

ARMSTRONG WORLD INDUSTRIES INC  
Form 10-K  
February 23, 2015  
Table of Contents

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

**FORM 10-K**

(Mark One)

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

**For the fiscal year ended December 31, 2014**

**OR**

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

**For the transition period from \_\_\_\_\_ to \_\_\_\_\_**

**Commission File Number 1-2116**

**ARMSTRONG WORLD INDUSTRIES, INC.**

**(Exact name of registrant as specified in its charter)**

**Pennsylvania**  
**(State or other jurisdiction of**  
**incorporation or organization)**

**23-0366390**  
**(I.R.S. Employer**  
**Identification No.)**

**2500 Columbia Avenue, Lancaster, Pennsylvania**  
**(Address of principal executive offices)**

**17603**  
**(Zip Code)**

**Registrant's telephone number, including area code (717) 397-0611**

**Securities registered pursuant to Section 12(b) of the Act: None**

**Securities registered pursuant to Section 12(g) of the Act:**

**Title of each class**

**Common Stock (\$0.01 par value)**

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

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

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

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

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

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

Edgar Filing: ARMSTRONG WORLD INDUSTRIES INC - Form 10-K

Large accelerated filer  Accelerated filer   
Non-accelerated filer  Smaller reporting company   
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).  
Yes  No

The aggregate market value of the Common Stock of Armstrong World Industries, Inc. held by non-affiliates based on the closing price (\$57.43 per share) on the New York Stock Exchange (trading symbol AWI) of June 30, 2014 was approximately \$2,596 million. As of February 17, 2015, the number of shares outstanding of registrant's Common Stock was 55,130,109.

**Documents Incorporated by Reference**

Certain sections of Armstrong World Industries, Inc.'s definitive Proxy Statement for use in connection with its 2015 annual meeting of shareholders, to be filed no later than April 30, 2015 (120 days after the last day of our 2014 fiscal year), are incorporated by reference into Part III of this Form 10-K Report where indicated.

Table of ContentsTABLE OF CONTENTS

	PAGES
<u>SECTION</u>	
<u>Cautionary Note Regarding Forward-Looking Statements</u>	4
<u>PART I</u>	
Item 1. <u>Business</u>	5
Item 1A. <u>Risk Factors</u>	10
Item 1B. <u>Unresolved Staff Comments</u>	17
Item 2. <u>Properties</u>	18
Item 3. <u>Legal Proceedings</u>	18
Item 4. <u>Mine Safety Disclosures</u>	18
<u>PART II</u>	
Item 5. <u>Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	19
Item 6. <u>Selected Financial Data</u>	20
Item 7. <u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	21
Item 7A. <u>Quantitative and Qualitative Disclosures about Market Risk</u>	39
Item 8. <u>Financial Statements and Supplementary Data</u>	41
Item 9. <u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	96
Item 9A. <u>Controls and Procedures</u>	96
<u>PART III</u>	
Item 10. <u>Directors, Executive Officers and Corporate Governance</u>	97
Item 11. <u>Executive Compensation</u>	98
Item 12. <u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	99
Item 13. <u>Certain Relationships and Related Transactions, and Director Independence</u>	99
Item 14. <u>Principal Accountant Fees and Services</u>	99
<u>PART IV</u>	
Item 15. <u>Exhibits and Financial Statement Schedules</u>	100
<u>Signatures</u>	108

**Table of Contents**

**CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS**

Certain statements in this Annual Report on Form 10-K and the documents incorporated by reference may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Those forward-looking statements are subject to various risks and uncertainties and include all statements that are not historical statements of fact and those regarding our intent, belief or expectations, including, but not limited to, our expectations concerning our residential and commercial markets and their effect on our operating results; our expectations regarding the payment of dividends, and our ability to increase revenues, earnings and EBITDA (as such terms are defined by documents incorporated by reference herein). Words such as anticipate, expect, intend, plan, target, project, predict, believe, may, will, would, could, should, seek, estimate and similar expressions identify such forward-looking statements. These statements are based on management's current expectations and beliefs and are subject to a number of factors that could lead to actual results materially different from those described in the forward-looking statements. Although we believe that the assumptions underlying the forward-looking statements are reasonable, we can give no assurance that our expectations will be attained. Factors that could have a material adverse effect on our financial condition, liquidity, results of operations or future prospects or which could cause actual results to differ materially from our expectations include, but are not limited to:

global economic conditions;

construction activity;

our announced plan to separate our flooring business from our ceilings (buildings products) business, and our ability to successfully complete such separation;

competition;

key customers;

availability and costs of raw materials and energy;

covenants in our debt agreements;

our indebtedness;

our liquidity;

our exit from the European flooring business;

our WAVE joint venture;

environmental matters;

international operations;

strategic transactions;

plant construction projects;

availability of deferred tax assets;

negative tax consequences;

claims and litigation;

labor;

**Table of Contents**

our intellectual property rights;

outsourcing;

costs savings and productivity initiatives; and

other risks detailed from time to time in our filings with the Securities and Exchange Commission (the SEC ), press releases and other communications, including those set forth under Risk Factors included elsewhere in this Annual Report on Form 10-K and in the documents incorporated by reference.

Such forward- looking statements speak only as of the date they are made. We expressly disclaim any obligation to release publicly any updates or revisions to any forward-looking statements to reflect any change in our expectations with regard thereto or change in events, conditions or circumstances on which any statement is based.

---

**Table of Contents**

**PART I**

**ITEM 1. BUSINESS**

Armstrong World Industries, Inc. ( *AWI* or the *Company* ) is a Pennsylvania corporation incorporated in 1891. When we refer to *we*, *our* and *us* in this report, we are referring to *AWI* and its subsidiaries. We are a leading global producer of flooring products and ceiling systems for use primarily in the construction and renovation of residential, commercial and institutional buildings. We design, manufacture and sell flooring products (primarily resilient and wood) and ceiling systems (primarily mineral fiber, fiberglass and metal) around the world.

In August 2009, Armor TPG Holdings LLC ( *TPG* ) and the Armstrong World Industries, Inc. Asbestos Personal Injury Settlement Trust ( *Asbestos PI Trust* ) entered into agreements pursuant to which TPG purchased from the Asbestos PI Trust 7,000,000 shares of *AWI* common stock and acquired an economic interest in an additional 1,039,777 shares pursuant to a forward sales contract. During the fourth quarter of 2012, the Asbestos PI Trust and TPG together sold 5,980,000 shares in a secondary public offering. In the third quarter of 2013, the Asbestos PI Trust and TPG together sold 12,057,382 shares in another secondary public offering. Contemporaneously with this secondary public offering, we paid \$261.4 million, including associated fees, to buy back 5,057,382 shares, which we currently hold in treasury. The treasury share purchase was funded by existing cash and borrowings under our credit and securitization facilities. In November 2013, the Asbestos PI Trust physically settled the 2009 forward sales contract by delivering to TPG the 1,039,777 shares in which TPG previously held an economic interest. Additionally, during the fourth quarter of 2013, the Asbestos PI Trust and TPG together sold an additional 6,000,000 shares. In March 2014, the Asbestos PI Trust and TPG together sold an additional 3,900,000 shares, which consisted of the last remaining 2,054,977 shares owned by TPG and an additional 1,845,023 shares owned by the Asbestos PI Trust. We did not sell any shares and did not receive any proceeds from these offerings. As a result of these transactions the Asbestos PI Trust currently holds approximately 17% of our outstanding shares and TPG no longer owns any of our common stock.

**Recent Development**

On February 19, 2015, our board of directors approved a plan to separate our flooring business from our ceilings (building products) business through a spinoff, which would result in two independent, publicly-traded companies.

**Reportable Segments**

We operate four business segments - Building Products, Resilient Flooring, Wood Flooring and Unallocated Corporate. See Note 3 to the Consolidated Financial Statements and Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of this Form 10-K for additional financial information on our reportable segments.

**Markets**

We are well positioned in the industry segments and markets in which we operate - often holding a leadership or significant market share position. The major markets in which we compete are:

*North American Residential.* Our Building Products, Resilient Flooring and Wood Flooring segments sell products for use in the home. Our ceiling products compete against mineral fiber and fiberglass products from other manufacturers, as well as drywall. Homeowners can choose from our vinyl and wood flooring products, for which we are North America's largest provider, or from our laminate flooring products. We compete directly with other domestic and international suppliers of these products. Our flooring products also compete with carpet and ceramic products, which



we do not offer.

Our products are used in new home construction and existing home renovation work. Industry analysts estimate that existing home renovation (also known as replacement / remodel) work represents approximately two-thirds of the total North American residential market opportunity. Key U.S. statistics that indicate market opportunity include existing home sales (a key indicator for renovation opportunity), housing starts, housing completions, home prices, interest rates and consumer confidence. We believe there is some longer-term correlation between these statistics and our revenue after reflecting a lag period of several months between a change in construction activity and our operating results. However, we

**Table of Contents**

believe that consumers' preferences for product type, style, color, availability and affordability also significantly affect our revenue. Further, changes in inventory levels and/or product focus at national home centers and building materials distributors can significantly affect our revenue.

*North American Commercial.* Many of our products, primarily ceilings and resilient flooring, are used in commercial and institutional buildings. Our revenue opportunities come from new construction as well as renovation of existing buildings. Renovation work is estimated to represent approximately two-thirds of the total North American commercial market opportunity. Most of our revenue comes from four major segments of commercial building: office, education, retail and healthcare. We monitor U.S. construction starts and follow project activity. Our revenue from new construction can lag behind construction starts by as much as eighteen months. We also monitor office vacancy rates, gross domestic product (GDP) and general employment levels, which can indicate movement in renovation and new construction opportunities. We believe that these statistics, taking into account the time-lag effect, provide a reasonable indication of our future revenue opportunity from commercial renovation and new construction.

*Outside of North America.* About 60% of our 2014 revenues generated outside of North America were in Europe and almost all were commercial in nature. For the countries in which we have significant revenue, we monitor various national statistics (such as GDP) as well as project activity. Revenues come primarily from new construction and renovation work.

The following table provides an estimate of our segments' 2014 net sales, by major markets.

(Estimated percentages of individual segments sales)	North American		North American		Outside of North America		Total
	Residential	New Renovation	Commercial	New Renovation	New Renovation	New Renovation	
Building Products		5%	10%	45%	25%	15%	100%
Resilient Flooring	5%	40%	5%	35%	10%	5%	100%
Wood Flooring	35%	65%					100%

Management has used estimates in creating the table above because the end-use of our products is not easily determinable.

**Geographic Areas**

See Note 3 to the Consolidated Financial Statements and Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of this Form 10-K for additional financial information by geographic areas.

**Customers**

We use our reputation, capabilities, service and brand recognition to develop long-standing relationships with our customers. We principally sell products through building materials distributors, who re-sell our products to retailers, builders, contractors, installers and others. In the commercial sector, we also sell to several contractors and to subcontractors' alliances. In the North American retail channel, which sells to end-users in the residential and light commercial segments, we have important relationships with national home centers such as The Home Depot, Inc. and Lowe's Companies, Inc. In the North American residential sector, we have important relationships with major home builders and buying groups.

Approximately two-thirds of our consolidated net sales are to distributors. Sales to large home centers account for approximately 15% of our consolidated sales. Our remaining sales are to contractors and retailers.

No customer accounted for 10% or more of our total consolidated net sales during the last three years.

**Table of Contents**

**Working Capital**

We produce goods for inventory and sell on credit to our customers. Generally, our distributors carry inventory as needed to meet local or rapid delivery requirements. We sell the vast majority of our products to select, pre-approved customers using customary trade terms that allow for payment in the future. These practices are typical within the industry.

**Competition**

We face strong competition in all of our businesses. Principal attributes of competition include product performance, product styling, service and price. Competition in North America comes from both domestic and international manufacturers. Additionally, some of our products compete with alternative products or finishing solutions. Our resilient, laminate and wood flooring products compete with carpet and ceramic products, and our ceiling products compete with drywall and exposed structure (also known as open plenum). There is excess industry capacity for certain products in some geographies, which tends to increase price competition. The following companies are our primary competitors:

**Building Products** CertainTeed Corporation (a subsidiary of Saint-Gobain), Chicago Metallic Corporation (owned by Rockwool International), Georgia-Pacific Corporation, Knauf AMF GmbH & Co. KG, Lafarge SA, Odenwald Faserplattenwerk GmbH, Rockfon A/S (owned by Rockwool International), Saint-Gobain and USG Corporation.

**Flooring segments** Beaulieu International Group, N.V., Boa-Franc, Inc., Congoleum Corporation, Forbo Holding AG, Gerflor Group, IVC Group, Krono Holding AG, Lauzon Ltd, LG Floors, Mannington Mills, Inc., Mercier Wood Flooring, Inc., Metroflor Corporation, Mirage Hardwood Floors (a division of Boa-Franc Inc.), Mohawk Industries, Inc., Mullican Flooring, L.P., Nora Systems GmbH, Pflleiderer AG, Shaw Industries, Inc., Somerset Hardwood Flooring, Tarkett AG and US Floors, Inc.

**Raw Materials**

We purchase raw materials from numerous suppliers worldwide in the ordinary course of business. The principal raw materials used in each business include the following:

Business	Principal Raw Materials
Building Products	Mineral fiber, fiberglass, perlite, waste paper, pigments, clays, starches and steel, which is used in the production of metal ceilings and by WAVE, our joint venture that manufactures ceiling grid
Resilient Flooring	Polyvinylchloride ( PVC ) resins and films, plasticizers, backings, limestone, pigments, inks and stabilizers
Wood Flooring	Hardwood lumber, veneer, coatings and stains

We also purchase significant amounts of packaging materials and consume substantial amounts of energy, such as electricity and natural gas, and water.

In general, adequate supplies of raw materials are available to all of our businesses. However, availability can change for a number of reasons, including environmental conditions, laws and regulations, shifts in demand by other industries competing for the same materials, transportation disruptions and/or business decisions made by, or events that affect, our suppliers. There is no assurance that these raw materials will remain in adequate supply to us.

Prices for certain high usage raw materials can fluctuate dramatically. Cost increases for these materials can have a significant adverse impact on our manufacturing costs. Given the competitiveness of our markets, we may not be able to recover the increased manufacturing costs through increasing selling prices to our customers.

### **Sourced Products**

Some of the products that we sell are sourced from third parties. Our primary sourced products include various flooring products (laminated, wood, vinyl sheet and tile), specialty ceiling products and installation-

## **Table of Contents**

related products, as well as accessories for some of our manufactured products. We purchase some of our sourced products from suppliers that are located outside of the U.S., primarily from Asia and Europe. Sales of sourced products represented approximately 15% of our total consolidated revenue in each of 2014, 2013, and 2012.

In general, we believe we have adequate supplies of sourced products. However, we cannot guarantee that the supply will remain adequate.

## **Seasonality**

Generally, our sales tend to be stronger in the second and third quarters of our fiscal year following the timing of renovation, home sales and new construction.

## **Patent and Intellectual Property Rights**

Patent protection is important to our business. Our competitive position has been enhanced by U.S. and foreign patents on products and processes developed or perfected within AWI or obtained through acquisitions and licenses. In addition, we benefit from our trade secrets for certain products and processes.

Patent protection extends for varying periods according to the date of patent filing or grant and the legal term of a patent in the various countries where patent protection is obtained. The actual protection afforded by a patent, which can vary from country to country, depends upon the type of patent, the scope of its coverage and the availability of legal remedies. Although we consider that, in the aggregate, our patents, licenses and trade secrets constitute a valuable asset of material importance to our business, we do not regard any of our businesses as being materially dependent upon any single patent or trade secret, or any group of related patents or trade secrets.

Certain of our trademarks, including without limitation, , Armstrong®, Alterna®, American Scrape®, BB, BioBased Tile®, BioGuard®, Bruce®, Cirrus®, Cortega®, Dundee®, Dune®, Excel®, Huiyi®, Humiguard®, Imperial®, Initiator®, Laurel®, Lock & Fold®, Luxe Plank®, Manchester®, Medintech®, Memories®, MetalWorks®, Natural Creations®, Optima®, Perla®, Plano®, Stone®, Station Square®, StrataMax®, Timberline®, ToughGuard®, Ultima®, and WoodWorks®, are important to our business because of their significant brand name recognition. Trademark protection continues in some countries as long as the mark is used, and continues in other countries as long as the mark is registered. Registrations are generally for fixed, but renewable, terms.

We review the carrying value of trademarks annually for potential impairment. See the Critical Accounting Estimates section of Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of this Form 10-K for further information.

## **Employees**

As of December 31, 2014, we had approximately 7,400 full-time and part-time employees worldwide. Approximately 54% of our 3,500 production and maintenance employees in the U.S. are represented by labor unions. Outside the U.S., most of our production employees are covered by either industry-sponsored and/or state-sponsored collective bargaining mechanisms. We believe that our relations with our employees are satisfactory. As a result of our exit from the European Resilient Flooring business, we no longer include approximately 900 employees in our reported employee count.

## **Research & Development**

Research and development ( R&D ) activities are important and necessary in helping us improve our products competitiveness. Principal R&D functions include the development and improvement of products and manufacturing processes. We spent \$30.6 million in 2014, \$29.3 million in 2013 and \$27.4 million in 2012 on R&D activities worldwide.

**Sustainability and Environmental Matters**

The adoption of environmentally responsible building codes and standards such as the Leadership in Energy and Environmental Design, or LEED, rating system established by the U.S. Green Building Council, has the potential to increase demand for products, systems and services that contribute to building sustainable spaces. Many of our products meet the requirements for the award of LEED credits, and we

## **Table of Contents**

are continuing to develop new products, systems and services to address market demand for products that enable construction of buildings that require fewer natural resources to build, operate and maintain. Our competitors also have developed and introduced to the market more environmentally responsible products.

We expect that there will be increased demand over time for products, systems and services that meet evolving regulatory and customer sustainability standards and preferences and decreased demand for products that produce significant greenhouse gas emissions. We also believe that our ability to continue to provide these products, systems and services to our customers will be necessary to maintain our competitive position in the marketplace.

We are committed to complying with all environmental laws and regulations that are applicable to our operations. Regulatory activities of particular importance to our operations include proceedings under the Comprehensive Environmental Response, Compensation and Liability Act ( CERCLA ), and state or international Superfund and similar type environmental laws governing several domestically- and internationally-owned, formerly owned and non-owned locations allegedly resulting from past industrial activity. In a few cases, we are one of several potentially responsible parties ( PRPs ) and have agreed to jointly fund the required investigation and remediation, while preserving our defenses to the liability. We may also have rights of contribution or reimbursement from other parties or coverage under applicable insurance policies. Most of our manufacturing and certain of our research facilities are affected by various federal, state and local environmental requirements relating to the discharge of materials or the protection of the environment. We make expenditures necessary for compliance with applicable environmental requirements at each of our operating facilities.

We have not experienced a material adverse effect upon our capital expenditures or competitive position as a result of environmental control legislation and regulations. Liabilities of \$4.4 million and \$4.8 million at December 31, 2014 and December 31, 2013, respectively, were recorded for potential environmental liabilities, on a global basis, that we consider probable and for which a reasonable estimate of the probable liability could be made. See Note 27 to the Consolidated Financial Statements and Risk Factors in Item 1A of this Form 10-K, for information regarding the possible effects that compliance with environmental laws and regulations may have on our businesses and operating results.

## **Website**

We maintain a website at <http://www.armstrong.com>. Information contained on our website is not incorporated into this document. Reference in this Form 10-K to our website is an inactive text reference only. Annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, all amendments to those reports and other information about us are available free of charge through this website as soon as reasonably practicable after the reports are electronically filed with the SEC. These materials are also available from the SEC's website at [www.sec.gov](http://www.sec.gov).



**Table of Contents**

**ITEM 1A. RISK FACTORS**

*Worldwide economic conditions could have a material adverse impact on our financial condition, liquidity or results of operations.*

Our business is influenced by conditions in domestic and foreign economies, including inflation, deflation, interest rates, availability and cost of capital, consumer spending rates, energy availability and the effects of governmental initiatives to manage economic conditions. Volatility in financial markets and the continued softness or further deterioration of national and global economic conditions could have a material adverse effect on our financial condition, liquidity or results of operations, including as follows:

the financial stability of our customers or suppliers may be compromised, which could result in additional bad debts for us or non-performance by suppliers;

commercial and residential consumers of our products may postpone spending in response to tighter credit, negative financial news and/or stagnation or further declines in income or asset values, which could have a material adverse impact on the demand for our product;

the net asset value of the investment funds underlying our defined benefit pension plans may decline, which could result in negative plan investment performance and additional charges which may involve significant cash contributions to such plans, to meet obligations or regulatory requirements;

our asset impairment assessments and underlying valuation assumptions may change, which could result from changes to estimates of future sales and cash flows that may lead to substantial impairment charges. Continued or sustained deterioration of economic conditions would likely exacerbate and prolong these adverse effects.

*Our business is dependent on construction activity. Downturns in construction activity could adversely affect our financial condition, liquidity or results of operations.*

Our businesses have greater sales opportunities when construction activity is strong and, conversely, have fewer opportunities when such activity declines. The cyclical nature of commercial and residential construction activity, including construction activity funded by the public sector, tends to be influenced by prevailing economic conditions, including the rate of growth in gross domestic product, prevailing interest rates, government spending patterns, business, investor and consumer confidence and other factors beyond our control. Prolonged downturns in construction activity could have a material adverse effect on our financial condition, liquidity or results of operations.

*Our plan to separate into two independent publicly-traded companies is subject to various risks and uncertainties and may not be completed in accordance with the expected plans or anticipated timeline, or at all, and will involve significant time and expense, which could disrupt or adversely affect our business.*

On February 19, 2015, our board of directors approved a plan to separate our flooring business from our ceilings (building products) business through a spinoff, which would result in two independent, publicly-traded companies.

Completion of the separation will be contingent upon customary closing conditions, including, among other things, authorization and approval of our board of directors of the final terms of the separation, receipt of a legal opinion regarding the tax-free status of the spinoff, execution of intercompany agreements, the effectiveness of a registration statement on Form 10 with the SEC, and market and certain other conditions. For these and other reasons, the separation may not be completed during the first quarter of 2016, as currently anticipated, if at all.

Even if the separation is not completed, our ongoing businesses may be adversely affected and we may be subject to certain risks and consequences, including, among others, the following:

execution of the separation will require significant time and attention from management, which may distract management from the operation of our businesses and the execution of other initiatives that may have been beneficial to us;

**Table of Contents**

we may experience unanticipated competitive developments, including changes in the conditions of our flooring and ceilings business's respective markets;

we may experience increased difficulties in attracting, retaining and motivating employees during the pendency of the separation and following its completion;

we will be required to pay certain costs and expenses relating to the spinoff, such as legal, accounting and other professional fees, and may be required to pay certain non-U.S. tax costs resulting from internal restructurings whether or not the spinoff is completed; and

we may experience negative reactions from the financial markets if we fail to complete the spinoff. Any of these factors could have a material adverse effect on our business, financial condition, results of operations and the price of our common stock.

***The separation may not be beneficial.***

We may not realize strategic, financial, operational or other benefits from the separation. As independent publicly-traded companies, the Company and Armstrong Flooring, Inc. will be smaller, less diversified companies with a narrower business focus and may be more vulnerable to changing market conditions, which could materially and adversely affect their respective business, financial condition and results of operations.

Further, there can be no assurance that the combined value of the common stock of the two publicly-traded companies will be equal to or greater than what the value of our common stock would have been had the separation not occurred.

***The separation may result in disruptions to, and negatively impact our relationships with, our customers and other business partners and the relationships with the customers and other business partners of Armstrong Flooring, Inc.***

Uncertainty related to the separation may lead customers and other parties with which we currently do business or with which we and Armstrong Flooring, Inc. may do business in the future to terminate or attempt to negotiate changes in existing business relationships, or consider entering into business relationships with parties other than us or Armstrong Flooring. These disruptions could have a material and adverse effect on our or Armstrong Floorings businesses, financial condition, results of operations and prospects. The effect of such disruptions could be exacerbated by any delays in the completion of the separation.

***The separation could result in substantial tax liability.***

The spinoff is conditioned on our receipt of an opinion of special tax counsel to us, in form and substance satisfactory to us, that the distribution of shares of our flooring business in the spinoff will qualify as tax-free to the flooring business, us and our shareholders for U.S. federal income tax purposes under Section 355 and certain other related provisions of the U.S. Internal Revenue Code of 1986, as amended (the Code), and that certain internal restructuring transactions in connection with the spinoff similarly will be tax-free to the flooring business, us and other members of our consolidated tax reporting group. The opinion will rely on, among other things, various assumptions and representations as to factual matters made by us and the flooring business which, if inaccurate or incomplete in any material respect, could jeopardize the conclusions reached by such counsel in its opinion. The opinion will not be

binding on the Internal Revenue Service (the IRS), or the courts, and there can be no assurance that the IRS or the courts will not challenge the qualification of the spinoff as a transaction under Section 355 or other provisions of the Code or the qualifications of the internal restructuring transactions as tax-free or that any such challenge would not prevail. In addition, we may incur certain tax costs in connection with the separation, including non-U.S. tax expense resulting from separations in multiple non-U.S. jurisdictions that do not legally provide for tax-free separations, which may be material.

If the spinoff were determined not to qualify under Section 355 of the Code, each U.S. holder of our common shares who receives shares of the flooring business in connection with the spinoff would generally be treated as receiving a taxable distribution of property in an amount equal to the fair market value of the

## **Table of Contents**

shares of the flooring business that are received. That distribution would be taxable to each such shareholder as a dividend to the extent of our current and accumulated earnings and profits. For each such shareholder, any amount that exceeded our earnings and profits would be treated first as a non-taxable return of capital to the extent of such shareholder's tax basis in his or her common shares of the Company with any remaining amount being taxed as a capital gain. We would be subject to tax as if we had sold common shares in a taxable sale for their fair market value and we would recognize taxable gain in an amount equal to the excess, if any, of the fair market value of such common shares over our tax basis in such common shares, which could have a material adverse impact on our financial condition, results of operations and cash flows.

***Our markets are highly competitive. Competition can reduce demand for our products or cause us to lower prices. Failure to compete effectively by meeting consumer preferences and maintaining market share could adversely affect our results.***

Our markets are highly competitive. Competition can reduce demand for our products, negatively affect our product sales mix or cause us to lower prices. Failure to compete effectively by meeting consumer preferences and maintaining market share could have a material adverse effect on our financial condition, liquidity or results of operations. Our customers consider our products' performance, product styling, customer service and price when deciding whether to purchase our products. Shifting consumer preference in our highly competitive markets, from residential vinyl products to other flooring products, for example, whether for performance or styling preferences or our inability to develop and offer new competitive performance features could have an adverse effect on our sales. In addition, excess industry capacity for certain products in several geographic markets could lead to industry consolidation and/or increased price competition. We are also subject to potential increased price competition from overseas competitors which may have lower cost structures.

***Sales fluctuations to and changes in our relationships with key customers could have a material adverse effect on our financial condition, liquidity or results of operations.***

Some of our business lines and markets are dependent on a few key customers, including independent distributors. The loss, reduction, or fluctuation of sales to one of these major customers, or any adverse change in our business relationship with any one of them, could have a material adverse effect on our financial condition, liquidity or results of operations.

***If the availability of raw materials or energy decreases, or the costs increase, and we are unable to pass along increased costs, our financial condition, liquidity or results of operations could be adversely affected.***

The availability and cost of raw materials, packaging materials, energy and sourced products are critical to our operations. For example, we use substantial quantities of natural gas, petroleum-based raw materials and hardwood lumber in our manufacturing operations. The cost of some of these items has been volatile in recent years and availability has been limited at times. We source some materials from a limited number of suppliers, which, among other things, increases the risk of unavailability. Limited availability could cause us to reformulate products or limit our production. Decreased access to raw materials and energy or significant increased cost to purchase these items and any corresponding inability to pass along such costs through price increases could have a material adverse effect on our financial condition, liquidity or results of operations.

***The agreements that govern our indebtedness contain a number of covenants that impose significant operating and financial restrictions, including restrictions on our ability to engage in activities that may be in our best long-term interests.***

The agreements that govern our indebtedness include covenants that, among other things, may impose significant operating and financial restrictions, including restrictions on our ability to engage in activities that may be in our best long-term interests. These covenants may restrict our ability to:

incur additional debt;

pay dividends on or make other distributions in respect of our capital stock or redeem, repurchase or retire our capital stock or subordinated debt or make certain other restricted payments;

make certain acquisitions;

**Table of Contents**

sell certain assets;

consolidate, merge, sell or otherwise dispose of all or substantially all of our assets; and

create liens on certain assets to secure debt.

Under the terms of our senior secured credit facility, we are required to maintain specified leverage and interest coverage ratios. Our ability to meet these ratios could be affected by events beyond our control, and we cannot assure that we will meet them. A breach of any of the restrictive covenants or ratios would result in a default under the senior secured credit facility. If any such default occurs, the lenders under the senior secured credit facility may be able to elect to declare all outstanding borrowings under our facilities, together with accrued interest and other fees, to be immediately due and payable, or enforce their security interest. The lenders may also have the right in these circumstances to terminate commitments to provide further borrowings.

***Our indebtedness may adversely affect our cash flow and our ability to operate our business, make payments on our indebtedness and declare dividends on our capital stock.***

Our level of indebtedness and degree of leverage could:

make it more difficult for us to satisfy our obligations with respect to our indebtedness;

make us more vulnerable to adverse changes in general economic, industry and competitive conditions and adverse changes in government regulation;

limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;

place us at a competitive disadvantage compared to our competitors that are less leveraged and, therefore, more able to take advantage of opportunities that our leverage prevents us from exploiting;

limit our ability to refinance existing indebtedness or borrow additional amounts for working capital, capital expenditures, acquisitions, debt service requirements, execution of our business strategy or other purposes;

restrict our ability to pay dividends on our capital stock; and

adversely affect our credit ratings.

We may also incur additional indebtedness, which could exacerbate the risks described above. In addition, to the extent that our indebtedness bears interest at floating rates, our sensitivity to interest rate fluctuations will increase.

Any of the above listed factors could materially adversely affect our financial condition, liquidity or results of operations.

***We require a significant amount of liquidity to fund our operations, and borrowing has increased our vulnerability to negative unforeseen events.***

Our liquidity needs vary throughout the year. If our business experiences materially negative unforeseen events, we may be unable to generate sufficient cash flow from operations to fund our needs or maintain sufficient liquidity to operate and remain in compliance with our debt covenants, which could result in reduced or delayed planned capital expenditures and other investments and adversely affect our financial condition or results of operations.

***Our decision to exit our European flooring business could result in potential claims and liabilities arising from the insolvency proceedings initiated by our former management in Germany.***

On December 4, 2014, our Board of Directors approved the cessation of funding to our DLW subsidiary, which formerly was our European flooring business. As a result of the decision, DLW management concluded that its operations could not be financed and sustained without funding from us and filed for



## **Table of Contents**

insolvency in Germany on December 11, 2014. On the same date, the German insolvency court appointed an administrator (the Administrator) to oversee DLW's operations. We expect to enter supply and transition services agreements with the Administrator, pursuant to which we may agree to continue to purchase linoleum and homogenous flooring products from DLW for sale in the Americas and the Pacific Rim, and continue to provide administrative support services to DLW for information technology and accounts receivables and payables for a limited transition period. The insolvency proceedings are currently expected to continue through 2015, if not longer, during which time it may be unclear whether and to what extent we may be subject to potential claims and liabilities, including claw-backs, arising from the proceedings. Similarly, pending the conclusion of the insolvency proceedings, it may be unclear to what extent and for how long we may be required to continue to provide support services to DLW, and whether the prices we pay for purchases of DLW products could increase. Any significant judgment or claim, prolonged provision of support services to DLW, or increased costs associated with our purchase of DLW products could have a material adverse effect on our financial condition, liquidity or results of operations.

***Our WAVE joint venture is important to our financial results, and if there is a change with respect to our partner that adversely impacts its relationship with us, WAVE's performance could be adversely impacted.***

Our equity investment in our WAVE joint venture remains important to our financial results. We believe an important element in the success of this joint venture is the relationship with our partner, Worthington Industries, Inc. If there is a change in ownership, a change of control, a change in management or management philosophy, a change in business strategy or another event with respect to our partner that adversely impacts our relationship, WAVE's performance could be adversely impacted. In addition, our partner may have economic or business interests or goals that are different from or inconsistent with our interests or goals, which may impact our ability to influence or align WAVE's strategy and operations.

***We may be subject to liability under and may make substantial future expenditures to comply with environmental laws and regulations, which could materially adversely affect our financial condition, liquidity or results of operations.***

We are involved with environmental investigation and remediation activities for which our ultimate liability may exceed the currently estimated and accrued amounts. It is possible that we could become subject to additional environmental matters and corresponding liabilities in the future. See Note 27 to the Consolidated Financial Statements for further information related to our environmental matters.

The building materials industry has been subject to claims relating to raw materials such as silicates, PCBs, PVC, formaldehyde, fire-retardants and claims relating to other issues such as mold and toxic fumes, as well as claims for incidents of catastrophic loss, such as building fires. We have not received any significant claims involving our raw materials or our product performance; however, product liability insurance coverage may not be available or adequate in all circumstances to cover claims that may arise in the future.

In addition, our operations are subject to various domestic and foreign environmental, health, and safety laws and regulations. These laws and regulations not only govern our current operations and products, but also impose potential liability on us for our past operations. Our costs to comply with these laws and regulations may increase as these requirements become more stringent in the future, and these increased costs may materially adversely affect our financial condition, liquidity or results of operations.

***We are subject to risks associated with our international operations in both established and emerging markets. Legislative, political, regulatory and economic volatility, as well as vulnerability to infrastructure and labor disruptions, could have an adverse effect on our financial condition, liquidity or results of operations.***

A significant portion of our products move in international trade, with approximately 25% of our revenues from operations outside the United States and Canada in 2014. See Note 3 to the Consolidated Financial Statements for further information. Our international trade is subject to currency exchange fluctuations, trade regulations, import duties, logistics costs, delays and other related risks. Our international operations are also subject to various tax rates, credit risks in emerging markets, political risks, uncertain legal systems, high costs in repatriating profits to the United States from some countries, and loss of sales to local competitors following currency devaluations in countries where we import products for sale. In addition, our international growth strategy depends in part on our ability to expand our operations in certain emerging markets. However, some emerging markets have greater political and economic volatility and greater vulnerability to infrastructure and labor disruptions than established markets.

## **Table of Contents**

In addition, in many countries outside of the United States, particularly in those with developing economies, it may be common for others to engage in business practices prohibited by laws and regulations applicable to us, such as the Foreign Corrupt Practices Act or similar local anti-corruption or anti-bribery laws. These laws generally prohibit companies and their employees, contractors or agents from making improper payments to government officials for the purpose of obtaining or retaining business. Failure to comply with these laws, as well as U.S. and foreign export and trading laws, could subject us to civil and criminal penalties. As we continue to expand our business globally, including in emerging markets, we may have difficulty anticipating and effectively managing these and other risks that our international operations may face, which may adversely affect our business outside the United States and our financial condition, liquidity or results of operations.

