | (4.5) |  | (14.8) |
| Long-term restricted cash. | \$ | 51.5 | \$ | 45.7 |

## QUAD/GRAPHICS, INC.

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## (In millions, except share and per share data and unless otherwise indicated)

## Note 11. Equity Method Investments in Unconsolidated Entities

The Company has a $49 \%$ ownership interest in Plural Editora e Gráfica ("Plural"), a commercial printer based in São Paulo, Brazil, and a $50 \%$ ownership interest in Quad/Graphics Chile S.A. ("Chile"), a commercial printer based in Santiago, Chile. The Company's ownership interest in Plural and Chile is accounted for using the equity method of accounting for all periods presented.

On January 1, 2013, the Company sold $100 \%$ of its ownership interest in two wholly-owned Brazilian entities (Quad/Graphics Nordeste Industria Gráfica LTDA. and Quad/Graphics São Paulo Industria Gráfica S.A.) to Plural for a purchase price of $\$ 5.5$ million (recorded in receivables in the Company's consolidated balance sheet as of December 31, 2013). Quad/Graphics retained ownership of the land and building which are leased to Plural. During the year ended December 31, 2013, the Company recorded a $\$ 2.8$ million gain on the sale within selling, general and administrative expenses in the Company's consolidated statements of operations. As a result of the sale to Plural, the Company no longer controls these entities (the Company now owns $49 \%$ of these entities through its ownership interest in Plural), and thus the assets and liabilities of the entities sold have been deconsolidated in accordance with GAAP. Since the sale to Plural, the Company's ownership interest in the results of operations of these entities are included in equity in earnings (loss) of unconsolidated entities in the consolidated statements of operations.

The Company's equity earnings of Plural's and Chile's operations are recorded in the line item entitled equity in earnings (loss) of unconsolidated entities in the Company's consolidated statements of operations, and is included within the International segment.

The combined condensed balance sheets for Plural and Chile at December 31, 2013 and 2012 are presented below:

|  | 2013 |  | 2012 |  |
| :---: | :---: | :---: | :---: | :---: |
| Current assets. | \$ | 94.9 | \$ | 79.4 |
| Long-term assets |  | 92.9 |  | 91.2 |
| Total assets. | \$ | 187.8 | \$ | 170.6 |
| Current liabilities | \$ | 75.0 | \$ | 42.9 |
| Long-term liabilities. |  | 18.1 |  | 35.5 |
| Total liabilities. | \$ | 93.1 | \$ | 78.4 |

The combined condensed statements of operations for Plural and Chile for years ended December 31, 2013, 2012 and 2011 are presented below:

|  | 2013 |  | 2012 |  | 2011 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net sales | \$ | 221.2 | \$ | 200.8 | \$ | 221.5 |
| Operating income (loss) |  | (0.7) |  | 9.0 |  | 12.6 |
| Net earnings (loss). . |  | (3.9) |  | 4.2 |  | 6.0 |

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

## Note 12. Accrued Liabilities

The components of the Company's accrued liabilities at December 31, 2013 and 2012 were as follows:

|  | 2013 |  | 2012 |  |
| :---: | :---: | :---: | :---: | :---: |
| Employee-related liabilities . | \$ | 174.1 | \$ | 152.0 |
| Restructuring reserves |  | 15.1 |  | 33.3 |
| Taxes and income taxes |  | 46.3 |  | 43.6 |
| Interest and rent |  | 14.0 |  | 15.1 |
| Other |  | 101.2 |  | 90.0 |
| Total accrued liabilities | \$ | 350.7 | \$ | 334.0 |

Employee-related liabilities consist primarily of payroll, bonus and profit sharing, vacation, health, workers' compensation and pension obligations.

## Note 13. Commitments and Contingencies

## Commitments

The Company had firm commitments of $\$ 30.2$ million to purchase press and finishing equipment.

## Litigation

In the normal course of business, the Company is named as a defendant in various lawsuits in which claims are asserted against the Company. In the opinion of management, the liabilities, if any, which ultimately result from such lawsuits are not expected to have a material impact on the consolidated financial statements of the Company.

## Environmental Reserves

The Company is subject to various laws, regulations and government policies relating to health and safety, to the generation, storage, transportation, and disposal of hazardous substances, and to environment protection in general. The Company provides for expenses associated with environmental remediation obligations when such amounts are probable and can be reasonably estimated. Such reserves are adjusted as new information develops or circumstances change. The environmental reserves are not discounted. The Company believes it is in compliance with such laws, regulations and government policies in all material respects. Furthermore, the Company does not anticipate that maintaining compliance with such environmental statutes will have a material impact upon the Company's competitive or consolidated financial position.

## Note 14. World Color Press Insolvency Proceedings

The Company continues to manage the bankruptcy claim settlement process for the Quebecor World Inc. ("QWI") bankruptcy proceedings in the United States and Canada (QWI changed its name to "World Color Press Inc." upon emerging from bankruptcy on July 21, 2009). To the extent claims are allowed, the holders of such claims are entitled to receive recovery, with the nature of such recovery dependent upon the type and classification of such claims. In this regard, with respect to certain types of claims, the holders thereof are entitled to receive cash and/or unsecured notes, while the holders of certain other types of claims are entitled to receive a combination of Quad/Graphics common stock and cash, in accordance with the terms of the World Color Press acquisition agreement.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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With respect to claims asserted by the holders thereof as being entitled to a priority cash recovery, the Company has estimated that approximately $\$ 2.5$ million and $\$ 9.3$ million of such recorded claims have yet to be paid as of December 31, 2013, and December 31, 2012, respectively, and this obligation is classified as amounts owing in satisfaction of bankruptcy claims in the consolidated balance sheets.

With respect to unsecured claims held by creditors of the operating subsidiary debtors of Quebecor World (USA) Inc. (the "Class 3 Claims"), each allowed Class 3 Claim will be entitled to receive an unsecured note in an amount not to exceed $50 \%$ of such creditor's allowed Class 3 Claim, provided, however, that the aggregate principal amount of all such unsecured notes cannot exceed $\$ 75.0$ million. In the event that the total of all allowed Class 3 Claims exceeds $\$ 150.0$ million, each creditor holding an allowed Class 3 Claim will receive its pro rata share of $\$ 75.0$ million of the unsecured notes issued, together with accrued interest and a $5 \%$ prepayment redemption premium thereon (the total of which is $\$ 89.2$ million). In connection with the World Color Press acquisition, the Company was required to deposit the maximum potential payout to the Class 3 Claim creditors of $\$ 89.2$ million with a trustee, and that amount will remain with the trustee until either (1) it is paid to a creditor for an allowed Class 3 Claim or (2) upon all Class 3 Claims being resolved any excess amount will revert to the Company. In the year ended December 31, 2013, $\$ 4.5$ million was paid to Class 3 Claim creditors. At December 31, 2013, $\$ 56.0$ million remains and is classified as restricted cash in the consolidated balance sheets (see Note 10, "Restricted Cash"). Based on the Company's analysis of the outstanding claims, the Company has a liability of $\$ 18.0$ million at December 31, 2013, classified as unsecured notes to be issued in the condensed consolidated balance sheets.

|  | RestrictedCash |  | Unsecured Notes to be Issued |  |
| :---: | :---: | :---: | :---: | :---: |
| Balance at January 1, 2012 | \$ | 75.4 | \$ | 38.7 |
| Class 3 Claim payments during 2012. |  | (14.9) |  | (14.9) |
| Balance at December 31, 2012 | \$ | 60.5 | \$ | 23.8 |
| Class 3 Claim payments during 2013. |  | (4.5) |  | (4.5) |
| Non-cash adjustments. |  | - |  | (1.3) |
| Balance at December 31, 2013 | \$ | 56.0 | \$ | 18.0 |

While the liabilities recorded for any bankruptcy matters are based on management's current assessment of the amount likely to be paid, it is not possible to identify the final amount of priority cash claims or the amount of Class 3 Claims that will ultimately be allowed by the U.S. Bankruptcy Court. Therefore, amounts owing in satisfaction of bankruptcy claims on the consolidated balance sheets could be materially higher than the amounts estimated, which would require additional cash payments to be made for the amount exceeding the Company's estimate. Amounts payable related to the unsecured notes could reach the maximum aggregate principal amount of $\$ 75.0$ million, which would not require an additional cash payment as the maximum potential exposure has already been funded in trust, but would require additional liability and expense to be recorded as the Company's estimate of total Class 3 Claim liability is $\$ 51.2$ million ( $\$ 33.2$ million paid plus the $\$ 18.0$ million remaining estimated liability as of December 31, 2013). In light of the substantial number and amount of claims filed, the claims resolution process will take considerable time to complete.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

## Note 15. Income Taxes

Income taxes have been based on the following components of earnings from continuing operations before income taxes and equity in earnings (loss) of unconsolidated entities for the years ended December 31, 2013, 2012 and 2011:

|  | 2013 |  | 2012 |  | 2011 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. | \$ | 83.0 | \$ | 69.1 | \$ | 41.8 |
| Foreign |  | (26.3) |  | (46.6) |  | (26.9) |
| Total. | \$ | 56.7 | \$ | 22.5 | \$ | 14.9 |

The components of income tax expense (benefit) consists of the following for the years ended December 31, 2013, 2012 and 2011:

|  | 2013 |  | 2012 |  | 2011 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Federal: |  |  |  |  |  |  |
| Current | \$ | 24.9 | \$ | (23.2) | \$ | (15.2) |
| Deferred.. |  | (7.8) |  | (4.2) |  | 24.6 |
| State: |  |  |  |  |  |  |
| Current. |  | 5.6 |  | 3.0 |  | 0.2 |
| Deferred. |  | (1.4) |  | (6.6) |  | 9.2 |
| Foreign: |  |  |  |  |  |  |
| Current. |  | 3.9 |  | 2.3 |  | 4.5 |
| Deferred. |  | (1.9) |  | (2.8) |  | 2.7 |
| Total income tax expense (benefit) | \$ | 23.3 | \$ | (31.5) | \$ | 26.0 |

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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The following table outlines the reconciliation of differences between the Federal statutory tax rate and the Company's effective tax rate for the years ended December 31, 2013, 2012 and 2011:

|  | 2013 | 2012 | 2011 |
| :---: | :---: | :---: | :---: |
| Federal statutory rate | 35.0\% | 35.0 \% | 35.0\% |
| Foreign rate differential | 6.0 | 19.2 | 21.0 |
| State taxes, net of federal benefit. | 4.3 | 3.6 | 12.4 |
| Nondeductible transaction costs | 0.3 | 3.0 | 5.2 |
| Expiration of deferred tax assets | - | - | 18.3 |
| Adjustment to valuation allowances | 13.7 | (3.7) | 48.0 |
| Adjustment of deferred tax liabilities | (1.8) | (14.0) | 52.6 |
| Loss from foreign branches | (5.8) | (30.8) | (54.3) |
| Domestic production activity deduction | (6.0) | (3.4) | - |
| Adjustment of uncertain tax positions ${ }^{(1)}$ | 1.9 | (145.4) | 19.1 |
| Other | (6.5) | (3.6) | 17.2 |
| Effective income tax rate. | $\underline{41.1 \%}$ | $\stackrel{(140.1) \%}{ }$ | $\underline{\text { 174.5\% }}$ |

(1) During 2012, the Company settled pre-acquisition World Color Press income tax examinations with the Internal Revenue Service ("IRS") resulting in a $\$ 30.0$ million income tax benefit.

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

 (In millions, except share and per share data and unless otherwise indicated)
## Deferred Income Taxes

The significant deferred tax assets and liabilities as of December 31, 2013 and 2012, were as follows:

|  | 2013 |  | 2012 |  |
| :---: | :---: | :---: | :---: | :---: |
| Deferred tax assets: |  |  |  |  |
| Accrued liabilities. | \$ | 28.9 | \$ | 31.4 |
| Accrued compensation . |  | 36.6 |  | 31.9 |
| Allowance for doubtful accounts |  | 19.8 |  | 20.3 |
| Interest limitation. |  | 153.6 |  | 154.0 |
| Pension, postretirement and workers compensation benefits. |  | 80.0 |  | 153.9 |
| Net operating loss and other tax carry forwards. |  | 152.3 |  | 172.1 |
| Other. |  | 24.7 |  | 26.4 |
| Total deferred tax assets. |  | 495.9 |  | 590.0 |
| Valuation allowance ${ }^{(1)}$ |  | (151.5) |  | (174.0) |
| Net deferred tax assets . | \$ | 344.4 | \$ | 416.0 |
| Deferred tax liabilities: |  |  |  |  |
| Property, plant and equipment | \$ | (362.5) | \$ | (379.9) |
| Goodwill and intangible assets. |  | (67.4) |  | (83.1) |
| Investment in U.S. subsidiaries |  | (245.1) |  | (243.5) |
| Other. |  | (16.5) |  | (17.7) |
| Total deferred tax liabilities. |  | (691.5) |  | (724.2) |
| Net deferred tax liabilities | \$ | (347.1) | \$ | (308.2) |

(1) As a result of the sale of the Company's two wholly-owned Brazilian subsidiaries as discussed in Note 11, "Equity Method Investments in Unconsolidated Entities," the Company reduced the valuation allowance by $\$ 21.3$ million (such amount was previously established against the subsidiaries' deferred tax assets that were not expected to be realized).

The net deferred tax assets (liabilities) above are classified on the consolidated balance sheets at December 31, 2013 and 2012 as follows:

|  | 2013 |  | 2012 |  |
| :---: | :---: | :---: | :---: | :---: |
| Current net deferred tax asset | \$ | 48.1 | \$ | 55.7 |
| Non-current net deferred tax liability |  | (395.2) |  | (363.9) |
| Total. | \$ | (347.1) | \$ | (308.2) |

At December 31, 2013, the Company had foreign net operating loss carry forwards of $\$ 141.9$ million and state net operating loss carry forwards of $\$ 642.3$ million. Of the foreign net operating loss carry forwards, $\$ 46.6$ million are available without expiration, while the remainder expire through 2023. The state net operating loss carry forwards

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expire in varying amounts through 2033. The Company also has $\$ 45.1$ million of various state credit carry forwards, of which $\$ 30.8$ million are available without expiration, while the remainder expire through 2028. At December 31, 2013, the Company has recorded a valuation allowance of $\$ 151.5$ million against $\$ 60.3$ million, $\$ 41.5$ million and $\$ 49.7$ million of federal, foreign and state deferred tax assets, respectively, that are not expected to be realized.

On September 13, 2013, the IRS released final tangible property regulations under Sections 162(a) and 263(a) of the Internal Revenue Code and proposed regulations under Section 168 of the Internal Revenue Code. These regulations generally apply to all taxpayers that acquire, produce, or improve tangible property. Based upon preliminary analysis, the Company does not expect that the adoption of these regulations will have a material impact on the consolidated financial statements.

The Company considers its foreign earnings to be indefinitely invested. Accordingly, the Company does not currently provide for the additional United States and foreign income taxes which would become payable upon remission of undistributed earnings of foreign subsidiaries. The cumulative undistributed earnings of such subsidiaries at December 31, 2013, are not material.

## Uncertain Tax Positions

The following table summarizes the activity of the Company's liability for unrecognized tax benefits at December 31, 2013, 2012 and 2011:

|  | 2013 |  | 2012 |  | 2011 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance at beginning of period | \$ | 46.5 | \$ | 106.0 | \$ | 129.7 |
| Additions due to acquisitions |  | - |  | 22.9 |  | 0.3 |
| Additions for tax positions of the current year |  | 0.1 |  | - |  | - |
| Additions for tax positions of prior years |  | 0.7 |  | 15.2 |  | 5.4 |
| Reductions for tax positions of prior years |  | (0.5) |  | (76.3) |  | (1.4) |
| Settlements during the period |  | (2.1) |  | (7.8) |  | (1.4) |
| Lapses of applicable statutes of limitations. |  | (0.2) |  | (13.5) |  | (1.2) |
| Reclassify Canadian uncertain tax positions to discontinued operations |  | - |  | - |  | (25.4) |
| Balance at end of period | \$ | 44.5 | \$ | 46.5 | \$ | 106.0 |

As of December 31, 2013, $\$ 44.5$ million of unrecognized tax benefits would impact the Company's effective tax rate, if recognized. Of that amount, it is reasonably possible that $\$ 13.4$ million of the total amount of unrecognized tax benefits will decrease within 12 months due to resolution of audits or statute expirations.

During 2012, the Company settled pre-acquisition World Color Press income tax examinations with the IRS resulting in a net income tax benefit of $\$ 30.0$ million. Included in this net benefit is $\$ 75.7$ million related to a reduction for uncertain tax positions of prior years. In addition to the impact on the Company's uncertain tax positions, settlement of the examinations required an adjustment to certain tax attributes of the Company. The impact of the adjustments to these tax attributes resulted in a net income tax expense of $\$ 46.7$ million.

The Company classifies interest expense and any related penalties related to income tax uncertainties as a component of income tax expense. The total interest (income) expense related to tax uncertainties recognized in the consolidated statements of operations for the years ended December 31, 2013, 2012 and 2011 was $\$(1.0)$ million, $\$(1.1)$ million and $\$(0.7)$ million, respectively. Penalties in the amount of $\$(0.2)$ million, $\$ 0$ and $\$(0.1)$ million were recognized for the years ended December 31, 2013, 2012 and 2011, respectively. Accrued interest of $\$ 0.1$ million and $\$ 2.3$ million related to income tax uncertainties was reported as a component of other current liabilities and accrued

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interest of $\$ 4.0$ million and $\$ 2.8$ million related to income tax uncertainties was reported as a component of other longterm liabilities on the consolidated balance sheets at December 31, 2013 and 2012, respectively. There were no accrued penalties related to income tax uncertainties reported in other current liabilities on the consolidated balance sheet at December 31, 2013. Accrued penalties of $\$ 0.5$ million related to income tax uncertainties were reported in other current liabilities on the consolidated balance sheet at December 31, 2012. Accrued penalties of $\$ 0.5$ million and $\$ 0.4$ million related to income tax uncertainties were reported in other long-term liabilities on the consolidated balance sheets at December 31, 2013 and 2012, respectively.

The Company has tax years from 2010 through 2013 that remain open and subject to examination by the IRS. Tax years from 2003 through 2013 remain open and subject to examination in the Company's various major state jurisdictions within the United States.

## Note 16. Debt

Long-term debt consisted of the following as of December 31, 2013 and 2012:

|  | Weighted Average Interest Rate | 2013 |  | 2012 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Master note and security agreement ${ }^{(1)}$. | 7.47\% | \$ | 490.2 | \$ | 553.9 |
| Term loan A-\$450.0 million ${ }^{(2)}$ | 2.69\% |  | 416.3 |  | 444.4 |
| Term loan B—\$200.0 million ${ }^{(2)}$ | 4.00\% |  | 194.8 |  | 196.7 |
| Revolving credit facility $-\$ 850.0$ million ${ }^{(2)}$ | 2.68\% |  | 209.8 |  | 50.0 |
| International term loan-\$78.3 million ${ }^{(3)}$ | 2.74\% |  | 58.2 |  | 63.3 |
| International revolving credit facility-\$16.6 million ${ }^{(3)}$ | 4.16\% |  | 2.3 |  | 6.8 |
| Equipment term loans ${ }^{(4)}$ | 4.75\% |  | 16.4 |  | - |
| Other | 21.78\% |  | 5.3 |  | 9.9 |
| Total debt. |  | \$ | 1,393.3 | \$ | 1,325.0 |
| Less: short-term debt and current portion of long-ter |  |  | (127.6) |  | (113.3) |
| Long-term debt. |  | \$ | 1,265.7 | \$ | 1,211.7 |

(1) These senior notes have a weighted-average interest rate of $7.47 \%$, which is fixed to maturity, with interest payable semiannually. Principal payments commenced September 1997 and extend through April 2036 in various tranches. The notes are collateralized by certain United States land, buildings and press and finishing equipment under the terms of the master note and security agreement.
(2) On July 26, 2011, and as last amended on December 19, 2012, the Company entered into a $\$ 1.5$ billion debt financing agreement with certain lenders to reduce the Company's borrowing costs with lower interest rates and to create more flexibility with a higher revolving credit capacity and improvement in financial terms. The $\$ 1.5$ billion debt financing agreement includes three different loan facilities, a Term Loan A, a Term Loan B, and a revolving credit facility.

The revolving credit facility in the amount of $\$ 850.0$ million and the Term Loan A in the aggregate amount of $\$ 450.0$ million each had an initial term of five years that was extended an additional year as part of the December 19, 2012 amendment to mature on July 25, 2017. The Term Loan B in the amount of $\$ 200.0$ million (net of a $\$ 1.0$ million original issue discount) has a term of seven years maturing on July 25, 2018, subject to certain required amortization.

Borrowings under the revolving facility and Term Loan A loans made under the $\$ 1.5$ billion debt financing agreement bear interest at London Interbank Offered Rate ("LIBOR") plus $2.25 \%$, or $1.25 \%$ in excess of an alternate base rate, and Term Loan B loans bear interest at LIBOR plus $3.00 \%$, with a LIBOR floor of $1.00 \%$, or $2.00 \%$ in excess of an alternative base rate at the

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Company's option. At December 31, 2013, the Company had borrowings of $\$ 209.8$ million on the revolving credit agreement, as well as $\$ 44.0$ million of issued letters of credit, leaving $\$ 596.2$ million available for future borrowings.

The proceeds from the Term Loan A, Term Loan B and revolving credit facility were used to repay all outstanding balances and terminate the Company's previous $\$ 1.23$ billion debt financing agreement (which included the $\$ 700.0$ million term loan and the $\$ 530.0$ million revolving credit facility), as well as to pay the new debt issuance costs incurred for the refinancing. The $\$ 1.5$ billion debt financing agreement is secured by substantially all of the assets in the United States that are not encumbered under the Company's other financing agreements.

The Company recognized a $\$ 34.0$ million loss on debt extinguishment during the year ended December 31, 2011, in connection with the July $26,2011 \$ 1.5$ billion debt financing agreement. The loss was comprised of: (1) $\$ 20.9$ million of debt issuance costs from the terminated $\$ 1.23$ billion debt financing agreement, (2) $\$ 8.9$ million of remaining original issue discount from the terminated $\$ 1.23$ billion debt financing agreement and (3) $\$ 4.2$ million of debt issuance costs from the $\$ 1.5$ billion debt financing agreement. The $\$ 34.0$ million loss was classified as loss on debt extinguishment in the consolidated statements of operations.
(3) On December 16, 2008, debt related to the Company's international operations was refinanced by entering into a secured credit agreement ("Facilities Agreement"). The Facilities Agreement includes a Euro denominated term loan and a multicurrency revolving credit facility. The term loan principal payments commenced in December 2009 and it matures on December 16, 2015. The multicurrency revolving credit facility used for financing working capital and general business needs, was renewed in 2013 and will expire on December 16, 2014. At December 31, 2013, the Company's international operations had borrowings of $\$ 2.3$ million under the multicurrency revolving credit facility, leaving $\$ 14.3$ million available for future borrowing. The terms of the Facilities Agreement include certain financial covenants, a guarantee of the Facilities Agreement by the Company and a security agreement that includes collateralizing substantially all of the Quad/Winkowski assets. The facilities bear interest at the aggregate of the Warsaw Interbank Offered Rate ("WIBOR") or the Euro Interbank Offered Rate ("EURIBOR") and margin.
(4) During 2013, the Company refinanced certain equipment leases with $\$ 17.1$ million in equipment term loans secured by the formerly leased equipment. The equipment term loans bear interest at a fixed rate of $4.75 \%$, require quarterly payments and have five year terms expiring during 2018. The purchase of these assets resulted in $\$ 12.8$ million of non-cash investing and financing activities, which represents the $\$ 17.1$ million in equipment term loans net of $\$ 4.3$ million of eliminated capital lease obligations (see Note 1, "Basis of Presentation and Summary of Significant Accounting Policies").

Based upon the interest rates available to the Company for borrowings with similar terms and maturities, the fair value of the Company's total debt was approximately $\$ 1.4$ billion and $\$ 1.3$ billion at December 31, 2013 and 2012, respectively. The fair value determination of the Company's total debt was categorized as Level 2 in the fair value hierarchy (see Note 18, "Financial Instruments and Fair Value Measurements," for the definition of Level 2 inputs). As of December 31, 2013, approximately $\$ 3.0$ billion of the Company's assets were pledged as security under various loans and other agreements.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

## Debt Issuance Costs

Activity impacting the Company's debt issuance costs for the years ended December 31, 2013, and 2012, was as follows:

|  | Capitalized Debt Issuance Costs |  |
| :---: | :---: | :---: |
| Balance at January 1, 2012 | \$ | 20.2 |
| Debt issuance costs paid from December 2012 amendment ${ }^{(1)}$ |  | 2.1 |
| Amortization |  | (4.4) |
| Balance at December 31, 2012 | \$ | 17.9 |
| Amortization |  | (4.0) |
| Balance at December 31, 2013 | \$ | 13.9 |

(1) The Company incurred $\$ 2.1$ million of debt issuance costs in connection with the December 19, 2012, $\$ 1.5$ billion debt financing agreement amendment for the extension of the maturity dates on the $\$ 850.0$ million revolving credit facility and the $\$ 450.0$ million Term Loan A. These debt issuance costs have been accounted for as capitalized debt issuance costs and are classified as other long-term assets in the consolidated balance sheets. The costs are being amortized on a straight-line basis over the five year lives of the related debt instruments.

Amortization expense for debt issuance costs was $\$ 4.0$ million, $\$ 4.4$ million and $\$ 7.3$ million for the years ended December 31, 2013, 2012 and 2011, respectively.

## Covenants and Compliance

As of December 31, 2013, the Company's various lending arrangements included certain financial covenants (all financial terms, numbers and ratios are as defined in the Company's debt agreements). Among these covenants, the Company was required to maintain the following as of December 31, 2013 (for each covenant, the most restrictive measurement has been included below):

- On a rolling twelve-month basis, the total leverage ratio, defined as total consolidated debt to consolidated EBITDA (as defined in the debt agreement), shall not exceed 3.50 to 1.00 (for the twelve months ended December 31, 2013, the Company's leverage ratio was 2.39 to 1.00 ).
- On a rolling twelve-month basis, the minimum interest coverage ratio, defined as consolidated EBITDA to consolidated cash interest expense, shall not be less than 3.50 to 1.00 (for the twelve months ended December 31, 2013, the Company's interest coverage ratio was 7.34 to 1.00 ).
- On a rolling twelve-month basis, the fixed charge coverage ratio, defined as consolidated EBITDA and rent expense to interest and rent expense, shall not be less than 1.50 to 1.00 (for the twelve months ended December 31, 2013, the Company's fixed charge coverage ratio was 4.26 to 1.00 ).
- Consolidated net worth of at least $\$ 745.8$ million plus $40 \%$ of positive consolidated net income cumulatively for each year. As of December 31, 2013, consolidated net worth must be at least $\$ 793.9$ million (as of December 31, 2013, the Company's consolidated net worth under the most restrictive covenant per the various debt agreements was $\$ 1.21$ billion).


## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

In addition to those covenants, the $\$ 1.5$ billion debt financing agreement also includes certain limitations on acquisitions, indebtedness, liens, dividends and repurchases of capital stock. If the Company's total leverage ratio is greater than 3.00 to 1.00 (total leverage ratio as defined in the debt financing agreement), the Company is prohibited from making greater than $\$ 120.0$ million of annual dividend payments, capital stock repurchases and certain other payments. If the total leverage ratio is less than 3.00 to 1.00 , there are no such restrictions.

Approximate annual principal amounts due on long-term debt are as follows during the years ending December 31:

| 2014. | \$ | 127.6 |
| :---: | :---: | :---: |
| 2015. |  | 163.3 |
| 2016. |  | 116.0 |
| 2017. |  | 532.1 |
| 2018. |  | 228.0 |
| 2019. |  | 36.2 |
| 2020-2024. |  | 104.6 |
| 2025-2029. |  | 56.8 |
| 2030-2034. |  | 22.3 |
| 2035-2036. |  | 6.4 |
| Total | \$ | 1,393.3 |

## Note 17. Lease Obligations

The Company entered into various master lease agreements for press and finishing equipment. These leases provide the Company with options to purchase the related equipment at the termination value, as defined, and at various early buyout dates during the term of the lease. These leases are accounted for as capital leases on the consolidated balance sheets.

Assets recorded under capital leases are as follows as of December 31, 2013 and 2012:

|  | 2013 |  | 2012 |  |
| :---: | :---: | :---: | :---: | :---: |
| Presses and equipment-leased. | \$ | 70.8 | \$ | 78.7 |
| Less: accumulated depreciation. |  | (62.0) |  | (58.8) |
| Net presses and equipment-leased. | \$ | 8.8 | \$ | 19.9 |

## QUAD/GRAPHICS, INC. <br> NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (In millions, except share and per share data and unless otherwise indicated)

At December 31, 2013, the future maturities of capitalized leases consisted of the following:
2014. \$ ..... 7.5
2015. ..... 2.8
2016. ..... 2.3
2017. ..... 1.8
Total minimum payments \$
(0.9)
Less: amounts representing interest
Present value of minimum payments \$ ..... 13.5
Less: current portion ..... (7.0)
Long-term capital lease obligations \$ ..... 6.5

The Company has various operating lease agreements. Future minimum rental commitments under noncancelable leases are as follows:
2014. \$ ..... 44.5
2015. ..... 36.7
2016. ..... 30.8
2017. ..... 25.7
2018. ..... 18.4
2019 and thereafter ..... 44.3
Total ..... 200.4

Rent expense under these operating lease agreements totaled $\$ 36.9$ million, $\$ 33.2$ million and $\$ 22.8$ million during the years ended December 31, 2013, 2012 and 2011, respectively.

## Note 18. Financial Instruments and Fair Value Measurements

Certain assets and liabilities are required to be recorded at fair value on a recurring basis, while other assets and liabilities are recorded at fair value on a nonrecurring basis, generally as a result of acquisitions or impairment charges. Fair value is determined based on the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. GAAP also classifies the inputs used to measure fair value into the following hierarchy:

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

Level 2: Quoted prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or inputs other than quoted prices that are observable for the asset or liability.

Level 3: Unobservable inputs for the asset or liability. There are no Level 3 recurring measurements of assets or liabilities as of December 31, 2013.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

The Company records the fair value of its forward contracts and pension plan assets on a recurring basis. The fair value of cash and cash equivalents, receivables, inventories, restricted cash, accounts payable, accrued liabilities and amounts owing in satisfaction of bankruptcy claims approximate their carrying values as of December 31, 2013 and 2012. See Note 16, "Debt," for further discussion on the fair value of the Company's debt and Note 20, "Employee Retirement Plans," for the details of Level 1 and Level 2 inputs related to Employee Retirement Plans.

In addition to assets and liabilities that are recorded at fair value on a recurring basis, the Company is required to record certain assets and liabilities at fair value on a nonrecurring basis, generally as a result of acquisitions or the remeasurement of assets resulting in impairment charges. See Note 3, "Acquisitions and Strategic Investments," for further discussion on acquisitions or Note 5, "Restructuring, Impairment and Transaction-Related Charges," for further discussion on impairment charges recorded as a result of the remeasurement of certain long-lived assets as of December 31, 2013 and 2012.

The Company has operations in countries that have transactions outside their functional currencies and periodically enters into foreign exchange contracts. These contracts are used to hedge the net exposures of changes in foreign currency exchange rates and are designated as either cash flow hedges or fair value hedges. Gains or losses on net foreign currency hedges are intended to offset losses or gains on the underlying net exposures in an effort to reduce the earnings volatility resulting from fluctuating foreign currency exchange rates.

The Company periodically enters into natural gas forward purchase contracts to hedge against increases in commodity costs. During the years ended December 31, 2013 and 2012, the Company's commodity contracts qualified for the exception related to normal purchases and sales as the Company takes delivery in the normal course of business.

The Company settled the short-term foreign currency forward exchange contract to hedge exchange rate exposure on the 50.0 million Canadian dollars deposit related to the Transcontinental Mexico acquisition on March 1, 2012 (see Note 3, "Acquisitions and Strategic Investments"). There were no open foreign currency exchange contracts as of December 31, 2013. For the years ended December 31, 2013, 2012 and 2011, there was no impact of hedge ineffectiveness on the consolidated statements of operations.

## Note 19. Other Long-Term Liabilities

Other long-term liabilities consisted of the following as of December 31, 2013 and 2012:

|  | 2013 |  | 2012 |  |
| :---: | :---: | :---: | :---: | :---: |
| Single employer pension and postretirement obligations | \$ | 109.2 | \$ | 288.3 |
| MEPPs withdrawal liability. |  | 53.1 |  | 74.3 |
| Tax-related liabilities. |  | 24.6 |  | 22.0 |
| Employee-related liabilities . |  | 54.5 |  | 53.5 |
| Restructuring reserve. |  | 8.5 |  | - |
| Other |  | 54.0 |  | 57.6 |
| Total. | \$ | 303.9 | \$ | 495.7 |

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

## Note 20. Employee Retirement Plans

## Defined Contribution Plans

The Quad/Graphics Diversified Plan is comprised of participant directed 401(k) contributions, Company match and profit sharing-contributions. Company $401(\mathrm{k})$ matching contributions were $\$ 13.2$ million, $\$ 11.9$ million and $\$ 12.8$ million for the years ended December 31, 2013, 2012 and 2011, respectively. The Quad/Graphics Employee Stock Ownership Plan holds profit sharing contributions of Company stock, which are made at the discretion of the Company's Board of Directors. There were no profit sharing contributions for the years ended December 31, 2013 and 2012. The annual profit sharing contributions totaled $\$ 13.4$ million for the year ended December 31, 2011.

## Defined Benefit Plans and Other Postretirement Benefit Plans

The Company sponsors various funded and unfunded pension plans for a portion of its full-time employees in the U.S. and Canada. Benefits are generally based upon years of service and compensation. These plans are funded in conformity with the applicable government regulations. The Company funds at least the minimum amount required for all qualified plans using actuarial cost methods and assumptions acceptable under government regulations. In addition to pension benefits, the Company provides certain healthcare and life insurance benefits for some retired employees.

The components of the net periodic pension and postretirement benefit expense (income) for the years ended December 31, 2013, 2012 and 2011 are as follows:

|  | Pension Benefits |  |  |  |  |  | Postretirement Benefits |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2013 |  | 2012 |  | 2011 |  | 2013 |  | 2012 |  | 2011 |  |
| Service cost | \$ | - | \$ | 0.3 | \$ | 0.4 | \$ | - | \$ | 0.2 | \$ | 0.4 |
| Interest cost |  | 28.2 |  | 31.2 |  | 34.1 |  | 0.1 |  | 0.7 |  | 1.4 |
| Expected return on plan assets |  | (30.2) |  | (27.2) |  | (27.6) |  | - |  | - |  | - |
| Amortization of prior service credit |  | - |  | - |  | - |  | (5.7) |  | (3.4) |  | (3.5) |
| Amortization of actuarial (gain) / loss. |  | 0.3 |  | - |  | - |  | - |  | (0.1) |  | 0.4 |
| Net periodic benefit cost (income) |  | (1.7) |  | 4.3 |  | 6.9 |  | (5.6) |  | (2.6) |  | (1.3) |
| Curtailment/settlement (gain) / loss |  | (2.1) |  | 0.1 |  | - |  | - |  | (12.8) |  | (7.0) |
| Total expense (income). | \$ | (3.8) | \$ | 4.4 | \$ | 6.9 | \$ | (5.6) | \$ | (15.4) | \$ | (8.3) |

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

The underfunded pension and postretirement obligations are calculated using generally accepted actuarial methods and are measured as of December 31. The following provides a reconciliation of the projected benefit obligation, fair value of plan assets and the funded status of the pension and postretirement plans as of December 31, 2013 and 2012:


Amounts recognized on the consolidated balance sheets as of December 31, 2013 and 2012 are as follows:

|  | Pension Benefits |  |  |  | Postretirement Benefits |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2013 |  | 2012 |  | 2013 |  | 2012 |  |
| Current liabilities | \$ | (4.0) | \$ | (1.2) | \$ | (0.8) | \$ | (1.0) |
| Noncurrent liabilities |  | (106.0) |  | (283.9) |  | (3.2) |  | (4.4) |
| Total amount recognized | \$ | (110.0) | \$ | (285.1) | \$ | (4.0) | \$ | (5.4) |

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

The following table provides a reconciliation of the Company's accumulated other comprehensive income (loss) prior to any deferred tax effects at December 31, 2013 and 2012 are as follows:

| Balance at January 1, 2011 | Pension Benefits |  | Postretirement Benefits |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actuarial Gain / (Loss), net |  | Actuarial Gain / (Loss), net |  | Prior Service Credit/(Cost) |  | Total |  |
|  | \$ | (29.6) | \$ | 0.9 | \$ | 9.1 | \$ | 10.0 |
| Amount arising during the period |  | (50.7) |  | (0.6) |  | 22.6 |  | 22.0 |
| Amortization included in net earnings (loss) |  | - |  | (0.1) |  | (3.4) |  | (3.5) |
| Plan curtailments/settlements included in net earnings (loss). |  | 0.1 |  | (12.8) |  | - |  | (12.8) |
| Balance at December 31, 2012 | \$ | (80.2) | \$ | (12.6) | \$ | 28.3 | \$ | 15.7 |
| Amount arising during the period |  | 132.6 |  | 1.0 |  | - |  | 1.0 |
| Amortization included in net earnings (loss) . |  | 0.3 |  | - |  | (5.7) |  | (5.7) |
| Impact of plan settlements included in net earnings (loss). |  | (2.1) |  | - |  | - |  | - |
| Balance at December 31, 2013 | \$ | 50.6 | \$ | (11.6) | \$ | 22.6 | \$ | 11.0 |

In 2013, the Company paid out lump sums to participants that exceeded the threshold for settlement accounting, which resulted in an acceleration of the recognition of accumulated other comprehensive income and a settlement gain of $\$ 2.1$ million. The settlement gain was recorded in restructuring, impairment and transaction-related charges in the consolidated statement of operations.

In 2012, the Company announced the elimination of life insurance coverage for all current and future retirees in all locations and the elimination of reimbursement of medical costs for certain retirees, which resulted in the reduction of plan obligations by $\$ 5.7$ million. In addition, the Company also announced the elimination of postretirement medical benefit coverage for all future retirees who will retire after December 31, 2012, which resulted in the reduction of plan obligations by $\$ 16.9$ million and recognition of a curtailment gain of $\$ 12.8$ million. The curtailment gain was recorded in restructuring, impairment and transaction-related charges in the consolidated statement of operations.

Actuarial gains and losses in excess of $10 \%$ of the greater of the projected benefit obligation or the marketrelated value of plan assets are recognized as a component of net periodic benefit costs over the average remaining service period of a plan's active employees. Unrecognized prior service costs or credit are also recognized as a component of net periodic benefit cost over the average remaining service period of a plan's active employees. The amounts in accumulated other comprehensive income (loss) that are expected to be recognized as components of net periodic pension and postretirement benefit expense (income) over the next year are as follows:

|  | Pension <br> Expense <br> (Income) |  | Postretirement Expense (Income) |  |
| :---: | :---: | :---: | :---: | :---: |
| Amortization of: |  |  |  |  |
| Net actuarial gain | \$ | (0.1) | \$ | (0.3) |
| Net prior service credit. |  | - |  | (5.7) |
| Total. | \$ | (0.1) | \$ | (6.0) |

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## (In millions, except share and per share data and unless otherwise indicated)

The weighted-average assumptions, separately for the pension and postretirement benefit plans, used to determine net periodic benefit costs for the years ended December 31, 2013, 2012 and 2011 were as follows:

|  | Pension Benefits |  |  | Postretirement Benefits |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2013 | 2012 | 2011 | 2013 | 2012 | 2011 |
| Discount rate (beginning of year rate). | 3.9\% | 4.7\% | 5.2\% | 2.8\% | 3.7\% | 4.2\% |
| Rate of compensation increase | N/A | N/A | 3.5\% | N/A | N/A | 3.5\% |
| Expected long-term return on plan asse | 6.5\% | 6.5\% | 6.5\% | N/A | N/A | N/A |

The weighted-average assumptions, separately for the pension and postretirement benefit plans, used to determine benefit obligations at December 31, 2013 and 2012 were as follows:

|  | Pension Benefits |  | Postretirement Benefits |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2013 | 2012 | 2013 | 2012 |
| Discount rate (end of year rate) | 4.8\% | 3.9\% | 3.6\% |  |

The Company determines its assumed discount rate based on an index of high-quality corporate bond yields and matched-funding yield curve analysis as of the measurement date.