***We may pursue strategic transactions that could create risks and present unforeseen integration obstacles or costs, any of which could materially adversely affect our financial condition, liquidity or results of operations.***

We have evaluated, and expect to continue to evaluate, potential strategic transactions as opportunities arise. We routinely engage in discussions with third parties regarding potential transactions, including joint ventures, which could be significant. Any such strategic transaction involves a number of risks, including potential disruption of our ongoing business and distraction of management, difficulty with integrating or separating personnel and business operations and infrastructure, and increasing or decreasing the scope, geographic diversity and complexity of our operations. Strategic transactions could involve payment by us of a substantial amount of cash, assumption of liabilities and indemnification obligations, regulatory requirements, incurrence of a substantial amount of debt or issuance of a substantial amount of equity. Certain strategic opportunities may not result in the consummation of a transaction or may fail to realize the intended benefits and synergies. If we fail to consummate and integrate our strategic transactions in a timely and cost-effective manner, our financial condition, liquidity or results of operation could be materially and adversely affected.

***Our plant construction projects may adversely impact our results.***

We recently completed several large plant construction projects, including two resilient flooring plants and one mineral fiber ceilings plant in China and, in the first quarter of 2015, a mineral fiber ceilings plant in Russia. In addition, we are adding manufacturing capability to our Lancaster, PA flooring plant to manufacture luxury vinyl tile ( LVT ) in North America. Economic and competitive advantages and returns expected from these projects may not fully materialize as a result of changes in market conditions. In addition, there can be no assurance that the actual cost of our LVT project in North America will not exceed our projections, and we may experience delays in this project for many reasons, including unavailability of materials, labor or equipment, regulatory matters or inclement weather.

***Our ability to utilize our deferred tax assets may be limited and our financial condition or results of operations may be materially adversely impacted if we determine our deferred tax assets are not realizable.***

We have substantial deferred tax assets related to United States domestic foreign tax credits, or FTCs, and state net operating losses, or NOLs, which are available to reduce our U.S. income tax liability and to offset future state taxable income. However, our ability to utilize the current carrying value of these deferred tax assets may be impacted as a result of certain future events, such as changes in tax legislation, insufficient future taxable income prior to expiration of the FTCs and NOLs, or annual limits imposed under Section 382 of the Internal Revenue Code, ( Section 382 ), or by state law, as a result of an ownership change. The Internal Revenue Code and some states impose limitations on a corporation's ability to utilize tax attributes, including NOLs and FTCs if it experiences an ownership change. An ownership change may result from transactions increasing the ownership of certain shareholders by more than 50 percentage points over a three-year period.

Together the Armstrong World Industries, Inc. Asbestos Personal Injury Settlement Trust ( Asbestos PI Trust ) and a former large shareholder, TPG Capital, collectively sold 5,980,000 shares, 12,057,382 shares, 6,000,000 shares, and 3,900,000 shares of our common shares during the fourth quarter of 2012, the third quarter of 2013, the fourth quarter of 2013, and the first quarter of 2014, respectively. Those sales

---

**Table of Contents**

significantly increase the likelihood that future sales by Asbestos PI Trust will cause an ownership change under Section 382. At this time, we estimate that an additional sale of our common shares by Asbestos PI Trust prior to December 2015 would be reasonably likely to cause an ownership change under Section 382. An ownership change may result in limitations on the utilization of certain tax attributes, primarily our ability to deduct state NOLs against future state taxable income. If such ownership change were to occur, we would be required to record a one-time, non-cash charge in our income statement in the period in which such ownership change occurs. We currently estimate that, if such ownership change had occurred on and as of the date hereof, based on the factors discussed below, the one-time charge that would have to be taken in the quarter ending December 31, 2014 would reduce our net earnings in such quarter by an amount between \$4 million and \$8 million. This pro forma estimated range of net earnings reduction is based on current management estimates and assumptions that are subject to change over time. The actual amount of the required charge, if any, may differ materially from this current estimate. Key factors impacting the calculation include, but are not limited to, our stock price on the date of the ownership change, the applicable tax-exempt interest rate, the tax basis and fair market value of our assets, federal and state tax regulations, projections of future taxable income and prior NOL usage.

***Negative tax consequences can have an unanticipated effect on our financial results.***

We are subject to the tax laws of the many jurisdictions in which we operate. The tax laws are complex, and the manner in which they apply to our operations and results is sometimes open to interpretation. Because our income tax expense for any period depends heavily on the mix of income derived from the various taxing jurisdictions, our income tax expense and reported net income may fluctuate significantly, and may be materially different than forecasted or experienced in the past. Our financial condition, liquidity, results of operations or tax liability could be adversely affected by changes in the effective tax rate as a result of a change in the mix of earnings in countries with differing statutory tax rates, changes in our overall profitability, changes in tax legislation and rates, changes in the valuation of deferred tax assets and liabilities, changes in the amount of earnings permanently reinvested offshore, the results of examinations of previously filed tax returns, and ongoing assessments of our tax exposures.

***Adverse judgments in regulatory actions, product claims, environmental claims and other litigation could be costly. Insurance coverage may not be available or adequate in all circumstances.***

In the ordinary course of business, we are subject to various claims and litigation. Any such claims, whether with or without merit, could be time consuming and expensive to defend and could divert management's attention and resources. While we strive to ensure that our products comply with applicable government regulatory standards and internal requirements, and that our products perform effectively and safely, customers from time to time could claim that our products do not meet warranty or contractual requirements, and users could claim to be harmed by use or misuse of our products. These claims could give rise to breach of contract, warranty or recall claims, or claims for negligence, product liability, strict liability, personal injury or property damage. They could also result in negative publicity.

In addition, claims and investigations may arise related to patent infringement, distributor relationships, commercial contracts, antitrust or competition law requirements, employment matters, employee benefits issues, and other compliance and regulatory matters, including anti-corruption and anti-bribery matters. While we have processes and policies designed to mitigate these risks and to investigate and address such claims as they arise, we cannot predict or, in some cases, control the costs to defend or resolve such claims.

We currently maintain insurance against some, but not all, of these potential claims. In the future, we may not be able to maintain insurance at commercially acceptable premium levels. In addition, the levels of insurance we maintain may not be adequate to fully cover any and all losses or liabilities. If any significant judgment or claim is not fully

insured or indemnified against, it could have a material adverse impact. We cannot assure that the outcome of all current or future litigation will not have a material adverse effect on our financial condition, liquidity or results of operations.

***Increased costs of labor, labor disputes, work stoppages or union organizing activity could delay or impede production and could have a material adverse effect on our financial condition, liquidity or results of operations.***

Increased costs of U.S. and international labor, including the costs of employee benefits plans, labor disputes, work stoppages or union organizing activity could delay or impede production and have a material

## **Table of Contents**

adverse effect on our financial condition, liquidity or results of operations. As the majority of our manufacturing employees are represented by unions and covered by collective bargaining or similar agreements, we often incur costs attributable to periodic renegotiation of those agreements, which may be difficult to project. We are also subject to the risk that strikes or other conflicts with organized personnel may arise or that we may become the subject of union organizing activity at our facilities that do not currently have union representation. Prolonged negotiations, conflicts or related activities could also lead to costly work stoppages and loss of productivity.

***Our intellectual property rights may not provide meaningful commercial protection for our products or brands, which could adversely impact our financial condition, liquidity or results of operations.***

We rely on our proprietary intellectual property, including numerous patents and registered trademarks, as well as our licensed intellectual property to market, promote and sell our products. We monitor and protect against activities that might infringe, dilute, or otherwise harm our patents, trademarks and other intellectual property and rely on the patent, trademark and other laws of the United States and other countries. However, we may be unable to prevent third parties from using our intellectual property without our authorization. In addition, the laws of some non-United States jurisdictions, particularly those of certain emerging markets, provide less protection for our proprietary rights than the laws of the United States and present greater risks of counterfeiting and other infringement. To the extent we cannot protect our intellectual property, unauthorized use and misuse of our intellectual property could harm our competitive position and have a material adverse effect on our financial condition, liquidity or results of operations.

***We outsource our information technology infrastructure and certain finance and accounting functions, which makes us more dependent upon third parties.***

In an effort to make our finance, accounting and information technology ( IT ), functions more efficient, increase related capabilities, as well as generate cost savings, we outsource certain finance and accounting functions and a significant portion of our IT infrastructure to separate third party service providers. As a result, we rely on third parties to ensure that our related needs are sufficiently met. This reliance subjects us to risks arising from the loss of control over certain processes, changes in pricing that may affect our operating results, and potentially, termination of provisions of these services by our suppliers. A failure of our service providers to perform may have a material adverse effect on our financial condition, liquidity or results of operation.

***Our cost saving initiatives may not achieve expected savings in our operating costs or improved operating results.***

We aggressively look for ways to make our operations more efficient and effective. We reduce, move and expand our plants and operations as needed. Such actions involve substantial planning, often require capital investments and may result in charges for fixed asset impairments or obsolescence and substantial severance costs. Our ability to achieve cost savings and other benefits within expected time frames is subject to many estimates and assumptions. These estimates and assumptions are subject to significant economic, competitive and other uncertainties, some of which are beyond our control. If these estimates and assumptions are incorrect, if we experience delays, or if other unforeseen events occur, our financial condition, liquidity or results of operations could be materially and adversely affected.

## **ITEM 1B. UNRESOLVED STAFF COMMENTS**

None.

**Table of Contents****ITEM 2. PROPERTIES**

Our world headquarters is in Lancaster, Pennsylvania. We own a 100-acre, multi-building campus comprising the site of our corporate headquarters, most of our operational headquarters, our U.S. R&D operations and marketing, and customer service headquarters.

We produce and market Armstrong products and services throughout the world, operating 31 manufacturing plants in eight countries as of December 31, 2014. Four of our plants are leased and the remaining 27 are owned. We operate 20 plants located throughout the United States. In addition, our WAVE joint venture operates eight additional plants in five countries.

Business Segment	Number of Plants	Location of Principal Facilities
Building Products	14	U.S. (Florida, Georgia, Ohio, Oregon, Pennsylvania, and West Virginia), Austria, Canada, China, France, Germany and the U.K.
Resilient Flooring	9	U.S. (California, Illinois, Mississippi, Oklahoma, and Pennsylvania), Australia and China
Wood Flooring	8	U.S. (Arkansas, Kentucky, Mississippi, Missouri, Pennsylvania, Tennessee and West Virginia)

During the third quarter of 2014, we closed our resilient flooring plant in Thomastown, Australia. During the fourth quarter of 2014, we closed our engineered wood flooring plant in Kunshan, China, and exited our resilient flooring operations in Europe.

Sales and administrative offices are leased and/or owned worldwide, and leased facilities are utilized to supplement our owned warehousing facilities.

Production capacity and the extent of utilization of our facilities are difficult to quantify with certainty. In any one facility, utilization of our capacity varies periodically depending upon demand for the product that is being manufactured. We believe our facilities are adequate and suitable to support the business. Additional incremental investments in plant facilities are made as appropriate to balance capacity with anticipated demand, improve quality and service, and reduce costs.

**ITEM 3. LEGAL PROCEEDINGS**

See the Specific Material Events section of the Environmental Matters section of Note 27 to the Consolidated Financial Statements, which is incorporated herein by reference, for a description of our significant legal proceedings.

**ITEM 4. MINE SAFETY DISCLOSURES**

Not applicable.



Table of ContentsPART IIITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERSAND ISSUER PURCHASES OF EQUITY SECURITIES

AWI's common shares trade on the New York Stock Exchange under the ticker symbol AWI. As of February 17, 2015, there were approximately 330 holders of record of AWI's common stock.

	First	Second	Third	Fourth	Total Year
<u>2014</u>					
Price range of common stock - high	\$ 61.90	\$ 58.00	\$ 59.90	\$ 56.03	\$ 61.90
Price range of common stock - low	\$ 51.31	\$ 50.98	\$ 48.35	\$ 44.00	\$ 44.00
<u>2013</u>					
Price range of common stock - high	\$ 58.48	\$ 55.94	\$ 57.14	\$ 57.83	\$ 58.48
Price range of common stock - low	\$ 49.84	\$ 44.93	\$ 45.81	\$ 49.55	\$ 44.93

The above figures represent the high and low intra-day sale prices for our common stock as reported by the New York Stock Exchange.

There were no dividends declared during 2014 or 2013.

Dividends are paid when declared by our Board of Directors and in accordance with restrictions set forth in our debt agreements. In general, our debt agreements allow us to make restricted payments, which include dividends and stock repurchases, subject to certain limitations and other restrictions and provided that we are in compliance with the financial and other covenants of our debt agreements and meet certain liquidity requirements after giving effect to the restricted payment. For further discussion of the debt agreements, see the financial condition and liquidity section of Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 and Risk Factors in Item 1A in this Form 10-K.

Issuer Purchases of Equity Securities

Period	Total Number of Shares Purchased <sup>1</sup>	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs <sup>2</sup>	Maximum Number of Shares that may yet be Purchased under the Plans or Programs
October 1-31, 2014	2,471	\$ 48.34		
November 1-30, 2014				
December 1-31, 2014				

Total	2,471	N/A	N/A
-------	-------	-----	-----

<sup>1</sup> Shares reacquired through the withholding of shares to pay employee tax obligations upon the exercise of options or vesting of restricted shares previously granted under the 2011 Long Term Incentive Plan.

<sup>2</sup> The Company does not presently have a share buy-back program.

For more information regarding securities authorized for issuance under our equity compensation plans, see Note 21 to the Consolidated Financial Statements included in this Form 10-K.

**Table of Contents****ITEM 6. SELECTED FINANCIAL DATA**

The following selected historical consolidated financial data should be read in conjunction with our audited consolidated financial statements, the accompanying notes and Management's Discussion and Analysis of Financial Condition and Results of Operations included in this Form 10-K. The selected historical consolidated financial data for the periods presented have been derived from our audited consolidated financial statements.

	2014	2013	2012	2011	2010
(amounts in millions, except for per-share data)					
<b><u>Income statement data</u></b>					
Net sales	\$ 2,515.3	\$ 2,527.4	\$ 2,428.7	\$ 2,482.9	\$ 2,381.7
Operating income	239.1	265.6	284.9	268.5	109.8
Earnings from continuing operations	102.0	127.3	158.6	141.6	39.6
Per common share - basic (a)	\$ 1.85	\$ 2.19	\$ 2.67	\$ 2.41	\$ 0.68
Per common share - diluted (a)	\$ 1.83	\$ 2.17	\$ 2.65	\$ 2.39	\$ 0.68
Dividends declared per share of common stock			\$ 8.55		\$ 13.74
<b><u>Balance sheet data (end of period)</u></b>					
Total assets	\$ 2,606.2	\$ 2,916.6	\$ 2,854.3	\$ 2,994.7	\$ 2,922.4
Long-term debt	1,003.0	1,042.6	1,038.0	822.9	839.6
Total shareholders' equity	649.1	673.2	719.1	1,130.2	1,090.8

**Notes:**

(a) See definition of basic and diluted earnings per share in Note 2 to the Consolidated Financial Statements.

**Table of Contents**

**ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

Armstrong World Industries, Inc. ( AWI ) is a Pennsylvania corporation incorporated in 1891.

This discussion should be read in conjunction with the financial statements, the accompanying notes, the cautionary note regarding forward-looking statements and risk factors included in this Form 10-K.

**Overview**

We are a leading global producer of flooring products and ceiling systems for use primarily in the construction and renovation of residential, commercial and institutional buildings. We design, manufacture and sell flooring products (primarily resilient and wood) and ceiling systems (primarily mineral fiber, fiberglass and metal) around the world.

On December 4, 2014, our Board of Directors approved the cessation of funding to our former DLW subsidiary, which was our former European Resilient Flooring business. This decision followed a comprehensive evaluation of the strategic alternatives for the business. As a result of this decision, DLW management concluded that its operations could not be financed and sustained without funding from us and filed for insolvency in Germany on December 11, 2014. See Note 4 to the Consolidated Financial Statements for more information.

During 2013, we opened three new manufacturing facilities in China; consisting of two resilient flooring plants and a mineral fiber ceiling plant. As of December 31, 2014, we operated 31 manufacturing plants in eight countries, including 20 plants located throughout the U.S.

Worthington Armstrong Venture ( WAVE ), our joint venture with Worthington Industries, Inc., operates eight additional plants in five countries to produce suspension system (grid) products which we use in our ceiling systems.

We report our financial results through the following segments: Building Products, Resilient Flooring, Wood Flooring, and Unallocated Corporate. See *Results of Operations* and *Reportable Segment Results* for additional financial information on our consolidated company and our segments.

**Factors Affecting Revenues**

For information on our segments' 2014 net sales by geography, see Note 3 to the Consolidated Financial Statements included in this Form 10-K.

*Markets.* We compete in building material markets around the world. The majority of our sales are in North America. We closely monitor publicly available macroeconomic trends that provide insight to commercial and residential market activity including Gross Domestic Product, the Architecture Billings Index and the Consumer Confidence Index. In addition, we noted several factors and trends within our markets that directly affected our business performance during 2014, including:

**Americas**

We noted softness in commercial markets, particularly healthcare and, to a lesser extent, education, as public spending remained constrained. In addition, we saw some regional variability in the office market and some softening in retail markets. These trends impacted both our Building Products and Resilient Flooring businesses, but with greater impact on Resilient Flooring, as a significant portion of our commercial sales in Resilient Flooring originate from the

healthcare and education markets.

Residential markets softened as builder activity grew, but at a slower rate than in the prior year and renovation activity remained constrained. Softer market conditions drove consumers to trade down to lower value products and led to more aggressive actions by competitors, resulting in pressure on mix and price. These trends, as well as accelerating share shifts within product categories and excess industry capacity, impacted our Wood and Resilient Flooring businesses.

## **Table of Contents**

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

Revenues for all our businesses were negatively impacted by severe weather conditions experienced during the first quarter of 2014.

#### **Europe, Middle East and Africa ( EMEA )**

Continued softness in commercial sectors, such as office, education and healthcare, and the significant devaluation of the Russian Ruble contributed to mixed results in our Building Products business.

#### **Pacific Rim**

Commercial markets for our Building Products businesses in India and Australia grew, while markets in China were soft. Commercial markets for our Resilient Flooring businesses grew in China but declined in Australia.

*Pricing Initiatives.* We periodically modify prices in each of our business segments due to changes in costs for raw materials and energy, and to market conditions and the competitive environment. In certain cases, realized price increases are less than the announced increases because of competitive reactions and changing market conditions. We estimate that pricing actions increased our 2014 consolidated net sales by approximately \$57 million, compared to 2013.

In response to continued rising input and raw material prices we implemented price increases in the fourth quarter of 2014 in our Building Products business in India and multiple increases in Russia to offset currency devaluations. We also announced price increases on select resilient products in the Americas and in our Building Products businesses in the Americas, EMEA and the Pacific Rim effective in the first quarter of 2015. We may implement additional pricing actions based upon future movements in raw material prices or foreign currency valuations.

*Mix.* Each of our businesses offers a wide assortment of products that are differentiated by style, design and performance attributes. Pricing and margins for products within the assortment vary. Changes in the relative quantity of products purchased at the different price points can impact year-to-year comparisons of net sales and operating income. We estimate that mix improvements increased our 2014 consolidated net sales by approximately \$49 million, compared to 2013.

#### **Factors Affecting Operating Costs**

*Operating Expenses.* Our operating expenses are comprised of direct production costs (principally raw materials, labor and energy), manufacturing overhead costs, freight, costs to purchase sourced products and selling, general and administrative ( SG&A ) expenses.

Our largest individual raw material expenditures include lumber and veneers, PVC resins and plasticizers. Natural gas is also a significant input cost. Fluctuations in the prices of these inputs are generally beyond our control and have a direct impact on our financial results. In 2014, the costs for raw materials, sourced products and energy negatively impacted operating income by approximately \$34 million, compared to 2013.

During 2014, we incurred approximately \$15 million of charges associated with the closure of our Thomastown, Australia resilient flooring plant and the closure of our Kunshan, China engineered wood flooring plant. Production activity for both plants was shifted to our existing facilities in the United States.

We continue to evaluate the efficiency of our manufacturing footprint and may take additional actions in support of our cost and standardization initiatives. The charges associated with any additional cost reduction initiatives could include severance and related termination benefits, fixed asset write-downs, asset impairments and accelerated depreciation and may be material to our financial statements.

*Intangible Asset Impairment.* In the fourth quarter of 2014 we recorded a non-cash impairment charge of \$10.0 million to reduce the carrying value of a Wood Flooring trademark to its estimated fair value based on the results of our annual impairment test. The estimated fair value was negatively impacted by competitive conditions in the U.S. residential housing market resulting in lower projected profitability.

---

**Table of Contents**

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

See also Results of Operations for further discussion of other significant items affecting operating costs.

**Employees**

As of December 31, 2014, we had approximately 7,400 full-time and part-time employees worldwide, compared to approximately 7,800 employees as of December 31, 2013. Most of the decrease related to a reduction in staff at three of our U.S. wood flooring plants, along with the closing of our Kunshan, China and Thomastown, Australia flooring plants. As a result of our exit from the European Resilient Flooring business, we no longer include approximately 900 employees in our reported employee count.

During 2014, we negotiated collective bargaining agreements covering approximately 900 employees at four U.S. plants. Collective bargaining agreements covering approximately 500 employees at two U.S. plants will expire during 2015.

**CRITICAL ACCOUNTING ESTIMATES**

In preparing our consolidated financial statements in accordance with U.S. generally accepted accounting principles ( GAAP ), we are required to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. We evaluate our estimates and assumptions on an on-going basis, using relevant internal and external information. We believe that our estimates and assumptions are reasonable. However, actual results may differ from what was estimated and could have a significant impact on the financial statements.

We have identified the following as our critical accounting estimates. We have discussed these critical accounting estimates with our Audit Committee.

**U.S. Pension Credit and Postretirement Benefit Costs** We maintain pension and postretirement plans throughout the world, with the most significant plans located in the U.S. Our defined benefit pension and postretirement benefit costs are developed from actuarial valuations. These valuations are calculated using a number of assumptions, which represent management's best estimate of the future. The assumptions that have the most significant impact on reported results are the discount rate, the estimated long-term return on plan assets and the estimated inflation in health care costs. These assumptions are generally updated annually.

The discount rate is used to determine retirement plan liabilities and to determine the interest cost component of net periodic pension and postretirement cost. Management utilizes the Aon Hewitt AA only above median yield curve, which is a hypothetical AA yield curve comprised of a series of annualized individual discount rates, as the primary basis for determining the discount rate. As of December 31, 2014 and 2013, we assumed discount rates of 4.05% and 4.75%, respectively, for the U.S. defined benefit pension plans. As of December 31, 2014, we assumed a discount rate of 3.90% compared with a discount rate of 4.50% as of December 31, 2013 for the U.S. postretirement plans. The effects of the change in discount rate will be amortized into earnings as described below. Absent any other changes, a one-quarter percentage point decrease in the discount rates for the U.S. pension and postretirement plans would decrease 2015 operating income by \$6.8 million and a one-quarter percentage point increase in the discount rates would increase 2015 operating income by \$6.5 million.



We have two U.S. defined benefit pension plans, a qualified funded plan and a nonqualified unfunded plan. For the qualified funded plan, the expected long-term return on plan assets represents a long-term view of the future estimated investment return on plan assets. This estimate is determined based on the target allocation of plan assets among asset classes and input from investment professionals on the expected performance of the asset classes over 10 to 30 years. Historical asset returns are monitored and considered when we develop our expected long-term return on plan assets. An incremental component is added for the expected return from active management based on historical information obtained from the plan's investment consultants. These forecasted gross returns are reduced by estimated management fees and expenses, yielding a long-term rate of return assumption of 7.0% per annum for 2015. Over the 10 year period ended December 31, 2014, the historical annualized return was approximately 7.0%

**Table of Contents****Management's Discussion and Analysis of Financial Condition and Results of Operations**

compared to an average expected return of 7.5%. The actual return on plan assets achieved for 2014 was 10.3%. The difference between the actual and expected rate of return on plan assets will be amortized into earnings as described below.

The expected long-term return on plan assets used in determining our 2014 U.S. pension credit was 7.0%. We have assumed a return on plan assets during 2015 of 7.0%. The 2015 expected return on assets was calculated in a manner consistent with 2014. A one-quarter percentage point increase or decrease in this assumption would increase or decrease 2015 operating income by approximately \$5.0 million.

Contributions to the unfunded plan were \$4.3 million in 2014 and were made on a monthly basis to fund benefit payments. We estimate the 2015 contributions will be approximately \$4.0 million. See Note 16 to the Consolidated Financial Statements for more information.

The estimated inflation in health care costs represents a 5-10 year view of the expected inflation in our postretirement health care costs. We separately estimate expected health care cost increases for pre-65 retirees and post-65 retirees due to the influence of Medicare coverage at age 65, as illustrated below:

	Assumptions		Actual	
	Post 65	Pre 65	Post 65	Pre 65
2013	7.8%	7.6%	18.3%	(4.6)%
2014	7.0%	8.0%	12.6%	4.2%
2015	6.8%	7.5%		

The difference between the actual and expected health care costs is amortized into earnings as described below. As of December 31, 2014, health care cost increases are estimated to decrease ratably until 2025, after which they are estimated to be constant at 5%. A one percentage point increase or decrease in the assumed health care cost trend rate would not materially impact 2015 operating income. See Note 16 to the Consolidated Financial Statements for more information.

Actual results that differ from our various pension and postretirement plan estimates are captured as actuarial gains/losses. When certain thresholds are met, the gains and losses are amortized into future earnings over the expected remaining service period of plan participants, which is approximately eight years for our U.S. pension plans and our U.S. postretirement plans. Changes in assumptions could have significant effects on earnings in future years.

We recognized an increase in net actuarial losses related to our U.S. pension benefit plans of \$194.9 million in 2014 primarily due to changes in actuarial assumptions (most significantly a 70 basis point reduction in the discount rate and our adoption of the Society of Actuaries RP-2014 mortality tables). The \$194.9 million actuarial loss due to our U.S. pension plans is reflected as a component of other comprehensive income in our Consolidated Statement of Earnings and Comprehensive Income along with actuarial gains and losses from our foreign pension plans and our U.S. postretirement benefit plans.

**Impairments of Long-Lived Tangible and Intangible Assets** Our indefinite-lived intangibles are primarily trademarks and brand names, which are integral to our corporate identity and expected to contribute indefinitely to our corporate

cash flows. Accordingly, they have been assigned an indefinite life. We conduct our annual impairment test for non-amortizable intangible assets during the fourth quarter, although we conduct interim impairment tests if events or circumstances indicate the asset might be impaired. We conduct impairment tests for tangible assets and amortizable intangible assets when indicators of impairment exist, such as operating losses and/or negative cash flows. If an indication of impairment exists, we compare the carrying amount of the asset group to the estimated undiscounted future cash flows expected to be generated by the assets. The estimate of an asset group's fair value is based on discounted future cash flows expected to be generated by the asset group, or based on management's estimated exit price assuming the assets could be sold in an orderly transaction between market participants or estimated salvage value if no sale is assumed. If the fair value is less than the carrying value of the asset group, we record an impairment charge equal to the difference between the fair value and carrying value of the asset group.

**Table of Contents****Management's Discussion and Analysis of Financial Condition and Results of Operations**

The principal assumption utilized in our impairment tests for definite-lived intangible assets is operating profit adjusted for depreciation and amortization. The principal assumptions utilized in our impairment tests for indefinite-lived intangible assets include revenue growth rate, discount rate and royalty rate. Revenue growth rate and operating profit assumptions are derived from those utilized in our operating plan and strategic planning processes. The discount rate assumption is calculated based upon an estimated weighted average cost of equity which reflects the overall level of inherent risk and the rate of return a market participant would expect to achieve. Methodologies used for valuing our intangible assets did not change from prior periods.

The cash flow estimates used in applying our impairment tests are based on management's analysis of information available at the time of the impairment test. Actual cash flows lower than the estimate could lead to significant future impairments. If subsequent testing indicates that fair values have declined, the carrying values would be reduced and our future statements of income would be affected.

During the fourth quarter of 2014, we recorded a non-cash impairment charge of \$10.0 million to reduce the carrying amount of a Wood Flooring trademark to its estimated fair value based on the results of our annual impairment test. The fair value was negatively affected by lower expected sales and profits due to the competitive environment in the U.S. residential housing market. The remaining carrying value of the Wood Flooring trademarks at December 31, 2014 was \$31.9 million. Continued competitive pressure beyond our expectations could lead to future material impairments of the Wood Flooring intangible assets.

There were no impairment charges in 2013 or 2012 related to intangible assets.

We tested the tangible assets within the following reporting units for impairment:

Reporting Unit	2014	2013	2012
ABP Americas	X		X
Wood Flooring	X		X
AFP Pacific Rim	X		

Based upon the impairment testing in 2014 and 2012, the carrying value of the tangible assets for each of these asset groups was determined to be recoverable (except as discussed below) because the related undiscounted cash flows and/or fair value exceeded the carrying value of assets.

During the third quarter of 2014, we recorded an impairment charge of \$11.9 million on the tangible assets of the European Resilient Flooring business as a result of disappointing operating results. This charge is reflected within Discontinued Operations due to DLW's insolvency filing. See Note 4 to the Consolidated Financial Statements for further information.

During the second quarter of 2014, we decided to close our resilient flooring plant in Thomastown, Australia and our engineered wood flooring plant in Kunshan, China. During 2014, we recorded \$2.2 million in cost of goods sold for accelerated depreciation due to the closure of the resilient flooring plant in Australia. We sold this facility in January 2015. We also recorded \$4.0 million in 2014 in cost of goods sold for accelerated depreciation due to the closure of the wood flooring plant in China.

During 2014, we also made the decision to dispose of certain idle equipment at five of our wood flooring manufacturing facilities and as a result we recorded a \$4.4 million impairment charge in cost of goods sold.

During the first quarter of 2012, we made the decision to permanently close a previously idled ceiling tile plant in Mobile, AL. As a result, we recorded accelerated depreciation of \$11.0 million for machinery and equipment and a \$4.6 million impairment charge for the buildings in cost of goods sold. The fair values were determined by management estimates and an independent valuation based on information available at that time (considered Level 2 inputs in the fair value hierarchy as described in Note 16 to the Consolidated Financial Statements). We sold this facility in the third quarter of 2013.

---

**Table of Contents**

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

During the fourth quarter of 2012, we made the decision to permanently close a previously idled engineered wood flooring production facility in Statesville, NC. As a result, we recorded accelerated depreciation of \$0.6 million for machinery and equipment and a \$0.6 million impairment charge for the buildings in cost of goods sold. The fair values were determined by management estimates and an independent valuation based on information available at that time (considered Level 2 inputs in the fair value hierarchy). We sold this facility in January 2015.

We cannot predict the occurrence of certain events that might lead to material impairment charges in the future. Such events may include, but are not limited to, the impact of economic environments, particularly related to the commercial and residential construction industries, material adverse changes in relationships with significant customers, or strategic decisions made in response to economic and competitive conditions.

See Notes 3 and 10 to the Consolidated Financial Statements for further information.

**Income Taxes** Our effective tax rate is primarily determined based on our pre-tax income and the statutory income tax rates in the jurisdictions in which we operate. The effective tax rate also reflects the tax impacts of items treated differently for tax purposes than for financial reporting purposes. Some of these differences are permanent, such as expenses that are not deductible in our tax returns, and some differences are temporary, reversing over time, such as depreciation expense. These temporary differences create deferred income tax assets and liabilities. Deferred income tax assets are also recorded for net operating loss ( NOL ) and foreign tax credit ( FTC ) carryforwards.

Deferred income tax assets and liabilities are recognized by applying enacted tax rates to temporary differences that exist as of the balance sheet date. We reduce the carrying amounts of deferred tax assets by a valuation allowance if, based on the available evidence, it is more likely than not that such assets will not be realized. The need to establish valuation allowances for deferred tax assets is assessed quarterly. In assessing the requirement for, and amount of, a valuation allowance in accordance with the more likely than not standard, we give appropriate consideration to all positive and negative evidence related to the realization of the deferred tax assets. This assessment considers, among other matters, the nature, frequency and severity of current and cumulative losses, forecasts of future profitability and foreign source income ( FSI ), the duration of statutory carryforward periods, and our experience with operating loss and tax credit carryforward expirations. A history of cumulative losses is a significant piece of negative evidence used in our assessment. If a history of cumulative losses is incurred for a tax jurisdiction, forecasts of future profitability are not used as positive evidence related to the realization of the deferred tax assets in the assessment.

Specifically with respect to the domestic FTC carryforward deferred tax asset of \$54.3 million at December 31, 2014, we considered the following positive and negative evidence in assessing the need for a valuation allowance and concluded that a valuation allowance is not required:

**Positive Evidence**

Our emergence from bankruptcy in 2006 created significant NOLs. The last portion of these NOLs was completely utilized during 2012. Starting in 2013, we had domestic taxable income which allowed us to begin utilizing the FTCs;

Under U.S. tax law, approximately \$103.5 million of our domestic source income in future years can be characterized as FSI to enable the utilization of our FTCs. This amount primarily represents prior year intercompany dividends associated with the FTC carryforwards. These dividends created domestic taxable income that was reduced by the utilization of domestic NOLs; and

Forecasts of future profitability and FSI.

---

**Table of Contents**

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

**Negative Evidence**

Our history of FTC expirations as a result of the carryback and carryforward of the NOLs generated upon emergence from bankruptcy. All FTCs were fully utilized before the bankruptcy NOL carryback. The NOL carryback reduced the taxable income (a portion of which is considered FSI) to zero and thus the FTCs were carried forward along with the remaining portion of the NOL. The utilization of the remaining NOL carryforward reduced taxable income to zero, which caused the expiration of the FTCs; and

Our stated position to permanently reinvest unremitted earnings of our foreign subsidiaries. The ability to fully utilize the FTC carryforwards may be affected by the following factors:

FSI of \$155.2 million is needed to fully utilize the FTC carryforward of \$54.3 million before they expire in 2022. In addition to the \$103.5 million of domestic source income that can be characterized as FSI in future years, \$51.7 million of additional foreign source income is needed.

The main factor that could result in our inability to re-characterize domestic source income to foreign source income is a U.S. tax law change.

The main factors that could contribute to lower FSI are decreased export sales and increased allocable expenses.

As of December 31, 2014, we have recorded valuation allowances totaling \$87.9 million for various federal, state, and foreign deferred tax assets. While we have considered future taxable income in assessing the need for the valuation allowances based on our best available projections, if these estimates and assumptions change in the future or if actual results differ from our projections, we may be required to adjust our valuation allowances accordingly. Such adjustments could be material to our Consolidated Financial Statements.

As further described in Note 14 to the Consolidated Financial Statements, our Consolidated Balance Sheet as of December 31, 2014 includes net deferred income tax assets of \$243.9 million. Included in this amount are deferred federal income tax assets for FTC carryforwards of \$54.3 million, state NOL deferred income tax assets of \$41.3 million, and foreign NOL deferred tax assets of \$41.8 million. We have established valuation allowances in the amount of \$87.9 million consisting of \$31.6 million for statutorily limited federal NOL carryovers, \$14.6 million for state deferred tax assets, primarily operating loss carryovers, and \$41.7 million for foreign deferred tax assets, primarily foreign operating loss carryovers.

The federal FTC carryforwards arose primarily as a result of the payment of intercompany dividends from our foreign affiliates from earnings which were previously not considered as permanently reinvested. The state NOLs arose primarily as a result of the amounts paid to the Asbestos PI Trust in 2006.