The assumed health care cost trend rate used in measuring the accumulated postretirement benefit obligation was $7.5 \%$ at the end of 2013 , and is expected to gradually decline through 2024 to an ultimate trend rate of $5.0 \%$. A onepercentage point change in assumed health care cost trend rates would have the following effects:

|  | 1\% Increase |  | 1\% Decrease |  |
| :---: | :---: | :---: | :---: | :---: |
| Total postretirement benefits income. | \$ | - | \$ | - |
| Postretirement benefits obligation |  | 0.1 |  | (0.1) |

## Estimated Company Contributions and Benefit Payments

In 2014, the Company expects to make cash contributions of $\$ 39.7$ million to its qualified defined benefit pension plans and make estimated benefit payments of $\$ 4.9$ million to its non-qualified defined benefit pension and postretirement plans. The actual pension contributions may differ based on the funding calculations, and the Company may choose to make additional discretionary contributions. The estimated benefit payments may differ based on actual claim experience.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

## Estimated Future Benefit Payments by the Plans to or on behalf of Plan Participants

An estimate of the Plans' future benefit payments to be made from funded qualified plans and unfunded nonqualified and postretirement plans to plan participants are as follows:

|  | Pension Benefits |  | Postretirement Benefits |  |
| :---: | :---: | :---: | :---: | :---: |
| 2014 | \$ | 41.4 | \$ | 0.8 |
| 2015 |  | 38.9 |  | 0.6 |
| 2016 |  | 38.0 |  | 0.4 |
| 2017 |  | 38.5 |  | 0.3 |
| 2018 |  | 39.6 |  | 0.3 |
| 2019-2023 |  | 201.9 |  | 1.3 |
| Thereafter. |  | 236.9 |  | 0.3 |
| Total. | \$ | 635.2 | \$ | 4.0 |

## Plan Assets and Investment Strategy

The Company follows a disciplined investment strategy, which provides diversification of investments by asset class, foreign currency, sector and company. The Pension Committee has approved investment policies for the different pension plans that establish long-term asset mix targets based on several factors including: historical returns achieved by worldwide investment markets, the time horizon of the pension plans' obligations and the investment risk. For each of the plans, an allocation range by asset class is developed whereby a mix of equities and fixed-income investments is used to provide an appropriate risk-adjusted long-term return on plan assets. Third-party investment managers are employed to invest assets in both passively-indexed and actively-managed strategies and investment returns and risks are monitored on an ongoing basis. Derivatives are used at certain times to hedge foreign currency exposure. Gains or losses on the derivatives are offset by a corresponding change in the value of the hedged assets. Derivatives are strictly used for hedging purposes and not speculative purposes.

The target allocations for plan assets on a weighted-average basis are $65 \%$ equity securities and $35 \%$ fixedincome, including cash and cash equivalents. The actual asset allocation as of December 31, 2013, was approximately $67 \%$ equity securities and $33 \%$ debt securities. The actual asset allocation as of December 31, 2012, was approximately $64 \%$ equity securities, $35 \%$ debt securities and $1 \%$ other. Equity investments are diversified by country, issuer and industry sector. Fixed income securities primarily consist of government bonds and corporate bonds from diversified industries.

The expected long-term rate of return on assets assumption is selected by first identifying the expected range of long-term rates of return for each major asset class. Expected long-term rates of return are developed based on long-term historical averages, current expectations of future returns and anticipated inflation rates. The expected long-term rate of return on plan assets is then calculated by weighting each asset class. To the extent that individual pension plans have different target asset mixes, the expected long-term rate of return on assets may differ across plans.

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The fair values of the Company's pension plan assets at December 31, 2013 and 2012 by asset category are as follows:

| Asset Category | December 31, 2013 |  |  |  |  |  |  |  | December 31, 2012 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  | Level 1 |  | Level 2 |  | Level 3 |  | Total |  | Level 1 |  | Level 2 |  | Level 3 |  |
| Cash and cash equivalents | \$ | 0.3 | \$ | 0.3 | \$ | - | \$ | - | \$ | 0.4 | \$ | 0.4 | \$ | - | \$ | - |
| Fixed income. |  | 171.5 |  | - |  | 171.5 |  | - |  | 162.1 |  | - |  | 162.1 |  | - |
| Equities |  | 353.4 |  | 122.9 |  | 230.5 |  | - |  | 295.0 |  | 270.8 |  | 24.2 |  | - |
| Others |  | - |  | - |  | - |  | - |  | 1.4 |  | - |  | 1.4 |  | - |
| Total | \$ | 525.2 | \$ | 123.2 | \$ | 402.0 | \$ | - | \$ | 458.9 | \$ | 271.2 | \$ | 187.7 | \$ | - |

There are no Level 3 assets or liabilities as of December 31, 2013 and 2012.
The Company segregated its plan assets by the following major categories and levels for determining their fair value as of December 31, 2013:

Cash and cash equivalents. Carrying value approximates fair value and these assets are classified as Level 1.
Fixed Income. This category consists of bonds and short-term fixed income securities fair valued based on a compilation of primarily observable market information or broker quotes in over-the-counter markets and are classified as Level 2.

Equities. This category consists of equity investments and equity pooled funds and these assets are classified as Level 1 and Level 2, respectively. The fair value of equity investments is based on quoted prices in an active market. The fair value of the equity pooled funds is based on the funds' Net Asset Value ("NAV") established by the funds' administrator.

The valuation methodologies described above may generate a fair value calculation that may not be indicative of net realizable value or future fair values. While the Company believes the valuation methodologies used are appropriate, the use of different methodologies or assumptions in calculating fair value could result in different amounts. The Company invests in various assets in which valuation is determined by NAV. The Company believes that NAV is representative of fair value at the reporting date, as there are no significant restrictions on redemption on these investments or other reasons to indicate that the investment would be redeemed at an amount different than NAV.

## Risk Management

For all directly invested funds, the concentration risk is monitored through specific guidelines in the investment manager mandates. The investment manager mandates were developed by the Company's external investment advisor, and specify diversification standards such as the maximum exposure per issuer, and concentration limits per type of security, industry and country when applicable.

For the investments made through pooled funds, the investment mandates of the funds were again reviewed by the Company's external investment advisor, to determine that the investment objectives and guidelines were consistent with the Company's overall pension plan risk management objectives. In managing the plan assets, management reviews and manages risk associated with funded status risk, interest rate risk, market risk, counterparty risk, liquidity risk and operational risk. Liability management and asset class diversification are central to the Company's risk management approach and are integral to the overall investment strategy.

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Given the process in place to ensure a proper diversification of the portfolio, management believes that the Company pension plan assets are not exposed to significant concentration risk.

## Multiemployer Pension Plans

The Company participates in a number of MEPPs under terms of collective bargaining agreements that cover a number of its employees. The risks of participating in these MEPPs are different from single employer plans in the following aspects:

- Assets contributed to the MEPPs by one company may be used to provide benefits to employees of other participating companies.
- If a participating company stops contributing to the plan, the unfunded obligations of the plan may be borne by the remaining participating companies.
- If the Company stops participating in some or all of its MEPPs, and continues in business, the Company would be required to pay an amount, referred to as a withdrawal liability, based on the unfunded status of the plan.

The Company has withdrawn from all significant MEPPs and replaced these union sponsored "promise to pay in the future" defined benefit plans with a Company sponsored "pay as you go" defined contribution plan. The two MEPPs, the Graphic Communications International Union - Employer Retirement Fund ("GCIU") and the Graphic Communications Conference of the International Brotherhood of Teamsters National Pension Fund ("GCC"), are significantly underfunded, and will require the Company to pay a withdrawal liability to fund its pro rata share of the underfunding as of the plan year the full withdrawal was completed. As a result of the decision to withdraw, the Company accrued a $\$ 98.6$ million estimated withdrawal liability based on information provided by each plan's trustee, as part of the purchase price allocation for World Color Press. The Company is making required interim payments to the MEPPs for the Company's withdrawal liability from the GCIU and the GCC plans.

The GCIU Plan is a defined benefit plan that provides retirement benefits, total and permanent disability benefits, and pre-retirement death benefits for the participating union employees of the Company. The funded status of the GCIU Plan is classified as critical based on the GCIU Plan's 2013 certification to the United States Department of Labor, as the funded percentage for the plan is less than $65 \%$ and is projected to have an accumulated funding deficit over the next four plan years. As a result, the GCIU Plan implemented a rehabilitation plan to improve the plan's funded status. The Company estimates that contributions made to the GCIU Plan by the Company represent greater than $5 \%$ of total contributions made by all participating employers in the 2012 plan year (the plan year ended December 31, 2012, is the latest available financial information provided by the GCIU Plan).

The GCC Plan is a defined benefit plan that provides retirement benefits, disability benefits, and early retirement benefits for the participating union employees of the Company. The funded status of the GCC Plan is classified as critical based on the GCC Plan's 2013 certification to the United States Department of Labor, as the funded percentage for the plan is less than $65 \%$ and is projected to have an accumulated funding deficit over the next four plan years. As a result, the GCC Plan implemented a rehabilitation plan to improve the plan's funded status. The Company estimates that contributions made to the GCC Plan by the Company represent greater than $5 \%$ of total contributions made by all participating employers in the 2011 plan year (the plan year ended April 30, 2012, is the latest available financial information provided by the GCC Plan).

The Company has received notices of withdrawal and demand for payment letters for both the GCIU and GCC plans, which, in total are in excess of the $\$ 98.6$ million in original reserves established by the Company for the withdrawals. The Company is in the process of determining the final withdrawal payment with both MEPPs'

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administrators, and the withdrawal liability reserved by the Company is within the range of the Company's estimated potential outcomes. During this process the Company began making monthly payments totaling $\$ 14.4$ million and $\$ 11.2$ million for the years ended December 31, 2013 and 2012, respectively, as requested by the MEPPs and as required by the Employee Retirement Income Security Act, although such payments do not waive the Company's rights to object to the withdrawal liabilities submitted by the GCIU and GCC plan administrators. As of December 31, 2013, the Company has reserved $\$ 73.0$ million as its estimate of the total MEPPs withdrawal liability, of which $\$ 53.1$ million is recorded in other long-term liabilities, $\$ 14.4$ million is recorded in accrued liabilities and $\$ 5.5$ million is recorded in unsecured notes to be issued in the consolidated balance sheets. This estimate may increase or decrease depending on the final agreement with the MEPPs' administrators.

## Note 21. Earnings (Loss) Per Share Attributable to Quad/Graphics Common Shareholders

Basic earnings (loss) per share attributable to Quad/Graphics common shareholders is computed as net earnings (loss) attributable to Quad/Graphics common shareholders less the allocation of participating securities, divided by the basic weighted average common shares outstanding of 47.0 million, 46.8 million and 47.1 million shares for the years ended December 31, 2013, 2012 and 2011, respectively. The calculation of a diluted earnings per share amount includes the effect of any dilutive equity incentive instruments. The Company uses the treasury stock method to calculate the effect of outstanding dilutive equity incentive instruments, which requires the Company to compute total proceeds as the sum of (1) the amount the employee must pay upon exercise of the award, (2) the amount of unearned stock-based compensation costs attributed to future services and (3) the amount of tax benefits, if any, that would be credited to additional paid-in capital assuming exercise of the award. Equity incentive instruments for which the total employee proceeds from exercise exceed the average fair value of the same equity incentive instrument over the period have an anti-dilutive effect on earnings per share during periods with net earnings from continuing operations, and accordingly, the Company excludes them from the calculation. Anti-dilutive equity incentive instruments of 1.6 million and 3.2 million of class A common shares were excluded from the computations of diluted net earnings per share for the years ended December 31, 2013 and 2012, respectively. Due to the net loss from continuing operations attributable to Quad/Graphics common shareholders incurred during the year ended December 31, 2011, the assumed exercise of all equity incentive instruments was anti-dilutive and, therefore, not included in the diluted loss per share attributable to Quad/Graphics common shareholders calculation for that period.

Unvested share-based payment awards that contain non-forfeitable rights to dividends or dividend equivalents, whether paid or unpaid, are required to be treated as participating securities and included in the computation of earnings (loss) per share pursuant to the two-class method. The Company's participating securities are composed of unvested stock options granted on November 18, 2011, and reduced basic and diluted earnings per share attributable to Quad/ Graphics common shareholders by $\$ 0.02$ and $\$ 0.07$ per diluted share for the years ended December 31, 2013 and 2012, respectively. There was no impact to basic and diluted earnings per share attributable to Quad/Graphics common shareholders during 2011.

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Reconciliations of the numerator and the denominator of the basic and diluted per share computations for the Company's common stock, including the impact of discontinued operations, for the years ended December 31, 2013, 2012 and 2011 are summarized as follows:

|  | 2013 |  | 2012 |  | 2011 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Numerator: |  |  |  |  |  |  |
| Net earnings (loss) from continuing operations. | \$ | 30.9 | \$ | 56.3 | \$ | (8.0) |
| Adjustments to net earnings (loss) from continuing operations |  |  |  |  |  |  |
| Net (earnings) loss attributable to noncontrolling interests |  | 1.6 |  | 0.3 |  | (0.3) |
| Allocation to participating securities |  | (1.1) |  | (3.2) |  | - |
| Net earnings (loss) from continuing operations - adjusted | \$ | 31.4 | \$ | 53.4 | \$ | (8.3) |
| Loss from discontinued operations, net of tax. | \$ | - | \$ | (3.2) | \$ | (38.6) |
| Adjustments to loss from discontinued operations, net of tax |  |  |  |  |  |  |
| Gain on disposal of discontinued operations, net of tax. |  | - |  | 34.0 |  | - |
| Income (loss) from discontinued operations, net of tax | \$ | - | \$ | 30.8 | \$ | (38.6) |
| Net earnings (loss) attributable to Quad/Graphics common shareholders | \$ | 32.5 | \$ | 87.4 | \$ | (46.9) |
| Adjustments to net earnings (loss) attributable to Quad/Graphics common shareholders |  |  |  |  |  |  |
| Allocation to participating securities |  | (1.1) |  | (3.2) |  | - |
| Net earnings (loss) attributable to Quad/Graphics common shareholders adjusted | \$ | 31.4 | \$ | 84.2 | \$ | (46.9) |

Denominator:

| Basic weighted average number of common shares outstanding for all classes of common shares | 47.0 | 46.8 | 47.1 |
| :---: | :---: | :---: | :---: |
| Plus: effect of dilutive equity incentive instruments | 1.0 | 0.4 | - |
| Diluted weighted average number of common shares outstanding for all classes of common shares | 48.0 | 47.2 | 47.1 |

## Earnings (loss) per share attributable to Quad/Graphics common shareholders:

Basic:

| Continuing operations | \$ | 0.67 | \$ | 1.14 | \$ | (0.18) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Discontinued operations |  | - |  | 0.66 |  | (0.82) |
| Earnings (loss) per share shareholders | \$ | 0.67 | \$ | 1.80 | \$ | (1.00) |

Diluted:

| Continuing operations | \$ | 0.65 | \$ | 1.13 | \$ | (0.18) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Discontinued operations. |  | - |  | 0.65 |  | (0.82) |
| Earnings (loss) per share attributable to Quad/Graphics common shareholders | \$ | 0.65 | \$ | 1.78 | \$ | (1.00) |
| dividends paid per common share for all classes of common shares | \$ | 1.20 | \$ | 3.00 | \$ | 0.60 |

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## Note 22. Equity Incentive Programs

The shareholders of the Company approved the Quad/Graphics Inc. 2010 Omnibus Incentive Plan ("Omnibus Plan") for two complimentary purposes: (1) to attract and retain outstanding individuals to serve as directors, officers and employees and (2) to increase shareholder value. The Omnibus Plan replaced the 1999 Nonqualified Stock Option Plan and the 1990 Stock Option Plan and, as of January 1, 2011, all equity grants are made from the Omnibus Plan. In May 2012 and 2013, an additional 3,571,652 and 2,000,000 shares, respectively, were approved for issuance under the Omnibus Plan, making $7,871,652$ shares of Class A stock reserved for issuance under the Omnibus Plan. Awards under the Omnibus Plan may consist of incentive awards, stock options, stock appreciation rights, performance shares, performance share units, shares of class A stock, restricted stock, restricted stock units, deferred stock units or other stock-based awards as determined by the Company's board of directors. Each stock option granted has an exercise price of no less than $100 \%$ of the fair market value of the class A stock on the date of grant. As of December 31, 2013, there are $2,400,763$ shares available for issuance under the Omnibus Plan.

The Company recognizes compensation expense, based on estimated grant date fair values, for all share-based awards issued to employees and non-employee directors, including stock options, performance shares, performance share units, restricted stock, restricted stock units and deferred stock units. The Company recognizes these compensation costs for only those awards expected to vest, on a straight-line basis over the requisite service period of the award, which is generally the vesting term of three to four years for performance share and performance share unit awards, restricted stock and restricted stock unit awards, and stock options. The Company estimated the number of awards expected to vest based, in part, on historical forfeiture rates and also based on management's expectations of employee turnover within the specific employee groups receiving each type of award. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods, if actual forfeitures differ from those estimates.

## Equity Incentive Compensation Expense

The total compensation expense recognized related to all equity incentive programs was $\$ 18.6$ million, $\$ 13.4$ million and $\$ 14.9$ million for the years ended December 31, 2013, 2012 and 2011, respectively, and was recorded in selling, general and administrative expenses and restructuring, impairment and transaction-related charges in the consolidated statements of operations. Total future compensation expense related to all equity incentive programs granted as of December 31, 2013, is approximately $\$ 19.5$ million. Estimated future compensation expense is $\$ 14.1$ million for 2014 and $\$ 5.4$ million for 2015.

## Stock Options

On November 18, 2011, the Company announced that the Board of Directors had approved the termination of the outstanding stock options under the Company's 1990 Stock Option Plan and 1999 Nonqualified Stock Option Plan (the "409A Options"). In accordance with the authoritative literature for the termination and modification of stock options, as of December 31, 2011, the Company recorded a $\$ 20.0$ million liability for the termination payment, which was based on the number of 409A Options held by the option holders, the Company's weighted volume adjusted stock price of $\$ 13.47$ as of November 18, 2011, and the exercise price of the 409A Options. The termination payment was paid in December 2012. In addition, in 2011, the Company recorded $\$ 6.4$ million of incremental stock option expense, which is recorded in restructuring, impairment and transaction-related charges in the consolidated statements of operations.

The option holders were granted new options under the Omnibus Plan equal to the number of terminated 409A Options held by them. All of the new options were granted at an exercise price equal to or greater than the fair market value of $\$ 13.47$ per share, and if the exercise price of an option holders' 409 A Options was greater than $\$ 13.47$, then the new options were issued at such greater price. Therefore, none of the new options were granted with an exercise price below fair market value and all of the new options were granted at an exercise price equal to or greater than the corresponding 409A Option that was canceled.

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For new option grants beginning January 1, 2011, options vest over four years, with no vesting in the first year and one-third vesting upon the second, third and fourth anniversary dates. As defined in the individual grant agreements, acceleration of vesting may occur under a change in control, death, disability or normal retirement of the grantee. For the new option grants beginning January 1, 2011, options expire no later than the tenth anniversary of the grant date, twenty-four months after termination for death, thirty-six months after termination for normal retirement or disability and 90 days after termination of employment for any other reason. While stock options granted prior to 2011 were credited with dividend declarations, the new option grants after that time are not credited with dividend declarations, excluding the November 18, 2011 grants. Stock options are only to be granted to employees and will only be granted under the new option grant terms from January 1, 2011 forward.

There were no stock options granted under the Omnibus plan during the year ended December 31, 2013. There were 448,154 stock options granted with a grant date weighted average fair value of $\$ 2.25$ during the year ended December 31, 2012. There were 451,029 stock options granted with a grant date weighted average fair value of $\$ 13.17$ during the year ended December 31, 2011. Excluding the 3,571,652 new options granted on November 18, 2011, the fair market value of stock options is determined using the Black-Scholes-Merton option pricing module. The fair market value of the stock options is determined using the following weighted average assumptions for the years ended December 31, 2012 and 2011:

|  | 2012 | 2011 |
| :---: | :---: | :---: |
| Expected volatility . | 36.7\% | 36.0\% |
| Risk-free interest rate. | 1.3\% | 2.3\% |
| Expected life (years) | 7.0 | 7.0 |
| Dividend yield | 7.1\% | 2.0\% |

The Company determined expected volatility based on the volatility of comparable company stock. The average risk-free interest rate is based on the United States treasury security rate in effect as of the grant date over the term of the expected life. The expected life is based on the term and vesting period of each grant adjusted for historical experience in vesting.

Compensation expense recognized related to stock options was $\$ 10.8$ million, $\$ 10.1$ million and $\$ 12.7$ million for the years ended December 31, 2013, 2012 and 2011, respectively. Total future compensation expense for all stock options granted as of December 31, 2013, is approximately $\$ 7.8$ million. Estimated future compensation expense is $\$ 7.6$ million for 2014 and $\$ 0.2$ million for 2015.

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The following table is a summary of the stock option activity for the year ended December 31, 2013:

|  | Shares Under Option | Weighted Average Exercise Price |  | Weighted Average Remaining Contractual Term (years) | Aggregate Intrinsic Value (millions) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Outstanding at December 31, 2012. | 4,407,125 | \$ | 20.34 | 6.8 | \$ | 15.2 |
| Granted | - |  | - |  |  |  |
| Exercised. | $(461,782)$ |  | 15.51 |  |  |  |
| Cancelled/forfeited/expired | $(186,078)$ |  | 26.21 |  |  |  |
| Outstanding at December 31, 2013. | 3,759,265 | \$ | 20.82 | 5.8 | \$ | 30.0 |
| Vested and expected to vest at December 31, 2013 | 3,759,265 | \$ | 20.82 | 5.8 | \$ | 30.0 |
| Exercisable at December 31, 2013 | 2,658,188 | \$ | 20.30 | 5.4 | \$ | 20.8 |

The intrinsic value of options exercisable and options outstanding at December 31, 2013, 2012 and 2011 is based on the fair value of the stock price.

Share-based compensation activity for the years ended December 31, 2013, 2012 and 2011, is noted below:

|  | 2013 |  | 2012 |  | 2011 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total intrinsic value of stock options exercised. | \$ | 6.3 | \$ | - | \$ | 3.7 |
| Cash received from stock option exercises. |  | 7.2 |  | 0.1 |  | 1.6 |
| Total grant date fair value of stock options veste |  | 3.7 |  | 1.9 |  | 5.4 |

Net tax benefits on stock option activity, shown as tax benefit on stock option activity in the financing section of the consolidated statements of cash flows, were $\$ 2.2$ million, $\$ 4.1$ million and $\$ 0.9$ million for the years ended December 31, 2013, 2012 and 2011, respectively.

## Performance Share and Performance Share Units

Performance share ("PS") and performance share unit ("PSU") awards consist of shares or the rights to shares of the Company's class A stock which are awarded to employees of the Company. These shares are payable upon the determination that the Company achieved certain established performance targets and can range from $0 \%$ to $200 \%$ of the targeted payout based on the actual results. Shares awarded in 2013 have a performance period of three years ending December 31, 2015. As set forth in the individual grant agreements, acceleration of vesting may occur under a change in control, or death, disability or normal retirement of the grantee. Grantees receiving PS or PSU grants receive full credit for dividends during the vesting period. All such dividends will be paid to the grantee within 45 days of full vesting. Upon vesting, PSUs will be settled either through cash payment equal to the fair market value of the PSUs on the vesting date or through issuance of Company class A stock. There are no voting rights with these instruments until vesting occurs and a share of stock is issued.

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The following table is a summary of PS and PSU award activity for the year ended December 31, 2013:

|  | Performance Shares |  |  |  | Performance Share Units |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Shares | WeightedAverage Grant Date Fair Value Per Share |  | WeightedAverage Remaining Contractual Term (years) | Units |  | WeightedAverage Grant Date Fair Value Per Share |  | WeightedAverage Remaining Contractual Term (years) |
| Nonvested at December 31, 2012 | - | \$ | - | - | \$ | - | \$ | - |  |
| Granted | 389,930 |  | 20.39 |  |  | 16,208 |  | 20.50 |  |
| Vested. | - |  | - |  |  | - |  | - |  |
| Forfeited. | $(38,082)$ |  | 20.39 |  |  | - |  | - |  |
| Nonvested at December 31, 2013 | 351,848 | \$ | 20.39 | 2.0 | \$ | 16,208 | \$ | 20.50 | 2.0 |

During the year ended December 31, 2013, PS awards of 389,930 shares and PSU awards of 16,208 units were granted at a weighted-average grant date fair value of $\$ 20.39$ and $\$ 20.50$, respectively. There were no PS or PSU awards granted during the years ended December 31, 2012 and 2011. On the grant dates, the target number of shares ("target shares") was granted. During the performance period, the target shares will be earned or forfeited, and additional shares, up to the maximum number of shares, may be granted at the end of the performance period. The potential payouts for nonvested awards at December 31, 2013 range from zero to 736,112 PS or PSU awards should certain performance targets be achieved. In general, PS and PSU awards will vest at the end of the performance period, provided the holder of the share is continuously employed by the Company until the vesting date.

Compensation expense for awards granted are recognized based on the targeted payout of $100 \%$, net of estimated forfeitures. Compensation expense recognized related to PS and PSUs was $\$ 2.3$ million for the year ended December 31, 2013. There was no compensation expense recognized related to PS and PSUs for the years ended December 31, 2012 and 2011. Total future compensation expense for all PS and PSUs granted as of December 31, 2013 is estimated to be $\$ 4.8$ million. Estimated future compensation expense is $\$ 2.4$ million for 2014 and $\$ 2.4$ million for 2015.

## Restricted Stock and Restricted Stock Units

Restricted stock ("RS") and restricted stock unit ("RSU") awards consist of shares or the rights to shares of the Company's class A stock which are awarded to employees of the Company. The awards are restricted such that they are subject to substantial risk of forfeiture and to restrictions on their sale or other transfer by the employee. RSU awards are typically granted to eligible employees outside of the United States. As defined in the individual grant agreements, acceleration of vesting may occur under a change in control, or death, disability or normal retirement of the grantee. Grantees receiving RS grants are able to exercise full voting rights and receive full credit for dividends during the vesting period. All such dividends will be paid to the RS grantee within 45 days of full vesting. Grantees receiving RSUs granted prior to January 1, 2012 are not entitled to vote and do not earn dividends. Grantees receiving RSUs on or after January 1, 2012 are not entitled to vote but do earn dividends. Upon vesting, RSUs will be settled either through cash payment equal to the fair market value of the RSUs on the vesting date or through issuance of Company class A stock.