Inherent in determining our effective tax rate are judgments regarding business plans and expectations about future operations. These judgments include the amount and geographic mix of future taxable income, the amount of FSI, limitations on usage of NOL carryforwards, the impact of ongoing or potential tax audits, earnings repatriation plans, and other future tax consequences.

We estimate we will need to generate future U.S. taxable income of approximately \$1,012.8 million for state income tax purposes during the respective realization periods (ranging from 2015 to 2034) in order to fully realize the net deferred income tax assets.

As previously disclosed in prior SEC filings, our ability to utilize deferred tax assets may be impacted by certain future events, such as changes in tax legislation, insufficient future taxable income prior to expiration of certain deferred tax assets, annual limits imposed under Section 382 of the Internal Revenue Code ( Section 382 ) or by state law, as a result of an ownership change. This ownership change is defined as a cumulative increase in certain shareholders ownership of the Company by more than 50 percentage points during the previous rolling three year period.

---

**Table of Contents****Management's Discussion and Analysis of Financial Condition and Results of Operations**

The Asbestos PI Trust and TPG collectively sold 5,980,000 shares, 12,057,382 shares, 6,000,000 shares and 3,900,000 shares of the Company's common shares during the fourth quarter of 2012, the third quarter of 2013, the fourth quarter of 2013, and the first quarter of 2014, respectively. Those sales significantly increase the likelihood that future sales by the Asbestos PI Trust will cause an ownership change under Section 382. At this time, we estimate that an additional sale of the Company's common shares by the Asbestos PI Trust prior to December 2015 would be reasonably likely to cause an ownership change under Section 382. An ownership change may result in limitations on the utilization of certain tax attributes, primarily our ability to deduct state NOLs against future state taxable income. If such ownership change were to occur, then we would be required to record a one-time, non-cash charge in our income statement in the period in which such ownership change occurs. We currently estimate that, if such ownership change had occurred in the fourth quarter of 2014, based on the factors discussed below, the one-time income tax charge that would have been taken would have reduced our net earnings by an amount between \$4.0 million and \$8.0 million. This pro forma estimated range of net earnings reduction is based on current management estimates and assumptions that are subject to change over time. The actual amount of the required charge, if any, may differ materially from this current estimate. Key factors impacting the calculation include, but are not limited to, our stock price on the date of the ownership change, the applicable tax-exempt interest rate, the tax basis and fair market value of our assets, federal and state tax regulations, projections of future taxable income and prior NOL usage.

We recognize the tax benefits of an uncertain tax position if those benefits are more likely than not to be sustained based on existing tax law. Additionally, we establish a reserve for tax positions that are more likely than not to be sustained based on existing tax law, but uncertain in the ultimate benefit to be sustained upon examination by the relevant taxing authorities. Unrecognized tax benefits are subsequently recognized at the time the more likely than not recognition threshold is met, the tax matter is effectively settled or the statute of limitations for the relevant taxing authority to examine and challenge the tax position has expired, whichever is earlier.

**ACCOUNTING PRONOUNCEMENTS EFFECTIVE IN FUTURE PERIODS**

In April 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-08 Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity which is part of ASC 205: Presentation of Financial Statements and Accounting Standards Codification (ASC) 360: Property, Plant and Equipment. The amendments in this guidance change the requirements for reporting discontinued operations. Under the new guidance a disposal of a component of an entity or a group of components is required to be reported in discontinued operations if the disposal represents a strategic shift that has (or will have) a major effect on an entity's operations and financial results. The guidance is effective prospectively for disposals that occur within annual periods beginning on or after December 15, 2014. We do not expect a material impact to our financial condition, results of operations or cash flows from the adoption of this guidance.

In May 2014, the FASB issued ASU 2014-09 *Revenue from Contracts with Customers*. The guidance requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to a customer. The ASU will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective, January 1, 2017. Early application is not permitted, but the standard permits the use of either the retrospective or cumulative effect transition method. We have not selected a transition method and are currently evaluating the impact this guidance will have on our financial condition, results of operations and cash flows.

In June 2014, the FASB issued ASU 2014-12 *Accounting for Share-Based Payments When the Terms of an Award Provide That a Performance Target Could Be Achieved after the Requisite Service Period* which is part of ASC 718: Compensation-Stock Compensation. The guidance requires that a performance target that affects vesting and that could be achieved after the requisite service period be treated as a performance condition and should not be reflected in the estimate of the grant-date fair value of the award. The guidance is effective for annual periods beginning after December 15, 2015. The guidance can be applied prospectively for all awards granted or modified after the effective date or retrospectively to all awards with performance targets outstanding as of the beginning of the earliest annual period presented in the financial statements and to all new or modified awards thereafter. We do not expect a material impact on our financial condition, results of operation or cash flows from the adoption of this guidance.

**Table of Contents****Management's Discussion and Analysis of Financial Condition and Results of Operations****RESULTS OF OPERATIONS**

Unless otherwise indicated, net sales in these results of operations are reported based upon the location where the sale was made. Please refer to Notes 3 and 4 to the Consolidated Financial Statements for a reconciliation of segment operating income to consolidated earnings from continuing operations before income taxes and additional financial information related to discontinued operations.

**2014 COMPARED TO 2013****CONSOLIDATED RESULTS FROM CONTINUING OPERATIONS**

(dollar amounts in millions)

	2014	2013	Change is Favorable/ (Unfavorable)
Net sales:			
Americas	\$ 1,930.2	\$ 1,959.3	(1.5)%
EMEA	353.4	349.9	1.0%
Pacific Rim	231.7	218.2	6.2%
<b>Total consolidated net sales</b>	<b>\$ 2,515.3</b>	<b>\$ 2,527.4</b>	<b>(0.5)%</b>
Operating income	\$ 239.1	\$ 265.6	(10.0)%

The decrease in consolidated net sales was driven by the unfavorable impact of foreign exchange of approximately \$19 million. Lower volumes of \$100 million were more than offset by \$106 million of favorable price and mix.

The decrease in net sales in the Americas was driven by lower volumes, which were only partially offset by improvements in price and mix.

The increase in net sales in the EMEA region was driven primarily by improvements in price, partially offset by the impact of unfavorable mix.

Excluding unfavorable foreign exchange impact of approximately \$6 million, net sales in the Pacific Rim increased 9% as improvements in volumes and price were partially offset by unfavorable mix.

Cost of goods sold was 76.8% of net sales in 2014, compared to 76.5% in 2013. Compared to the prior year, lower manufacturing costs were more than offset by higher input costs. The comparison was impacted by approximately \$15 million of charges in 2014 associated with the closure of our Thomastown, Australia resilient flooring plant and the closure of our Kunshan, China engineered wood flooring plant, and approximately \$4 million of charges primarily associated with cost reduction actions in the Resilient Flooring business in Australia in 2013.

SG&A expenses in 2014 were \$398.5 million, or 15.8% of net sales, compared to \$386.9 million, or 15.3% of net sales, in 2013. The increase was primarily due to higher promotional spending in both flooring businesses. See

Reportable Segment Results for additional information.

Equity earnings from our WAVE joint venture were \$65.1 million in 2014, compared to \$59.4 million in 2013. See Note 9 to the Consolidated Financial Statements for further information.

Interest expense was \$46.0 million in 2014, compared to \$68.7 million in 2013. The decrease was due to the write-off of unamortized debt financing costs associated with the refinancing of our senior credit facility that occurred during the first quarter of 2013 (see Liquidity for further information).

Income tax expense was \$83.2 million and \$71.4 million in 2014 and 2013, respectively. The effective tax rate for 2014 was 44.9% as compared to a rate of 35.9% for 2013. The effective tax rate for 2014 was higher than 2013 primarily due to higher unbenefitted foreign operating losses, lower income in foreign subsidiaries with profits, and an increase in the state valuation allowance for NOLs.

**Table of Contents****Management's Discussion and Analysis of Financial Condition and Results of Operations**

As reported in Note 14 to the Consolidated Financial Statements, our foreign operations recorded losses before income taxes of \$29.7 million in 2014 compared with income of \$12.5 million in 2013. The 2014 losses are related to the expenses incurred in Russia associated with the new manufacturing plant and China and Western Europe losses due to slowing markets. While we believe we will continue to incur overall foreign losses in 2015, we do not believe this indicates a long-term trend.

Total other comprehensive income (OCI) was a \$123.9 million loss for 2014 compared to income of \$99.8 million for 2013. Foreign currency translation adjustments represent the change in the U.S. dollar value of assets and liabilities denominated in foreign currencies. Amounts in 2014 were driven primarily by changes in the exchange rate of the Euro, the British pound and the Australian dollar. Amounts in 2013 were driven primarily by changes in the exchange rate of the Australian dollar. Derivative gain/loss represents the mark to market value adjustments of our derivative assets and liabilities and the recognition of gains and losses previously deferred in OCI. The period changes are primarily due to the mark to market changes related to our natural gas hedges in 2014 and our interest rate swap derivatives in 2013. Pension and postretirement adjustments represent actuarial gains and losses related to our defined-benefit pension and postretirement plans. The amounts in all periods primarily related to the U.S. pension plans.

**REPORTABLE SEGMENT RESULTS****Building Products**

(dollar amounts in millions)

	2014	2013	Change is Favorable
Net sales:			
Americas	\$ 798.3	\$ 780.9	2.2%
EMEA	353.4	349.9	1.0%
Pacific Rim	142.6	133.8	6.6%
Total segment net sales	\$ 1,294.3	\$ 1,264.6	2.3%
Operating income	\$ 264.7	\$ 263.1	0.6%

The improvement in Building Products net sales was driven by \$46 million of favorable price and mix which more than offset the unfavorable impact of foreign exchange of approximately \$10 million and lower volumes of \$6 million.

Net sales in the Americas increased driven by favorable mix and price which more than offset the impact of lower volumes.

Net sales in EMEA markets increased driven by improvements in price which more than offset the impact of unfavorable mix.

Net sales in the Pacific Rim increased as volume, mix and price all improved.

Operating income increased slightly driven by the benefits of price and mix of \$11 million and higher earnings from WAVE of \$6 million, which offset the impact of lower volumes of \$5 million, higher manufacturing and input costs of \$7 million and higher SG&A expenses of \$3 million. The increase in manufacturing costs was primarily associated with the construction of our plant in Russia.

**Table of Contents****Management's Discussion and Analysis of Financial Condition and Results of Operations****Resilient Flooring**

(dollar amounts in millions)

	2014	2013	Change is Favorable/ (Unfavorable)
Net sales:			
Americas	\$ 623.8	\$ 644.4	(3.2)%
Pacific Rim	89.1	84.4	5.6%
Total segment net sales	\$ 712.9	\$ 728.8	(2.2)%
Operating income	\$ 61.6	\$ 69.8	(11.7)%

The decline in Resilient Flooring net sales was driven by \$24 million of lower volume and the unfavorable impact from foreign exchange of \$6 million which more than offset favorable price and mix of \$13 million.

Net sales in the Americas decreased as improvements in mix were unable to offset commercial and residential volume declines.

Net sales in the Pacific Rim increased as strong volume growth in China and India was partially offset by market driven sales declines in Australia.

Operating income declined primarily due to the margin impact of lower volumes of \$10 million and higher SG&A expenses of \$8 million driven by higher promotional and marketing expense. These negative impacts were only partially offset by positive mix and price of \$2 million and lower manufacturing and input costs of \$8 million as strong productivity more than offset higher input costs. The comparison was also impacted by approximately \$6 million of charges in 2014 associated with the closure of our Thomastown, Australia resilient flooring plant and \$4 million of charges in 2013 associated with cost reduction actions in Australia.

**Wood Flooring**

(dollar amounts in millions)

	2014	2013	Change is (Unfavorable)
Total segment net sales	\$ 508.1	\$ 534.0	(4.9)%
Operating (loss) income	(\$ 14.9)	\$ 6.0	Unfavorable

The decrease in Wood Flooring net sales was driven primarily by lower volumes of \$69 million which more than offset favorable price and mix of \$47 million. Volume declines reflected sales lost to competition.



The decline in operating income was driven by approximately \$9 million of charges primarily associated with the closure of our Kunshan, China engineered wood flooring plant and a non-cash impairment charge of \$10 million to reduce the carrying value of a Wood Flooring trademark to its estimated fair value. Gross profit improved driven by the benefit of price and mix of \$55 million which more than offset the impact of lower volumes of \$27 million, higher SG&A expenses of \$3 million and higher manufacturing and input costs of \$24 million, as improvements in productivity were more than offset by higher lumber costs.

**Unallocated Corporate**

Unallocated corporate expense of \$72.3 million decreased from \$73.3 million in the prior year, due to lower incentive compensation expense offset by increased spending on outside professional services and higher foreign and domestic pension expenses.

**FINANCIAL CONDITION AND LIQUIDITY**

**Cash Flow**

Operating activities for 2014 provided \$208.8 million of cash, compared to \$213.7 million of cash provided in 2013. The decrease was primarily due to changes in working capital, partially offset by higher cash earnings. The working capital change was primarily driven by accounts payable and accrued expenses due to timing of payments.

## Table of Contents

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

Net cash used for investing activities was \$149.3 million for 2014, compared to \$145.8 million in 2013. This change was primarily due to increased purchases of property, plant and equipment, partially offset by higher distributions received from our WAVE joint venture.

Net cash provided by financing activities was \$3.3 million for 2014, compared to \$263.7 million used during 2013. Net cash provided in 2014 was driven by proceeds from exercised stock options and excess tax benefits from share-based awards, partially offset by payments of long-term debt. Net cash used in 2013 included the \$261.4 million repurchase of common stock, including associated fees.

### Liquidity

Our liquidity needs for operations vary throughout the year. We retain lines of credit to facilitate our seasonal cash flow needs, since cash flow is generally lower during the first and fourth quarters of our fiscal year. In March 2013, we refinanced our \$1.3 billion senior credit facility. The amended facility is composed of a \$250 million revolving credit facility (with a \$150 million sublimit for letters of credit), a \$550 million Term Loan A and a \$475 million Term Loan B. The terms of the facility resulted in a lower interest rate spread (2.5% vs. 3.0%) than our previous facility. We also extended the maturity of Term Loan A from November 2015 to March 2018 and of Term Loan B from March 2018 to March 2020, and we amended our year end leverage tests (see below). Per the terms of the underlying agreement, this senior credit facility is secured by U.S. personal property, the capital stock of material U.S. subsidiaries and a pledge of 65% of the stock of our material first tier foreign subsidiaries.

Under the amended senior credit facility we are subject to year-end leverage tests that may trigger mandatory prepayments. If our ratio of consolidated funded indebtedness minus AWI and domestic subsidiary unrestricted cash and cash equivalents up to \$100 million to consolidated earnings before interest, taxes, depreciation and amortization ( EBITDA ) ( Consolidated Net Leverage Ratio ) is greater than 3.5 to 1.0, the prepayment amount would be 50% of fiscal year Consolidated Excess Cash Flow. These annual payments would be made in the first quarter of the following year. No payment will be required in 2015.

In connection with the refinancing, we incurred \$8 million for bank, legal, and other fees, of which \$7 million was capitalized and is being amortized into interest expense over the life of the loans. Additionally, we wrote off \$19 million of unamortized debt financing costs in the first quarter of 2013 related to our previous credit facility to interest expense.

The amended senior credit facility includes two financial covenants that require the ratio of consolidated EBITDA to consolidated cash interest expense minus cash consolidated interest income to be greater than or equal to 3.0 to 1.0 and requires the Consolidated Net Leverage Ratio to be 4.0 to 1.0 after December 31, 2013 through March 31, 2015 and 3.75 to 1.0 after March 31, 2015. During 2014, we were in compliance with all covenants of the senior credit facility.

The Revolving Credit and Term Loan A portions are currently priced at a spread of 2.50% over LIBOR and the Term Loan B portion is priced at 2.50% over LIBOR with a 1.00% LIBOR floor for its entire term. The Term Loan A and Term Loan B were both fully drawn and are currently priced on a variable interest rate basis.



**Table of Contents****Management's Discussion and Analysis of Financial Condition and Results of Operations**

The following table summarizes our interest rate swaps (dollar amounts in millions):

Trade Date	Notional Amount	Interest Rate Paid	Coverage Period	Risk Coverage
March 31, 2011	\$100.0	2.303%	March 2011 to November 2015	Term Loan A
March 31, 2011	\$200.0	2.523%	March 2011 to November 2015	Term Loan B
March 27, 2012	\$250.0	1.928%	March 2012 to March 2018	Term Loan B
March 27, 2012	\$200.0	2.810%	November 2015 to March 2018	Term Loan B
April 16, 2013	\$250.0	1.398%	November 2015 to March 2018	Term Loan A

These swaps are designated as cash flow hedges against changes in LIBOR for a portion of our variable rate debt. The unpaid balances of Term Loan A, the Revolving Credit Facility and Term Loan B of the credit facility may be prepaid without penalty at the maturity of their respective interest reset periods. Any amounts prepaid on the Term Loan A or Term Loan B may not be re-borrowed. As of December 31, 2014, there was no outstanding balance on the revolving credit facility.

Due to the significant decline in the value of the Russian Ruble, particularly during the fourth quarter of 2014, we received \$30.0 million in cash as a result of settling Russian Ruble forward contracts utilized to hedge the currency impact associated with intercompany loans to our Russian subsidiary. Our exposure to changes in the Ruble due to the intercompany loans is unhedged at December 31, 2014.

As of December 31, 2014, we had \$185.3 million of cash and cash equivalents, \$98.6 million in the U.S. and \$86.7 million in various foreign jurisdictions.

In March 2012, our Board of Directors declared a special cash dividend in the amount of \$8.55 per share, or \$508 million in the aggregate, of which \$502.9 million was paid on April 10, 2012. Additional payments of \$3.7 million have been made through December 31, 2014, with most of the outstanding balance to be paid in the first quarter of 2015. The remaining dividends will be paid when the underlying employee awards vest, while vested director awards will be paid upon the Director's separation from service on the Board of Directors. The dividend was recorded as a reduction of retained earnings to the extent that retained earnings were available at the dividend declaration date. Dividends in excess of the retained earnings were recorded as a reduction in capital in excess of par value.

On December 18, 2014, we amended and increased our \$75 million Accounts Receivable Securitization Facility with the Bank of Nova Scotia, under which AWI and its subsidiary, Armstrong Hardwood Flooring Company, sell their U.S. receivables to Armstrong Receivables Company LLC (ARC), a Delaware entity that is consolidated in these financial statements. The facility now reflects a seasonality clause changing to \$100 million from March through September, and \$90 million from October through February. The maturity date has been extended from March 2016 to December 2017. As of December 31, 2014, there was no outstanding balance on the accounts receivable securitization facility.

On December 31, 2014, we had outstanding letters of credit totaling \$67.3 million, of which \$7.8 million was issued under the revolving credit facility, \$59.3 million was issued under the securitization facility, and \$0.2 million was

issued by other banks of international subsidiaries. Letters of credit are issued to third party suppliers, insurance and financial institutions and typically can only be drawn upon in the event of AWI's failure to pay its obligations to the beneficiary.

Foreign Financing Arrangements (dollar amounts in millions)	As of December 31,		
	Limit	Used	Available
Lines of Credit Available for Borrowing	\$ 4.7		\$ 4.7
Lines of Credit Available for Letters of Credit	0.3	\$ 0.2	0.1
<b>Total</b>	<b>\$ 5.0</b>	<b>\$ 0.2</b>	<b>\$ 4.8</b>

**Table of Contents****Management's Discussion and Analysis of Financial Condition and Results of Operations**

These lines of credit are uncommitted, and poor operating results or credit concerns at the related foreign subsidiaries could result in the lines being withdrawn by the lenders. We have historically been able to maintain and, as needed, replace credit facilities to support our foreign operations.

Since 2009, our Board of Directors has approved the construction of five manufacturing plants. These include a U.S. mineral wool plant to supply our Building Products plants, mineral fiber ceiling plants in Russia and China, and two resilient flooring plants in China. In July 2013, our Board of Directors approved the expansion of our Lancaster, PA flooring plant to include the manufacture of luxury vinyl tile. Total spending for these projects is currently projected to be approximately \$380 million. As of December 31, 2014, we have completed construction of the mineral wool plant and three plants in China. Through December 31, 2014, we have incurred approximately \$348 million related to these projects. The majority of the remaining spending for the plant in Russia and the Lancaster plant expansion will be incurred in 2015.

During the third quarter of 2013, the Asbestos PI Trust and TPG together sold 12,057,382 of their remaining shares in a secondary public offering. In connection with this transaction, we paid \$261.4 million, including associated fees, to buy-back 5,057,382 shares, which we currently hold in treasury. The treasury share purchase was funded by existing cash, borrowings under our credit facility and our securitization facility. Funds borrowed to complete this transaction were repaid by the end of the third quarter of 2013.

We believe that cash on hand and cash generated from operations, together with lines of credit, availability under our securitization facility and the availability under our \$250 million revolving credit facility, will be adequate to address our foreseeable liquidity needs based on current expectations of our business operations, capital expenditures and scheduled payments of debt obligations.

**2013 COMPARED TO 2012****CONSOLIDATED RESULTS FROM CONTINUING OPERATIONS**

(dollar amounts in millions)

	2013	2012	Change is Favorable/ (Unfavorable)
Net sales:			
Americas	\$ 1,959.3	\$ 1,874.0	4.6%
EMEA	349.9	333.6	4.9%
Pacific Rim	218.2	221.1	(1.3)%
Total consolidated net sales	\$ 2,527.4	\$ 2,428.7	4.1%
Operating income	\$ 265.6	\$ 284.9	(6.8)%

The increase in consolidated net sales was driven by \$84 million of higher volume and \$50 million of favorable price and mix. Sales comparisons were also negatively impacted by unfavorable foreign exchange of \$6 million and \$26 million due to our sale of the Patriot wood flooring distribution business which occurred in the third quarter of 2012.

The increase in net sales in the Americas was driven primarily by higher volumes in the wood business, and improvements in price and mix. Sales were negatively impacted by the sale of the Patriot wood flooring distribution business.

The increase in net sales in the EMEA region was driven primarily by favorable foreign exchange impact of \$5 million and favorable mix, which were only partially offset by lower volumes.

Excluding unfavorable foreign exchange impact of \$7 million, net sales in the Pacific Rim increased 2% as improvements in volumes and price were partially offset by unfavorable mix.

**Table of Contents****Management's Discussion and Analysis of Financial Condition and Results of Operations**

Cost of goods sold was 76.5% of net sales in 2013, compared to 75.5% in 2012. The increase was primarily due to raw material inflation, particularly lumber, increased production costs in the wood flooring segment, and plant start-up costs associated with our investments in China and Russia. The comparison was impacted by \$4 million associated with cost reduction actions in the Resilient Flooring business in Australia in 2013, and \$21 million of costs associated with the closure of our Mobile, AL Building Products facility in 2012.

SG&A expenses in 2013 were \$386.9 million, or 15.3% of net sales, compared to \$364.9 million, or 15.0% of net sales, in 2012. The increase was primarily due to emerging market growth initiatives and increased Unallocated Corporate Expenses. See Reportable Segment Results for additional information.

Equity earnings from our WAVE joint venture were \$59.4 million in 2013, compared to \$55.9 million in 2012.

Interest expense was \$68.7 million in 2013, compared to \$53.6 million in 2012. The increase was due to the write-off of unamortized debt financing costs associated with the refinancing of our senior credit facility that occurred during the first quarter of 2013 partially offset by lower interest expense under the amended credit facility.

Income tax expense was \$71.4 million and \$76.0 million in 2013 and 2012, respectively. The effective tax rate for 2013 was 35.9% as compared to a rate of 32.4% for 2012. The effective tax rate for 2013 was higher than 2012 primarily due to higher unbenefitted foreign operating losses in 2013 and to the release of foreign tax credit valuation allowance in 2012, partially offset by research and development tax credits covering multiple years, domestic production activities, and mix of income in tax jurisdictions.

**REPORTABLE SEGMENT RESULTS****Building Products**

(dollar amounts in millions)

	2013	2012	Change is Favorable
Net sales:			
Americas	\$ 780.9	\$ 757.1	3.1%
EMEA	349.9	333.6	4.9%
Pacific Rim	133.8	128.2	4.4%
Total segment net sales	\$ 1,264.6	\$ 1,218.9	3.7%
Operating income	\$ 263.1	\$ 230.4	14.2%

The improvement in Building Products net sales was driven by \$29 million of favorable price and mix, and higher volumes of \$18 million.

Net sales in the Americas increased due to improved price realization and positive mix which more than offset the impact of slightly lower volumes.



Excluding favorable foreign exchange impact of \$5 million, net sales in EMEA markets increased 3%, driven by improvements in mix and higher volumes.

Excluding unfavorable foreign exchange impact of \$4 million, net sales in the Pacific Rim increased 8%, driven primarily by higher volumes offset by the impact of unfavorable mix.

The increase in operating income was primarily driven by improvements in gross profit, and a reduction in facility closure costs when compared to the prior year. Gross profit increased primarily from the benefits of price and mix of \$17 million, and improved volumes of \$7 million. Manufacturing costs were flat as improvements in productivity were able to offset costs incurred to support our investments in China and Russia. SG&A expenses increased by \$16 million associated with go-to-market investments to support emerging market growth initiatives. During 2013 we recorded higher earnings from WAVE of \$4 million. During 2012, we decided to close our Building Products plant in Mobile, AL, and recorded approximately \$21 million of accelerated depreciation, impairment and other charges. We sold that facility during the third

**Table of Contents****Management's Discussion and Analysis of Financial Condition and Results of Operations**

quarter of 2013 and recorded a pre-tax gain of \$4 million within SG&A expense (inclusive of release of unused environmental liabilities and asset retirement obligations). During 2012, we also incurred approximately \$4 million of net costs related to the collective bargaining contract settlement with employees at the Marietta, PA Building Products plant.

**Resilient Flooring**

(dollar amounts in millions)

	2013	2012	Change is (Unfavorable)
Net sales:			
Americas	\$ 644.4	\$ 656.3	(1.8)%
Pacific Rim	84.4	92.9	(9.1)%
Total segment net sales	\$ 728.8	\$ 749.2	(2.7)%
Operating income	\$ 69.8	\$ 70.3	(0.7)%

The decline in Resilient Flooring net sales was primarily driven by \$14 million of lower volume and \$4 million of unfavorable foreign exchange.

Net sales in the Americas decreased as improvements in mix were unable to offset commercial and residential volume declines and unfavorable price.

Excluding unfavorable foreign exchange impact of \$2 million, net sales in the Pacific Rim decreased 7% as market driven sales declines in Australia offset increased sales in China and India.

Operating income was flat in 2013 compared to 2012. Lower input and manufacturing costs of \$7 million were due to higher productivity which more than offset costs incurred to support investments in China. SG&A expenses were lower by \$2 million. These improvements were offset by the margin impact of lower volumes of \$5 million and \$4 million associated with cost reduction actions in Australia during 2013.

**Wood Flooring**

(dollar amounts in millions)

	2013	2012	Change is Favorable / (Unfavorable)
Total segment net sales	\$ 534.0	\$ 460.6	15.9%
Operating income	\$ 6.0	\$ 37.3	(83.9)%

The increase in Wood Flooring net sales was driven primarily by higher volumes of \$80 million, in addition to favorable price and mix of \$20 million. The higher volumes were driven by strong demand from the home center channel and independent distributors. Sales were also negatively impacted by \$26 million resulting from our sale of the Patriot wood flooring distribution business in the third quarter of 2012.

The decline in operating income was driven by higher manufacturing and input costs of \$64 million, which were only partially offset by the \$19 million impact of higher volumes and \$12 million impact of improved price and mix. Improvements in price more than offset the dilutive impact of mix driven by increased demand from the builder channel. Increases in manufacturing and input costs were driven by rising lumber costs and higher labor costs as we increased our workforce to respond to increased demand.

#### **Unallocated Corporate**

Unallocated corporate expense of \$73.3 million increased from \$53.1 million in the prior year. The increase was impacted by higher foreign and domestic pension expense of \$13 million, increased spending on outside professional services and higher expense associated with employee benefits.

**Table of Contents****Management's Discussion and Analysis of Financial Condition and Results of Operations****Cash Flow**

Operating activities for 2013 provided \$213.7 million of cash, compared to \$220.0 million of cash provided in 2012. The change was due to lower cash earnings partially offset by changes in working capital. The working capital change was driven by an increase in accounts payable.

Net cash used for investing activities was \$145.8 million for 2013, compared to \$91.9 million in 2012. This change was primarily due to lower proceeds from divestitures, increased purchases of property, plant and equipment, and lower proceeds from the sale of assets.

Net cash used for financing activities was \$263.7 million for 2013, compared to \$273.7 million during 2012. Net cash used in 2013 included the \$261.4 million re-purchase of common stock, including associated fees. Net cash used in 2012 was impacted by dividend payments of \$507.1 million, partially offset by proceeds from the issuance of long-term debt of \$250.0 million.

**OFF-BALANCE SHEET ARRANGEMENTS**

No disclosures are required pursuant to Item 303(a)(4) of Regulation S-K.

**CONTRACTUAL OBLIGATIONS**

As part of our normal operations, we enter into numerous contractual obligations that require specific payments during the term of the various agreements. The following table includes amounts ongoing under contractual obligations existing as of December 31, 2014. Only known payments that are dependent solely on the passage of time are included. Obligations under contracts that contain minimum payment amounts are shown at the minimum payment amount. Contracts that contain variable payment structures without minimum payments are excluded. Purchase orders that are entered into in the normal course of business are also excluded because they are generally cancelable and not legally binding. Amounts are presented below based upon the currently scheduled payment terms. Actual future payments may differ from the amounts presented below due to changes in payment terms or events affecting the payments.

(dollar amounts in millions)	2015	2016	2017	2018	2019	Thereafter	Total
Long-term debt	\$ 39.6	\$ 52.1	\$ 55.3	\$ 402.9	\$ 4.8	\$ 487.9	\$ 1,042.6
Scheduled interest payments <sup>(1)</sup>	41.7	43.6	43.1	39.9	22.8	38.0	229.1
Operating lease obligations, net of sublease income <sup>(2)</sup>	7.8	5.3	3.5	2.2	0.9	2.9	22.6
Unconditional purchase obligations <sup>(3)</sup>	48.1	34.8	10.1	4.4	0.2	1.0	98.6
Pension contributions <sup>(4)</sup>	7.7						7.7
Other obligations <sup>(5), (6)</sup>	0.8						0.8
<b>Total contractual obligations</b>	<b>\$ 145.7</b>	<b>\$ 135.8</b>	<b>\$ 112.0</b>	<b>\$ 449.4</b>	<b>\$ 28.7</b>	<b>\$ 529.8</b>	<b>\$ 1,401.4</b>

- (1) For debt with variable interest rates and interest rate swaps, we projected future interest payments based on market-based interest rate swap curves.
- (2) Lease obligations include the minimum payments due under existing agreements with non-cancelable lease terms in excess of one year.
- (3) Unconditional purchase obligations include (a) purchase contracts whereby we must make guaranteed minimum payments of a specified amount regardless of how little material is actually purchased (take or pay contracts) and (b) service agreements. Unconditional purchase obligations exclude contracts entered into during the normal course of business that are non-cancelable and have fixed per unit fees, but where the monthly commitment varies based upon usage. Cellular phone contracts are an example.
- (4) Pension contributions include estimated contributions for our defined benefit pension plans. We are not presenting estimated payments in the table above beyond 2015 as funding can vary significantly from year to year based upon changes in the fair value of plan assets, funding regulations and actuarial assumptions.
- (5) Other obligations include payments under severance agreements.
- (6) Other obligations, does not include \$142.6 million of liabilities under ASC 740 *Income Taxes*. Due to the uncertainty relating to these positions, we are unable to reasonably estimate the ultimate amount or timing of the settlement of these issues. See Note 14 to the Consolidated Financial Statements for more information.

**Table of Contents****Management's Discussion and Analysis of Financial Condition and Results of Operations**

This table excludes obligations related to postretirement benefits (retiree health care and life insurance) since we voluntarily provide these benefits. The amount of benefit payments we made in 2014 was \$20.7 million. See Note 16 to the Consolidated Financial Statements for additional information regarding future expected cash payments for postretirement benefits.

We are party to supply agreements, some of which require the purchase of inventory remaining at the supplier upon termination of the agreement. The last such agreement will expire in 2015. Had these agreements terminated at December 31, 2014, we would have been obligated to purchase approximately \$4.6 million of inventory. Historically, due to production planning, we have not had to purchase material amounts of product at the end of similar contracts. Accordingly, no liability has been recorded for these guarantees.

We utilize lines of credit and other commercial commitments in order to ensure that adequate funds are available to meet operating requirements. Letters of credit are issued to third-party suppliers, insurance and financial institutions and typically can only be drawn upon in the event of our failure to pay our obligations to the beneficiary. This table summarizes the commitments we have available in the U.S. for use as of December 31, 2014. Letters of credit are currently arranged through our revolving credit facility or our securitization facility.

Other Commercial Commitments	Total	Less				
(dollar amounts in millions)	Amounts	Than 1	1	3	4	5
	Committed	Year	Years	Years	Years	Over 5
						Years
Letters of credit	\$ 67.3	\$ 67.3				

In addition, our foreign subsidiaries had available lines of credit totaling \$5.0 million of which \$0.3 million was available only for letters of credit and guarantees. There were \$0.2 million of letters of credit and guarantees issued under these credit lines as of December 31, 2014, leaving an additional letter of credit availability of \$0.1 million. There were no borrowings under these lines of credit as of December 31, 2014, leaving \$4.7 million of unused lines of credit available for foreign borrowings.

On December 31, 2014, we had a \$250 million revolving credit facility with a \$150 million sublimit for letters of credit, of which \$7.8 million was outstanding. There were no borrowings under the revolving credit facility. Availability under this facility totaled \$242.2 million as of December 31, 2014. We also have the \$90 million securitization facility which as of December 31, 2014 had letters of credit outstanding of \$59.3 million and no borrowings against it. Maximum capacity under this facility was \$75.5 million (of which \$16.2 million was available), subject to accounts receivable balances and other collateral adjustments.

In connection with our disposition of certain assets through a variety of unrelated transactions, we have entered into contracts that included various indemnity provisions, some of which are customary for such transactions, while others hold the acquirer of the assets harmless with respect to liabilities relating to such matters as taxes, environmental and other litigation. Some of these provisions include exposure limits, but many do not. Due to the nature of the indemnities, it is not possible to estimate the potential maximum exposure under these contractual provisions. As of December 31, 2014, we had no liabilities recorded for which an indemnity claim had been received.



**Table of Contents****ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK****Market Risk**

We are exposed to market risk from changes in foreign currency exchange rates, interest rates and commodity prices that could impact our results of operations, cash flows and financial condition. We use forward swaps and option contracts to hedge these exposures. Forward swap and option contracts are entered into for periods consistent with underlying exposure and do not constitute positions independent of those exposures. We use derivative financial instruments as risk management tools and not for speculative trading purposes. In addition, derivative financial instruments are entered into with a diversified group of major financial institutions in order to manage our exposure to potential nonperformance on such instruments. We regularly monitor developments in the capital markets.

**Counterparty Risk**

We only enter into derivative transactions with established counterparties having a credit rating of BBB or better. We monitor counterparty credit default swap levels and credit ratings on a regular basis. All of our derivative transactions with counterparties are governed by master International Swap and Derivatives Association agreements ( ISDAs ) with netting arrangements. These agreements can limit our exposure in situations where we have gain and loss positions outstanding with a single counterparty. We do not post nor receive cash collateral with any counterparty for our derivative transactions. As of December 31, 2014 we had no cash collateral posted or received for any of our derivative transactions. These ISDAs do not contain any credit contingent features other than those contained in our bank credit facility. Exposure to individual counterparties is controlled, and thus we consider the risk of counterparty default to be negligible.

**Interest Rate Sensitivity**

We are subject to interest rate variability on our Term Loan A, Term Loan B, revolving credit facility and other borrowings. A hypothetical increase of one-quarter percentage point in LIBOR interest rates from December 31, 2014 levels would increase 2015 interest expense by approximately \$1.2 million. A significant portion of our debt has a 1% LIBOR floor which would not be affected by a one-quarter percentage point move in LIBOR given the current interest rate environment. We also have \$1 billion of interest rate swaps outstanding, which fix a portion of our debt. The current portion of the interest rate swaps is included in this calculation.

As of December 31, 2014, we had interest rate swaps outstanding on Term Loan A and on Term Loan B, with notional amounts of \$350 million and \$650 million, respectively. We utilize interest rate swaps to minimize the fluctuations in earnings caused by interest rate volatility. Interest expense on variable-rate liabilities increases or decreases as a result of interest rate fluctuations. Under the terms of Term Loan A swap, we receive 3-month LIBOR and pay a fixed rate over the hedged period. Under the terms of the Term Loan B swaps, we receive the greater of 3-month LIBOR or the 1% LIBOR Floor and pay a fixed rate over the hedged period. The following table summarizes our interest rate swaps:

	Notional	Interest Rate		Risk
Trade Date	Amount	Paid	Coverage Period	Coverage
March 31, 2011	\$100.0	2.303%	March 2011 to November 2015	Term Loan A
March 31, 2011	\$200.0	2.523%	March 2011 to November 2015	Term Loan B



March 27, 2012	\$250.0	1.928%	March 2012 to March 2018	Term Loan B
March 27, 2012	\$200.0	2.810%	November 2015 to March 2018	Term Loan B
April 16, 2013	\$250.0	1.398%	November 2015 to March 2018	Term Loan A

These swaps are designated as cash flow hedges against changes in LIBOR for a portion of our variable rate debt. The mark-to-market loss was \$9.3 million at December 31, 2014.

The table below provides information about our long-term debt obligations as of December 31, 2014, including payment requirements and related weighted-average interest rates by scheduled maturity dates. Weighted average variable rates are based on implied forward rates in the yield curve and are exclusive of our interest rate swaps.

**Table of Contents**

## Scheduled maturity date

(dollar amounts in millions)	2015	2016	2017	2018	2019	After 2019	Total
Variable rate principal payments	\$ 39.6	\$ 52.1	\$ 55.3	\$ 402.9	\$ 4.8	\$ 487.9	\$ 1,042.6
Avg. interest rate	3.07%	3.72%	4.37%	4.62%	5.90%	5.53%	5.01%

**Exchange Rate Sensitivity**

We manufacture and sell our products in a number of countries throughout the world and, as a result, are exposed to movements in foreign currency exchange rates. To a large extent, our global manufacturing and sales provide a natural hedge of foreign currency exchange rate movement. We use foreign currency forward exchange contracts to reduce our remaining exposure. At December 31, 2014, our major, pre-hedging foreign currency exposures are to the Canadian Dollar, Euro, and Chinese Renminbi. A 10% strengthening of all currencies against the U.S. dollar compared to December 31, 2014 levels would increase our 2015 earnings before income taxes by approximately \$0.9 million, including the impact of current foreign currency forward exchange contracts.

We also use foreign currency forward exchange contracts to hedge exposures created by cross-currency intercompany loans.

The table below details our outstanding currency instruments as of December 31, 2014.

## On balance sheet foreign exchange related derivatives

(dollar amounts in millions)	Maturing in 2015	Maturing in 2016	Total
Notional amounts	\$ 105.0	\$ 18.5	\$ 123.5
Assets at fair value	4.5	0.9	5.4

**Natural Gas Price Sensitivity**

We purchase natural gas for use in the manufacture of ceiling tiles and other products, as well as to heat many of our facilities. As a result, we are exposed to fluctuations in the price of natural gas. We have a policy of reducing North American natural gas volatility through derivative instruments, including forward swap contracts, purchased call options and zero-cost collars. As of December 31, 2014, we had contracts to hedge approximately \$14.6 million (notional amounts) of natural gas. All of these contracts mature by May 2016. A 10% increase in North American natural gas prices compared to December 31, 2014 prices would increase our 2015 expenses by approximately \$0.4 million including the impact of current hedging contracts. At December 31, 2014 we had recorded net liabilities of \$3.0 million related to these contracts.

**Table of Contents**

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

**SUPPLEMENTARY DATA**

Quarterly Financial Information for the Years Ended December 31, 2014 and 2013 (Unaudited)

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

Reports of Independent Registered Public Accounting Firm.

Consolidated Statements of Earnings and Comprehensive (Loss) Income for the Years Ended December 31, 2014, 2013 and 2012.

Consolidated Balance Sheets as of December 31, 2014 and 2013.

Consolidated Statements of Equity for the Years Ended December 31, 2014, 2013 and 2012.

Consolidated Statements of Cash Flows for the Years Ended December 31, 2014, 2013 and 2012.

Notes to Consolidated Financial Statements.

Schedule II for the Years Ended December 31, 2014, 2013 and 2012.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Quarterly Financial Information (unaudited)

(dollar amounts in millions, except for per share data)

	First	Second	Third	Fourth
<b>2014</b>				
Net sales	\$ 590.0	\$ 659.1	\$ 678.9	\$ 587.3
Gross profit	142.1	147.0	168.0	126.2
Earnings from continuing operations	18.1	26.6	46.7	10.6
Per share of common stock:				
Basic	\$ 0.33	\$ 0.48	\$ 0.84	\$ 0.19
Diluted	\$ 0.33	\$ 0.48	\$ 0.84	\$ 0.19
Price range of common stock - high	\$ 61.90	\$ 58.00	\$ 59.90	\$ 56.03
Price range of common stock - low	\$ 51.31	\$ 50.98	\$ 48.35	\$ 44.00

Dividend paid per share

<b>2013</b>				
Net sales	\$ 578.6	\$ 656.0	\$ 678.0	\$ 614.8
Gross profit	135.7	156.0	168.6	132.7
Earnings from continuing operations	9.4	36.7	57.8	23.4
Per share of common stock:				
Basic	\$ 0.16	\$ 0.62	\$ 0.98	\$ 0.43
Diluted	\$ 0.16	\$ 0.61	\$ 0.97	\$ 0.42
Price range of common stock - high	\$ 58.48	\$ 55.94	\$ 57.14	\$ 57.83
Price range of common stock - low	\$ 49.84	\$ 44.93	\$ 45.81	\$ 49.55

Dividend paid per share

Note: The net sales and gross profit amounts above are reported on a continuing operations basis. The sum of the quarterly earnings per share data may not equal the total year amounts due to changes in the average shares outstanding and, for diluted data, the exclusion of the anti-dilutive effect in certain quarters.

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Quarterly Financial Information (unaudited)

(dollar amounts in millions, except for per share data)

**Fourth Quarter 2014 Compared With Fourth Quarter 2013 – Continuing Operations**

Net sales of \$587.3 million in the fourth quarter of 2014 decreased from net sales of \$614.8 million in the fourth quarter of 2013. Net sales decreased \$24 million or 5% in the Americas. Excluding the unfavorable impact of foreign exchange of \$9 million, net sales in Europe improved by 1%. Net sales in the Pacific Rim increased \$4 million or 7%.

Building Products net sales decreased by \$9 million driven primarily by unfavorable exchange rates, primarily in Russia. Resilient Flooring net sales increased by \$1 million as higher sales in the Pacific Rim offset slightly lower sales in the Americas. Wood Flooring net sales decreased \$19 million or 15% due to volume declines caused by sales lost to competition.

For the fourth quarter of 2014, cost of goods sold was 78.5% of net sales, compared to 78.4% in 2013.

Selling, general and administrative ( SG&A ) expenses for the fourth quarter of 2014 were \$94.2 million, or 16.0% of net sales compared to \$102.9 million, or 16.7% of net sales, for the fourth quarter of 2013. The decrease was primarily due to lower incentive compensation expense and lower promotional spending.

A non-cash impairment charge of \$10.0 million was recorded in the fourth quarter of 2014 to reduce the carrying value of a Wood Flooring trademark to its estimated fair value.

Equity earnings in the fourth quarters of 2014 and 2013 were \$13.9 million and \$13.2 million, respectively.

Operating income of \$35.9 million in the fourth quarter of 2014 compared to \$43.0 million in the fourth quarter of 2013.

Interest expense in the fourth quarters of 2014 and 2013 was \$11.7 million and \$12.4 million, respectively.

Fourth quarter income tax expense was \$13.0 million and \$7.4 million in 2014 and 2013, respectively. The fourth quarter effective tax rate for 2014 was 55.1% as compared to a rate of 24.0% for 2013. The effective tax rate for the fourth quarter of 2014 was higher primarily due to research and development tax credits covering multiple years and domestic production activities in 2013 and an increase in the state net operating loss valuation allowance in 2014.

**Table of Contents**

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

Our management 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) under the Securities Exchange Act of 1934, as amended. Our internal control over financial reporting was designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external purposes in accordance with generally accepted accounting principles.

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

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of our 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 (COSO). Based on this evaluation and the criteria in the COSO framework, our management concluded that our internal control over financial reporting was effective as of December 31, 2014. We intend to implement the new *Internal Control Integrated Framework*, issued in May 2013 by COSO, during our fiscal year 2015.

KPMG LLP, an independent registered public accounting firm, audited our internal control over financial reporting as of December 31, 2014, as stated in their report included herein.

/s/ Matthew J. Espe  
Matthew J. Espe  
President and Chief Executive Officer

/s/ David S. Schulz  
David S. Schulz  
Senior Vice President and Chief Financial  
Officer

/s/ Stephen F. McNamara  
Stephen F. McNamara  
Vice President and Corporate Controller  
February 23, 2015

**Table of Contents**

**Report of Independent Registered Public Accounting Firm**

The Board of Directors and Shareholders

Armstrong World Industries, Inc.:

We have audited Armstrong World Industries, Inc. and subsidiaries (the Company) internal control over financial reporting as of December 31, 2014, based on criteria established in *Internal Control-Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). 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, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included 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 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 its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Armstrong World Industries, Inc. and subsidiaries maintained, in all material respects, effective internal control over financial reporting as of December 31, 2014, based on criteria established in *Internal Control-Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of the Company as of December 31, 2014 and 2013, and the related consolidated statements of earnings and comprehensive income, equity, and cash flows for each of the years in the three-year period ended December 31, 2014, and our report dated February 23, 2015 expressed an unqualified opinion on those consolidated financial statements.

/s/ KPMG LLP

Philadelphia, Pennsylvania

February 23, 2015



**Table of Contents**

**Report of Independent Registered Public Accounting Firm**

The Board of Directors and Shareholders

Armstrong World Industries, Inc.:

We have audited the accompanying consolidated balance sheets of Armstrong World Industries, Inc. and subsidiaries ( the Company ) as of December 31, 2014 and 2013, and the related consolidated statements of earnings and comprehensive income, equity and cash flows for each of the years in the three-year period ended December 31, 2014. In connection with our audits of the consolidated financial statements, we also have audited the financial statement schedule as listed in the accompanying index on page 41. These consolidated financial statements and financial statement schedule are the responsibility of the Company s management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Armstrong World Industries, Inc. and subsidiaries as of December 31, 2014 and 2013, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2014, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

We also have 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, 2014, based on criteria established in *Internal Control-Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated February 23, 2015 expressed an unqualified opinion on the effectiveness of the Company s internal control over financial reporting.

/s/ KPMG LLP

Philadelphia, Pennsylvania

February 23, 2015

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Consolidated Statements of Earnings and Comprehensive (Loss) Income

(amounts in millions, except per share data)

	Years Ended December 31,		
	2014	2013	2012
Net sales	\$ 2,515.3	\$ 2,527.4	\$ 2,428.7
Cost of goods sold	1,932.0	1,934.4	1,834.8
Gross profit	583.3	593.0	593.9
Selling, general and administrative expenses	398.5	386.9	364.9
Intangible asset impairments	10.8		
Restructuring charges, net		(0.1)	
Equity earnings from joint venture	(65.1)	(59.4)	(55.9)
Operating income	239.1	265.6	284.9
Interest expense	46.0	68.7	53.6
Other non-operating expense	10.5	2.0	0.2
Other non-operating (income)	(2.6)	(3.8)	(3.5)
Earnings from continuing operations before income taxes	185.2	198.7	234.6
Income tax expense	83.2	71.4	76.0
Earnings from continuing operations	102.0	127.3	158.6
Net (loss) from discontinued operations, net of tax benefit of (\$ - ), (\$ - ) and (\$7.1)	(23.7)	(26.8)	(26.4)
Loss on disposal of discontinued business, net of tax benefit of (\$2.5), (\$3.6) and (\$0.6 )	(14.5)	(6.4)	(0.9)
Net (loss) from discontinued operations	(38.2)	(33.2)	(27.3)
Net earnings	\$ 63.8	\$ 94.1	\$ 131.3
Other comprehensive (loss) income, net of tax:			
Foreign currency translation adjustments	(29.6)	(8.8)	7.0
Derivative (loss) gain	(3.3)	18.5	(5.2)
Pension and postretirement adjustments	(91.0)	90.1	(58.2)
Total other comprehensive (loss) income	(123.9)	99.8	(56.4)
Total comprehensive (loss) income	(\$ 60.1)	\$ 193.9	\$ 74.9
Earnings per share of common stock, continuing operations:			

Edgar Filing: ARMSTRONG WORLD INDUSTRIES INC - Form 10-K

Basic	\$ 1.85	\$ 2.19	\$ 2.67
Diluted	\$ 1.83	\$ 2.17	\$ 2.65
(Loss) per share of common stock, discontinued operations:			
Basic	(\$ 0.70)	(\$ 0.57)	(\$ 0.46)
Diluted	(\$ 0.69)	(\$ 0.57)	(\$ 0.46)
Net earnings per share of common stock:			
Basic	\$ 1.15	\$ 1.62	\$ 2.21
Diluted	\$ 1.14	\$ 1.60	\$ 2.19
Average number of common shares outstanding:			
Basic	55.0	57.8	58.9
Diluted	55.4	58.4	59.5
Dividend declared per common share			\$ 8.55

See accompanying notes to consolidated financial statements beginning on page 51.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Consolidated Balance Sheets

(amounts in millions, except share data)

	December 31, 2014	December 31, 2013
<u>Assets</u>		
Current assets:		
Cash and cash equivalents	\$ 185.3	\$ 112.3
Accounts and notes receivable, net	195.2	204.6
Inventories, net	335.5	322.1
Current assets of deconsolidated operations		102.0
Deferred income taxes	31.4	72.0
Income tax receivable	5.3	17.4
Other current assets	58.8	53.6
Total current assets	811.5	884.0
Property, plant, and equipment, less accumulated depreciation and amortization of \$644.3 and \$592.0, respectively	1,062.4	1,014.8
Noncurrent assets of deconsolidated operations		92.6
Prepaid pension costs	7.4	167.0
Investment in joint venture	129.0	132.0
Intangible assets, net	501.4	522.9
Deferred income taxes	26.6	30.1
Other noncurrent assets	67.9	73.2
Total assets	\$ 2,606.2	\$ 2,916.6
<u>Liabilities and Shareholders' Equity</u>		
Current liabilities:		
Current installments of long-term debt	\$ 39.6	\$ 23.9
Accounts payable and accrued expenses	345.5	334.6
Liabilities of deconsolidated operations		47.7
Income tax payable	2.5	4.0
Deferred income taxes	0.5	0.7
Total current liabilities	388.1	410.9
Long-term debt, less current installments	1,003.0	1,042.6
Postretirement benefit liabilities	201.5	234.2
Pension benefit liabilities	115.5	83.9
Other long-term liabilities	53.2	63.6
Noncurrent liabilities of deconsolidated operations		148.4
Noncurrent income taxes payable	51.1	81.7
Deferred income taxes	144.7	178.1

Total noncurrent liabilities	1,569.0	1,832.5
Shareholders' equity:		
Common stock, \$0.01 par value per share, authorized		
200 million shares; issued 60,183,535 shares, outstanding 55,126,153 shares in 2014 and 59,464,309 shares issued, 54,406,927 outstanding shares in 2013		
	0.6	0.6
Capital in excess of par value	1,134.4	1,098.4
Retained earnings	271.0	207.2
Treasury stock, at cost, 5,057,382 shares	(261.4)	(261.4)
Accumulated other comprehensive (loss)	(495.5)	(371.6)
Total shareholders' equity	649.1	673.2
Total liabilities and shareholders' equity	\$ 2,606.2	\$ 2,916.6

See accompanying notes to consolidated financial statements beginning on page 51.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Consolidated Statements of Equity

(amounts in millions, except share data)

	Common Stock				Treasury Stock		Accumulated Other Comprehensive Income	
	Shares	Amount	Capital in Excess of Par Value	Retained Earnings	Shares	Amount	(Loss)	Total
December 31, 2011	58,424,691	\$ 0.6	\$ 1,467.5	\$ 77.1			(\$ 415.0)	\$ 1,130.2
Stock issuance, net	509,359							
Share-based employee compensation			22.2					22.2
Net earnings				131.3				131.3
Dividends declared				(95.3)				(95.3)
Dividends declared in excess of retained earnings			(412.9)					(412.9)
Other comprehensive loss							(56.4)	(56.4)
December 31, 2012	58,934,050	\$ 0.6	\$ 1,076.8	\$ 113.1			(\$ 471.4)	\$ 719.1
Stock issuance, net	530,259							
Share-based employee compensation			21.6					21.6
Net earnings				94.1				94.1
Repurchase of common stock	(5,057,382)				5,057,382	(\$ 261.4)		(261.4)
Other comprehensive income							99.8	99.8
December 31, 2013	54,406,927	\$ 0.6	\$ 1,098.4	\$ 207.2	5,057,382	(\$ 261.4)	(\$ 371.6)	\$ 673.2
Stock issuance, net	719,226							
Share-based employee compensation			36.0					36.0
Net earnings				63.8			(123.9)	(123.9)

Other comprehensive  
loss

December 31, 2014	55,126,153	\$ 0.6	\$ 1,134.4	\$ 271.0	5,057,382	(\$ 261.4)	(\$ 495.5)	\$ 649.1
-------------------	------------	--------	------------	----------	-----------	------------	------------	----------

See accompanying notes to consolidated financial statements beginning on page 51.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Consolidated Statements of Cash Flows

(amounts in millions)

	Years Ended December 31,		
	2014	2013	2012
<b>Cash flows from operating activities:</b>			
Net earnings	\$ 63.8	\$ 94.1	\$ 131.3
<b>Adjustments to reconcile earnings to net cash provided by operating activities:</b>			
Depreciation and amortization	129.4	109.0	112.7
Write off of debt financing costs		18.9	
Loss on disposal of discontinued operations	17.0	10.0	1.5
Impairment on assets of discontinued operations	11.9		18.0
Fixed and intangible asset impairments	15.8		5.2
Deferred income taxes	33.1	37.0	26.5
Share-based compensation	12.7	15.9	15.6
Equity earnings from joint venture	(65.1)	(59.4)	(55.9)
U.S. pension expense (credit)	0.6	(2.1)	(12.2)
Non-cash foreign currency translation on intercompany loans	37.2		
Other, non-cash adjustments, net	(2.7)	(4.6)	(3.3)
<b>Changes in operating assets and liabilities:</b>			
Receivables	(6.2)	(8.8)	8.8
Inventories	(26.8)	(11.9)	(0.6)
Other current assets	(9.7)	(9.2)	(10.4)
Other noncurrent assets	(2.9)	7.1	3.7
Accounts payable and accrued expenses	(6.1)	37.4	(23.6)
Income taxes payable	24.2	16.3	33.4
Other long-term liabilities	(21.0)	(35.3)	(27.9)
Other, net	3.6	(0.7)	(2.8)
Net cash provided by operating activities	208.8	213.7	220.0
<b>Cash flows from investing activities:</b>			
Purchases of property, plant and equipment	(222.9)	(213.7)	(198.8)
Divestiture			24.6
Restricted cash			1.5
Return of investment from joint venture	67.9	61.1	63.5
(Payment of) proceeds from company owned life insurance, net	(0.5)	(0.4)	0.7
Proceeds from the sale of assets	7.9	7.2	16.6
Proceeds from settlement of note receivable	2.4		
Net cash effect from deconsolidation of subsidiary	(4.1)		
Net cash (used for) investing activities	(149.3)	(145.8)	(91.9)



<b>Cash flows from financing activities:</b>			
Proceeds from revolving credit facility and other short-term debt	122.8		
Payments of revolving credit facility and other short-term debt	(122.8)		
Proceeds from long-term debt		1,111.0	250.0
Payments of long-term debt	(23.9)	(1,115.5)	(22.0)
Financing costs		(7.2)	(8.1)
Special dividends paid	(1.3)	(1.4)	(507.1)
Excess tax benefits from share-based awards	8.4		
Proceeds from exercised stock options	17.8	8.6	12.2
Proceeds from company owned life insurance loans, net	2.3	2.2	1.3
Payment for treasury stock acquired		(261.4)	
Net cash provided by (used for) financing activities	3.3	(263.7)	(273.7)
Effect of exchange rate changes on cash and cash equivalents	(12.7)	(5.4)	1.4
Net increase (decrease) in cash and cash equivalents	50.1	(201.2)	(144.2)
Cash and cash equivalents at beginning of year	135.2	336.4	480.6
Cash and cash equivalents at end of year	185.3	135.2	336.4
Cash and cash equivalents at end of year of discontinued operations		22.9	10.3
Cash and cash equivalents at end of year of continuing operations	\$ 185.3	\$ 112.3	\$ 326.1
<b>Supplemental Cash Flow Disclosures:</b>			
Interest paid	\$ 40.2	\$ 42.4	\$ 47.0
Income taxes paid, net	\$ 15.0	14.4	8.4
Amounts in accounts payable for capital expenditures	\$ 18.7	15.3	25.9
See accompanying notes to consolidated financial statements beginning on page 51.			

---

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

**NOTE 1. BUSINESS AND CHAPTER 11 REORGANIZATION**

Armstrong World Industries, Inc. ( "AWI" ) is a Pennsylvania corporation incorporated in 1891. When we refer to "we," "our" and "us" in these notes, we are referring to AWI and its subsidiaries. We use the term "AWI" when we are referring solely to Armstrong World Industries, Inc.

In December 2000, AWI filed a voluntary petition for relief (the "Filing") under Chapter 11 of the U.S. Bankruptcy Code (the "Bankruptcy Code") in the United States Bankruptcy Court for the District of Delaware (the "Bankruptcy Court") in order to use the court-supervised reorganization process to achieve a resolution of AWI's asbestos-related liability. In October 2006, AWI's court-approved plan of reorganization ( "POR" ) became effective and AWI emerged from Chapter 11. All claims in AWI's Chapter 11 case have been resolved and closed.

In October 2006, the Armstrong World Industries, Inc. Asbestos Personal Injury Settlement Trust ( "Asbestos PI Trust" ) was created to address AWI's personal injury (including wrongful death) asbestos-related liability. All present and future asbestos-related personal injury claims against AWI, including contribution claims of co-defendants but excluding certain foreign claims against subsidiaries, arising directly or indirectly out of AWI's pre-Filing use of, or other activities involving, asbestos are channeled to the Asbestos PI Trust.

In August 2009, Armor TPG Holdings LLC ( "TPG" ) and the Asbestos PI Trust entered into agreements pursuant to which TPG purchased from the Asbestos PI Trust 7,000,000 shares of AWI common stock and acquired an economic interest in an additional 1,039,777 shares pursuant to a forward sales contract. During the fourth quarter of 2012, the Asbestos PI Trust and TPG together sold 5,980,000 shares in a secondary public offering. In the third quarter of 2013, the Asbestos PI Trust and TPG together sold 12,057,382 shares in another secondary public offering.

Contemporaneously with this secondary public offering, we paid \$261.4 million, including associated fees, to buy back 5,057,382 shares, which we currently hold in treasury. The treasury share purchase was funded by existing cash and borrowings under our credit and securitization facilities. In November 2013, the Asbestos PI Trust physically settled the 2009 forward sales contract by delivering to TPG the 1,039,777 shares in which TPG previously held an economic interest. Additionally, during the fourth quarter of 2013, the Asbestos PI Trust and TPG together sold an additional 6,000,000 shares. In March 2014, the Asbestos PI Trust and TPG together sold an additional 3,900,000 shares, which consisted of the last remaining 2,054,977 shares owned by TPG and an additional 1,845,023 shares owned by the Asbestos PI Trust. We did not sell any shares and did not receive any proceeds from these offerings. As a result of these transactions the Asbestos PI Trust currently holds approximately 17% of our outstanding shares and TPG no longer owns any of our common stock.

**NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Consolidation Policy.** The consolidated financial statements and accompanying data in this report include the accounts of AWI and its majority-owned subsidiaries. All significant intercompany transactions have been eliminated from the consolidated financial statements.

**Use of Estimates.** We prepare our financial statements in conformity with U.S. generally accepted accounting principles, which requires management to make estimates and assumptions. These estimates and assumptions affect

the reported amounts of assets, liabilities, revenues and expenses. When preparing an estimate, management determines the amount based upon the consideration of relevant internal and external information. Actual results may differ from these estimates.

Reclassifications. Certain amounts in the prior year's Consolidated Financial Statements and related notes and schedule thereto have been recast to conform to the 2014 presentation.

Revenue Recognition. We recognize revenue from the sale of products when persuasive evidence of an arrangement exists, title and risk of loss transfers to the customers, prices are fixed and determinable, and it is reasonably assured the related accounts receivable is collectible. Our standard sales terms are Free On Board ( FOB ) shipping point. We have some sales terms that are FOB destination. Our products are sold with normal and customary return provisions. Sales discounts are deducted immediately from the sales invoice. Provisions, which are recorded as a reduction of revenue, are made for the estimated cost of rebates, promotional programs and warranties. We defer recognizing revenue if special sales agreements, established at the time of sale, warrant this treatment.

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

Sales Incentives. Sales incentives are reflected as a reduction of net sales.

Shipping and Handling Costs. Shipping and handling costs are reflected in cost of goods sold.

Advertising Costs. We recognize advertising expenses as they are incurred.

Research and Development Costs. We recognize research and development costs as they are incurred.

Pension and Postretirement Benefits. We have benefit plans that provide for pension, medical and life insurance benefits to certain eligible employees when they retire from active service. See Note 16 to the Consolidated Financial Statements for disclosures on pension and postretirement benefits.

Taxes. The provision for income taxes has been determined using the asset and liability approach of accounting for income taxes to reflect the expected future tax consequences of events recognized in the financial statements. Deferred income tax assets and liabilities are recognized by applying enacted tax rates to temporary differences that exist as of the balance sheet date which result from differences in the timing of reported taxable income between tax and financial reporting.

We reduce the carrying amounts of deferred tax assets by a valuation allowance if, based on the available evidence, it is more likely than not that such assets will not be realized. The need to establish valuation allowances for deferred tax assets is assessed quarterly. In assessing the requirement for, and amount of, a valuation allowance in accordance with the more likely than not standard, we give appropriate consideration to all positive and negative evidence related to the realization of the deferred tax assets. This assessment considers, among other matters, the nature, frequency and severity of current and cumulative losses, forecasts of future profitability and foreign source income, the duration of statutory carryforward periods, and our experience with operating loss and tax credit carryforward expirations. A history of cumulative losses is a significant piece of negative evidence used in our assessment. If a history of cumulative losses is incurred for a tax jurisdiction, forecasts of future profitability are not used as positive evidence related to the realization of the deferred tax assets in the assessment.

We recognize the tax benefits of an uncertain tax position if those benefits are more likely than not to be sustained based on existing tax law. Additionally, we establish a reserve for tax positions that are more likely than not to be sustained based on existing tax law, but uncertain in the ultimate benefit to be sustained upon examination by the relevant taxing authorities. Unrecognized tax benefits are subsequently recognized at the time the more likely than not recognition threshold is met, the tax matter is effectively settled or the statute of limitations for the relevant taxing authority to examine and challenge the tax position has expired, whichever is earlier.

Taxes collected from customers and remitted to governmental authorities are reported on a net basis.

Earnings per Share. Basic earnings per share is computed by dividing the earnings attributable to common shares by the weighted average number of shares of common stock outstanding during the period. Diluted earnings per share

reflects the potential dilution of securities that could share in the earnings.

Cash and Cash Equivalents. Cash and cash equivalents include cash on hand and short-term investments that have maturities of three months or less when purchased.

Concentration of Credit. We principally sell products to customers in the building products industries in various geographic regions. No one customer accounted for 10% or more of our total consolidated net sales in the years 2014, 2013, and 2012. We monitor the creditworthiness of our customers and generally do not require collateral.

Receivables. We sell the vast majority of our products to select, pre-approved customers using customary trade terms that allow for payment in the future. Customer trade receivables, customer notes receivable and miscellaneous receivables (which include supply related rebates and other), net of allowances for doubtful accounts, customer credits and warranties are reported in accounts and notes receivable, net. Cash flows from the collection of current receivables are classified as operating cash flows on the consolidated statements of cash flows.

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

We establish credit-worthiness prior to extending credit. We estimate the recoverability of receivables each period. This estimate is based upon new information in the period, which can include the review of any available financial statements and forecasts, as well as discussions with legal counsel and the management of the debtor company. As events occur, which impact the collectability of the receivable, all or a portion of the receivable is reserved. Account balances are charged off against the allowance when the potential for recovery is considered remote. We do not have any off-balance-sheet credit exposure related to our customers.

**Inventories.** Inventories are valued at the lower of cost or market. Inventories also include certain samples used in ongoing sales and marketing activities. See Note 6 to the Consolidated Financial Statements for further information on our accounting for inventories.

**Property Plant and Equipment.** Property plant and equipment is recorded at cost reduced by accumulated depreciation. Depreciation expense is recognized on a straight-line basis over the assets' estimated useful lives. Machinery and equipment includes manufacturing equipment (depreciated over 3 to 15 years), computer equipment (depreciated over 3 to 5 years) and office furniture and equipment (depreciated over 5 to 7 years). Within manufacturing equipment, assets that are subject to quick obsolescence or wear out quickly, such as tooling and engraving equipment, are depreciated over shorter periods (3 to 7 years). Heavy production equipment, such as conveyors and production presses, are depreciated over longer periods (10 to 15 years). Buildings are depreciated over 15 to 30 years, depending on factors such as type of construction and use. Computer software is depreciated over 3 to 7 years.

Property, plant and equipment are tested for impairment when indicators of impairment are present, such as operating losses and/or negative cash flows. If an indication of impairment exists, we compare the carrying amount of the asset group to the estimated undiscounted future cash flows expected to be generated by the assets. The estimate of an asset group's fair value is based on discounted future cash flows expected to be generated by the asset group, or based on management's estimated exit price assuming the assets could be sold in an orderly transaction between market participants, or estimated salvage value if no sale is assumed. If the fair value is less than the carrying value of the asset group, we record an impairment charge equal to the difference between the fair value and carrying value of the asset group. Impairments of assets related to our manufacturing operations are recorded in cost of goods sold.

When assets are disposed of or retired, their costs and related depreciation are removed from the financial statements, and any resulting gains or losses normally are reflected in cost of goods sold or selling, general and administrative (SG&A) expenses depending on the nature of the asset.

**Asset Retirement Obligations.** We recognize the fair value of obligations associated with the retirement of tangible long-lived assets in the period in which they are incurred. Upon initial recognition of a liability, the discounted cost is capitalized as part of the related long-lived asset and depreciated over the corresponding asset's useful life. Over time, accretion of the liability is recognized as an operating expense to reflect the change in the liability's present value.

**Intangible Assets.** Our definite-lived intangible assets are primarily customer relationships (amortized over 20 years) and developed technology (amortized over 15 years). We review significant definite-lived intangible assets for

impairment when indicators of impairment exist. We review our businesses for indicators of impairment such as operating losses and/or negative cash flows. If an indication of impairment exists, we compare the carrying amount of the asset group to the estimated undiscounted future cash flows expected to be generated by the assets. The estimate of an asset group's fair value is based on discounted future cash flows expected to be generated by the asset group, or based on management's estimated exit price assuming the assets could be sold in an orderly transaction between market participants. If the fair value is less than the carrying value of the asset group, we record an impairment charge equal to the difference between the fair value and carrying value of the asset group.

Our indefinite-lived intangibles are primarily trademarks and brand names, which are integral to our corporate identity and expected to contribute indefinitely to our cash flows. Accordingly, they have been assigned an indefinite life. We perform annual impairment tests during the fourth quarter on these indefinite-lived intangibles. These assets undergo more frequent tests if an indication of possible impairment exists.

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

The principal assumption used in our impairment tests for definite-lived intangible assets is future operating profit adjusted for depreciation and amortization. The principal assumptions used in our impairment tests for indefinite-lived intangible assets include revenue growth rate, discount rate and royalty rate. Revenue growth rate and future operating profit assumptions are derived from those utilized in our operating plan and strategic planning processes. The discount rate assumption is calculated based upon an estimated weighted average cost of equity which reflects the overall level of inherent risk and the rate of return a market participant would expect to achieve. The royalty rate assumption represents the estimated contribution of the intangible asset to the overall profits of the reporting unit. Methodologies used for valuing our intangible assets did not change from prior periods.

See Note 10 to the Consolidated Financial Statements for disclosure on intangible assets.

**Foreign Currency Transactions.** Assets and liabilities of our subsidiaries operating outside the United States which account in a functional currency other than U.S. dollars are translated using the period end exchange rate. Revenues and expenses are translated at exchange rates effective during each month. Foreign currency translation gains or losses are included as a component of accumulated other comprehensive income (loss) within shareholders' equity. Gains or losses on foreign currency transactions are recognized through the statement of earnings.

**Financial Instruments and Derivatives.** From time to time, we use derivatives and other financial instruments to offset the effect of currency, interest rate and commodity price variability. See Notes 17 and 18 to the Consolidated Financial Statements for further discussion.

**Share-based Employee Compensation.** For awards with only service and performance conditions that have a graded vesting schedule, we recognize compensation expense on a straight-line basis over the vesting period for the entire award. See Note 21 to the Consolidated Financial Statements for additional information on share-based employee compensation.

**Subsequent Events.** We have evaluated subsequent events for potential recognition and disclosure through the date the consolidated financial statements included in the Annual Report on Form 10-K were issued.