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The following table is a summary of RS and RSU award activity for the year ended December 31, 2013:

|  | Restricted Stock |  |  |  | Restricted Stock Units |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Shares | WeightedAverage Grant Date Fair Value Per Share |  | WeightedAverage Remaining Contractual Term (Years) | Units |  | htedage Date Value hare | WeightedAverage Remaining Contractual Term (Years) |
| Nonvested at December 31, 2012 | 415,906 | \$ | 21.24 | 1.7 | 22,438 | \$ | 21.17 | 1.7 |
| Granted. | 408,146 |  | 20.39 |  | 32,671 |  | 20.72 |  |
| Vested. | $(3,608)$ |  | 19.92 |  | - |  | - |  |
| Forfeited. | $(85,087)$ |  | 20.30 |  | $(5,436)$ |  | 24.64 |  |
| Nonvested at December 31, 2013 | 735,357 | \$ | 20.88 | 1.4 | 49,673 | \$ | 20.49 | 1.6 |

During the year ended December 31, 2013, RS awards of 408,146 shares and RSU awards of 32,671 units were granted at a weighted-average grant date fair value of $\$ 20.39$ and $\$ 20.72$, respectively. During the year ended December 31, 2012, RS awards of 310,651 shares and RSU awards of 15,760 units were granted at a weighted-average grant date fair value of $\$ 14.34$. On January 1, 2011, RS awards of 119,315 shares and RSU awards of 14,625 units were granted at a grant date fair value of $\$ 41.26$ and $\$ 38.86$, respectively. On August $1,2011, \mathrm{RS}$ awards of 709 shares and RSU awards of 1,177 were granted at a grant date fair value of $\$ 32.32$ and $\$ 30.01$, respectively. In general, RS and RSU awards will vest on the third anniversary of the grant date, provided the holder of the share is continuously employed by the Company until the vesting date. Compensation expense recognized for RS and RSUs was $\$ 4.8$ million, $\$ 2.9$ million, and $\$ 1.6$ million for the years ended December 31, 2013, 2012 and 2011, respectively. Total future compensation expense for all RS and RSUs granted as of December 31, 2013, is approximately $\$ 6.9$ million. Estimated future compensation expense is $\$ 4.1$ million for 2014 and $\$ 2.8$ million for 2015.

## Deferred Stock Units

The following table is a summary of deferred stock units ("DSU") award activity for the year ended December 31, 2013:

|  | Deferred Stock Units |  |  |
| :---: | :---: | :---: | :---: |
|  | Units | WeightedAverage Grant Date Fair Value Per Share |  |
| Outstanding at December 31, 2012 | 50,705 | \$ | 21.64 |
| Granted. | 33,115 |  | 20.39 |
| Dividend equivalents granted | 3,529 |  |  |
| Settled | $(8,253)$ |  | 41.26 |
| Forfeited. . . | - |  |  |
| Outstanding at December 31, 2013 | 79,096 | \$ | 18.95 |

During the years ended December 31, 2013 and 2012, DSUs of 33,115 and 31,525 were granted at a weightedaverage grant date fair value of $\$ 20.39$ and $\$ 14.34$, respectively. The DSUs are fully vested on the grant date. Each DSU entitles the grantee to receive one share of class A stock upon the earlier of the separation date of the grantee or the second anniversary of the grant date, but could be subject to acceleration for a change in control or death or disability as

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defined in the individual DSU grant agreement. Grantees of DSUs may not exercise voting rights, but are credited with dividends and those dividends will be converted into additional DSUs based on the closing price of the class A stock. Dividend equivalents units of 3,529 and 7,440 were granted for the years ended December 31, 2013 and 2012, respectively. Compensation expense recognized for DSUs was $\$ 0.7$ million, $\$ 0.4$ million, and $\$ 0.6$ million for the years ended December 31, 2013, 2012 and 2011, respectively. As these awards were fully vested on the grant date, all compensation expense was recognized at the date of grant.

## Other Information

Authorized unissued shares or treasury shares may be used for issuance under the Company's equity incentive programs. The Company intends to use treasury shares of its class A stock to meet the stock requirements of its awards in the future.

## Note 23. Shareholders' Equity

The Company has three classes of common stock as follows (share data in millions):

|  |  | Issued Common Stock |  |  | Issued Shares Classified as Redeemable Equity | Total Issued Shares |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Authorized Shares | Outstanding | Treasury | Issued Shares Classified as Common Stock |  |  |
| Class A stock ( $\$ 0.025$ par value). | 80.0 |  |  |  |  |  |
| December 31, 2013. |  | 33.8 | 6.2 | 40.0 | - | 40.0 |
| December 31, 2012. |  | 33.0 | 7.0 | 40.0 | - | 40.0 |
| December 31, 2011. |  | 32.4 | 7.6 | 40.0 | - | 40.0 |
| Class B stock (\$0.025 par value). | 80.0 |  |  |  |  |  |
| December 31, 2013. |  | 14.2 | 0.8 | 15.0 | - | 15.0 |
| December 31, 2012. |  | 14.2 | 0.8 | 15.0 | - | 15.0 |
| December 31, 2011. |  | 14.2 | 0.8 | 15.0 | - | 15.0 |
| Class C stock (\$0.025 par value). | 20.0 |  |  |  |  |  |
| December 31, 2013. |  | - | 0.5 | 0.5 | - | 0.5 |
| December 31, 2012. |  | - | 0.5 | 0.5 | - | 0.5 |
| December 31, 2011. |  | - | 0.2 | 0.2 | 0.3 | 0.5 |

In accordance with the Articles of Incorporation, each class A common share has one vote per share and each class B and class C common share has ten votes per share on all matters voted upon by the Company's shareholders. Liquidation rights are the same for all three classes of stock.

The Company's class C stock was held by the Quad/Graphics Employee Ownership Plan (and can only be owned by, or transferred to, a Company employee benefit plan which is intended to satisfy the qualification requirements of Section 401 of the Internal Revenue Code). In August 2012, all of the Company's outstanding class C common shares, which were previously classified as redeemable equity, were converted into class A common shares.

The Company also has 0.5 million shares of $\$ 0.01$ par value preferred stock authorized, of which none were issued at December 31, 2013, 2012 and 2011. The Company has no present plans to issue any preferred stock.

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In accordance with the Articles of Incorporation, dividends are paid equally for class A, class B and class C common shares. The following table details the dividend activity related to the Company's then outstanding shares of class A, class B and class C stock for the years ended December 31, 2013, 2012 and 2011:

|  | Declaration Date | Record Date | Payment Date | Dividend Amount per Share |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2013 |  |  |  |  |  |
| Q4 Dividend | November 5, 2013 | December 9, 2013 | December 20, 2013 | \$ | 0.30 |
| Q3 Dividend | August 6, 2013 | September 9, 2013 | September 20, 2013 |  | 0.30 |
| Q2 Dividend | May 20, 2013 | June 10, 2013 | June 21, 2013 |  | 0.30 |
| Q1 Dividend | March 4, 2013 | March 18, 2013 | March 29, 2013 |  | 0.30 |
| 2012 |  |  |  |  |  |
| Q4 Special Dividend | December 14, 2012 | December 24, 2012 | December 28, 2012 |  | 2.00 |
| Q4 Dividend | November 7, 2012 | December 3, 2012 | December 14, 2012 |  | 0.25 |
| Q3 Dividend | August 7, 2012 | September 10, 2012 | September 21, 2012 |  | 0.25 |
| Q2 Dividend | May 9, 2012 | June 11, 2012 | June 22, 2012 |  | 0.25 |
| Q1 Dividend | February 28, 2012 | March 12, 2012 | March 23, 2012 |  | 0.25 |
| 2011 |  |  |  |  |  |
| Q4 Dividend | November 10, 2011 | November 30, 2011 | December 10, 2011 |  | 0.20 |
| Q3 Dividend | August 9, 2011 | August 29, 2011 | September 9, 2011 |  | 0.20 |
| Q2 Dividend | May 10, 2011 | May 27, 2011 | June 10, 2011 |  | 0.20 |

On September 6, 2011, the Company's board of directors authorized a share repurchase program of up to $\$ 100.0$ million of the Company's outstanding class A stock. The Company repurchased no shares during the years ended December 31, 2013 and 2012. The Company repurchased 0.4 million shares of class A stock in the open market for $\$ 8.2$ million for the year ended December 31, 2011, and has $\$ 91.8$ million in authorized repurchases remaining under the program as of December 31, 2013.

## Redeemable equity

The Company followed the applicable GAAP and SEC authoritative guidance for redeemable stock which required the Company to record the class C stock at full redemption value at each balance sheet date to the extent the redemption of those securities is not solely within the control of the Company. Under the terms of the Articles of Incorporation, the class C common shares are required to be owned by a qualified employee retirement plan of the Company and each holder of class $C$ stock has a continuous right to have the class $C$ stock repurchased by the Company.

There is no redemption value of class C qualified employee retirement plan shares at December 31, 2013 and 2012. The redemption value of the class C qualified employee retirement plan shares at December 31, 2011 totaled $\$ 3.5$ million. There is no redemption value of the class A common shares at December 31, 2013, 2012 and 2011 as there is now a readily tradable market.

In August 2012, the remaining 0.3 million outstanding class C common shares owned by the Quad/Graphics Employee Stock Ownership Plan were exchanged for class A common shares that were held as treasury stock. This exchange eliminated the redemption value of the class C common stock. There were no class C common shares redeemed by the Company during the year ended December 31, 2011.

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

Subsequent changes to the redemption value of the securities due to changes in stock valuation or dividend declarations are charged to retained earnings, while decreases in redemption value due to elimination of redemption features are credited to additional paid-in capital and retained earnings. During the year ended December 31, 2012, the balance of redeemable equity decreased by $\$ 3.5$ million as a result of the conversion of all outstanding class $C$ common shares into class A common shares. As such, information regarding the changes in redeemable equity for the years ended December 31, 2012 and 2011 is provided in the table below:

|  | Class C Common Stock |  |  |
| :---: | :---: | :---: | :---: |
|  | Shares | Redemption |  |
| Balance at January 1, 2011 | 0.3 | \$ | 10.6 |
| Cash dividends declared. | - |  | (0.3) |
| Decrease in redemption value of redeemable equity | - |  | (6.8) |
| Balance at December 31, 2011 | 0.3 | \$ | 3.5 |
| Cash dividends declared. | - |  | (0.2) |
| Redeemable equity exchange | (0.3) |  | (4.3) |
| Increase in redemption value of redeemable equity. | - |  | 1.0 |
| Balance at December 31, 2012 | - | \$ | - |

## Note 24. Accumulated Other Comprehensive Income (Loss)

The changes in accumulated other comprehensive income (loss) by component, net of tax, for the years ended December 31, 2013 and 2012, were as follows:

|  | Foreign Currency Translation |  | Pension and Other Postretirement Benefit Liability |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance at January 1, 2012 | \$ | (25.6) | \$ | (12.1) | \$ | (37.7) |
| Other comprehensive income before reclassifications |  | 4.9 |  | (17.7) |  | (12.8) |
| Amounts reclassified from accumulated other comprehensive income (loss) to net earnings (loss) |  | - |  | (9.9) |  | (9.9) |
| Net other comprehensive income (loss). |  | 4.9 |  | (27.6) |  | (22.7) |
| Balance at December 31, 2012 | \$ | (20.7) | \$ | (39.7) | \$ | (60.4) |
| Other comprehensive loss before reclassifications |  | (20.2) |  | 82.0 |  | 61.8 |
| Amounts reclassified from accumulated other comprehensive income (loss) to net earnings (loss) |  | (2.4) |  | (4.6) |  | (7.0) |
| Net other comprehensive income (loss). |  | (22.6) |  | 77.4 |  | 54.8 |
| Balance at December 31, 2013 | \$ | (43.3) | \$ | 37.7 | \$ | (5.6) |

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

The details about the reclassifications from accumulated other comprehensive income (loss) to net earnings (loss) for the years ended December 31, 2013, 2012 and 2011, were as follows:

| Details about Accumulated Other Comprehensive Income (Loss) Components | Year Ended December 31, |  |  |  |  |  | Consolidated Statements of Operations Presentation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2013 |  | 2012 |  | 2011 |  |  |
| Revaluation gain on sale of businesses (see Note 11). . | \$ | (2.4) | \$ | - | \$ | - | Selling, general and administrative expenses |
| Amortization of prior service credit on postretirement benefit plans |  | (5.7) |  | (3.4) |  | (3.5) | Selling, general and administrative expenses |
| Impact of income taxes. |  | 2.2 |  | 1.3 |  | 1.3 | Income tax expense (benefit) |
| Amortization of prior service credit on postretirement benefit plans, net of tax. |  | (3.5) |  | (2.1) |  | (2.2) | Net of tax |
| Amortization of net actuarial loss on pension and postretirement benefit plans |  | 0.3 |  | (0.1) |  | 0.4 | Cost of sales |
| Impact of income taxes. |  | (0.1) |  | - |  | (0.1) | Income tax expense (benefit) |
| Amortization of net actuarial loss on pension and postretirement benefit plans, net of tax. . . . . . . . . |  | 0.2 |  | (0.1) |  | 0.3 | Net of tax |
| Plan curtailments/settlements on pension and postretirement benefit plans |  | (2.1) |  | (12.7) |  | 11.8 | Restructuring, impairment and transaction-related charges |
| Impact of income taxes. |  | 0.8 |  | 5.0 |  | (4.7) | Income tax expense (benefit) |
| Plan curtailment/settlements on pension and postretirement benefit plans, net of tax. . . . . |  | (1.3) |  | (7.7) |  | 7.1 | Net of tax |
| Total reclassifications for the period. |  | (9.9) |  | (16.2) |  | 8.7 |  |
| Impact of income taxes. |  | 2.9 |  | 6.3 |  | (3.5) |  |
| Total reclassifications for the period, net of tax | \$ | (7.0) | \$ | (9.9) | \$ | 5.2 |  |

## Note 25. Segment Information

The Company operates primarily in the commercial print portion of the printing industry, with related product and service offerings designed to offer clients complete solutions for communicating their messages to target audiences. The Company's operating and reportable segments are aligned with how the chief operating decision maker of the Company currently manages the business. The Company's reportable and operating segments and their product and service offerings are summarized below.