**Recently Adopted Accounting Standards**

In February 2013, the Financial Accounting Standards Board ( FASB ) issued Accounting Standards Update ( ASU ) 2013-04 *Obligations Resulting from Joint and Several Liability Arrangements for Which the Total Amount of the Obligation Is Fixed at the Reporting Date* which is part of Accounting Standards Codification ( ASC ) 405: Liabilities. The guidance requires an entity to measure obligations resulting from joint and several liability arrangements, within the scope of this ASU, as the amount the reporting entity agreed to pay on the basis of its arrangement among its co-obligors and any additional amount the reporting entity expects to pay on behalf of its co-obligors. The guidance requires an entity to disclose the nature and amount of the obligation. The guidance is to be applied retrospectively and was effective for us beginning January 1, 2014. There was no impact on our financial condition, results of operations or cash flows as a result of the adoption of this guidance.



In July 2013, the FASB issued ASU 2013-11 *Income Taxes - Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists* which is part of ASC 740: Income Taxes. The guidance requires an entity to present an unrecognized tax benefit and a net operating loss ( NOL ) carryforward, a similar tax loss, or a tax credit carryforward on a net basis as part of a deferred tax asset, unless the unrecognized tax benefit is not available to reduce the deferred tax asset component or would not be utilized for that purpose, then a liability would be recognized. The guidance was applied prospectively and was effective for us beginning January 1, 2014. As a result of adopting this guidance, we recorded a reduction to noncurrent income taxes payable and a corresponding increase to noncurrent deferred tax liabilities of \$40.0 million. There was no impact on results of operations or cash flows as a result of the adoption of this guidance.

#### Recently Issued Accounting Standards

In April 2014, the FASB issued ASU 2014-08 *Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity* which is part of ASC 205: Presentation of Financial Statements and ASC 360: Property, Plant and Equipment. The amendments in this guidance change the requirements for reporting discontinued

---

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

operations. Under the new guidance a disposal of a component of an entity or a group of components is required to be reported in discontinued operations if the disposal represents a strategic shift that has (or will have) a major effect on an entity's operations and financial results. The guidance is effective prospectively for disposals that occur within annual periods beginning on or after December 15, 2014. We do not expect a material impact to our financial condition, results of operations or cash flows from the adoption of this guidance.

In May 2014, the FASB issued ASU 2014-09 *Revenue from Contracts with Customers*. The guidance requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to a customer. The ASU will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective, January 1, 2017. Early application is not permitted, but the standard permits the use of either the retrospective or cumulative effect transition method. We have not selected a transition method and are currently evaluating the impact this guidance will have on our financial condition, results of operations and cash flows.

In June 2014, the FASB issued ASU 2014-12 *Accounting for Share-Based Payments When the Terms of an Award Provide That a Performance Target Could Be Achieved after the Requisite Service Period* which is part of ASC 718: Compensation-Stock Compensation. The guidance requires that a performance target that affects vesting and that could be achieved after the requisite service period be treated as a performance condition and should not be reflected in the estimate of the grant-date fair value of the award. The guidance is effective for annual periods beginning after December 15, 2015. The guidance can be applied prospectively for all awards granted or modified after the effective date or retrospectively to all awards with performance targets outstanding as of the beginning of the earliest annual period presented in the financial statements and to all new or modified awards thereafter. We do not expect a material impact on our financial condition, results of operation or cash flows from the adoption of this guidance.

**NOTE 3. NATURE OF OPERATIONS**

*Building Products* produces suspended mineral fiber, soft fiber and metal ceiling systems for use in commercial, institutional and residential settings. In addition, our Building Products segment sources complementary ceiling products. Our products, which are sold worldwide, are available in numerous colors, performance characteristics and designs, and offer attributes such as acoustical control, rated fire protection and aesthetic appeal. Commercial ceiling materials and accessories are sold to resale distributors and to ceiling systems contractors. Residential ceiling products are sold in North America primarily to wholesalers and retailers (including large home centers). Suspension system (grid) products manufactured by Worthington Armstrong Venture ( WAVE ) are sold by both us and WAVE.

*Resilient Flooring* produces and sources a broad range of floor coverings primarily for homes and commercial and institutional buildings. Manufactured products in this segment include vinyl sheet and vinyl tile flooring. In addition, our Resilient Flooring segment sources and sells laminate flooring products, vinyl tile products, vinyl sheet products, linoleum products, adhesives, and installation and maintenance materials and accessories. Resilient Flooring products are offered in a wide variety of types, designs, and colors. We sell these products to wholesalers, large home centers, retailers, contractors and to the manufactured homes industry.

*Wood Flooring* produces and sources wood flooring products for use in new residential construction and renovation, with some commercial applications in stores, restaurants and high-end offices. The product offering includes pre-finished solid and engineered wood floors in various wood species, and related accessories. Virtually all of our Wood Flooring sales are in North America. Our Wood Flooring products are generally sold to independent wholesale flooring distributors and large home centers.

*Unallocated Corporate* includes assets, liabilities, income and expenses that have not been allocated to the business units. Balance sheet items classified as Unallocated Corporate are primarily income tax related accounts, cash and cash equivalents, the Armstrong brand name, the U.S. pension and long-term debt. Expenses for our corporate departments and certain benefit plans are allocated to the reportable segments based on known metrics, such as specific activity or headcount. The remaining items, which cannot be attributed to the other reportable segments without a high degree of generalization, are reported in Unallocated Corporate.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

	Building Products	Resilient Flooring	Wood Flooring	Unallocated Corporate	Total
<b>For the year ended 2014</b>					
Net sales to external customers	\$ 1,294.3	\$ 712.9	\$ 508.1		\$ 2,515.3
Equity (earnings) from joint venture	(65.1)				(65.1)
Segment operating income (loss)	264.7	61.6	(14.9)	(\$ 72.3)	239.1
Segment assets	1,079.7	492.7	329.8	704.0	2,606.2
Depreciation and amortization <sup>(1)</sup>	66.0	29.6	16.5	11.3	123.4
Asset impairment <sup>(1)</sup>	0.4		15.4		15.8
Investment in joint venture	129.0				129.0
Purchases of property, plant and equipment <sup>(1)</sup>	128.1	51.6	26.0	11.4	217.1

	Building Products	Resilient Flooring	Wood Flooring	Unallocated Corporate	Total
<b>For the year ended 2013</b>					
Net sales to external customers	\$ 1,264.6	\$ 728.8	\$ 534.0		\$ 2,527.4
Equity (earnings) from joint venture	(59.4)				(59.4)
Segment operating income (loss)	263.1	69.8	6.0	(\$ 73.3)	265.6
Segment assets <sup>(2)</sup>	1,071.9	462.9	335.2	852.0	2,722.0
Depreciation and amortization <sup>(1)</sup>	56.3	25.8	11.4	9.0	102.5
Investment in joint venture	132.0				132.0
Purchases of property, plant and equipment <sup>(1)</sup>	134.5	50.7	8.0	15.8	209.0

	Building Products	Resilient Flooring	Wood Flooring	Unallocated Corporate	Total
<b>For the year ended 2012</b>					
Net sales to external customers	\$ 1,218.9	\$ 749.2	\$ 460.6		\$ 2,428.7
Equity (earnings) from joint venture	(55.9)				(55.9)
Segment operating income (loss)	230.4	70.3	37.3	(\$ 53.1)	284.9
Segment assets <sup>(2)</sup>	975.1	445.6	326.4	925.6	2,672.7
Depreciation and amortization <sup>(1)</sup>	62.2	22.7	11.1	9.0	105.0
Asset impairment <sup>(1)</sup>	4.6		0.6		5.2
Investment in joint venture	133.5				133.5
Purchases of property, plant and equipment <sup>(1)</sup>	98.5	65.1	14.4	9.2	187.2

<sup>(1)</sup> Totals for 2014, 2013 and 2012 will differ from the totals on our Consolidated Statement of Cash Flow by the amounts that have been classified as discontinued operations.

(2) Totals for 2013 and 2012 will differ from the totals on our Consolidated Balance Sheet by the amounts that have been classified as deconsolidated operations.

Segment operating income (loss) is the measure of segment profit or loss reviewed by the chief operating decision maker. The sum of the segments' operating income (loss) equals the total consolidated operating income as reported on our income statement. The following reconciles our total consolidated operating income to earnings from continuing operations before income taxes. These items are only measured and managed on a consolidated basis:

	2014	2013	2012
Segment operating income	\$ 239.1	\$ 265.6	\$ 284.9
Interest expense	46.0	68.7	53.6
Other non-operating expense	10.5	2.0	0.2
Other non-operating income	(2.6)	(3.8)	(3.5)
Earnings from continuing operations before income taxes	\$ 185.2	\$ 198.7	\$ 234.6

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

Accounting policies of the segments are the same as those described in the summary of significant accounting policies.

The sales in the table below are allocated to geographic areas based upon the location of the customer.

	2014	2013	2012
<b>Geographic Areas</b>			
<b>Net trade sales</b>			
<b>Americas:</b>			
United States	\$ 1,728.3	\$ 1,743.8	\$ 1,646.5
Canada	164.9	176.6	187.9
Other	33.5	33.9	36.2
<b>Total Americas</b>	<b>1,926.7</b>	<b>1,954.3</b>	<b>1,870.6</b>
<b>Europe, Middle East &amp; Africa:</b>			
United Kingdom	80.1	82.3	79.0
Russia	64.9	68.0	60.0
France	55.9	55.6	56.2
Saudi Arabia	20.8	18.1	8.3
Other	125.0	127.3	116.5
<b>Total Europe, Middle East &amp; Africa</b>	<b>346.7</b>	<b>351.3</b>	<b>320.0</b>
<b>Pacific Rim:</b>			
China	92.4	81.3	74.5
Australia	64.2	66.2	80.4
India	50.5	40.3	38.7
Other	34.8	34.0	44.5
<b>Total Pacific Rim</b>	<b>241.9</b>	<b>221.8</b>	<b>238.1</b>
<b>Total net trade sales</b>	<b>\$ 2,515.3</b>	<b>\$ 2,527.4</b>	<b>\$ 2,428.7</b>

	2014	2013
<b>Property, plant and equipment, net at December 31,</b>		

Edgar Filing: ARMSTRONG WORLD INDUSTRIES INC - Form 10-K

Americas:

United States	\$ 715.8	\$ 668.6
Other	5.4	9.5

Total Americas	721.2	678.1
----------------	-------	-------

Europe, Middle East & Africa:

Russia	62.7	49.2
Germany	29.9	33.7
France	18.8	20.9
England	19.1	18.0
Other	16.2	9.5

Total Europe, Middle East & Africa	146.7	131.3
------------------------------------	-------	-------

Pacific Rim:

China	179.1	185.6
Other	15.4	19.8

Total Pacific Rim	194.5	205.4
-------------------	-------	-------

Total property, plant and equipment, net	\$ 1,062.4	\$ 1,014.8
--	------------	------------

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

Impairment testing of our tangible assets occurs whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. In 2014, we made the decision to dispose of certain idle equipment at five of our wood flooring manufacturing facilities and as a result we recorded a \$4.4 million impairment charge in cost of goods sold.

During 2014, we decided to close our resilient flooring plant in Thomastown, Australia and our engineered wood flooring plant in Kunshan, China. We recorded \$2.2 million in cost of goods sold for accelerated depreciation due to the closure of the resilient flooring plant in Australia. We sold this facility in January 2015. We also recorded \$4.0 million in cost of goods sold for accelerated depreciation and \$0.8 million for the impairment intangible assets due to the closure of the wood flooring plant in China.

During the first quarter of 2012, we made the decision to permanently close a previously idled ceiling tile plant in Mobile, AL. As a result, we recorded accelerated depreciation of \$11.0 million for machinery and equipment and a \$4.6 million impairment charge for the buildings in cost of goods sold in 2012. The fair values were determined by management estimates and an independent valuation based on information available at that time (considered Level 2 inputs in the fair value hierarchy as described in Note 16 to the Consolidated Financial Statements). We sold this facility in the third quarter of 2013.

During the fourth quarter of 2012, we made the decision to permanently close a previously idled engineered wood flooring production facility in Statesville, NC. As a result, we recorded accelerated depreciation of \$0.6 million for machinery and equipment and a \$0.6 million impairment charge for the buildings in cost of goods sold. The fair values were determined by management estimates and an independent valuation based on information available at that time (considered Level 2 inputs in the fair value hierarchy). We sold this facility in January 2015.

**NOTE 4. DISCONTINUED OPERATIONS**

**European Resilient Flooring**

On December 4, 2014, our Board of Directors approved the cessation of funding to our former DLW subsidiary, which was our former European flooring business. As a result DLW management filed for insolvency in Germany on December 11, 2014. The German insolvency court subsequently appointed an administrator (the Administrator) to oversee DLW operations. As a result of the insolvency filing, the appointment of the Administrator and our resulting loss of control of DLW's operations to the German insolvency court and its Administrator, effective December 11, 2014, we deconsolidated DLW from our financial statements and presented DLW for all historical periods as a discontinued operation.

The following provides a summary of the operating results of the European flooring business for the past three years. These results were previously presented as part of the Resilient Flooring reporting segment.



Edgar Filing: ARMSTRONG WORLD INDUSTRIES INC - Form 10-K

	2014	2013	2012
Net sales	\$ 175.2	\$ 192.5	\$ 190.2
Loss before income tax	(23.7)	(26.8)	(14.2)
Income tax benefit			

Net loss from discontinued business (\$ 23.7) (\$ 26.8) (\$ 14.2)

In addition, during the fourth quarter of 2014, we recorded a \$13.5 million pre-tax loss on disposal of discontinued business resulting from the deconsolidation of DLW, which was comprised of the following items:

Recognition of pension accumulated other comprehensive income	(\$ 14.7)
Transaction related fees	(3.4)
Reserve for previous intercompany receivables	(1.1)
Recognition of cumulative foreign currency translation adjustments	5.7
Loss on disposal of discontinued business	(\$ 13.5)
Income tax benefit	1.2
Net loss on disposal of discontinued business	(\$ 12.3)

Table of Contents

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

At deconsolidation, DLW had a net liability of \$12.9 million, representing assets of \$151.9 million and liabilities of \$164.8 million, which were removed from our balance sheet. Various foreign net operating loss ( NOL ) carryforwards were permanently lost in connection with the activities surrounding the insolvency filing. The deferred tax assets associated with these NOL carryforwards were subject to a full valuation allowance, both of which were removed from our balance sheet in connection with the deconsolidation (See Note 14 for further information). DLW's net liability on deconsolidation of \$12.9 million was recognized as a contingent liability on our consolidated balance sheet pending the closure and results of the insolvency proceedings. Any shortfall will be recognized immediately when identified and any excess will be reflected when insolvency proceedings are finalized, all through discontinued operations.

We expect to enter into various supply and transition services agreements with the Administrator, pursuant to which we may agree to continue to purchase linoleum and homogenous flooring products for sale in the Americas and the Pacific Rim, and we may agree to continue to provide administrative support services to DLW for information technology and accounts receivables and payables for a limited transition period. These agreements will not be material.

Cabinets

In September 2012, we entered into a definitive agreement to sell our cabinets business to American Industrial Partners ( AIP ) for \$27.0 million in cash. During the third quarter of 2012, we recorded an impairment charge of \$17.5 million on the cabinets' assets to reflect the expected proceeds from the sale. The sale was completed in October 2012, with working capital adjustments completed in the second quarter of 2013.

During the third quarter of 2013, we recorded an estimated liability of \$7.5 million for a potential withdrawal liability related to a multi-employer pension plan. During the second quarter of 2014, we recorded an additional \$3.3 million expense to increase the total estimated remaining liability to \$10.0 million. In August 2014, we entered into a settlement agreement with the Carpenters Labor-Management Pension Fund (the Fund ) to resolve this matter for \$10.3 million, including a complete release of all claims against us. As a result of the settlement, we recorded an additional charge of \$0.3 million during the third quarter of 2014. Payment was made to the Fund in the third quarter of 2014.

The following is a summary of the results related to the cabinets business, which are included in discontinued operations.

	2012
Net sales	\$ 115.7
Loss before income tax	(19.3)
Income tax benefit	7.1

Net loss from discontinued business (\$ 12.2)

	2014	2013	2012
Loss before income tax	(\$ 3.5)	(\$ 10.0)	(\$ 1.5)
Income tax benefit	1.3	3.6	0.6
Net loss on disposal of discontinued business	(\$ 2.2)	(\$ 6.4)	(\$ 0.9)

The Consolidated Statement of Cash Flows does not separately report the cash flows of the discontinued operations.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

**NOTE 5. ACCOUNTS AND NOTES RECEIVABLE**

	December 31, 2014	December 31, 2013
Customer receivables	\$ 209.7	\$ 222.0
Customer notes	1.3	1.6
Miscellaneous receivables	9.3	6.0
Less allowance for warranties, discounts, and losses	(25.1)	(25.0)
<b>Accounts and notes receivable, net</b>	<b>\$ 195.2</b>	<b>\$ 204.6</b>

Generally, we sell our products to select, pre-approved customers whose businesses are affected by changes in economic and market conditions. We consider these factors and the financial condition of each customer when establishing our allowance for losses from doubtful accounts.

**NOTE 6. INVENTORIES**

	December 31, 2014	December 31, 2013
Finished goods	\$ 243.2	\$ 246.3
Goods in process	23.0	20.9
Raw materials and supplies	133.9	111.7
Less LIFO and other reserves	(64.6)	(56.8)
<b>Total inventories, net</b>	<b>\$ 335.5</b>	<b>\$ 322.1</b>

Approximately 73% of our total inventory in 2014 and 2013, was valued on a LIFO (last-in, first-out) basis. Inventory values were lower than would have been reported on a total FIFO (first-in, first-out) basis by \$52.9 million and \$42.0 million in 2014 and 2013, respectively.

The distinction between the use of different methods of inventory valuation is primarily based on geographical locations and/or legal entities rather than types of inventory. The following table summarizes the amount of inventory that is not accounted for under the LIFO method.

	December 31, 2014	December 31, 2013
International locations	\$ 84.6	\$ 81.9
U.S. sourced products	4.7	3.6
<b>Total</b>	<b>\$ 89.3</b>	<b>\$ 85.5</b>

Substantially all of our international locations use the FIFO method of inventory valuation (or other methods which closely approximate the FIFO method) primarily because the LIFO method is not permitted for local tax and/or statutory reporting purposes. In these situations, a conversion to LIFO would be highly complex and involve excessive cost and effort to achieve under local tax and/or statutory reporting requirements.

The sourced products represent certain finished goods sourced from third party manufacturers, primarily from foreign suppliers.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

**NOTE 7. OTHER CURRENT ASSETS**

	December 31, 2014	December 31, 2013
Prepaid expenses	\$ 47.6	\$ 44.4
Fair value of derivative assets	5.7	5.9
Other	5.5	3.3
Total other current assets	\$ 58.8	\$ 53.6

**NOTE 8. PROPERTY, PLANT AND EQUIPMENT**

	December 31, 2014	December 31, 2013
Land	\$ 73.2	\$ 77.4
Buildings	373.3	346.8
Machinery and equipment	1,098.4	1,013.3
Computer software	18.6	15.5
Construction in progress	143.2	153.8
Less accumulated depreciation and amortization	(644.3)	(592.0)
Net property, plant and equipment	\$ 1,062.4	\$ 1,014.8

See Note 2 to the Consolidated Financial Statements for discussion of policies related to property and depreciation and asset retirement obligations.

**NOTE 9. EQUITY INVESTMENTS**

Investment in joint venture at December 31, 2014 reflected the equity interest in our 50% investment in our Worthington Armstrong Venture ( WAVE ) joint venture. The WAVE joint venture is reflected in our consolidated financial statements using the equity method of accounting.

We use the equity in earnings method to determine the appropriate classification of distributions from WAVE within our cash flow statement. During 2014, 2013 and 2012, WAVE distributed amounts in excess of our capital contributions and proportionate share of retained earnings. Accordingly, the distributions in these years were reflected as a return of investment in cash flows from investing activity in our Consolidated Statement of Cash Flows.

Distributions from WAVE in 2014, 2013 and 2012 were \$67.9 million, \$61.1 million, and \$63.5 million, respectively.

In certain markets, we sell WAVE products directly to customers pursuant to specific terms of sale. In those circumstances, we record the sales and associated costs within our consolidated financial statements. The total sales associated with these transactions were \$109.4 million, \$111.7 million and \$114.3 million for the years ended 2014, 2013 and 2012, respectively.

Our recorded investment in WAVE was higher than our 50% share of the carrying values reported in WAVE's consolidated financial statements by \$177.7 million as of December 31, 2014 and \$183.3 million as of December 31, 2013. These differences are due to our adoption of fresh-start reporting upon emergence from Chapter 11, while WAVE's consolidated financial statements do not reflect fresh-start reporting. The differences are composed of the following fair value adjustments to assets:

	December 31, 2014	December 31, 2013
Property, plant and equipment	\$ 0.5	\$ 0.6
Other intangibles	146.8	152.3
Goodwill	30.4	30.4
Total	\$ 177.7	\$ 183.3

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

Other intangibles include customer relationships, trademarks and developed technology. Customer relationships are amortized over 20 years and developed technology is amortized over 15 years. Trademarks have an indefinite life.

See Exhibit 99.1 for WAVE's consolidated financial statements. Condensed financial data for WAVE is summarized below:

	December 31, 2014	December 31, 2013
Current assets	\$ 120.2	\$ 122.6
Noncurrent assets	40.5	40.7
Current liabilities	26.3	28.4
Other noncurrent liabilities	243.4	240.9

	2014	2013	2012
Net sales	\$ 392.5	\$ 381.8	\$ 368.0
Gross profit	185.1	172.9	163.7
Net earnings	142.2	132.4	125.5

See discussion in Note 26 to the Consolidated Financial Statements for additional information on this related party.

**NOTE 10. INTANGIBLE ASSETS**

We conduct our annual impairment testing of non-amortizing intangible assets during the fourth quarter. Our 2014 testing concluded there was an impairment of \$10.0 million of a Wood Flooring trademark. The 2013 and 2012 reviews concluded that no impairment charges were necessary. See Note 2 to the Consolidated Financial Statements for a discussion of our accounting policy for intangible assets.

The following table details amounts related to our intangible assets as of December 31, 2014 and 2013:

	Estimated Useful Life	December 31, 2014		December 31, 2013	
		Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
<b><u>Amortizing intangible assets</u></b>					
Customer relationships	20 years	\$ 165.4	\$ 68.4	\$ 165.5	\$ 60.2
Developed technology	15 years	84.9	45.1	83.1	39.4



Edgar Filing: ARMSTRONG WORLD INDUSTRIES INC - Form 10-K

Other	Various	21.3	2.4	21.5	1.9
<b>Total</b>		<b>\$ 271.6</b>	<b>\$ 115.9</b>	<b>\$ 270.1</b>	<b>\$ 101.5</b>
<u>Non-amortizing intangible assets</u>					
Trademarks and brand names	Indefinite	345.7		354.3	
Total intangible assets		\$ 617.3		\$ 624.4	

	2014	2013	2012
<b>Amortization expense</b>	<b>\$ 14.5</b>	<b>\$ 14.4</b>	<b>\$ 14.1</b>

The expected annual amortization expense for the years 2015 through 2019 is approximately \$14 million.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

**NOTE 11. OTHER NON-CURRENT ASSETS**

	December 31, 2014	December 31, 2013
Cash surrender value of Company owned life insurance policies	\$ 53.7	\$ 52.1
Debt financing costs	6.7	8.9
Other	7.5	12.2
Total other non-current assets	\$ 67.9	\$ 73.2

**NOTE 12. ACCOUNTS PAYABLE AND ACCRUED EXPENSES**

	December 31, 2014	December 31, 2013
Payables, trade and other	\$ 224.8	\$ 230.8
Employment costs	33.9	37.1
Current portion of pension liability	24.4	28.7
Contingent liability related to deconsolidated operations	12.9	
Other	49.5	38.0
Total accounts payable and accrued expenses	\$ 345.5	\$ 334.6

**NOTE 13. SEVERANCE AND RELATED COSTS**

In the second and third quarters of 2014, we recorded \$1.7 million and \$0.2 million, respectively, in cost of goods sold for severance and related costs due to the closure of a resilient flooring plant in Australia. We also recorded \$1.4 million and \$0.7 million in the second and third quarters of 2014, respectively, in cost of goods sold for severance and related costs due to the closure of a wood flooring plant in China. Both plants were closed due to excess capacity and ceased operations in the third quarter of 2014.

In the fourth quarter of 2013, we recorded \$1.4 million in cost of goods sold for severance and related costs in our Resilient Flooring business in Australia.

In the first quarter of 2013, we recorded \$2.4 million in cost of goods sold for severance and related costs to reflect approximately 40 position eliminations in our Resilient Flooring business in Australia.

In the second quarter of 2012, we recorded \$3.4 million for severance and related costs in SG&A expense (\$3.2 million) and cost of goods sold (\$0.2 million) to reflect approximately 35 position eliminations in our European Building Products business, primarily as a result of streamlining SG&A functions.

#### NOTE 14. INCOME TAXES

The tax effects of principal temporary differences between the carrying amounts of assets and liabilities and their tax bases are summarized in the following table. Management believes it is more likely than not that the results of future operations will generate sufficient taxable income and foreign source income to realize deferred tax assets, net of valuation allowances. In arriving at this conclusion, we considered the profit before tax generated for the years 2012 through 2014, as well as future reversals of existing taxable temporary differences and projections of future profit before tax and foreign source income.

We reduce the carrying amounts of deferred tax assets by a valuation allowance if, based on the available evidence, it is more likely than not that such assets will not be realized. The need to establish valuation allowances for deferred tax assets is assessed quarterly. In assessing the requirement for, and amount of, a valuation allowance in accordance with the more likely than not standard for all periods, we give appropriate consideration to all positive and negative evidence related to the realization of the deferred tax assets. This assessment considers, among other matters, the nature, frequency and severity of current and cumulative losses, forecasts of future profitability and foreign source income, the duration of statutory carryforward periods, and our experience with operating loss and tax credit carryforward expirations. A history of cumulative losses is a

---

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

significant piece of negative evidence used in our assessment. If a history of cumulative losses is incurred for a tax jurisdiction, forecasts of future profitability are not used as positive evidence related to the realization of the deferred tax assets in the assessment.

At December 31, 2014 and 2013, we had valuation allowances of \$87.9 million and \$109.3 million, respectively. At December 31, 2014, our valuation allowance consisted of \$31.6 million for statutorily limited federal NOL carryforwards, \$14.6 million for state deferred tax assets, primarily operating loss carryforwards, and \$41.7 million for foreign deferred tax assets, primarily foreign operating loss carryforwards.

At December 31, 2014 and 2013, we had \$969.6 million and \$1,067.3 million, respectively, of state NOL carryforwards expiring between 2015 and 2034. In addition, at December 31, 2014 and 2013, we had \$158.3 million and \$252.8 million, respectively, of foreign NOL carryforwards, \$58.4 million available for carryforward indefinitely and \$99.9 million which expire between 2015 and 2032. At December 31, 2014 and 2013, we also had U.S. foreign tax credit ( FTC ) carryforwards of \$54.3 million on a gross basis, \$12.1 million when netted with unrecognized tax benefits, and \$94.4 million, respectively, expiring between 2015 and 2022. The FTC carryforward at December 31, 2013 was presented on a gross basis as accounting guidance issued in ASU 2013-11 did not require retrospective application. The guidance was applied prospectively upon adoption on January 1, 2014.

Our valuation allowances at December 31, 2014 of \$87.9 million decreased from December 31, 2013 by \$21.4 million. The valuation allowance for foreign deferred tax assets decreased by \$32.9 million, primarily as a result of the permanent loss of foreign NOLs from activities surrounding the insolvency of our former German subsidiary. The decrease was partially offset by increases from current year operating losses and increases in other deferred assets. The valuation allowance for federal statutorily limited federal losses of \$31.6 million increased \$6.3 million. The valuation allowance for state deferred tax assets of \$14.6 million increased by \$5.2 as a result of decreases in projected income which resulted in decreased utilization before expiration.

We estimate we will need to generate future federal taxable income of \$155.2 million, including foreign source income of \$51.7 million, to fully realize the FTCs before they expire in 2022. We estimate we will need to generate future taxable income of approximately \$1,012.8 million for state income tax purposes during the respective realization periods (ranging from 2015 to 2034) in order to fully realize the net deferred income tax assets discussed above.

Our ability to utilize deferred tax assets may be impacted by certain future events, such as changes in tax legislation, insufficient future taxable income prior to expiration of certain deferred tax assets, annual limits imposed under Section 382 of the Internal Revenue Code ( Section 382 ) or by state law, as a result of an ownership change. This ownership change is defined as a cumulative increase in certain shareholders ownership of the Company by more than 50 percentage points during the previous rolling three year period.

The Asbestos PI Trust and TPG collectively sold 5,980,000 shares, 12,057,382 shares, 6,000,000 shares and 3,900,000 shares of the Company s common shares during the fourth quarter of 2012, the third quarter of 2013, the fourth quarter

of 2013, and the first quarter of 2014, respectively. Those sales significantly increase the likelihood that future sales by the Asbestos PI Trust will cause an ownership change under Section 382. At this time, we estimate that an additional sale of the Company's common shares by the Asbestos PI Trust prior to December 2015 would be reasonably likely to cause an ownership change under Section 382. An ownership change may result in limitations on the utilization of certain tax attributes, primarily our ability to deduct state NOLs against future state taxable income. If such ownership change were to occur, then we would be required to record a one-time, non-cash charge in our income statement in the period in which such ownership change occurs. We currently estimate that, if such ownership change had occurred in the fourth quarter of 2014, based on the factors discussed below, the one-time income tax charge that would have been taken would have reduced our net earnings by an amount between \$4.0 million and \$8.0 million. This pro forma estimated range of net earnings reduction is based on current management estimates and assumptions that are subject to change over time. The actual amount of the required charge, if any, may differ materially from this current estimate. Key factors impacting the calculation include, but are not limited to, our stock price on the date of the ownership change, the applicable tax-exempt interest rate, the tax basis and fair market value of our assets, federal and state tax regulations, projections of future taxable income and prior NOL usage.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

	December 31, 2014	December 31, 2013
<b>Deferred income tax assets (liabilities)</b>		
Postretirement benefits	\$ 87.7	\$ 102.7
Pension benefit liabilities	34.0	4.3
Net operating losses	113.7	143.7
Deferred compensation	23.2	25.3
Foreign tax credit carryforwards	12.1	94.4
State tax credit carryforwards	5.9	6.0
Foreign exchange unrealized	13.3	
Other	41.9	42.7
<b>Total deferred income tax assets</b>	<b>331.8</b>	<b>419.1</b>
Valuation allowances	(87.9)	(109.3)
<b>Net deferred income tax assets</b>	<b>243.9</b>	<b>309.8</b>
<b>Intangibles</b>	<b>(229.1)</b>	<b>(239.3)</b>
Accumulated depreciation	(77.6)	(78.8)
Prepaid pension costs		(44.3)
Inventories	(13.4)	(13.8)
Other	(11.0)	(10.3)
<b>Total deferred income tax liabilities</b>	<b>(331.1)</b>	<b>(386.5)</b>
<b>Net deferred income tax liabilities</b>	<b>(\$ 87.2)</b>	<b>(\$ 76.7)</b>
Deferred income taxes have been classified in the Consolidated Balance Sheet as:		
Deferred income tax assets - current	\$ 31.4	\$ 72.0
Deferred income tax assets - noncurrent	26.6	30.1
Deferred income tax liabilities - current	(0.5)	(0.7)
Deferred income tax liabilities - noncurrent	(144.7)	(178.1)
<b>Net deferred income tax liabilities</b>	<b>(\$ 87.2)</b>	<b>(\$ 76.7)</b>

	2014	2013	2012
<b>Details of taxes</b>			

Edgar Filing: ARMSTRONG WORLD INDUSTRIES INC - Form 10-K

Earnings (loss) before income taxes:

Domestic	\$ 214.9	\$ 186.2	\$ 188.6
Foreign	(\$ 29.7)	\$ 12.5	\$ 46.0
<b>Total</b>	<b>\$ 185.2</b>	<b>\$ 198.7</b>	<b>\$ 234.6</b>

Income tax expense (benefit):

Current:			
Federal	\$ 43.0	\$ 18.7	\$ 24.1
Foreign	7.9	8.1	13.0
State	2.4	3.3	4.4
<b>Total current</b>	<b>53.3</b>	<b>30.1</b>	<b>41.5</b>
Deferred:			
Federal	19.0	40.1	27.2
Foreign	0.8	2.3	1.8
State	10.1	(1.1)	5.5
<b>Total deferred</b>	<b>29.9</b>	<b>41.3</b>	<b>34.5</b>
<b>Total income tax expense</b>	<b>\$ 83.2</b>	<b>\$ 71.4</b>	<b>\$ 76.0</b>

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

We have expanded international operations by constructing a plant in Russia and continue to support our investments in emerging markets.

During 2014, we reviewed our position with regards to foreign unremitted earnings and determined that unremitted earnings would continue to be permanently reinvested. Accordingly we have not recorded U.S. income or foreign withholding taxes on approximately \$319.8 million of undistributed earnings of foreign subsidiaries that could be subject to taxation if remitted to the U.S. because we currently plan to keep these amounts permanently invested overseas. It is not practical to calculate the residual income tax which would result if these basis differences reversed due to the complexities of the tax law and the hypothetical nature of the calculations.

	2014	2013	2012
<b>Reconciliation to U.S. statutory tax rate</b>			
Continuing operations tax at statutory rate	\$ 64.8	\$ 69.6	\$ 82.1
State income tax expense, net of federal benefit	6.0	5.9	6.2
Increase (decrease) in valuation allowances on deferred domestic income tax assets	3.0	(2.9)	(0.7)
Increase in valuation allowances on deferred foreign income tax assets	24.6	23.0	9.9
Tax on foreign and foreign-source income	(5.7)	(13.8)	(8.2)
Domestic production activities	(5.8)	(9.0)	(2.3)
Permanent book/tax differences	0.8	3.5	1.4
IRS audit settlement			2.2
Net benefit due to increase in foreign tax credits			(15.7)
Research and development credits	(4.8)	(4.4)	
Other	0.3	(0.5)	1.1
<b>Tax expense at effective rate</b>	<b>\$ 83.2</b>	<b>\$ 71.4</b>	<b>\$ 76.0</b>

During 2010 and 2011, we recorded \$169.6 million of dividends from our foreign subsidiaries related to unremitted foreign earnings for which we previously recorded a net deferred tax liability as the earnings were not considered permanently reinvested. The receipt of the foreign dividends in 2011 provided an opportunity to elect to credit foreign taxes that were previously deducted. In 2011, we increased the deferred tax assets by \$21.1 million offset by a valuation allowance of \$15.7 million, for a net tax benefit of \$5.4 million to reflect the net impact of the foreign tax credit over the tax deduction for the foreign taxes. In 2012, we released the valuation allowance with respect to the foreign tax credits of \$15.7 million.

We recognize the tax benefits of an uncertain tax position only if those benefits are more likely than not to be sustained based on existing tax law. Additionally, we establish a reserve for tax positions that are more likely than not



to be sustained based on existing tax law, but uncertain in the ultimate benefit to be sustained upon examination by the relevant taxing authorities. Unrecognized tax benefits are subsequently recognized at the time the more likely than not recognition threshold is met, the tax matter is effectively settled or the statute of limitations for the relevant taxing authority to examine and challenge the tax position has expired, whichever is earlier.

We have \$142.6 million of Unrecognized Tax Benefits ( UTB ) as of December 31, 2014, \$101.9 million (\$99.5 million, net of federal benefit) of this amount, if recognized in future periods, would impact the reported effective tax rate.

It is reasonably possible that certain UTB s may increase or decrease within the next twelve months due to tax examination changes, settlement activities, expirations of statute of limitations, or the impact on recognition and measurement considerations related to the results of published tax cases or other similar activities. Over the next twelve months we estimate that UTB s may decrease by \$0.6 million related to state statutes expiring and increase by \$6.3 million due to uncertain tax positions expected to be taken on domestic tax returns.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

We account for all interest and penalties on uncertain income tax positions as income tax expense. We reported \$1.5 million of interest and penalty exposure as noncurrent income tax payable in the Consolidated Balance Sheet as of December 31, 2014.

We had the following activity for UTB's for the years ended December 31, 2014, 2013 and 2012:

	2014	2013	2012
Unrecognized tax benefits balance at January 1,	\$ 145.2	\$ 138.4	\$ 127.2
Gross change for current year positions	10.5	8.5	10.2
Increases for prior period positions	2.9	1.4	7.8
Decrease for prior period positions	(14.1)	(2.1)	(6.1)
Decrease due to settlements and payments	(1.2)		
Decrease due to statute expirations	(0.7)	(1.0)	(0.7)
Unrecognized tax benefits balance at December 31,	\$ 142.6	\$ 145.2	\$ 138.4

We conduct business globally, and as a result, we file income tax returns in the U.S., various states and international jurisdictions. In the normal course of business, we are subject to examination by taxing authorities throughout the world in such major jurisdictions as Australia, Canada, Germany, India, the Netherlands, the United Kingdom and the United States. Generally, we have open tax years subject to tax audit on average of between three years and six years. Our U.S. income tax returns from 2007 to 2009 are currently under review by the IRS. With respect to these years, we have extended the statute of limitations to May 31, 2016. All tax years prior to 2007 have been settled with the IRS. With few exceptions, the statute of limitations is no longer open for state or non-U.S. income tax examinations for the years before 2007. Other than the U.S., we have not significantly extended any open statutes of limitation for any major jurisdiction and have reviewed and accrued for, where necessary, tax liabilities for open periods. The tax years 2007 through 2013 are subject to future potential tax adjustments.

	2014	2013	2012
<u>Other taxes</u>			
Payroll taxes	\$ 48.0	\$ 46.4	\$ 44.6
Property, franchise and capital stock taxes	10.9	10.2	11.1

**NOTE 15. DEBT**

Edgar Filing: ARMSTRONG WORLD INDUSTRIES INC - Form 10-K

	December 31, 2014	Average year-end interest rate	December 31, 2013	Average year-end interest rate
Term loan A due 2018	\$ 530.9	3.14%	\$ 550.0	3.13%
Term loan B due 2020	466.6	3.50%	471.4	3.50%
Tax exempt bonds due 2025 - 2041	45.1	0.88%	45.1	0.92%
Subtotal	1,042.6	3.20%	1,066.5	3.20%
Less current portion and short-term debt	39.6	3.18%	23.9	3.20%
Total long-term debt, less current portion	\$ 1,003.0	3.20%	\$ 1,042.6	3.20%

The average year-end interest rates are inclusive of our interest rate swaps. See Note 18 to the Consolidated Financial Statements for further information.

In March 2013, we refinanced our \$1.3 billion senior credit facility. The amended facility is composed of a \$250 million revolving credit facility (with a \$150 million sublimit for letters of credit), a \$550 million Term Loan A and a \$475 million Term Loan B. The terms of the facility resulted in a lower interest rate spread (2.5% vs. 3.0%) than our previous facility. We also extended the maturity of Term Loan A from November 2015 to March 2018 and of Term Loan B from March 2018 to March 2020. The facility is secured by U.S. personal property, the capital stock of material U.S. subsidiaries, and a pledge of 65% of the stock of our material first tier foreign subsidiaries. In

---

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

connection with the refinancing, we incurred \$8.3 million for bank, legal, and other fees, of which \$7.2 million was capitalized and is being amortized into interest expense over the life of the loans. Additionally, we wrote off \$18.9 million of unamortized debt financing costs in the first quarter of 2013 related to our previous credit facility to interest expense.

The primary covenant change resulting from the 2013 refinancing is related to mandatory prepayments required under the senior credit facility. If our ratio of consolidated funded indebtedness minus AWI and domestic subsidiary unrestricted cash and cash equivalents up to \$100 million to consolidated earnings before interest, taxes, depreciation and amortization ( EBITDA ) ( Consolidated Net Leverage Ratio ) is greater than or equal to 3.5 to 1.0, we would be required to make a prepayment of 50% of fiscal year Consolidated Excess Cash Flow, as defined by the credit agreement. If our Consolidated Net Leverage Ratio is less than 3.5 to 1.0, no prepayment would be required. These annual payments would be made in the first quarter of the following year. No payment will be required in 2015.

As of December 31, 2014, we were in compliance with all covenants of the amended senior credit facility. Our debt agreements include other restrictions, including restrictions pertaining to the acquisition of additional debt, the redemption, repurchase or retirement of our capital stock, payment of dividends, and certain financial transactions as it relates to specified assets. We currently believe that default under these covenants is unlikely. Fully borrowing under our revolving credit facility would not violate these covenants.

In March 2012, we amended our \$1.05 billion senior credit facility. We added \$250 million to our existing Term Loan B facility. The amended \$1.3 billion facility was made up of a \$250 million revolving credit facility (with a \$150 million sublimit for letters of credit), a \$250 million Term Loan A and an \$800 million Term Loan B. In connection with the additional \$250 million Term Loan B borrowings, we paid \$8.1 million for bank fees. This amount was capitalized and was being amortized into interest expense over the scheduled life of the loan.

In December 2010 we established a \$100 million Accounts Receivable Securitization Facility with the Bank of Nova Scotia (the funding entity ). The purchase and letter of credit commitments under the program were due to expire in December 2014. In March 2013, we decreased the facility to \$75 million to reduce commitment fees on unused capacity. The maturity was also extended to March 2016. On December 18, 2014, we amended and increased the facility. The facility now reflects a seasonality clause that changes to \$100 million from March through September, and \$90 million from October through February. The maturity date has been extended from March 2016 to December 2017. Under this agreement AWI and Armstrong Hardwood Flooring Company (the Originators) sell their accounts receivables to Armstrong Receivables Company, LLC ( ARC ), a Delaware entity that is consolidated in these financial statements. ARC is a 100% wholly owned single member LLC special purpose entity created specifically for this transaction; therefore, any receivables sold to ARC are not available to the general creditors of AWI. ARC then sells an undivided interest in the purchased accounts receivables to the funding entity. This undivided interest acts as collateral for drawings on the facility. Any borrowings under this facility are obligations of ARC and not AWI. ARC contracts with and pays a servicing fee to AWI to manage, collect and service the purchased accounts receivables.

All new receivables under the program generated by the originators are continuously purchased by ARC with the proceeds from collections of receivables previously purchased. Ongoing changes in the amount of funding under the program, through changes in the amount of undivided interests sold by ARC, reflect seasonal variations in the level of accounts receivable, changes in collection trends and other factors such as changes in sales prices and volumes. ARC has issued subordinated notes payable to the originators for the difference between the face amount of uncollected accounts receivable purchased, less a discount, and cash paid to the originators that was funded by the sale of the undivided interests. The notes issued by ARC are subordinated to the undivided interests of the funding entity in the purchased receivables. The balance of the subordinated notes payable, which are eliminated during consolidation, totaled \$103.1 million and \$104.1 million as of December 31, 2014 and December 31, 2013, respectively. As of December 31, 2014 we had no borrowings under this facility but had \$59.3 million of letters of credit issued under the facility, with an additional \$0.2 million of international subsidiary letters of credit issued by other banks.

None of the remaining outstanding debt as of December 31, 2014 was secured with buildings and other assets. The credit lines at our foreign subsidiaries are subject to immaterial annual commitment fees.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

## Scheduled payments of long-term debt:

2015	\$ 39.6
2016	52.1
2017	55.3
2018	402.9
2019	4.8
2020 and later	487.9

We utilize lines of credit and other commercial commitments in order to ensure that adequate funds are available to meet operating requirements. On December 31, 2014, we had a \$250 million revolving credit facility with a \$150 million sublimit for letters of credit, of which \$7.8 million was outstanding. There were no borrowings under the revolving credit facility. Availability under this facility totaled \$242.2 million as of December 31, 2014. We also have the \$90 million securitization facility which as of December 31, 2014 had letters of credit outstanding of \$59.3 million and no borrowings against it. Maximum capacity under this facility was \$75.5 million (of which \$16.2 million was available), subject to accounts receivable balances and other collateral adjustments, as of December 31, 2014. As of December 31, 2014, our foreign subsidiaries had available lines of credit totaling \$5.0 million of which \$0.3 million was available only for letters of credit and guarantees. There were \$0.2 million of letters of credit and guarantees issued under these credit lines as of December 31, 2014, leaving an additional letter of credit availability of \$0.1 million. There were no borrowings under these lines of credit as of December 31, 2014 leaving \$4.8 million of unused lines of credit available for foreign borrowings. Letters of credit are issued to third party suppliers, insurance and financial institutions and typically can only be drawn upon in the event of AWI's failure to pay its obligations to the beneficiary.

**NOTE 16. PENSION AND OTHER BENEFIT PROGRAMS**

We have defined benefit pension plans and postretirement medical and insurance benefit plans covering eligible employees worldwide. We also have defined-contribution pension plans for eligible employees. Benefits from defined benefit pension plans are based primarily on an employee's compensation and years of service. We fund our pension plans when appropriate. We fund postretirement benefits on a pay-as-you-go basis, with the retiree paying a portion of the cost for health care benefits by means of deductibles and contributions.

**UNITED STATES PLANS**

The following tables summarize the balance sheet impact of the pension and postretirement benefit plans, as well as the related benefit obligations, assets, funded status and rate assumptions. The pension benefits disclosures include both the qualified, funded Retirement Income Plan (RIP) and the Retirement Benefit Equity Plan, which is a nonqualified, unfunded plan designed to provide pension benefits in excess of the limits defined under Sections 415 and 401(a)(17) of the Internal Revenue Code.

We use a December 31 measurement date for our U.S. defined benefit plans.

	2014	2013
<u>U.S. defined-benefit pension plans</u>		
Change in benefit obligation:		
Benefit obligation as of beginning of period	\$ 1,868.1	\$ 2,092.9
Service cost	14.4	16.9
Interest cost	85.7	79.7
Actuarial loss (gain)	287.0	(159.4)
Benefits paid	(185.3)	(162.0)
Benefit obligation as of end of period	\$ 2,069.9	\$ 1,868.1

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

	2014	2013
<b>Change in plan assets:</b>		
Fair value of plan assets as of beginning of period	\$ 1,978.4	\$ 2,072.6
Actual return on plan assets	188.9	63.9
Employer contribution	4.3	3.9
Benefits paid	(185.3)	(162.0)
Fair value of plan assets as of end of period	\$ 1,986.3	\$ 1,978.4
Funded status of the plans	(\$ 83.6)	\$ 110.3

	2014	2013
<b><u>U.S. defined-benefit pension plans</u></b>		
Weighted-average assumptions used to determine benefit obligations at end of period:		
Discount rate	4.05%	4.75%
Rate of compensation increase	3.10%	3.10%
Weighted-average assumptions used to determine net periodic benefit cost for the period:		
Discount rate	4.75%	3.95%
Expected return on plan assets	7.00%	6.25%
Rate of compensation increase	3.10%	3.10%

The accumulated benefit obligation for the U.S. defined benefit pension plans was \$2,051.7 million and \$1,851.7 million at December 31, 2014 and 2013, respectively.

	2014	2013
<b><u>U.S. pension plans with benefit obligations in excess of assets</u></b>		
Projected benefit obligation, December 31	\$ 2,069.9	\$ 56.2
Accumulated benefit obligation, December 31	2,051.7	55.6
Fair value of plan assets, December 31	1,986.3	

The components of the pension credit are as follows:

	2014	2013	2012
<b><u>U.S. defined-benefit pension plans</u></b>			



Edgar Filing: ARMSTRONG WORLD INDUSTRIES INC - Form 10-K

Service cost of benefits earned during the period	\$ 14.4	\$ 16.9	\$ 15.7
Interest cost on projected benefit obligation	85.7	79.7	90.7
Expected return on plan assets	(139.3)	(136.5)	(140.0)
Amortization of prior service cost	1.9	1.9	1.9
Recognized net actuarial loss	42.4	40.9	23.4
Net periodic pension cost (credit)	\$ 5.1	\$ 2.9	(\$ 8.3)

Investment Policies

The RIP's primary investment objective is to maintain the funded status of the plan such that the likelihood that we will be required to make significant contributions to the plan is limited. This objective is expected to be achieved by:

Investing a substantial portion of the plan assets in high quality corporate bonds whose duration is at least equal to that of the plan's liabilities such that there is a relatively high correlation between the movements of the plan's liability and asset values.

Investing in publicly traded equities in order to increase the ratio of plan assets to liabilities over time.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

Limiting investment return volatility by diversifying among additional asset classes with differing expected rates of return and return correlations.

Using derivatives to either implement investment positions efficiently or to hedge risk but not to create investment leverage.

Each asset class utilized by the RIP has a defined asset allocation target and allowable range. The table below shows the asset allocation target and the December 31, 2014 and 2013 position for each asset class:

Asset Class	Target Weight at December 31, 2014	Position at December 31,	
		2014	2013
Long duration bonds	59%	58%	56%
Equities	29%	27%	29%
High yield bonds and real assets	8%	8%	8%
Real estate and private equity	4%	4%	6%
Other fixed income	0%	3%	1%

Pension plan assets are required to be reported and disclosed at fair value in the financial statements. Fair value is defined as 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 on the measurement date. Three levels of inputs may be used to measure fair value:

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

Level 2 - Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.

Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

The asset's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

The following table sets forth by level within the fair value hierarchy a summary of the RIP's assets measured at fair value on a recurring basis:

Description	Value at December 31, 2014			
	Level 1	Level 2	Level 3	Total
Long duration bonds		\$ 1,142.5		\$ 1,142.5
Domestic equity	\$ 275.0	15.8		290.8
International equity	196.9	25.2		222.1
Global equity		38.7		38.7
High yield bonds		95.6		95.6
Real estate			\$ 77.9	77.9
Real assets		31.2		31.2
Other investments			5.6	5.6
Short term investments and other, net	14.2	67.7		81.9
Net assets	\$ 486.1	\$ 1,416.7	\$ 83.5	\$ 1,986.3

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

Description	Value at December 31, 2013			Total
	Level 1	Level 2	Level 3	
Long duration bonds		\$ 1,112.0	\$ 0.2	\$ 1,112.2
Domestic equity	\$ 263.0	22.0		285.0
International equity	193.5	69.0		262.5
Global equity		42.5		42.5
High yield bonds		80.7		80.7
Real estate			109.8	109.8
Real assets		33.0		33.0
Other investments			5.5	5.5
Short term investments and other, net	9.9	37.3		47.2
Net assets	\$ 466.4	\$ 1,396.5	\$ 115.5	\$ 1,978.4

The table below sets forth a summary of changes in the fair value of the RIP s level 3 assets for the years ended December 31, 2013 and 2014:

	Level 3 Assets Gains and Losses			Total
	Real Estate	Other Investments	Long Duration Bonds	
December 31, 2012	\$ 103.3	\$ 5.5	\$ 0.9	\$ 109.7
Realized gain	0.7			0.7
Unrealized gain (loss)	10.8	(0.2)		10.6
Purchases	3.6	0.5	0.2	4.3
Sales	(8.6)	(0.1)	(0.9)	(9.6)
Settlements		(0.2)		(0.2)
December 31, 2013	\$ 109.8	\$ 5.5	\$ 0.2	\$ 115.5
Realized gain	10.0			10.0
Unrealized (loss)	(0.3)	(0.1)		(0.4)
Purchases		0.4		0.4
Sales	(41.6)		(0.2)	(41.8)
Settlements		(0.2)		(0.2)
December 31, 2014	\$ 77.9	\$ 5.6		\$ 83.5

Following is a description of the valuation methodologies used for assets measured at fair value.

There have been no changes in the methodologies used at December 31, 2014 and 2013.

*Long Duration Bonds:* Consists of investments in individual corporate bonds as well as investments in registered investment funds and common and collective trust funds investing in fixed income securities tailored to institutional investors. Certain corporate bonds are valued based on a compilation of primarily observable market information or a broker quote in a non-active market. There are no readily available market quotations for registered investment company funds or common collective trust funds. The fair value is based on the underlying securities in the fund's portfolio which is typically the amount which the fund might reasonably expect to receive for the security upon a current sale.

*Domestic, International and Global equity securities:* Consists of investments in common and preferred stocks as well as investments in registered investment funds investing in equities tailored to institutional investors. Common and preferred stocks are valued at the closing price reported on the active market on which the individual securities are traded. There are no readily available market quotations for registered investment company funds. The fair value is based on the underlying securities in the fund's portfolio which is typically the amount which the fund might reasonably expect to receive for the security upon a current sale.

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

**High Yield Bonds:** Consists of investments in individual corporate bonds as well as an investment in a registered investment fund investing in fixed income securities tailored to institutional investors. Certain corporate bonds are valued based on a compilation of primarily observable market information or a broker quote in a non-active market. There are no readily available market quotations for registered investment company funds. The fair value is based on the underlying securities in the fund's portfolio which is typically the amount which the fund might reasonably expect to receive for the security upon a current sale.

**Real Estate:** The RIP's real estate investments are comprised of both open-end and closed-end funds. There are no readily available market quotations for these real estate funds. The fund's fair value is based on the underlying real estate assets held by the fund. Underlying real estate assets are valued on the basis of a discounted cash flow approach, which includes the future rental receipts, expenses and residual values as the highest and best use of the real estate from a market participant view. Independent appraisals may also be used to determine fair value for the underlying assets of these funds.

**Real Assets:** Consists of a fund that has underlying investments in commodity futures contracts, as well as cash and fixed income instruments used as collateral instruments against the commodity future contracts. The futures contracts are considered real assets as the underlying securities include natural resources such as oil or precious metals, livestock, or raw agricultural products such as soybeans or coffee beans. The fair value is based on the underlying securities in the fund's portfolio which is typically the amount which the fund might reasonably expect to receive for the security upon a current sale.

**Other Investments:** Consists of investments in a group insurance annuity contract and a limited partnership. The fair value for the group insurance annuity contract was determined by discounting the related cash flows based on current yields of similar instruments with comparable durations considering the credit-worthiness of the issuer. For our investment in the limited partnership, the majority of the partnership's underlying securities are invested in publicly traded securities which are valued at the closing price reported on the active market on which the individual securities are traded. The remaining other investments within the partnership are valued based on available inputs, including recent financing rounds, comparable company valuations, and other available data. The investment in the limited partnership is non-redeemable until the expiration of the term of the agreement.

**Short Term Investments and other, net:** Cash and short term investments consist of cash and cash equivalents and other payables and receivables (net). The carrying amounts of cash and cash equivalents approximate fair value due to the short-term maturity of these instruments. Other payables and receivables consist primarily of margin on account for a fund, accrued fees and receivables related to investment positions liquidated for which proceeds had not been received at December 31. The carrying amounts of payables and receivables approximate fair value due to the short-term nature of these instruments.

The RIP has \$1,429.4 million and \$1,357.8 million of investments in alternative investment funds at December 31, 2014 and December 31, 2013, respectively, which are reported at fair value. We have concluded that the net asset value ( NAV ) reported by the underlying fund approximates the fair value of the investment. These investments are

redeemable at NAV under agreements with the underlying funds. However, it is possible that these redemption rights may be restricted or eliminated by the funds in the future in accordance with the underlying fund agreements. Due to the nature of the investments held by the funds, changes in market conditions and the economic environment may significantly impact the NAV of the funds and, consequently, the fair value of the RIP's interest in the funds. Furthermore, changes to the liquidity provisions of the funds may significantly impact the fair value of the RIP's interest in the funds.

Basis of Rate-of-Return Assumption

Long-term asset class return assumptions are determined based on input from investment professionals on the expected performance of the asset classes over 10 to 30 years. The forecasts were averaged to come up with consensus passive return forecasts for each asset class. Incremental components were added for the expected return from active management and asset class rebalancing based on historical information obtained from the RIP's investment consultants. These forecasted gross returns were reduced by estimated management fees and expenses, yielding a long-term return forecast of 7.00% and 6.25% for the years ended December 31, 2014 and 2013, respectively.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

	2014	2013
<b><u>U.S. defined-benefit retiree health and life insurance plans</u></b>		
Change in benefit obligation:		
Benefit obligation as of beginning of period	\$ 258.2	\$ 271.8
Service cost	0.9	1.2
Interest cost	10.9	9.7
Plan participants' contributions	5.4	5.9
Plan amendments		(0.2)
Effect of settlements		(0.1)
Actuarial (gain)	(27.9)	(2.0)
Benefits paid, gross	(26.6)	(28.3)
Medicare subsidy receipts	0.5	0.2
Benefit obligation as of end of period	\$ 221.4	\$ 258.2
	2014	2013
Change in plan assets:		
Fair value of plan assets as of beginning of period		
Employer contribution	\$ 20.7	\$ 22.2
Plan participants' contributions	5.4	5.9
Benefits paid, gross	(26.6)	(28.3)
Medicare subsidy receipts	0.5	0.2
Fair value of plan assets as of end of period	\$	\$
Funded status of the plans	(\$ 221.4)	(\$ 258.2)
	2014	2013
<b><u>U.S. defined-benefit retiree health and life insurance plans</u></b>		
Weighted-average discount rate used to determine benefit obligations at end of period	3.90%	4.50%
Weighted-average discount rate used to determine net periodic benefit cost for the period	4.50%	3.75%

The components of postretirement benefits costs are as follows:

2014	2013	2012
------	------	------



<u>U.S. defined-benefit retiree health and life insurance plans</u>			
Service cost of benefits earned during the period	\$ 0.9	\$ 1.2	\$ 1.2
Interest cost on accumulated postretirement benefit obligation	10.9	9.7	12.3
Amortization of prior service cost	(0.6)	(0.6)	(0.6)
Amortization of net actuarial gain	(4.2)	(3.5)	(7.5)
Net periodic postretirement benefit cost	\$ 7.0	\$ 6.8	\$ 5.4

For measurement purposes, an average rate of annual increase in the per capita cost of covered health care benefits of 7.5% for pre-65 retirees and 6.8% for post-65 retirees was assumed for 2015, decreasing ratably to an ultimate rate of 5.0% in 2025. Assumed health care cost trend rates can have a significant effect on the amounts reported for the health care plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

	One percentage point	
	Increase	Decrease
<b>U.S. retiree health and life insurance benefits plans</b>		
Effect on total service and interest cost components	\$ 0.1	
Effect on postretirement benefit obligation	0.6	(\$ 0.5)

Amounts recognized in assets and (liabilities) at year end consist of:

	Pension Benefits		Retiree Health and Life Insurance Benefits	
	2014	2013	2014	2013
Prepaid pension costs		\$ 166.5		
Accounts payable and accrued expenses	(\$ 4.0)	(3.9)	(\$ 19.9)	(\$ 24.0)
Postretirement benefit liabilities			(201.5)	(234.2)
Pension benefit liabilities	(79.6)	(52.3)		
Net amount recognized	(\$ 83.6)	\$ 110.3	(\$ 221.4)	(\$ 258.2)

Pre-tax amounts recognized in accumulated other comprehensive (loss) income at year end consist of:

	Pension Benefits		Retiree Health and Life Insurance Benefits	
	2014	2013	2014	2013
Net actuarial (loss) gain	(\$ 804.3)	(\$ 609.4)	\$ 77.4	\$ 54.1
Prior service (cost) credit	(5.8)	(7.7)	1.2	1.8
Accumulated other comprehensive (loss) income	(\$ 810.1)	(\$ 617.1)	\$ 78.6	\$ 55.9

We recognized an increase in net actuarial losses related to our U.S. pension benefit plans in 2014 primarily due to changes in actuarial assumptions (most significantly a 70 basis point reduction in the discount rate and our adoption of the Society of Actuaries RP-2014 mortality tables).

We expect to amortize \$70.2 million of previously unrecognized prior service cost and net actuarial losses into pension cost in 2015. We expect to amortize \$7.5 million of previously unrecognized net actuarial gains and prior

service credits into postretirement benefit cost in 2015.

We expect to contribute \$4.0 million to our U.S. defined benefit pension plans and \$19.9 million to our U.S. postretirement benefit plans in 2015.

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid over the next ten years for our U.S. plans:

	Pension Benefits	Retiree Health and Life Insurance Benefits, Gross	Retiree Health Medicare Subsidy Receipts
2015	\$ 129.1	\$ 20.4	(\$ 0.5)
2016	130.8	20.1	(0.5)
2017	131.4	19.6	(0.6)
2018	132.6	17.7	(0.6)
2019	134.6	17.2	(0.6)
2020 - 2024	672.5	74.9	(3.8)

These estimated benefit payments are based on assumptions about future events. Actual benefit payments may vary significantly from these estimates.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

**NON-U.S. PLANS**

We have defined benefit pension plans covering employees in a number of foreign countries that utilize assumptions which are consistent with, but not identical to, those of the U.S. plans. The following tables summarize the balance sheet impact of foreign pension benefit plans, as well as the related benefit obligations, assets, funded status and rate assumptions.

We use a December 31 measurement date for all of our non-U.S. defined benefit plans.

	2014	2013
<b><u>Non-U.S. defined-benefit pension plans</u></b>		
Change in benefit obligation:		
Benefit obligation as of beginning of period	\$ 251.8	\$ 252.1
Service cost	2.5	2.4
Interest cost	10.5	9.8
Plan participants' contributions	0.1	0.2
Plan amendments	0.7	0.5
Foreign currency translation adjustment	(20.0)	2.9
Effects of plan settlements and curtailments		(5.6)
Actuarial loss	28.9	1.1
Benefits paid	(13.1)	(11.6)
Benefit obligation as of end of period	\$ 261.4	\$ 251.8
	2014	2013
Change in plan assets:		
Fair value of plan assets as of beginning of period	\$ 219.9	\$ 202.0
Actual return on plan assets	37.0	14.9
Employer contribution	4.5	12.1
Plan participants' contributions	0.1	0.2
Foreign currency translation adjustment	(16.0)	2.3
Benefits paid	(13.1)	(11.6)
Fair value of plan assets as of end of period	\$ 232.4	\$ 219.9
Funded status of the plans	(\$ 29.0)	(\$ 31.9)

	2014	2013
<u>Non-U.S. defined-benefit pension plans</u>		
Weighted-average assumptions used to determine benefit obligations at end of period:		
Discount rate	3.40%	4.30%
Rate of compensation increase	2.60%	2.80%
Weighted-average assumptions used to determine net periodic benefit cost for the period:		
Discount rate	4.30%	4.10%
Expected return on plan assets	5.50%	5.20%
Rate of compensation increase	2.80%	2.50%
	2014	2013
<u>Non-U.S. pension plans with benefit obligations in excess of assets</u>		
Projected benefit obligation, December 31	\$ 70.5	\$ 70.1
Accumulated benefit obligation, December 31	68.7	68.5
Fair value of plan assets, December 31	34.0	37.5

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

The components of the pension cost are as follows:

	2014	2013	2012
<b><u>Non-U.S. defined-benefit pension plans</u></b>			
Service cost of benefits earned during the period	\$ 2.5	\$ 2.4	\$ 1.6
Interest cost on projected benefit obligation	10.5	9.8	10.2
Expected return on plan assets	(11.5)	(9.6)	(10.2)
Amortization of prior service cost		0.5	
Amortization of net actuarial loss	2.1	2.7	1.4
<b>Net periodic pension cost</b>	<b>\$ 3.6</b>	<b>\$ 5.8</b>	<b>\$ 3.0</b>

**Investment Policies**

Each of the funded non-U.S. pension plans primary investment objectives is to earn sufficient long-term returns on investments both to increase the ratio of the assets to liabilities in order for the plans to meet their benefits obligations and to minimize required cash contributions to the plans. This is expected to be achieved by (a) investing primarily in publicly-traded equities, (b) limiting return volatility by diversifying investments among additional asset classes with differing expected rates of return and return correlations, and (c) utilizing long duration bonds to limit the volatility of the plans asset/liability ratios.

Each of the plans has a targeted asset allocation for each asset class. The table below shows, for each asset class, the weighted average of the several plans asset allocation targets and positions at December 31, 2014 and 2013:

Asset Class	Target Weight at December 31, 2014	Position at December 31, 2014	2013
Long duration bonds	48%	49%	45%
Equities	40%	40%	44%
Real estate	9%	6%	7%
Other	3%	5%	4%

The following table sets forth by level within the fair value hierarchy a summary of our non-U.S. plan assets measured at fair value on a recurring basis:

Value at December 31, 2014

Edgar Filing: ARMSTRONG WORLD INDUSTRIES INC - Form 10-K

Description	Level			Total
	Level 1	2	Level 3	
Bonds		\$ 114.5		\$ 114.5
Equities		92.5		92.5
Real estate		14.1		14.1
Other investments			\$ 5.6	5.6
Cash and other short term investments	\$ 5.7			5.7
Net assets	\$ 5.7	\$ 221.1	\$ 5.6	\$ 232.4

Description	Value at December 31, 2013			Total
	Level 1	Level 2	Level 3	
Bonds		\$ 97.8		\$ 97.8
Equities		96.7		96.7
Real estate		15.5		15.5
Real assets		0.2		0.2
Other investments		0.5	\$ 6.4	6.9
Cash and other short term investments	\$ 2.8			2.8
Net assets	\$ 2.8	\$ 210.7	\$ 6.4	\$ 219.9

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

Following is a description of the valuation methodologies used for non-U.S. plan assets measured at fair value. There have been no changes in the methodologies used at December 31, 2014 and 2013.

**Bonds:** Consists of investments in individual corporate bonds as well as investments in pooled funds investing in fixed income securities tailored to institutional investors. Certain corporate bonds are valued at the closing price reported in the active market in which the bond is traded. There are no readily available market quotations for pooled funds. The fair value is based on the underlying securities in the fund's portfolio which is typically the amount which the fund might reasonably expect to receive for the security upon a current sale.

**Equities:** Consists of investments in common and preferred stocks as well as investments in pooled funds investing in international equities tailored to institutional investors. Equity securities are valued at the closing price reported on the active market on which the individual securities are traded. There are no readily available market quotations for pooled funds. The fair value is based on the underlying securities in the fund's portfolio which is typically the amount which the fund might reasonably expect to receive for the security upon a current sale.

**Real Estate:** The plans' real estate investments are comprised of pooled real estate mutual funds valued based on a compilation of primarily observable market information or a broker quote in a non-active market.

**Real Assets:** Consists of a fund that has underlying investments in commodity futures contracts, as well as cash and fixed income instruments used as collateral instruments against the commodity future contracts. The futures contracts are considered real assets as the underlying securities include natural resources such as oil or precious metals, livestock, or raw agricultural products such as soybeans or coffee beans. The fair value is based on the underlying securities in the fund's portfolio which is typically the amount which the fund might reasonably expect to receive for the security upon a current sale.

**Other Investments:** Consists primarily of an investment in individual life insurance policies. The fair value is based on an actuarial reserve calculated using life tables and by discounting the related cash flows based on a fixed interest rate.

**Cash and other Short Term Investments:** Cash and short term investments consist primarily of cash and cash equivalents, and plan receivables/payables. The carrying amounts of cash and cash equivalents and receivables/payables approximate fair value due to the short-term nature of these instruments.

The non-U.S. pension plans have \$226.3 million and \$216.7 million of investments in alternative investment funds at December 31, 2014 and December 31, 2013, respectively, which are reported at fair value. We have concluded that the NAV reported by the underlying fund approximates the fair value of the investment. These investments are redeemable at NAV under agreements with the underlying funds. However, it is possible that these redemption rights may be restricted or eliminated by the funds in the future in accordance with the underlying fund agreements. Due to the nature of the investments held by the funds, changes in market conditions and the economic environment may significantly impact the NAV of the funds and, consequently, the fair value of the plans' interest in the funds. Furthermore, changes to the liquidity provisions of the funds may significantly impact the fair value of the plans



interest in the funds.

Basis of Rate-of-Return Assumption

Long-term asset class return assumptions are determined based on input from investment professionals on the expected performance of the asset classes. The forecasts were averaged to come up with consensus passive return forecasts for each asset class. These forecast asset class returns were weighted by the plans' target asset class weights, yielding a long-term return forecast of 5.5% and 5.2% for the years ended December 31, 2014 and 2013, respectively.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

Amounts recognized in the consolidated balance sheets consist of:

	2014	2013
Prepaid pension costs	\$ 7.4	\$ 0.5
Accounts payable and accrued expenses	(0.5)	(0.8)
Pension benefit liabilities	(35.9)	(31.6)
Net amount recognized	(\$ 29.0)	(\$ 31.9)

Pre-tax amounts recognized in accumulated other comprehensive (loss) at year end consist of:

	2014	2013
Net actuarial (loss)	(\$ 33.2)	(\$ 34.2)
Net prior service (costs)	(\$ 0.7)	
Accumulated other comprehensive (loss)	(\$ 33.9)	(\$ 34.2)

We expect to amortize \$2.9 million of previously unrecognized net actuarial losses into pension cost in 2015.

The accumulated benefit obligation for the non-U.S. defined benefit pension plans was \$257.7 million and \$246.8 million at December 31, 2014 and 2013, respectively.

We expect to contribute \$3.7 million to our non-U.S. defined benefit pension plans in 2015.

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid over the next ten years:

	Pension Benefits
2015	\$ 10.2
2016	10.1
2017	10.0
2018	10.2
2019	10.8
2020 - 2024	61.3

Costs for other worldwide defined contribution benefit plans were \$14.7 million in 2014, \$14.2 million in 2013 and \$13.4 million in 2012.

#### NOTE 17. FINANCIAL INSTRUMENTS

We do not hold or issue financial instruments for trading purposes. The estimated fair values of our financial instruments are as follows:

	December 31, 2014		December 31, 2013	
	Carrying amount	Estimated fair value	Carrying amount	Estimated fair value
<b>Assets/(Liabilities), net:</b>				
Total debt, including current portion	(\$ 1,042.6)	(\$ 1,028.2)	(\$ 1,066.5)	(\$ 1,065.2)
Foreign currency contracts	5.4	5.4	5.2	5.2
Natural gas contracts	(3.0)	(3.0)	0.5	0.5
Interest rate swap contracts	(9.3)	(9.3)	(7.9)	(7.9)

The carrying amounts of cash and cash equivalents, receivables, accounts payable, accrued expenses, and short-term debt approximate fair value because of the short-term maturity of these instruments. The fair value estimates of long-term debt were based upon quotes from a major financial institution of recently observed trading

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

levels of our Term Loan B debt. The fair value estimates of foreign currency contract obligations are estimated from market quotes provided by a well-recognized national market data provider. The fair value estimates of natural gas contracts are estimated using internal valuation models with verification by obtaining quotes from major financial institutions. For natural gas swap transactions, fair value is calculated using NYMEX market quotes provided by a well-recognized national market data provider. For natural gas option based strategies, fair value is calculated using an industry standard Black-Scholes model with market based inputs, including but not limited to, underlying asset price, strike price, implied volatility, discounted risk free rate and time to expiration, provided by a well-recognized national market data provider. The fair value estimates for interest rate swap contracts are estimated by obtaining quotes from major financial institutions with verification by internal valuation models. Refer to Note 18 for a discussion of the fair value and the related inputs used to measure fair value.