## United States Print and Related Services

The United States Print and Related Services segment is predominantly comprised of the Company's United States printing operations and is managed as one integrated platform. This includes consumer magazines, catalogs, retail inserts, special interest publications, journals, direct mail, books, directories, in-store marketing, packaging, and other commercial and specialty printed products, together with the related service offerings, including marketing strategy, media planning and placement, data insights, response analytics services, creative services, videography, photography, workflow solutions, digital imaging, facilities management services, digital publishing, interactive print solutions including image recognition and near field communication technology, mailing, distribution, logistics, and data

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

optimization and hygiene services. This segment also includes the design, development, manufacture and service of printing-related auxiliary equipment, as well as the manufacture of ink. As a result of the divestiture of the Company's Canadian operations to Transcontinental on March 1, 2012 (see Note 4, "Discontinued Operations"), all United States Print and Related Services segment amounts have been restated to exclude the Canadian discontinued operations.

## International

The International segment consists of the Company's printing operations in Europe and Latin America, including operations in Poland, Argentina, Brazil, Chile, Colombia, Mexico and Peru. This segment provides printed products and related services consistent with the United States Print and Related Services segment, with the exception of printing-related auxiliary equipment, which is included in the United States Print and Related Services segment.

## Corporate

Corporate consists of unallocated general and administrative activities and associated expenses including, in part, executive, legal, and finance.

| Year ended December 31, 2013 | Net Sales |  |  |  | Operating Income/ (Loss) |  | Total Assets |  | Depreciation and$\qquad$ |  | Capital Expenditures |  | Restructuring, Impairment and TransactionRelated Charges |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Products |  | Services |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | \$ 593.5 |  |  | \$ 230.7 | \$ | \$ 3,552.2 | \$ | \$ 310.2 | \$ | \$ 136.3 | \$ | \$ 52.3 |
| United States Print and Related Services | \$ | 3,746.2 |  |  |  |  |  |  |  |  |  |  |  |  |
| International. |  | 440.4 |  | 15.8 |  | (7.7) |  | 515.8 |  | 28.6 |  | 13.2 |  | 9.6 |
| Total operating segments . |  | 4,186.6 |  | 609.3 |  | 223.0 |  | 4,068.0 |  | 338.8 |  | 149.5 |  | 61.9 |
| Corporate |  | - |  | - |  | (80.8) |  | 97.7 |  | 1.7 |  | - |  | 33.4 |
| Total. | \$ | 4,186.6 | \$ | 609.3 | \$ | 142.2 | \$ | 4,165.7 | \$ | 340.5 | \$ | 149.5 | \$ | 95.3 |

Year ended December 31, 2012

| United States Print and Related Services | \$ | 3,151.3 | \$ | 446.6 | \$ | 216.5 | \$ | 3,411.1 | \$ | 303.7 | \$ | 79.4 | \$ | 48.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| International. |  | 487.3 |  | 8.8 |  | (24.8) |  | 585.9 |  | 33.0 |  | 24.1 |  | 26.3 |
| Total operating segments. |  | 3,638.6 |  | 455.4 |  | 191.7 |  | 3,997.0 |  | 336.7 |  | 103.5 |  | 74.8 |
| Corporate |  | - |  | - |  | (85.2) |  | 101.9 |  | 1.9 |  | - |  | 43.5 |
| Total. | \$ | 3,638.6 | \$ | 455.4 | \$ | 106.5 | \$ | 4,098.9 | \$ | 338.6 | \$ | 103.5 | \$ | 118.3 |


| Year ended December 31, 2011 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States Print and Related Services | \$ | 3,338.1 | \$ | 488.0 | \$ | 271.6 | \$ | 4,016.4 | \$ | 308.4 | \$ | 151.9 | \$ | 55.3 |
| International. |  | 487.5 |  | 11.0 |  | (19.4) |  | 589.0 |  | 34.3 |  | 16.3 |  | 7.3 |
| Total operating segments. |  | 3,825.6 |  | 499.0 |  | 252.2 |  | 4,605.4 |  | 342.7 |  | 168.2 |  | 62.6 |
| Corporate |  | - |  | - |  | (95.3) |  | 129.8 |  | 1.9 |  | 0.1 |  | 51.4 |
| Total. | \$ | 3,825.6 | \$ | 499.0 | \$ | 156.9 | \$ | 4,735.2 | \$ | 344.6 | \$ | 168.3 | \$ | 114.0 |

Restructuring, impairment and transaction-related charges for the years ended December 31, 2013, 2012 and 2011 are further described in Note 5, "Restructuring, Impairment and Transaction-Related Charges," and are included in the Operating Income/(Loss) results by segment above. Total assets of the Canadian discontinued operations of $\$ 177.5$ million as of December 31, 2011, and capital expenditures of the Canadian discontinued operations of

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

$\$ 7.2$ million for the year ended December 31, 2011, are included in the United States Print and Related Services segment above.

A reconciliation of operating income from continuing operations to earnings from continuing operations before income taxes and equity in earnings (loss) of unconsolidated entities as reported in the consolidated statements of operations for the years ended December 31, 2013, 2012 and 2011 is as follows:

|  | 2013 |  | 2012 |  | 2011 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Operating income from continuing operations | \$ | 142.2 | \$ | 106.5 | \$ | 156.9 |
| Less: interest expense |  | 85.5 |  | 84.0 |  | 108.0 |
| Less: loss on debt extinguishment. |  | - |  | - |  | 34.0 |
| Earnings from continuing operations before income taxes and equity in earnings (loss) of unconsolidated entities. | \$ | 56.7 | \$ | 22.5 | \$ | 14.9 |

## Note 26. Geographic Area and Product Information

The table below presents the Company's net sales and property, plant and equipment by geographic region for the years ended December 31, 2013, 2012 and 2011. The amounts in this table differ from the segment data presented in Note 25, "Segment Information," because each operating segment includes operations in multiple geographic regions, based on the Company's management reporting structure.

|  | U.S. |  | Europe |  | Latin America |  | Other |  | Combined |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2013 |  |  |  |  |  |  |  |  |  |  |
| Net sales |  |  |  |  |  |  |  |  |  |  |
| Products | \$ | 3,725.3 | \$ | 158.4 | \$ | 292.8 | \$ | 10.1 | \$ | 4,186.6 |
| Services. . |  | 593.5 |  | 15.8 |  | - |  | - |  | 609.3 |
| Property, plant and equipment. . |  | 1,699.2 |  | 113.1 |  | 113.0 |  | 0.2 |  | 1,925.5 |
| 2012 |  |  |  |  |  |  |  |  |  |  |
| Net sales |  |  |  |  |  |  |  |  |  |  |
| Products | \$ | 3,133.7 | \$ | 174.7 | \$ | 323.1 | \$ | 7.1 | \$ | 3,638.6 |
| Services. . |  | 442.1 |  | 11.0 |  | - |  | 2.3 |  | 455.4 |
| Property, plant and equipment. |  | 1,689.4 |  | 122.0 |  | 114.7 |  | 0.3 |  | 1,926.4 |
| 2011 |  |  |  |  |  |  |  |  |  |  |
| Net sales |  |  |  |  |  |  |  |  |  |  |
| Products | \$ | 3,313.6 | \$ | 196.8 | \$ | 303.9 | \$ | 11.3 | \$ | 3,825.6 |
| Services. . . |  | 485.0 |  | 12.6 |  | - |  | 1.4 |  | 499.0 |

## QUAD/GRAPHICS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## (In millions, except share and per share data and unless otherwise indicated)

The table below presents the Company's consolidated net sales by products and services for the years ended December 31, 2013, 2012 and 2011.

| Products and Services | 2013 |  | 2012 |  | 2011 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Catalog, magazines and retail inserts | \$ | 3,114.3 | \$ | 2,711.4 | \$ | 2,826.0 |
| Direct mail, books, directories and other printed products |  | 1,004.4 |  | 894.9 |  | 964.1 |
| Other |  | 67.9 |  | 32.3 |  | 35.5 |
| Total products. | \$ | 4,186.6 | \$ | 3,638.6 | \$ | 3,825.6 |
| Logistics services | \$ | 465.6 | \$ | 349.4 | \$ | 370.4 |
| Imaging and other services |  | 143.7 |  | 106.0 |  | 128.6 |
| Total services . |  | 609.3 |  | 455.4 |  | 499.0 |
| Total net sales. | \$ | 4,795.9 | \$ | 4,094.0 | \$ | 4,324.6 |

## Note 27. Subsequent Events

## Declaration of Quarterly Dividend

On February 26, 2014, the Company declared a quarterly dividend of $\$ 0.30$ per share, which will be paid on March 21, 2014, to shareholders of record as of March 12, 2014.

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

Not applicable.

## Item 9A. Controls and Procedures

## Disclosure Controls and Procedures

The Company's management, with the participation of the Company's principal executive officer and principal financial officer, has evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) as of the end of the period covered by this report and has concluded that, as of the end of such period, the Company's disclosure controls and procedures were effective.

## Changes in Internal Control Over Financial Reporting

There were no changes in the Company's internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934) that occurred during the fiscal quarter ended December 31, 2013, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

## Management's Report on Internal Control Over Financial Reporting

The Company's management, including the Company's Chairman, President and Chief Executive Officer and Executive Vice President and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Securities Exchange Act of 1934. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of published financial statements in accordance with generally accepted accounting principles.

The Company's management, including the Company's Chairman, President and Chief Executive Officer and Executive Vice President and Chief Financial Officer, has assessed the effectiveness of the Company's internal control over financial reporting based on the framework in Internal Control-Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission. As allowed by SEC guidance, management excluded from its assessment the internal control over financial reporting at the business units acquired from Vertis on January 16,2013 . The business activities that were excluded from the assessment constitute approximately $15 \%$ of consolidated total current assets and approximately $20 \%$ of consolidated net sales and consolidated cost of sales as of and for the year ended December 31, 2013. Based on this assessment, the Company's management has concluded that, as of December 31, 2013, the Company's internal controls over financial reporting were effective based on that framework.

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

Deloitte \& Touche LLP, the Company's independent registered public accounting firm, issued an attestation report on the effectiveness of the Company's internal control over financial reporting as of December 31, 2013, which is included herein.

## Attestation Report of Independent Registered Public Accounting Firm

The attestation report required under this Item 9A, "Controls and Procedures," is contained in Item 8, "Financial Statements and Supplementary Data," of Part II of this Annual Report on Form 10-K under the heading "Report of Independent Registered Public Accounting Firm."

Item 9B. Other Information
The Company has no other information to report pursuant to this item.

## PART III

## Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item with respect to directors and Section 16 compliance is included under the captions "Election of Directors" and "Miscellaneous-Section 16(a) Beneficial Ownership Reporting Compliance," respectively, in the Company's definitive Proxy Statement for its 2014 Annual Meeting of Shareholders ("Proxy Statement") and is hereby incorporated herein by reference. Information with respect to the executive officers of the Company appears in Item 1, "Business," of this Annual Report on Form 10-K. The information required by this Item with respect to audit committees and audit committee financial experts is included under the caption "Corporate Governance-Board Committees-Audit Committee" in the Proxy Statement and is incorporated herein by reference.

The Company has adopted a Code of Business Conduct that applies to all of the Company's employees, including the Company's Chief Executive Officer, Chief Financial Officer, Controller and other persons performing similar functions. The Company has posted a copy of the Code of Business Conduct on its website at www.qg.com, and such Code of Business Conduct is available in print, without charge, to any shareholder who requests it from the Company's Secretary. The Company intends to satisfy the disclosure requirements under Item 5.05 of Form 8-K regarding amendments to, or waivers from, the Code of Business Conduct by posting such information on its website at www.qg.com. The Company is not including the information contained on its website as part of, or incorporating it by reference into, this Annual Report on Form 10-K.

## Item 11. Executive Compensation

The information required by this Item is included under the captions "Compensation of Executive Officers," "Director Compensation," "Compensation Committee Report," "Corporate Governance—Board CommitteesCompensation Committee Interlocks and Insider Participation" and "Miscellaneous-Assessment of CompensationRelated Risk" in the Proxy Statement and is hereby incorporated herein by reference.

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

The information required by this Item with respect to security ownership of certain beneficial owners and management is included under the caption "Stock Ownership of Management and Others" in the Proxy Statement and is hereby incorporated by reference.

## Equity Compensation Plan Information

The following table sets forth information with respect to compensation plans under which equity securities of the Company are authorized for issuance as of December 31, 2013. The table does not include employee benefit plans intended to meet the qualification requirements of Section 401(a) of the Internal Revenue Code. All equity compensation plans are described more fully in Note 22, "Equity Incentive Programs," to the consolidated financial statements in Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K.
Plan Category
(1) Consists of the Company's 2010 Omnibus Incentive Plan. Awards under the Omnibus Plan may consist of incentive awards, stock options, stock appreciation rights, performance shares, performance share units, shares of class A stock, restricted stock, restricted stock units, deferred stock units or other stock-based awards as determined by the Company's board of directors.
(2) The weighted-average exercise price of outstanding options, warrants and rights only includes stock options.

## Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this Item is included under the caption "Corporate Governance" in the Proxy Statement and is hereby incorporated by reference.

## Item 14. Principal Accountant Fees and Services

The information required by this Item is included under the caption "Miscellaneous-Independent Registered Public Accounting Firm" in the Proxy Statement and is hereby incorporated by reference.

## PART IV

## Item 15. Exhibits and Financial Statement Schedules

1. Consolidated financial statements-The consolidated financial statements listed in the accompanying index to consolidated financial statements are filed as part of this Annual Report on Form 10-K.
2. Financial statement schedule-All financial statement schedules are omitted since the required information is not present or is not present in amounts sufficient to require submission of the schedules, or because the information required is included in the consolidated financial statements and notes thereto.
3. Exhibits-The exhibits listed in the accompanying "Exhibit Index" are filed as part of this Annual Report on Form 10-K.
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## INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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## SIGNATURES

Pursuant to the requirements of Section 13 or $15(\mathrm{~d})$ of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on this 27th day of February 2014.

QUAD/GRAPHICS, INC.

$$
\begin{array}{ll}
\text { By: } & \text { /s/ J. Joel Quadracci } \\
& \text { J. Joel Quadracci } \\
& \text { Chairman, President and Chief Executive Officer }
\end{array}
$$

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

| Signature | Title | Date |
| :---: | :---: | :---: |
| /s/ J. Joel Quadracci | Chairman, President and Chief Executive Officer (Principal Executive Officer) | February 27, 2014 |
| J. Joel Quadracci |  |  |
| /s/ John C. Fowler | Executive Vice President and Chief Financial Officer (Principal Financial Officer) | February 27, 2014 |
| John C. Fowler |  |  |
| /s/ David J. Honan | Vice President, Corporate Controller and Chief Accounting Officer (Principal Accounting Officer) | February 27, 2014 |
| David J. Honan |  |  |
| /s/ William J. Abraham, Jr. | Director | February 27, 2014 |
| William J. Abraham, Jr. |  |  |
| /s/ Douglas P. Buth | Director | February 27, 2014 |
| Douglas P. Buth |  |  |
| /s/ Kathryn Quadracci Flores | Director | February 27, 2014 |
| Kathryn Quadracci Flores |  |  |
| /s/ Christopher B. Harned | Director | February 27, 2014 |
| Christopher B. Harned |  |  |
| /s/ Thomas O. Ryder | Director | February 27, 2014 |
| Thomas O. Ryder |  |  |
| /s/ John S. Shiely | Director | February 27, 2014 |
| John S. Shiely |  |  |

## EXHIBIT INDEX

Exhibit
Number
(2)+ as the Borrower, the Lenders party thereto, JPMorgan Chase Bank, N.A., as Administrative Agent,
Bank of America, N.A. and U.S. Bank National Association, as Co-Syndication Agents, and PNC Bank, National Association and SunTrust Bank, as Co-Documentation Agents (incorporated by reference to Exhibit 4 to the Company's Current Report on Form 8-K dated and filed on July 27, 2011).

Certain other instruments, which would otherwise be required to be listed above, have not been so listed as such instruments do not authorize long-term debt securities in an amount that exceeds $10 \%$ of the total assets of Quad/Graphics, Inc. and its subsidiaries on a consolidated basis. Quad/Graphics, Inc. agrees to furnish a copy of any such instrument to the Securities and Exchange Commission upon request.

## Exhibit Description

Asset Purchase Agreement by and among Vertis Holdings, Inc., Quad/Graphics Marketing, LLC and Quad/Graphics, Inc., dated as of October 10, 2012 (incoporated by reference to Exhibit 2 to the Company's Quarterly Report on form 10-Q for the quarter ended September 30, 2012 and filed on November 8, 2012).

Amended and Restated Articles of Incorporation of Quad/Graphics, Inc. (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)).

Amended Bylaws of Quad/Graphics, Inc., as amended through April 27, 2011 (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K dated April 27, 2011 and filed on May 3, 2011).

Note Agreement, dated September 1, 1995, among Quad/Graphics, Inc., certain subsidiaries of Quad/ Graphics, Inc. and the purchasers named therein (incorporated by reference to Exhibit 4.4 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)).

First Amendment and Consent, dated June 1, 1996, to the Note Agreement, dated September 1, 1995, among Quad/Graphics, Inc., certain subsidiaries of Quad/Graphics, Inc. and the purchasers named therein (incorporated by reference to Exhibit 4.5 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)).

Second Amendment, dated as of March 24, 1998, to the Note Agreement, dated September 1, 1995, among Quad/Graphics, Inc., certain subsidiaries of Quad/Graphics, Inc. and the purchasers named therein (incorporated by reference to Exhibit 4.6 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)).

Third Amendment, dated as of January 26, 2006, to the Note Agreement, dated September 1, 1995, among Quad/Graphics, Inc., certain subsidiaries of Quad/Graphics, Inc. and the purchasers named therein (incorporated by reference to Exhibit 4.7 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)).

Amended and Restated Credit Agreement dated as of July 26, 2011 by and among Quad/Graphics, Inc., Joel Quadracci, Elizabeth M. Quadracci-Harned and David A. Blais, as trustees as of the date of the agreement's execution (incorporated by reference to Exhibit 9.1 to the Company's Current Report on Form 8-K dated July 2, 2010 and filed on July 9, 2010).

| Exhibit Number | Exhibit Description |
| :---: | :---: |
| (10.1)++ | Quad/Graphics, Inc. 1999 Nonqualified Stock Option Plan (incorporated by reference to Exhibit 10.1 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)). |
| (10.2)++ | Form of Stock Option Agreement under the 1999 Nonqualified Stock Option Plan (incorporated by reference to Exhibit 10.2 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)). |
| (10.3)++ | Form of Director Stock Option Agreement under the 1999 Nonqualified Stock Option Plan (incorporated by reference to Exhibit 10.3 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)). |
| (10.4)++ | Quad/Graphics, Inc. 1990 Stock Option Plan (incorporated by reference to Exhibit 10.4 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)). |
| (10.5)++ | Form of 2005 Amendment to Stock Option Agreements (incorporated by reference to Exhibit 10.5 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)). |
| (10.6)++ | Form of 2008 Amendment to Stock Option Agreements (incorporated by reference to Exhibit 10.6 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)). |
| (10.7)++ | Dividend/Discount Deferred Compensation Plan (incorporated by reference to Exhibit 10.7 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)). |
| (10.8)++ | Employment Agreement, effective as of January 1, 2004, by and between Quad/Graphics, Inc. and James Joel Quadracci, as amended (incorporated by reference to Exhibit 10.9 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)). |
| (10.9)++ | Employment Agreement, effective as of January 1, 2004, by and between Quad/Graphics, Inc. and John C. Fowler (incorporated by reference to Exhibit 10.10 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)). |
| (10.10)++ | Employment Agreement, effective as of January 1, 2004, by and between Quad/Graphics, Inc. and David A. Blais (incorporated by reference to Exhibit 10.11 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)). |
| (10.11)++ | Employment Agreement, effective as of January 1, 2004, by and between Quad/Graphics, Inc. and Thomas J. Frankowski (incorporated by reference to Exhibit 10.12 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)). |
| (10.12)++ | Form of Executive Salary Continuation Plan for James Joel Quadracci, John C. Fowler, David A. Blais and Thomas J. Frankowski (incorporated by reference to Exhibit 10.14 to the Company's Registration Statement on Form S-4 (Reg. No. 333-165259)). |


| Exhibit <br> Number <br> $(10.13)++$ | Exhibit Description |
| :---: | :--- |
| Executive Supplemental Retirement Plan (incorporated by reference to Exhibit 10.15 to the Company's <br> Registration Statement on Form S-4 (Reg. No. 333-165259)). |  |
| (10.14)++ | Summary of Non-Employee Director Compensation (incorporated by reference to Exhibit 10.16 to the <br> Company's Registration Statement on Form S-4 (Reg. No. 333-165259)). |
| (10.15)++ | Quad/Graphics, Inc. 2010 Omnibus Incentive Plan, as amended (incorporated by reference to Appendix <br> A to the Company's Definitive Proxy Statement on Schedule 14A filed on April 15, 2013). |
|  | Form of Stock Option Award Agreement under the Quad/Graphics, Inc. 2010 Omnibus Incentive Plan <br> (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated |
| December 16, 2010 and filed on December 17, 2010). |  |

(31.2) Certification of the Chief Financial Officer pursuant to Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934.

Written Statement of the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350.
(101*) Financial statements from the Annual Report on Form 10-K of Quad/Graphics, Inc. for the year ended December 31, 2013 formatted in eXtensible Business Reporting Language (XBRL): (i) the Consolidated Statements of Operations, (ii) the Consolidated Statements of Comprehensive Income (Loss), (iii) the Consolidated Balance Sheets, (iv) the Consolidated Statements of Cash Flows, (v) the Consolidated Statements of Redeemable Equity, Common Stock and Other Equity and Noncontrolling Interests, (vi) the Notes to Consolidated Financial Statements, and (vii) document and entity information.

+ Schedules, exhibits and annexes to this agreement are not filed herewith. The registrant agrees to furnish supplementally a copy of any such schedule, exhibit or annex to the Securities and Exchange Commission upon request.
++ A management contract or compensatory plan or arrangement.
* In accordance with Rule 406T of Regulation S-T, the information in these exhibits shall not be deemed to be "filed" for purposes of Section 18 of the Securities and Exchange Act of 1934, as amended, or otherwise subject to liability under that section, and shall not be incorporated by reference into any registration statement or other document filed under the Securities Act of 1933, as amended, except as expressly set forth by specific reference in such filing.
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## BOARD OF DIRECTORS

William J. Abraham Jr.
Partner
Foley \& Lardner LLP
Douglas P. Buth
Retired Chairman \& CEO
Appleton Papers, Inc.
Christopher B. Harned
Managing Director
Investment Banking Group, M\&A Team
Robert W. Baird \& Co. Inc.
J. Joel Quadracci
Chairman, President \& CEO
Quad/Graphics, Inc.
Kathryn Quadracci Flores, M.D.
CEO
Blooming Minds Ventures, LLC
Thomas O. Ryder
Retired Chairman \& CEO
Reader's Digest Association, Inc.
John S. Shiely
Retired Chairman and CEO
Briggs \& Stratton Corporation

CORPORATE HEADQUARTERS

Quad/Graphics, Inc.
N61 W23044 Harry's Way
Sussex, WI 53089-3995
qgraphics@qg.com
1.888.782.3226
414.566.6000 (Wisconsin)

INVESTOR RELATIONS

Mr. Kelly Vanderboom
Vice President \& Treasurer Kelly.Vanderboom@qg.com or ir@qg.com http://investors.qg.com

## STOCK TRANSFER AGENT

American Stock Transfer
6201 15th Avenue
Brooklyn, NY 11219
info@amstock.com
1.800.937.5449
www.amstock.com

Quad/Graphics'2013 Annual Report on Form 10-K accompanies this document. If you are a shareholder and would like to receive another copy of the 2013 Form 10-K, without exhibits and without charge, please write to Jennifer Kent, Vice President, General Counsel, Quad/Graphics, Inc., N61 W23044 Harry's Way, Sussex, WI 53089-3995. You can also access the 2013 Form 10-K on the investor relations section of our website at www.QG.com.


N61 W23044 Harry's Way
Sussex, Wisconsin 53089-3995


[^0]:    ${ }^{(1)}$ Debt Leverage Ratio and Free Cash Flow are financial measures not prepared in accordance with generally accepted accounting principles (GAAP) in the United States of America. Debt Leverage Ratio is defined as total debt and capital lease obligations divided by the last twelve months of Adjusted EBITDA (a non-GAAP measure). Adjusted EBITDA is defined as net earnings plus interest expense, income tax expense, depreciation and amortization, restructuring, impairment and transaction-related charges, and loss from discontinued operations, net of tax, and less income tax benefit and gain on disposal of discontinued operations, net of tax. Free Cash Flow is defined as net cash provided by operating activities less purchases of property, plant and equipment. A reconciliation of these non-GAAP financial measures to GAAP financial measures can be found in our press release dated February 26, 2014, showing our financial results for 2013, and which is also an exhibit to our Form 8-K furnished to the Securities and Exchange Commission on February 27, 2014. This 8-K is incorporated by reference into this letter.
    Please note: Forward-looking statements in this letter and Annual Report on Form 10-K are subject to safe-harbor provisions as explained on page 1 of the Annual Report on Form 10-K.

[^1]:    (1) Reflects results of acquired businesses from the relevant acquisition dates, primarily related to acquisition of Vertis on January 16, 2013 (see Note 3, "Acquisitions and Strategic Investments," to the consolidated financial statements in Item 8 of this Annual Report on Form 10-K for further information on the acquisition).
    (2) The results of operations of the Company's Canadian operations are included in the loss from discontinued operations, net of tax (see Note 4 , "Discontinued Operations," to the consolidated financial statements in Item 8 of this Annual Report on Form 10-K). The Company's Canadian operations were originally acquired by the Company as part of the World Color Press acquisition on July 2, 2010. On March 1, 2012, the Company completed the sale of its Canadian operations to Transcontinental resulting in a gain on disposal of discontinued operations, net of tax (see Note 3, "Acquisitions and Strategic Investments," to the consolidated financial statements in Item 8 of this Annual Report on Form 10-K for a description of the business exchange transaction).