Assets and liabilities measured at fair value on a recurring basis are summarized below:

	December 31, 2014		December 31, 2013	
	Quoted, active markets Level 1	Other observable inputs Level 2	Quoted, active markets Level 1	Other observable inputs Level 2
Assets/(Liabilities), net:				
Total debt, including current portion	(\$ 459.8)	(\$ 568.4)	(\$ 470.9)	(\$ 594.3)
Foreign currency contracts	5.4		5.2	
Natural gas contracts		(3.0)		0.5
Interest rate swap contracts		(9.3)		(7.9)

We do not have any financial assets or liabilities that are valued using Level 3 (unobservable) inputs.

**NOTE 18. DERIVATIVE FINANCIAL INSTRUMENTS**

We are exposed to market risk from changes in foreign exchange rates, interest rates and commodity prices that could impact our results of operations, cash flows and financial condition. We use forward swaps and option contracts to hedge these exposures. Exposure to individual counterparties is controlled and derivative financial instruments are entered into with a diversified group of major financial institutions. Forward swaps and option contracts are entered into for periods consistent with underlying exposure and do not constitute positions independent of those exposures. At inception, hedges that we designate as hedging instruments are formally documented as either (1) a hedge of a forecasted transaction or cash flow hedge, or (2) a hedge of the fair value of a recognized liability or asset or fair value hedge. We also formally assess both at inception and at least quarterly thereafter, whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in either the fair value or cash flows of the hedged item. If it is determined that a derivative ceases to be a highly effective hedge, or if the anticipated transaction is no

longer probable of occurring, we discontinue hedge accounting, and any future mark-to-market adjustments are recognized in earnings. We use derivative financial instruments as risk management tools and not for speculative trading purposes.

#### Counterparty Risk

We only enter into derivative transactions with established counterparties having a credit rating of BBB or better. We monitor counterparty credit default swap levels and credit ratings on a regular basis. All of our derivative transactions with counterparties are governed by master International Swap and Derivatives Association agreements ( ISDAs ) with netting arrangements. These agreements can limit our exposure in situations where we have gain and loss positions outstanding with a single counterparty. We do not post nor do we receive cash collateral with any counterparty for our derivative transactions. These ISDAs do not have any credit contingent features; however, a default under our bank credit facility would trigger a default under these agreements. Exposure to individual counterparties is controlled, and thus we consider the risk of counterparty default to be negligible.

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

**Commodity Price Risk**

We purchase natural gas for use in the manufacturing process and to heat many of our facilities. As a result, we are exposed to fluctuations in the price of natural gas. We have a policy to reduce cost volatility for North American natural gas purchases by purchasing natural gas forward contracts and swaps, purchased call options, and zero-cost collars up to 24 months forward to reduce our overall exposure to natural gas price movements. The contracts are based on forecasted usage of natural gas measured in mmBtu's. There is a high correlation between the hedged item and the hedge instrument. The gains and losses on these instruments offset gains and losses on the transactions being hedged. These instruments are designated as cash flow hedges. At December 31, 2014 and December 31, 2013, the notional amount of these hedges was \$14.6 million and \$20.1 million, respectively. The mark-to-market gain or loss on qualifying hedges is included in other comprehensive income to the extent effective, and reclassified into cost of goods sold in the period during which the underlying gas is consumed. The mark-to-market gains or losses on ineffective portions of hedges are recognized in cost of goods sold immediately. The earnings impact of the ineffective portion of these hedges was not material for the years ended December 31, 2014, 2013 and 2012.

**Currency Rate Risk - Sales and Purchases**

We manufacture and sell our products in a number of countries throughout the world and, as a result, we are exposed to movements in foreign currency exchange rates. To a large extent, our global manufacturing and sales provide a natural hedge of foreign currency exchange rate movement, as foreign currency expenses generally offset foreign currency revenues. We manage our cash flow exposures on a net basis and use derivatives to hedge the majority of our unmatched foreign currency cash inflows and outflows. As of December 31, 2014, our major, pre-hedging foreign currency exposures are to the Canadian dollar, the Chinese Renminbi and the Euro.

We use foreign currency forward exchange contracts to reduce our exposure to the risk that the eventual net cash inflows and outflows resulting from the sale of products to foreign customers and purchases from foreign suppliers will be adversely affected by changes in exchange rates. These derivative instruments are used for forecasted transactions and are classified as cash flow hedges. Cash flow hedges are executed quarterly, generally up to 15 months forward, and allow us to further reduce our overall exposure to exchange rate movements, since gains and losses on these contracts offset gains and losses on the transactions being hedged. The notional amount of these hedges was \$102.4 million and \$129.6 million at December 31, 2014 and December 31, 2013, respectively. Gains and losses on these instruments are recorded in other comprehensive income, to the extent effective, until the underlying transaction is recognized in earnings. The earnings impact of the ineffective portion of these hedges was not material for the years ended December 31, 2014, 2013 and 2012.

**Currency Rate Risk - Intercompany Loans and Dividends**

We may use foreign currency forward exchange contracts to hedge exposures created by cross-currency intercompany loans and dividends. The translation adjustments related to these loans are recorded in other non-operating income or expense. The offsetting gains or losses on the related derivative contracts are also recorded in other non-operating

income or expense. These contracts are decreased or increased as repayments are made or additional intercompany loans are extended or adjusted for intercompany dividend activity as necessary. The notional amount of these hedges was \$21.2 million and \$36.7 million at December 31, 2014 and December 31, 2013, respectively. Due to the significant decline in the value of the Russian Ruble, particularly during the fourth quarter of 2014, we received \$30.0 million in cash as a result of settling Russian Ruble forward contracts utilized to hedge the currency impacts associated with intercompany loans to our Russian subsidiary. Our exposure to changes in the Ruble due to the intercompany loans is unhedged at December 31, 2014.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

**Interest Rate Risk**

We utilize interest rate swaps to minimize the fluctuations in earnings caused by interest rate volatility. Interest expense on variable-rate liabilities increases or decreases as a result of interest rate fluctuations. The following table summarizes our interest rate swaps:

Trade Date	Notional Amount	Interest Rate Paid	Coverage Period	Risk Coverage
March 31, 2011	\$100.0	2.303%	March 2011 to November 2015	Term Loan A
March 31, 2011	\$200.0	2.523%	March 2011 to November 2015	Term Loan B
March 27, 2012	\$250.0	1.928%	March 2012 to March 2018	Term Loan B
March 27, 2012	\$200.0	2.810%	November 2015 to March 2018	Term Loan B
April 16, 2013	\$250.0	1.398%	November 2015 to March 2018	Term Loan A

Under the terms of the Term Loan A swaps we receive 3-month LIBOR and pay a fixed rate over the hedged period. Under the terms of the Term Loan B swaps, we receive the greater of 3-month LIBOR or the 1% LIBOR Floor and pay a fixed rate over the hedged period. These swaps are designated as cash flow hedges against changes in LIBOR for a portion of our variable rate debt.

**Financial Statement Impacts**

The following tables detail amounts related to our derivatives as of December 31, 2014 and December 31, 2013. Our derivative liabilities not designated as hedging instruments were \$0.5 million at December 31, 2014 and were \$0.6 million at December 31, 2013. Our derivative assets not designated as hedging instruments were not material for the years ended December 31, 2014 and 2013. The derivative asset and liability amounts below are shown in gross amounts; we have not netted assets with liabilities

	Derivative Assets			Derivative Liabilities		
	Balance Sheet Location	Fair Value		Balance Sheet Location	Fair Value	
		December 31, 2014	December 31, 2013		December 31, 2014	December 31, 2013
<b><u>Derivatives designated as hedging instruments</u></b>						
Natural gas commodity contracts	Other current assets		\$ 0.7	Accounts payable and accrued expenses	\$ 3.0	\$ 0.2



Edgar Filing: ARMSTRONG WORLD INDUSTRIES INC - Form 10-K

Foreign exchange contracts	Other current assets	\$ 5.6	5.1	Accounts payable and accrued expenses	0.7	
Foreign exchange contracts	Other non-current assets	0.9	0.6	Other long-term liabilities	0.1	
Interest rate swap contracts	Other non-current assets	1.9	4.6	Other long-term liabilities	11.2	12.5
Total derivatives designated as hedging instruments		\$ 8.4	\$ 11.0		\$ 15.0	\$ 12.7

Table of Contents

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

	Amount of (Loss) Gain Recognized in			Location of (Loss) Gain Reclassified from AOCI into	Income (Effective Gain (Loss) Reclassified from		
	Accumulated Other Comprehensive				AOCI into Income (Effective		
	Income ( AOCI )				Portion)		
	(Effective Portion)(a)				Portion)		
	2014	2013	2012		2014	2013	2012
<u>Derivatives in Cash Flow</u>							
<u>Hedging Relationships</u>							
Natural gas commodity contracts	(\$ 2.9)	\$ 0.5	(\$ 2.7)	Cost of goods sold	\$ 0.7	(\$ 2.6)	(\$ 8.8)
Foreign exchange contracts purchases	1.1	5.7	(1.7)	Cost of goods sold	1.0	1.5	(0.8)
Foreign exchange contracts sales	4.6			Net sales	5.0		
Interest rate swap contracts	(9.3)	(7.9)	(25.7)	Interest expense			
Total	(\$ 6.5)	(\$ 1.7)	(\$ 30.1)		\$ 6.7	(\$ 1.1)	(\$ 9.6)

(a) As of December 31, 2014, the amount of existing gains in AOCI expected to be recognized in earnings over the next twelve months is \$2.0 million.

<u>Derivatives in Cash Flow Hedging Relationships</u>	Location of Gain (Loss)	
	Recognized	
	in Income on Derivative	
	(Ineffective	
	Portion) (a)	
Natural gas commodity contracts	Cost of goods sold	
Foreign exchange contracts purchases and sales	SG&A expense	
Interest rate swap contracts	Interest expense	

(a) The amount recognized in income related to the ineffective portion of the hedging relationships was immaterial in 2014, 2013 and 2012. No gains or losses are excluded from the assessment of the hedge effectiveness. The amount of pre-tax gain recognized in income for derivative instruments not designated as hedging instruments was \$29.6 million for the year ended December 31, 2014. There was no material gain or loss recognized in 2013 or 2012.

NOTE 19. PRODUCT WARRANTIES

We provide direct customer and end-user warranties for our products. These warranties cover manufacturing defects that would prevent the product from performing in line with its intended and marketed use. The terms of these warranties vary by product and generally provide for the repair or replacement of the defective product. We collect and analyze warranty claims data with a focus on the historic amount of claims, the products involved, the amount of time between the warranty claims and their respective sales and the amount of current sales.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

The following table summarizes the activity for the accrual of product warranties for December 31, 2014 and 2013:

	2014	2013
Balance at beginning of period	\$ 7.4	\$ 8.7
Reductions for payments	(14.9)	(17.0)
Current year warranty accruals	15.4	15.7
Balance at end of period	\$ 7.9	\$ 7.4

The warranty provision and related reserve are recorded as a reduction of sales and accounts receivable, respectively.

**NOTE 20. OTHER LONG-TERM LIABILITIES**

	December 31, 2014	December 31, 2013
Long-term deferred compensation arrangements	\$ 21.0	\$ 22.6
Long-term portion of derivative liabilities	11.3	12.5
U.S. workers compensation	5.0	8.7
Postemployment benefit liabilities	4.8	8.0
Environmental liabilities	4.4	4.8
Other	6.7	7.0
Total other long-term liabilities	\$ 53.2	\$ 63.6

**NOTE 21. SHARE-BASED COMPENSATION PLANS**

The 2006 Long-Term Incentive Plan ( 2006 Plan ) authorized us to issue stock options, stock appreciation rights, restricted stock awards, stock units, performance-based awards and cash awards to officers and key employees, and was scheduled to terminate on October 2, 2016. On June 24, 2011 our shareholders approved an amendment and restatement of the 2006 Plan, resulting in the 2011 Long-Term Incentive Plan (the LTIP ). The 2006 Plan originally authorized up to 5,349,000 shares of common stock for issuance, and the amendment authorized an additional 1,600,000 shares of common stock for issuance, for a total of 6,949,000, which includes all shares that have been issued under the 2006 Plan. The amendment also extended the expiration date of the LTIP to June 24, 2021, after which time no further awards may be made. As of December 31, 2014, 1,795,453 shares were available for future grants under the LTIP.

	Year Ended December 31, 2014			
	Number of shares (thousands)	Weighted- average exercise price	Weighted- average remaining contractual term (years)	Aggregate intrinsic value (millions)
Option shares outstanding at beginning of period	2,204.6	\$ 35.60		
Options granted	318.9	53.93		
Option shares exercised	(640.8)	(27.80)		\$ 17.1
Options forfeited	(228.8)	(48.03)		
Options expired	(52.7)	(43.49)		
Option shares outstanding at end of period	1,601.2	\$ 40.33	6.9	\$ 18.2
Option shares exercisable at end of period	1,015.3	34.12	6.0	\$ 17.3
Option shares vested and expected to vest	1,579.6	40.17	6.9	\$ 18.2

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

	Year Ended December 31, 2013			
	Number of shares (thousands)	Weighted- average exercise price	Weighted- average remaining contractual term (years)	Aggregate intrinsic value (millions)
Option shares outstanding at beginning of period	2,311.0	\$ 30.05		
Options granted	382.4	51.75		
Option shares exercised	(438.3)	(19.65)		\$ 15.1
Options forfeited	(41.3)	(42.81)		
Options expired	(9.2)	(40.40)		
Option shares outstanding at end of period	2,204.6	\$ 35.60	7.0	\$ 48.5
Option shares exercisable at end of period	1,255.9	28.59	6.1	\$ 36.4
Option shares vested and expected to vest	2,038.6	34.89	6.9	\$ 46.3

We have reserved sufficient authorized shares to allow us to issue new shares upon exercise of all outstanding options. Options generally become exercisable in three years and expire 10 years from the date of grant. When options are exercised, we may issue new shares, use treasury shares (if available), acquire shares held by investors, or a combination of these alternatives in order to satisfy the option exercises. The total grant date fair value of options exercised during the year ended December 31, 2014 was \$7.7 million. Cash proceeds received from options exercised for the years ended December 31, 2014, 2013 and 2012 were \$17.8 million, \$8.6 million and \$12.2 million, respectively.

The fair value of option grants was estimated on the date of grant using the Black-Scholes option pricing model. The weighted average assumptions for the years 2014, 2013 and 2012 are presented in the table below.

	2014	2013	2012
Weighted-average grant date fair value of options granted (dollars per option)	\$ 24.93	\$ 21.62	\$ 20.29
<b>Assumptions</b>			
Risk free rate of return	1.9%	1.2%	1.2%
Expected volatility	46.5%	42.4%	41.4%
Expected term (in years)	6.0	6.0	6.1
Expected dividend yield	0.0%	0.0%	0.0%

The risk free rate of return is determined based on the implied yield available on zero coupon U.S. Treasury bills at the time of grant with a remaining term equal to the expected term of the option. During 2014 we established the

expected volatility based on Armstrong's stock since it has now been traded a sufficient amount of time since our emergence from bankruptcy to produce valid results. Prior to 2014, we established the expected volatility based on an average of the actual historical volatilities of the stock prices of a peer group of companies. The expected life is the midpoint of the average vesting period and the contractual life of the grant. We are using an allowable simplified method to determine an appropriate expected term for our option valuation assumptions. The expected dividend yield is assumed to be zero because, at the time of each grant, we had no plans to declare a dividend. The assumptions outlined above are applicable to all option grants.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

We have also granted restricted stock and restricted stock units. The restricted stock awards entitle the recipient to a specified number of shares of Armstrong's common stock provided the prescribed service period is fulfilled. These awards generally had vesting periods of three years at the grant date. A summary of the 2014 and 2013 activity related to these awards follows:

	Non-Vested Stock Awards	
		Weighted-
	Number of shares	average fair value
		at grant date
December 31, 2012	127,886	\$ 43.32
Granted	59,356	51.97
Vested	(25,794)	(38.10)
Forfeited	(7,871)	(47.19)
December 31, 2013	153,577	\$ 47.34
Granted	93,711	52.57
Vested	(61,902)	(41.61)
Forfeited	(9,784)	(52.08)
December 31, 2014	175,602	\$ 51.89

The table above contains 18,925 and 17,060 restricted stock units at December 31, 2014 and 2013, respectively, that are accounted for as liability awards as they are able to be settled in cash.

We have also granted performance restricted stock and performance restricted stock units. The performance based stock awards entitle the recipient to a specified number of shares of Armstrong's common stock provided the defined financial targets are achieved at the end of the performance period. These awards generally had vesting periods of three years at the grant date. A summary of the 2014 and 2013 activity related to these awards follows:

	Non-Vested Performance Stock Awards	
		Weighted-
	Number of shares	average fair value
		at grant date
December 31, 2012	293,475	\$ 45.24
Granted	139,597	51.80



Edgar Filing: ARMSTRONG WORLD INDUSTRIES INC - Form 10-K

Vested	(19,979)	(37.54)
Forfeited	(22,412)	(48.14)
December 31, 2013	390,681	\$ 47.81
Granted	129,858	53.88
Vested	(78,125)	(41.69)
Forfeited	(108,051)	(46.37)
December 31, 2014	334,363	\$ 52.07

The table above contains 12,207 and 11,622 performance stock units at December 31, 2014 and 2013, respectively, that are accounted for as liability awards as they are able to be settled in cash.

In addition to the equity awards described above, as of December 31, 2014 we had 20,616 fully-vested phantom shares outstanding for non-employee directors under the 2006 Phantom Stock Unit Plan. These awards are settled in cash and had vesting periods of one to three years. The awards are generally payable six months following the director's separation from service on the Board of Directors. The total liability recorded for these shares as of December 31, 2014 was \$1.8 million which includes associated dividends. The awards under the 2006 Phantom Stock Unit Plan are not reflected in the Non-Vested Stock Awards tables above. The 2006 Phantom Stock Unit Plan is still in place; however, no additional shares will be granted under the plan.

During 2008, we adopted the 2008 Directors Stock Unit Plan. At December 31, 2014 and 2013, there were 174,478 and 153,216 restricted units, respectively, outstanding under the 2008 Directors Stock Unit Plan. In 2014 and 2013, we granted 21,262 and 25,527 restricted stock units, respectively, to non-employee directors. These

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

awards generally have a vesting period of one year, and as of December 31, 2014 and 2013, 153,216 and 128,333 shares, respectively, were vested but not yet delivered. The awards are generally payable six months following the director's separation from service on the Board of Directors. The awards granted under the 2008 Directors Stock Unit Plan are not reflected in the Non-Vested Stock Awards table above.

We recognize share-based compensation expense on a straight-line basis over the vesting period. Share-based compensation cost was \$12.8 million (\$8.5 million net of tax benefit) in 2014; \$16.5 million (\$11.1 million net of tax benefit) in 2013, and \$16.2 million (\$11.2 million net of tax benefit) in 2012. Share-based compensation expense is recorded within the Corporate Unallocated segment as a component of SG&A expenses. The benefits of tax deductions in excess of grant date fair value from the exercise of stock options and vesting of share-based awards for the years ended December 31, 2014 and 2013 was \$3.3 million and \$4.2 million, respectively. To the extent the vesting date value is greater than the grant date value, the excess tax benefit is a credit to additional paid in capital ( APIC ), but only if it reduces income tax currently payable. During 2014, we recognized \$8.4 million as a credit to APIC as a result of excess tax benefits reducing income tax currently payable.

As of December 31, 2014, there was \$12.9 million of total unrecognized compensation cost related to non-vested share-based compensation arrangements. That cost is expected to be recognized over a weighted-average period of 1.8 years.

**NOTE 22. EMPLOYEE COMPENSATION**

	2014	2013	2012
Wages, salaries and incentive compensation	\$ 478.4	\$ 471.4	\$ 453.2
Payroll taxes	48.0	46.4	44.6
Pension expense, net	23.3	22.9	8.1
Insurance and other benefit costs	49.1	51.8	43.9
Share-based compensation	12.8	16.5	16.2
Total	\$ 611.6	\$ 609.0	\$ 566.0

**NOTE 23. LEASES**

We rent certain real estate and equipment. Several leases include options for renewal or purchase, and contain clauses for payment of real estate taxes and insurance. In most cases, management expects that in the normal course of business, leases will be renewed or replaced by other leases.

Edgar Filing: ARMSTRONG WORLD INDUSTRIES INC - Form 10-K

	2014	2013	2012
Rent expense	\$ 21.7	\$ 20.6	\$ 17.9
Sublease (income)	(0.4)	(0.3)	(0.5)
Net rent expense	\$ 21.3	\$ 20.3	\$ 17.4

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

Future minimum payments at December 31, 2014 by year and in the aggregate, having non-cancelable lease terms in excess of one year are as follows:

	Total Minimum Lease Payments	Sublease (Income)	Net Minimum Lease Payments
<b><u>Scheduled minimum lease payments</u></b>			
2015	\$ 7.9	(\$ 0.1)	\$ 7.8
2016	5.4	(0.1)	5.3
2017	3.5		3.5
2018	2.2		2.2
2019	0.9		0.9
Thereafter	2.9		2.9
Total	\$ 22.8	(\$ 0.2)	\$ 22.6

Assets under capital leases at December 31, 2014 and 2013 are not material.

**NOTE 24. SHAREHOLDERS' EQUITY**

There were 5,057,382 treasury shares at December 31, 2014 and December 31, 2013.

The balance of each component of accumulated other comprehensive (loss), net of tax as of December 31, 2014 and 2013 is presented in the table below.

	December 31, 2014	December 31, 2013
Foreign currency translation adjustments	(\$ 8.3)	\$ 21.3
Derivative (loss), net	(4.0)	(0.7)
Pension and postretirement adjustments	(483.2)	(392.2)
Accumulated other comprehensive (loss)	(\$ 495.5)	(\$ 371.6)

The amounts and related tax effects allocated to each component of other comprehensive income (loss) for 2014, 2013, and 2012 are presented in the table below.

	Pre-tax Amount	Tax Benefit	After-tax Amount
<u>2014</u>			
Foreign currency translation adjustments	(\$ 29.6)		(\$ 29.6)
Derivative (loss), net	(4.9)	\$ 1.6	(3.3)
Pension and postretirement adjustments	(153.6)	62.6	(91.0)
<b>Total other comprehensive (loss)</b>	<b>(\$ 188.1)</b>	<b>\$ 64.2</b>	<b>(\$ 123.9)</b>

	Pre-tax Amount	Tax Expense	After-tax Amount
<u>2013</u>			
Foreign currency translation adjustments	(\$ 8.8)		(\$ 8.8)
Derivative gain, net	28.4	(\$ 9.9)	18.5
Pension and postretirement adjustments	139.4	(49.3)	90.1
<b>Total other comprehensive income</b>	<b>\$ 159.0</b>	<b>(\$ 59.2)</b>	<b>\$ 99.8</b>

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

	Pre-tax Amount	Tax Benefit	After-tax Amount
<b>2012</b>			
Foreign currency translation adjustments	\$ 7.0		\$ 7.0
Derivative (loss), net	(8.0)	\$ 2.8	(5.2)
Pension and postretirement adjustments	(68.5)	10.3	(58.2)
<b>Total other comprehensive (loss)</b>	<b>(\$ 69.5)</b>	<b>\$ 13.1</b>	<b>(\$ 56.4)</b>

The following table summarizes the activity, by component, related to the change in AOCI for December 31, 2014 and 2013:

	Foreign Currency Translation Adjustments <sup>(1)</sup>	Derivative (Loss) Gain <sup>(1)</sup>	Pension and Postretirement Adjustments <sup>(1)</sup>	Total Accumulated Other Comprehensive (Loss) <sup>(1)</sup>
Balance, December 31, 2012	\$ 30.1	(\$ 19.2)	(\$ 482.3)	(\$ 471.4)
Other comprehensive (loss) income before reclassifications, net of tax (expense) of \$ , (\$9.5), (\$34.6), and (\$42.8)	(8.8)	18.3	62.8	72.3
Amounts reclassified from accumulated other comprehensive income		0.2	27.3	27.5
Net current period other comprehensive (loss) income	(8.8)	18.5	90.1	99.8
Balance, December 31, 2013	\$ 21.3	(\$ 0.7)	(\$ 392.2)	(\$ 371.6)
Other comprehensive income before reclassifications, net of tax (expense) benefit of \$ , (\$0.8), \$77.2, and \$76.4	(29.6)	1.1	(118.0)	(146.5)
Amounts reclassified from accumulated other comprehensive income		(4.4)	27.0	22.6
Net current period other comprehensive (loss)	(29.6)	(3.3)	(91.0)	(123.9)
Balance, December 31, 2014	(\$ 8.3)	(\$ 4.0)	(\$ 483.2)	(\$ 495.5)

(1) Amounts are net of tax

The amounts reclassified from AOCI and the affected line item of the Consolidated Statement of Earnings and Comprehensive Income are presented in the table below.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

	Amounts Reclassified from AOCI		Affected Line Item in the Consolidated Statement  of Earnings and Comprehensive Income
	2014	2013	
<b>Derivative Adjustments:</b>			
Natural gas commodity contracts	(\$ 0.7)	\$ 2.6	Cost of goods sold
Foreign exchange contracts - purchases	(1.0)	(2.3)	Cost of goods sold
Foreign exchange contracts - sales	(5.0)		Net sales
<b>Total (income) expense before tax</b>	<b>(6.7)</b>	<b>0.3</b>	
Tax impact	2.3	(0.1)	Income tax expense
<b>Total (income) expense, net of tax</b>	<b>(4.4)</b>	<b>0.2</b>	
<b>Pension and Postretirement Adjustments:</b>			
Prior service cost amortization	0.6	0.8	Cost of goods sold
Prior service cost amortization	0.7	1.0	SG&A expense
Amortization of net actuarial loss	21.7	21.4	Cost of goods sold
Amortization of net actuarial loss	18.6	18.8	SG&A expense
<b>Total expense before tax</b>	<b>41.6</b>	<b>42.0</b>	
Tax impact	(14.6)	(14.7)	Income tax expense
<b>Total expense, net of tax</b>	<b>27.0</b>	<b>27.3</b>	
<b>Total reclassifications for the period</b>	<b>\$ 22.6</b>	<b>\$ 27.5</b>	

Amounts reported above for 2014, 2013 and 2012 include amounts that have been classified as discontinued operations.

**NOTE 25. SUPPLEMENTAL FINANCIAL INFORMATION**



	2014	2013	2012
<u>Selected operating expense</u>			
Maintenance and repair costs	\$ 89.0	\$ 89.7	\$ 84.9
Research and development costs	30.6	29.3	27.4
Advertising costs	10.9	12.2	12.0
<u>Other non-operating expense</u>			
Foreign currency transaction loss, net of hedging activity	\$ 8.4	\$ 1.6	\$ 0.1
Other	2.1	0.4	0.1
Total	\$ 10.5	\$ 2.0	\$ 0.2
<u>Other non-operating income</u>			
Interest income	\$ 2.5	\$ 3.3	\$ 3.5
Other	0.1	0.5	
Total	\$ 2.6	\$ 3.8	\$ 3.5

NOTE 26. RELATED PARTIES

We purchase grid products from WAVE, our 50%-owned joint venture with Worthington Industries. The total amount of these purchases was \$85.4 million in 2014, \$88.9 million in 2013 and \$89.3 million in 2012. We also provide certain selling, promotional and administrative processing services to WAVE for which we receive reimbursement. Those services amounted to \$14.7 million in 2014, \$14.9 million in 2013, and \$14.6 million in

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

2012. The net amount due to WAVE from us for all of our relationships was \$8.5 million at the end of 2014 and the net amount due to us from WAVE at the end of 2013 was \$1.3 million. See Note 9 to the Consolidated Financial Statements for additional information.

**NOTE 27. LITIGATION AND RELATED MATTERS**

**ENVIRONMENTAL MATTERS**

**Environmental Compliance**

Our manufacturing and research facilities are affected by various federal, state and local requirements relating to the discharge of materials and the protection of the environment. We make expenditures necessary for compliance with applicable environmental requirements at each of our operating facilities. These regulatory requirements continually change, therefore we cannot predict with certainty future expenditures associated with compliance with environmental requirements.

**Environmental Sites**

**Summary**

We are actively involved in the investigation, closure and/or remediation of existing or potential environmental contamination under the Comprehensive Environmental Response, Compensation and Liability Act, and state or international Superfund and similar type environmental laws at several domestically- and internationally-owned, formerly owned and non-owned locations allegedly resulting from past industrial activity. In a few cases, we are one of several potentially responsible parties and have agreed to jointly fund the required investigation and remediation, while preserving our defenses to the liability. We may also have rights of contribution or reimbursement from other parties or coverage under applicable insurance policies. We are currently pursuing coverage and recoveries under those policies with respect to certain of the sites, but we are unable to predict the outcome or costs of these proceedings.

Estimates of our future liability at the environmental sites are based on evaluations of currently available facts regarding each individual site. We consider factors such as our activities associated with the site, existing technology, presently enacted laws and regulations and prior company experience in remediating contaminated sites. Although current law imposes joint and several liability on all parties at Superfund sites, our contribution to the remediation of these sites is expected to be limited by the number of other companies potentially liable for site remediation. As a result, our estimated liability reflects only our expected share. In determining the probability of contribution, we consider the solvency of other parties, the site activities of other parties, whether liability is being disputed, the terms of any existing agreements and experience with similar matters, and the effect of our Chapter 11 reorganization upon the validity of the claim.

Specific Material Events

St Helens, OR

In August 2010, we entered into a Consent Order (the "Consent Order") with the Oregon Department of Environmental Quality ("ODEQ"), along with Kaiser Gypsum Company, Inc. ("Kaiser"), and Owens Corning Sales LLC ("OC"), with respect to our St. Helens, OR Building Products facility, which was previously owned by Kaiser and then OC. The Consent Order, which replaces a previous order of the ODEQ requiring us to investigate and remediate hazardous substances present at the facility, requires that we and Kaiser complete a remedial investigation and feasibility study ("RI/FS") on the portion of the site owned by us ("Owned Property"), which is comprised of Upland and Lowland areas. The Consent Order further requires us, Kaiser and OC to conduct an RI/FS in the In-Water area of the adjacent Scappoose Bay. We are currently in an investigation phase for both the Owned Property and the Scappoose Bay and all draft investigative and risk assessment reports have been submitted for review to ODEQ. At this time, we have determined that it is probable that remedial action for certain portions of the Owned Property will be required. The current estimate of our future liability at the site includes the known investigation work required by the Consent Order and the current projected cost of possible remedies for certain portions of the Owned Property. At this time, we are unable to reasonably estimate any remediation costs that we may ultimately incur with respect to other portions of the Owned Property or the Scappoose Bay, although such costs may be material. If additional investigative or remedial action is required by ODEQ, it could result in additional costs greater than the amounts currently estimated and those costs may be material.

Costs and responsibilities for investigation, including the current RI/FS for the Owned Property continue to be shared with Kaiser pursuant to a cost sharing agreement with Kaiser. Contemporaneously with the execution of the Consent Order, we, Kaiser and OC also entered into a separate cost sharing agreement for both the

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

investigation and possible remediation of the Scappoose Bay. Kaiser's shares under the cost sharing agreements are being funded by certain insurance policies, which comprise substantially all of Kaiser's assets. If Kaiser and OC are unwilling or unable to fulfill their obligations under the cost sharing agreements, or seek to contest or challenge the allocations, or if Kaiser's insurance policies are unable to fund Kaiser's shares, it could result in additional cost to us greater than the amounts currently estimated and those costs may be material.

The principal contaminants at the St. Helens site are arsenic and dioxin compounds from historic operations by prior owners of the plant. As part of the investigation on the site pursuant to the Consent Order, we conducted an analysis of the raw materials used in our manufacturing processes at the St. Helens facility to identify possible sources of these same contaminants. Our testing found low levels of naturally occurring dioxin in sourced clay, known as ball clay, used in the production of some of our fire-retardant products at our St. Helens manufacturing facility. Based on the data from the soil and sediment samples from our St. Helens property and the data from the ball clay, we do not believe that the presence of dioxin in our raw material will have a material impact on our ultimate liability at the site. In addition, consistent with our health and safety policies, we tested employee exposure levels at two facilities representative of our handling procedures at all plants that use this ball clay and, as a result of such testing, do not believe that the ball clay poses a hazard to our employees based on applicable regulatory standards. Based on the manufacturing process and the amount of raw material utilized, we also believe that the dioxin levels in our finished products do not pose a hazard to installers or consumers. While we have not received any claims related to this raw material or our fire-retardant products, there can be no assurance that the raw material or the finished products will not become the subject of legal claims or regulatory actions or that such claims or actions will not have a material adverse effect on our financial condition or results of operations.

**Macon, GA**

The U.S. Environmental Protection Agency (EPA) has listed two landfills located on a portion of our Building Products facility in Macon, GA, along with the former Macon Naval Ordnance Plant landfill adjacent to our property, and portions of Rocky Creek (collectively, the Macon Site) as a Superfund site on the National Priorities List due to the presence of contaminants, most notably PCBs.

In September 2010, we entered into an Administrative Order on Consent for a Removal Action with the EPA to investigate PCB contamination in one of the landfills on our property, the Wastewater Treatment Plant Landfill (the WWTP Landfill). We concluded the investigative phase of the Removal Action for the WWTP Landfill and submitted our final Engineering Evaluation/Cost Analysis (EE/CA) to the EPA in 2013. The EPA subsequently approved the EE/CA and issued an Action Memorandum in July 2013 selecting our recommended remedy for the Removal Action. In July 2014, we entered into an Administrative Order on Consent for Removal Action with the EPA for the WWTP Landfill. We are currently preparing to begin remedy design and implementation work under this Order. Our estimate of future liability includes costs for the remedial work for the WWTP Landfill.

It is probable that we will incur field investigation, engineering and oversight costs associated with a RI/FS with respect to the remainder of the Superfund site, which includes the other landfill on our property, as well as areas on

and adjacent to Armstrong's property and Rocky Creek (the Remaining Site). We have not yet entered into an Order with the EPA for the Remaining Site and, as a result, have not yet commenced an investigation of this portion of the site. Accordingly, we are able to estimate only a small portion of the probable costs that may be associated with the RI/FS for the Remaining Site. We anticipate, however, that the EPA may require significant investigative work for the Remaining Site and that we may ultimately incur costs in remediating any contamination discovered during the RI/FS. We are unable to reasonably estimate the total costs associated with the investigation work or any resulting remediation therefrom, although such amounts may be material.

Elizabeth City, NC

This site is a former cabinet manufacturing facility that was operated by Triangle Pacific Corporation, now known as Armstrong Wood Products, Inc. (Triangle Pacific) from 1977 until 1996. The site was formerly owned by the U.S. Navy (Navy) and Westinghouse, now CBS Corporation (CBS). We assumed ownership of the site when we acquired the stock of Triangle Pacific in 1998. Prior to our acquisition, the NC Department of Environment and Natural Resources listed the site as a hazardous waste site. In 1997, Triangle Pacific entered into a cost sharing agreement with Westinghouse whereby the parties agreed to share equally in costs associated with investigation and potential remediation. In 2000, Triangle Pacific and CBS entered into an RI/FS with the EPA for the site. In 2007, we and CBS entered into an agreement with the Navy whereby the Navy agreed to pay one third of defined

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

past and future investigative costs up to a certain amount, which has now been exhausted. Although the parties initially submitted the RI/FS work plan to the EPA in 2004, the EPA did not approve the RI/FS work plan until August 2011. We submitted the draft Remedial Investigative and Risk Assessments in the first quarter of 2014 and plan to conduct supplemental investigative work based upon agency comments to those reports. We are unable to reasonably estimate any additional investigative costs or determine whether remediation will be required. If remediation is required, the related costs may be material, although we expect these costs to be shared with CBS and the Navy.

**Summary of Financial Position**

Liabilities of \$4.4 million at December 31, 2014 and \$4.8 million at December 31, 2013 were recorded for potential environmental liabilities, on a global basis, that we consider probable and for which a reasonable estimate of the probable liability could be made. Where existing data is sufficient to estimate the liability, that estimate has been used; where only a range of probable liabilities is available and no amount within that range is more likely than any other, the lower end of the range has been used. As assessments and remediation activities progress at each site, these liabilities are reviewed to reflect new information as it becomes available. These liabilities are undiscounted.

The estimated liabilities above do not take into account any claims for recoveries from insurance or third parties. It is our policy to record probable recoveries that are either available through settlement or anticipated to be recovered through negotiation or litigation as assets in the Consolidated Balance Sheets. No material amounts were recorded for probable recoveries at December 31, 2014 or December 31, 2013.

Actual costs to be incurred at identified sites may vary from our estimates. Based on our knowledge of the identified sites, it is not possible to reasonably estimate future costs in excess of amounts already recognized.

**MULTI-EMPLOYER PENSION WITHDRAWAL LIABILITY CLAIM**

In February 2013, we received a demand notice from the Fund of a deemed withdrawal relating to the sale of our cabinets business to AIP in 2012. The Fund claimed that the sale triggered a withdrawal liability to the Fund relating to unfunded vested plan benefits attributable to our role as a contributing employer under the Employee Retirement Income Security Act of 1974 and the Multiemployer Pension Plan Amendments Act of 1980, notwithstanding the assumption and maintenance by AIP of ongoing contribution obligations under the applicable union bargaining agreement. The claimed amount was \$15.2 million, payable in a lump-sum or over 20 years on a quarterly basis. Pursuant to the demand notice, we provided information and reviewed the determination with the Fund, and made regular quarterly payments under protest pending resolution of the dispute.

In September 2013, the Fund informed us that it disagreed with our position that the sale transaction did not trigger a withdrawal liability. In March 2014, the Fund informed us that AIP withdrew from the Fund effective December 12, 2013.

Based upon the quarterly payments already made by us and initial settlement discussions with the Fund, we recorded an additional charge of \$3.3 million during the second quarter of 2014 within Discontinued Operations (due to the association with the divestiture of the cabinets business).

In August 2014, we entered into a settlement agreement with the Fund to resolve this matter for \$10.3 million, including a complete release of all claims against us. As a result of the settlement, we recorded an additional charge of \$0.3 million during the third quarter of 2014 within Discontinued Operations. Payment was made to the Fund in the third quarter of 2014.

#### ANTIDUMPING AND COUNTERVAILING DUTY CASES

In October 2010, a coalition of U.S. producers of multilayered wood flooring (not including Armstrong) filed petitions seeking antidumping ( AD ) and countervailing duties ( CVD ) with the United States Department of Commerce ( DOC ) and the United States International Trade Commission ( ITC ) against imports of multilayered hardwood flooring from China. The AD petition requested duties of up to 269% on imports of multilayered hardwood flooring, which it claimed were needed to offset unfair pricing from Chinese imports that injure the U.S. industry. The CVD petition requested an unspecified level of duties be imposed on importers to offset alleged unfair subsidies provided by the Chinese government.

---

**Table of Contents**

Armstrong World Industries, Inc., and Subsidiaries

Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

We produce multilayered wood flooring domestically and import multilayered wood flooring from third party suppliers in China. Until October 2014, we also operated a plant in Kunshan, China ( Armstrong Kunshan ) that manufactured multilayered wood flooring for export to the U.S. We were specifically mentioned in the earlier AD and CVD petitions as an importer. Under the U.S. AD and CVD laws, a U.S. importer may ultimately be responsible for the payment of any antidumping and countervailing duties.

In response to the petitions, the DOC conducted its initial original investigations and issued CVD and AD orders in December 2011. Pursuant to the orders, Armstrong Kunshan's final initial rates were 1.5% (CVD) and 3.31% (AD). These rates became effective in the form of additional duty deposits and applied retroactively as of April 6, 2011 (CVD) and May 26, 2011 (AD).

Following the issuance of the CVD and AD orders, appeals were filed by several parties challenging various aspects of the determinations by both the DOC and the ITC, including certain aspects that may impact the validity of the orders and the applicable rates. We are participating in the last remaining appeal of the original investigation, which is expected to result in an additional court decision and orders in 2015. The most recent court decision, on January 23, 2015, upheld DOC's latest determination to apply an AD rate to us and the other separate rate respondents in the original investigation.

Additionally, the DOC is currently conducting annual administrative reviews of the CVD and AD final rates. In 2013, in connection with the first annual administrative review, Armstrong Kunshan was selected for individual review as a mandatory respondent. As a result of its review, Armstrong Kunshan received a final AD rate of 0.00% and a final CVD rate of 0.98%, effective May 9, 2014 and August 4, 2014, respectively. As a result, Armstrong Kunshan's individual AD and CVD rates applied retrospectively to the DOC's preliminary determinations in the original investigation. We expect to receive a partial refund in 2015 of amounts earlier deposited that were covered by the first DOC administrative review.

The DOC is also currently conducting its second annual administrative review, which is currently scheduled for final determination in 2015. Armstrong Kunshan was not selected as a mandatory respondent and was not subject to individual review as part of the second annual DOC administrative review. As part of this review process, Armstrong Kunshan's individual CVD and AD assessment rates may be changed and the revised rates applicable to participants that were not individually reviewed will apply to imports of multilayered wood flooring made between December 1, 2012 and November 30, 2013 (AD) and between January 1, 2012 and December 31, 2012 (CVD). On January 9, 2015, the DOC issued a preliminary antidumping determination for the second administrative review. It claimed a preliminary dumping rate of 18.27% by a single mandatory respondent and then preliminarily also assigned this rate to all separate rate respondents that were not individually investigated, including Armstrong Kunshan. On January 7, 2015, the DOC issued a preliminary All Others CVD rate of 0.97% that also preliminarily applies to Armstrong Kunshan as part of the second annual administrative review of the CVD rates. These preliminary review rates are estimates only and do not change the currently applicable deposit rates. We currently expect that the DOC will issue final AD and CVD rates for the second administrative review in mid-2015. While we are unable to predict the final review rates, we do not expect that they will have a material impact on our financial condition, results of operations or



cash flows.

OTHER CLAIMS

We are involved in various lawsuits, claims, investigations and other legal matters from time to time that arise in the ordinary course of conducting business, including matters involving our products, intellectual property, relationships with suppliers, distributors, relationships with competitors, employees and other matters. While complete assurance cannot be given to the outcome of these proceedings, we do not believe that any of these matters, individually or in the aggregate, will have a material adverse effect on our financial condition, liquidity or results of operations.

NOTE 28. EARNINGS PER SHARE

Earnings per share components may not add due to rounding.

**Table of Contents**

## Armstrong World Industries, Inc., and Subsidiaries

## Notes to Consolidated Financial Statements

(dollar amounts in millions, except share data)

The following table is a reconciliation of net earnings to net earnings attributable to common shares used in our basic and diluted EPS calculations for the years ended December 31, 2014, 2013, and 2012:

	2014	2013	2012
Earnings from continuing operations	\$ 102.0	\$ 127.3	\$ 158.6
Earnings allocated to participating non-vested share awards	(0.5)	(0.7)	(1.1)
<b>Earnings from continuing operations attributable to common shares</b>	<b>\$ 101.5</b>	<b>\$ 126.6</b>	<b>\$ 157.5</b>

The following table is a reconciliation of basic shares outstanding to diluted shares outstanding for the years ended December 31, 2014, 2013, and 2012 (shares in millions):

	2014	2013	2012
Basic shares outstanding	55.0	57.8	58.9
Dilutive effect of stock option awards	0.4	0.6	0.6
<b>Diluted shares outstanding</b>	<b>55.4</b>	<b>58.4</b>	<b>59.5</b>

Options to purchase 142,038, 181,041 and 26,610 shares of common stock were outstanding as of December 31, 2014, 2013, and 2012, respectively, but not included in the computation of diluted earnings per share, because the options were anti-dilutive.

**NOTE 29. SUBSEQUENT EVENT**

On February 19, 2015, our board of directors approved a plan to separate our flooring business from our ceilings (building products) business through a spinoff, which would result in two independent, publicly-traded companies.

**Table of Contents**

**ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

Not applicable.

**ITEM 9A. CONTROLS AND PROCEDURES**

Our management, with the participation of our chief executive officer and our chief financial officer, performed an evaluation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934 ( Exchange Act )) as of December 31, 2014. Our chief executive officer and our chief financial officer have concluded that our disclosure controls and procedures were effective insofar as they are designed to provide reasonable assurance that information required to be disclosed by us in the reports we file or submit under the Exchange Act is (i) recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms, and (ii) accumulated and communicated to our management, including our principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. We believe that a controls system, no matter how well designed and operated, cannot provide absolute assurance that the objectives of the controls system are met, and no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company have been detected.

There have been no changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2014 that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting and the Report of Independent Registered Public Accounting Firm are incorporated by reference to Item 8.

Table of ContentsPART IIIITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**Executive Officers of the Company (as of February 23, 2015):**

<b>Name</b>	<b>Age</b>	<b>Present Position and Business Experience During the Last Five Years*</b>
Matthew J. Espe	56	<p>Armstrong World Industries, Inc.</p> <p>President &amp; CEO; Director since August 2010</p> <p>Ricoh Americas Corporation</p> <p>Chairman &amp; CEO (2008)</p>
Victor D. Grizzle	53	<p>Armstrong World Industries, Inc.</p> <p>Executive Vice President &amp; CEO, Armstrong Building Products since January 2011</p> <p>Valmont Industries</p> <p>Group President, Global Structures, Coatings and Tubing (2005)</p>
Mark A. Hershey	45	<p>Armstrong World Industries, Inc.</p> <p>Senior Vice President, General Counsel since July 2011</p> <p>Chief Compliance Officer since February 2012</p> <p>Secretary (July 2011 to June 2014)</p> <p>Ricoh Americas Corporation</p> <p>Senior Vice President, General Counsel, Chief Compliance Officer &amp; Secretary (2008)</p>
Donald R. Maier	50	<p>Armstrong World Industries, Inc.</p> <p>Executive Vice President and CEO, Armstrong Floor Products since September 2014</p> <p>Senior Vice President, Global Operations Excellence (2010)</p> <p>TPG Capital</p> <p>Operational Consultant, several TPG portfolio companies (2008)</p>

Edgar Filing: ARMSTRONG WORLD INDUSTRIES INC - Form 10-K

Director of Operational Excellence, Freescale Semiconductors (2008)

Stephen F. McNamara 48 Armstrong World Industries, Inc.

Vice President, Controller since July 2008

Ellen R. Romano 53 Armstrong World Industries, Inc.

Senior Vice President, Human Resources since July 2013

Vice President, Human Resources, Armstrong Building Products (2009)

David S. Schulz 49 Armstrong World Industries, Inc.

Senior Vice President, Chief Financial Officer since November 2013

Vice President, Armstrong Building Products (June 2011)

Procter & Gamble Company

Associate Director & CFO, Americas Snacks (2009)

J.M. Smucker Company

Finance Director, Coffee Strategic Business Area (2008)

\* *Information in parentheses regarding previously held positions indicates either the duration the Executive Officer held the position or the year in which service in the position began.*

## **Table of Contents**

All executive officers are elected by the Board of Directors to serve in their respective capacities until their successors are elected and qualified or until their earlier resignation or removal.

## **Code of Ethics**

We have adopted a Code of Business Conduct that applies to all employees, executives and directors, specifically including our Chief Executive Officer, our Chief Financial Officer and our Controller. We have also adopted a Code of Ethics for Financial Professionals (together with the Code of Business Conduct, the Codes of Ethics ) that applies to all professionals in our finance and accounting functions worldwide, including our Chief Financial Officer and our Controller.

The Codes of Ethics are intended to deter wrongdoing and to promote:

honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;

full, fair, accurate, timely and understandable public disclosures;

compliance with applicable governmental laws, rules and regulations;

the prompt internal reporting of violations of the Codes of Ethics; and

accountability for compliance with the Codes of Ethics.

The Codes of Ethics are available at <http://www.armstrong.com/corporate/codes-policies.html> and in print free of charge. Any waiver of the Company's Code of Business Conduct, particularly its conflicts-of-interest provisions, which may be proposed to apply to any director or executive officer, must be reviewed in advance by the Nominating and Governance Committee of the Board of Directors, which would be responsible for making a recommendation to the Board of Directors for approval or disapproval. The Board of Directors' decision on any such matter would be disclosed publicly in compliance with applicable legal standards and the rules of the New York Stock Exchange. We intend to satisfy these requirements by making disclosures concerning such matters available on the For Investors page of our website. There were no waivers or exemptions from the Code of Business Conduct in 2014 applicable to any director or executive officer.

Other information required by Item 10 is incorporated by reference to the sections entitled Election of Directors, Corporate Governance, and Section 16(a) Beneficial Ownership Reporting Compliance in the Company's proxy statement for its 2015 annual meeting of shareholders to be filed no later than April 30, 2015.

## **ITEM 11. EXECUTIVE COMPENSATION**

The information required by Item 11 is incorporated by reference to the sections entitled Compensation Discussion and Analysis, Compensation Committee Report, Summary Compensation Table, Grants of Plan-Based Awards, Outstanding Equity Awards at Fiscal Year-End, Option Exercises and Stock Vested, Pension Benefits, Nonqualified

Deferred Compensation, Potential Payments Upon Termination or Change in Control, Board of Directors Board's Role in Risk Management Oversight, Compensation Committee Interlocks and Insider Participation and Compensation of Directors in the Company's proxy statement for its 2015 annual meeting of shareholders to be filed no later than April 30, 2015.

**Table of Contents**

**ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

The information required by Item 12 is incorporated by reference to the sections entitled Security Ownership of Certain Beneficial Owners, Security Ownership of Management, and Equity Compensation Plan Information in the Company's proxy statement for its 2015 annual meeting of shareholders to be filed no later than April 30, 2015.

**ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

The information required by Item 13 is incorporated by reference to the sections entitled Certain Relationships and Related Transactions and Director Independence in the Company's proxy statement for its 2015 annual meeting of shareholders to be filed no later than April 30, 2015.

**ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information required by Item 14 is incorporated by reference to the sections entitled Audit Committee Report and Relationship with Independent Auditors in the Company's proxy statement for its 2015 annual meeting of shareholders to be filed no later than April 30, 2015.



**Table of Contents****PART IV****ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

## (a) Listing of Documents

1. The financial statements and schedule of Armstrong World Industries, Inc. filed as a part of this 2014 Annual Report on Form 10-K is listed in the Index to Financial Statements and Schedules on Page 41.
2. The financial statements required to be filed pursuant to Item 15 of Form 10-K are: Worthington Armstrong Venture consolidated financial statements for the years ended December 31, 2014, 2013, and 2012 (filed herewith as Exhibit 99.1).
3. The following exhibits are filed as part of this 2014 Annual Report on Form 10-K:

Exhibit No.	Description
2	Armstrong World Industries, Inc.'s Fourth Amended Plan of Reorganization dated May 23, 2003 (as modified by modifications filed with the Bankruptcy Court on October 17, 2003, November 10, 2003, December 3, 2004 and February 21, 2006) is incorporated by reference from the Annual Report on Form 10-K, filed on February 24, 2006, wherein it appeared as Exhibit 2.3.
3.1	Amended and Restated Certificate of Incorporation of Armstrong World Industries, Inc. is incorporated by reference from the Current Report on Form 8-K filed on October 2, 2006, wherein it appeared as Exhibit 3.1.
3.2	Amended and Restated Bylaws of Armstrong World Industries, Inc. are incorporated by reference from the Current Report on Form 8-K filed on July 28, 2014, wherein it appeared as Exhibit 3.1.
10.1	Amended and Restated Credit Agreement dated, March 15, 2013, among Armstrong World Industries, Inc. and Armstrong Wood Products, Inc., as borrowers, the guarantors identified therein and Bank of America, N.A., as administrative agent and collateral agent, is incorporated by reference from the Current Report on Form 8-K filed on March 18, 2013, wherein it appeared as Exhibit 10.1.
10.2	Amended and Restated Security Agreement dated, March 15, 2013, by and among Armstrong World Industries, Inc., the grantors named therein and Bank of America, N.A., as collateral agent, is incorporated by reference from the Current Report on Form 8-K filed on March 18, 2013, wherein it appeared as Exhibit 10.2.
10.3	Amended and Restated Pledge Agreement dated, March 15, 2013, by and among Armstrong World Industries, Inc., the pledgors named therein and Bank of America, N.A., as collateral agent, is incorporated by reference from the Current Report on Form 8-K filed on March 18, 2013, wherein it appeared as Exhibit 10.3.

- 10.4 Amended and Restated Canadian Pledge Agreement dated, March 15, 2013, by and among Armstrong World Industries, Inc. and Bank of America, N.A., as collateral agent, is incorporated by reference from the Current Report on Form 8-K filed on March 18, 2013, wherein it appeared as Exhibit 10.4.

**Table of Contents**

- 10.5 Receivables Purchase Agreement dated as of December 10, 2010, by and among Armstrong World Industries, Inc., as initial servicer and collection agent, Armstrong Receivables Company LLC, as seller, Atlantic Asset Securitization LLC, as conduit purchaser, and Credit Agricole Corporate and Investment Bank, as administrative agent, an issuer of letters of credit and related committed purchaser, is incorporated by reference from the Current Report on Form 8-K filed on December 14, 2010, wherein it appeared as Exhibit 10.1.
- 10.6 Purchase and Sale Agreement dated as of December 10, 2010, by and among Armstrong World Industries, Inc., as originator and as initial servicer, Armstrong Hardwood Flooring Company, as originator, and Armstrong Receivables Company LLC, is incorporated by reference from the Current Report on Form 8-K filed on December 14, 2010, wherein it appeared as Exhibit 10.2.
- 10.7 Omnibus Amendment to Receivables Purchase Agreement and Purchase and Sale Agreement dated as of August 1, 2011, by and among Armstrong World Industries, Inc., Armstrong Receivables Company LLC, Armstrong Hardwood Flooring Company, Atlantic Asset Securitization LLC, and Credit Agricole Corporate and Investment Bank, is incorporated by reference from the Annual Report on Form 10-K filed on February 27, 2012, wherein it appeared as Exhibit 10.9.
- 10.8 Second Omnibus Amendment to Receivables Purchase Agreement and Purchase and Sale Agreement dated as of December 21, 2011, by and among Armstrong World Industries, Inc., Armstrong Receivables Company LLC, as seller, Armstrong Hardwood Flooring Company, as originator, Atlantic Asset Securitization LLC, as resigning conduit purchaser, Credit Agricole Corporate and Investment Bank, as resigning administrative agent, resigning related committed purchaser and resigning LC bank, The Bank of Nova Scotia, as successor administrative agent, successor related committed purchaser and successor LC bank, and Liberty Street Funding LLC, as successor conduit purchaser, is incorporated by reference from the Annual Report on Form 10-K filed on February 27, 2012, wherein it appeared as Exhibit 10.10.
- 10.9 Third Omnibus Amendment Agreement, dated as of March 28, 2013, by and among Armstrong Receivables Company, LLC, Armstrong World Industries, Inc., Armstrong Hardwood Flooring Company, The Bank of Nova Scotia, and Liberty Street Funding LLC, is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 29, 2013, wherein it appeared as Exhibit 10.1.
- 10.10 Fourth Amendment Agreement, dated as of December 18, 2014, by and among Armstrong Receivables Company, LLC, Armstrong World Industries, Inc., Armstrong Hardwood Flooring Company, The Bank of Nova Scotia, and Liberty Street Funding LLC.
- 10.11 Stipulation and Agreement with Respect to Claims of Armstrong Holdings, Inc. and Armstrong Worldwide, Inc.; and Motion for Order Approving Stipulation and Agreement are incorporated by reference from the Current Report on Form 8-K filed on February 27, 2007, wherein they appeared as Exhibits 99.2 and 99.3, respectively.
- 10.12 Joint Venture Agreement, dated March 23, 1992 between Armstrong Ventures, Inc. and Worthington Ventures, Inc., is incorporated by reference from the Annual Report on Form 10-K filed on February 27, 2013, wherein it appeared as Exhibit 10.18.
- 10.13 Management Achievement Plan for Key Executives, effective as of November 28, 1983, as amended April 30, 2007, December 8, 2008, and June 24, 2011, is incorporated by reference to Armstrong World Industries, Inc.'s Definitive Proxy Statement on Schedule 14A for the Armstrong World Industries, Inc. 2011 Annual Meeting of Shareholders held on June 24, 2011, filed on April 28, 2011, wherein it appeared as Exhibit B.\*

**Table of Contents**

- 10.14 2006 Long-Term Incentive Plan, as amended February 23, 2009, is incorporated by reference from the Annual Report on Form 10-K, filed on February 26, 2009, wherein it appeared as Exhibit 10.13.\*
- 10.15 Form of Stock Option Agreement under 2006 Long-Term Incentive Plan is incorporated by reference from the Current Report on Form 8-K filed on October 2, 2006, wherein it appeared as Exhibit 10.5.\*
- 10.16 Form of Restricted Stock Award Agreement under 2006 Long-Term Incentive Plan is incorporated by reference from the Current Report on Form 8-K filed on October 2, 2006, wherein it appeared as Exhibit 10.6.\*
- 10.17 Form of Restricted Stock and/or Option Award under 2006 Long-Term Incentive Plan is incorporated by reference from the Current Report on Form 8-K filed on October 2, 2006, wherein it appeared as Exhibit 10.7.\*
- 10.18 Form of Restricted Stock Award under the 2006 Long-Term Incentive Plan is incorporated by reference from the 2007 Annual Report on Form 10-K, filed on February 29, 2008, wherein it appeared as Exhibit 10.35.\*
- 10.19 Form of Stock Option Award under the 2006 Long-Term Incentive Plan is incorporated by reference from the Quarterly Report on Form 10-Q for the quarter ended March 31, 2008, filed on May 1, 2008, wherein it appeared as Exhibit 10.37.\*
- 10.20 Stock Option Award under the 2006 Long-Term Incentive Plan to Thomas B. Mangas is incorporated by reference from the Current Report on Form 8-K filed on April 6, 2010, wherein it appeared as Exhibit 10.1.\*
- 10.21 Form of Stock Option Award under the 2006 Long-Term Incentive Plan used in connection with award to Mr. McNamara is incorporated by reference from the Current Report on Form 8-K filed on April 6, 2010, wherein it appeared as Exhibit 10.2.\*
- 10.22 Stock Option and Performance Restricted Stock Unit Awards under the 2006 Long-Term Incentive Plan to Donald R. Maier dated September 7, 2010, is incorporated by reference from the Annual Report on Form 10-K filed on February 27, 2012, wherein it appeared as Exhibit 10.25.\*
- 10.23 Form of Stock Option and Restricted Stock Unit Award under the 2006 Long-Term Incentive Plan used in connection with awards to Mr. Grizzle in connection with new hire grant, is incorporated by reference from the Annual Report on Form 10-K filed on February 27, 2012, wherein it appeared as Exhibit 10.26.\*
- 10.24 Forms of Stock Option and Performance Restricted Stock Unit Award under the 2006 Long-Term Incentive Plan used in connection with March 2011 grants to officers (except Donald R. Maier) and new hire grant for Mark A. Hershey, is incorporated by reference from the Annual Report on Form 10-K filed on February 27, 2012, wherein it appeared as Exhibit 10.27.\*
- 10.25 2011 Long-Term Incentive Plan, effective as of June 24, 2011, is incorporated by reference to Armstrong World Industries, Inc.'s Definitive Proxy Statement on Schedule 14A for the Armstrong World Industries, Inc 2011 Annual Meeting of Shareholders held on June 24, 2011 filed on April 28, 2011, wherein it appeared as Exhibit A.\*

**Table of Contents**

- 10.26 Form of 2011 Long-Term Incentive Plan Terms and Conditions (Grant of Nonqualified Stock Options U.S. (Executive Officer)), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 30, 2012, wherein it appeared as Exhibit 10.1.\*
- 10.27 Form of 2011 Long-Term Incentive Plan Terms and Conditions (Grant of Nonqualified Stock Options U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 30, 2012, wherein it appeared as Exhibit 10.2.\*
- 10.28 Form of 2011 Long-Term Incentive Plan Terms and Conditions (Grant of Nonqualified Stock Options Non-U.S. (Executive Officer)), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 30, 2012, wherein it appeared as Exhibit 10.3.\*
- 10.29 Form of 2011 Long-Term Incentive Plan Terms and Conditions (Grant of Time-Based Restricted Stock Units U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 30, 2012, wherein it appeared as Exhibit 10.4.\*
- 10.30 Form of 2011 Long-Term Incentive Plan Terms and Conditions (Grant of Time-Based Restricted Stock Units Payable in Cash Non-U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 30, 2012, wherein it appeared as Exhibit 10.5.\*
- 10.31 Form of 2011 Long-Term Incentive Plan Terms and Conditions (Grant of Time-Based Restricted Stock Units Payable in Shares Non-U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 30, 2012, wherein it appeared as Exhibit 10.6.\*
- 10.32 Form of 2011 Long-Term Incentive Plan Terms and Conditions (Grant of Performance-Based Restricted Stock Units Payable in Shares U.S. (Executive Officer)), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 30, 2012, wherein it appeared as Exhibit 10.7.\*
- 10.33 Form of 2011 Long-Term Incentive Plan Terms and Conditions (Grant of Performance-Based Restricted Stock Units Payable in Shares U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 30, 2012, wherein it appeared as Exhibit 10.8.\*
- 10.34 Form of 2011 Long-Term Incentive Plan Terms and Conditions (Grant of Performance-Based Restricted Stock Units Payable in Cash Non-U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 30, 2012, wherein it appeared as Exhibit 10.9.\*
- 10.35 Form of 2011 Long-Term Incentive Plan Terms and Conditions (Grant of Performance-Based Restricted Stock Units Payable in Shares Non-U.S. (Executive Officer)), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 30, 2012, wherein it appeared as Exhibit 10.10.\*
- 10.36 Form of 2011 Long-Term Incentive Plan Terms and Conditions, as amended for 2013 (Grant of Nonqualified Stock Options U.S. (Executive Officer)), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 29, 2013, wherein it appeared as Exhibit 10.2.\*
- 10.37 Form of 2011 Long-Term Incentive Plan Terms and Conditions, as amended for 2013 (Grant of Nonqualified Stock Options U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 29, 2013, wherein it appeared as Exhibit 10.3.\*

**Table of Contents**

- 10.38 Form of 2011 Long-Term Incentive Plan Terms and Conditions, as amended for 2013 (Grant of Nonqualified Stock Options Non-U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 29, 2013, wherein it appeared as Exhibit 10.4.\*
- 10.39 Form of 2011 Long-Term Incentive Plan Terms and Conditions, as amended for 2014 (Grant of Nonqualified Stock Options U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 28, 2014, wherein it appeared as Exhibit 10.1.\*
- 10.40 Form of 2011 Long-Term Incentive Plan Terms and Conditions, as amended for 2014 (Grant of Nonqualified Stock Options Non-U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 28, 2014, wherein it appeared as Exhibit 10.2.\*
- 10.41 Form of 2011 Long-Term Incentive Plan Terms and Conditions, as amended for 2014 (Grant of Time-Based Restricted Stock Units U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 28, 2014, wherein it appeared as Exhibit 10.3.\*
- 10.42 Form of 2011 Long-Term Incentive Plan Terms and Conditions, as amended for 2014 (Grant of Time-Based Restricted Stock Units Payable in Cash Non-U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 28, 2014, wherein it appeared as Exhibit 10.4.\*
- 10.43 Form of 2011 Long-Term Incentive Plan Terms and Conditions, as amended for 2014 (Grant of Time-Based Restricted Stock Units Payable in Shares Non-U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 28, 2014, wherein it appeared as Exhibit 10.5.\*
- 10.44 Form of 2011 Long-Term Incentive Plan Terms and Conditions, as amended for 2014 (Grant of Performance Restricted Stock Units Payable in Shares U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 28, 2014, wherein it appeared as Exhibit 10.6.\*
- 10.45 Form of 2011 Long-Term Incentive Plan Terms and Conditions, as amended for 2014 (Grant of Performance Restricted Stock Units Payable in Cash Non-U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 28, 2014, wherein it appeared as Exhibit 10.7.\*
- 10.46 Form of 2011 Long-Term Incentive Plan Terms and Conditions, as amended for 2014 (Grant of Performance Restricted Stock Units Payable in Shares Non-U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 28, 2014, wherein it appeared as Exhibit 10.8.\*
- 10.47 Nonqualified Deferred Compensation Plan effective January 2005, as amended July 23, 2010, is incorporated by reference from the Annual Report on Form 10-K, filed on February 28, 2011, wherein in appeared as Exhibit 10.4.\*
- 10.48 Bonus Replacement Retirement Plan, effective as of January 1, 1998, as amended January 1, 2007, is incorporated by reference from the Annual Report on Form 10-K, filed on February 29, 2008, wherein it appeared as Exhibit 10.9.\*

**Table of Contents**

- 10.49 Retirement Benefit Equity Plan, effective January 1, 2005, as amended October 29, 2007 and December 8, 2008, is incorporated by reference from the Annual Report on Form 10-K, filed on February 26, 2009, wherein it appeared as Exhibit 10.2.\*
- 10.50 2006 Phantom Stock Unit Plan, as amended December 8, 2008, is incorporated by reference from the 2008 Annual Report on Form 10-K, filed on February 26, 2009, wherein it appeared as Exhibit 10.18.\*
- 10.51 2006 Phantom Stock Unit Agreement is incorporated by reference from the Current Report on Form 8-K filed on October 26, 2006, wherein it appeared as Exhibit 10.3. A Schedule of Participating Directors is incorporated by reference from the 2006 Annual Report on Form 10-K, filed on March 30, 2007, wherein it appeared as Exhibit 10.36.\*
- 10.52 2007 Award under the 2006 Phantom Stock Unit Agreement and the Schedule of Participating Directors are incorporated by reference from the Current Report on Form 8-K filed on October 23, 2007, wherein they appeared as Exhibits 10.1 and 10.2, respectively.\*
- 10.53 Schedule of Armstrong World Industries, Inc. Nonemployee Directors Compensation Summary is incorporated by reference from the Quarterly Report on Form 10-Q, filed on July 29, 2013, wherein it appeared as Exhibit 10.3.\*
- 10.54 The 2008 Directors Stock Unit Plan, as amended December 8, 2008, November 30, 2010 and June 24, 2011 is incorporated by reference to the Current Report on Form 8-K filed on June 13, 2011, wherein it appeared as Exhibit 99.2.\*
- 10.55 Form of 2009 Award under the 2008 Director Stock Unit Plan, as amended, is incorporated by reference from the Quarterly Report on Form 10-Q for the quarter ended September 30, 2009, filed on October 28, 2009, wherein it appeared as Exhibit 10.27.\*
- 10.56 Form of 2010 Award under the 2008 Directors Stock Unit Plan, as amended, is incorporated by reference from the Quarterly Report on Form 10-Q for the quarter ended September 30, 2009, filed on October 28, 2009, wherein it appeared as Exhibit 10.27.\*
- 10.57 Form of 2011, 2012, 2013 and 2014 Award under the 2008 Directors Stock Unit Plan, as amended, is incorporated by reference from the Annual Report on Form 10-K filed on February 27, 2012, wherein it appeared as Exhibit 10.40.\*
- 10.58 Employment Agreement with Matthew J. Espe dated June 24, 2010, is incorporated by reference from the Current Report filed on Form 8-K filed on June 25, 2010, wherein it appeared as Exhibit 10.1.\*
- 10.59 Letter Agreement with Matthew J. Espe dated December 31, 2012, is incorporated by reference from the Current Report filed on Form 8-K filed on January 4, 2013, wherein it appeared as Exhibit 10.4.\*
- 10.60 Offer Letter to Victor D. Grizzle dated January 4, 2011, is incorporated by reference from the Current Report on Form 8-K filed on January 10, 2011, wherein it appeared as Exhibit 99.2.\*
- 10.61 Offer Letter to Mark A. Hershey dated April 21, 2011, is incorporated by reference from the Current Report on Form 8-K filed on April 27, 2011, wherein it appeared as Exhibit 99.1.\*

**Table of Contents**

- 10.62 Offer Letter to Donald R. Maier dated January 19, 2010, as amended by a Letter Agreement dated January 17, 2013, is incorporated by reference from the Annual Report on Form 10-K filed on February 27, 2013, wherein it appeared as Exhibit 10.61.\*
- 10.63 Change in Control Agreement with Matthew Espe dated June 24, 2010, is incorporated by reference from the Current Report on Form 8-K filed on June 25, 2010, wherein it appeared as Exhibit 10.2.\*
- 10.64 Amendment to Change in Control Agreement with Matthew Espe dated December 31, 2012, is incorporated by reference from the Current Report filed on Form 8-K filed on January 4, 2013, wherein it appeared as Exhibit 10.3.\*
- 10.65 Form of Change in Control Agreement with Victor D. Grizzle, Mark A. Hershey, and Stephen F. McNamara, is incorporated by reference from the Current Report on Form 8-K filed on July 6, 2010, wherein it appeared as Exhibit 10.1.\*
- 10.66 Form of Amendment to Change in Control Agreement with Victor D. Grizzle, Mark A. Hershey, and Stephen F. McNamara, is incorporated by reference from the Current Report filed on Form 8-K filed on January 4, 2013, wherein it appeared as Exhibit 10.1.\*
- 10.67 Form of Change in Control Agreement with Ellen R. Romano and David S. Schulz, the terms of which are substantially identical to the terms included in the forms in Exhibits 10.70 and 10.71 from the Annual Report on Form 10-K filed on February 24, 2014, wherein it appeared as Exhibit 10.63.\*
- 10.68 Change in Control Severance Agreement with Donald R. Maier, dated as of November 17, 2014, is incorporated by reference from the Report on Form 8-K filed on November 18, 2014, wherein it appeared as Exhibit 10.1.\*
- 10.69 Form of Indemnification Agreement for Officers and Directors of Armstrong World Industries, Inc. is incorporated by reference from the Report on Form 8-K filed on June 4, 2010, wherein it appeared as Exhibit 10.1.
- 10.70 Separation of Employment and General Release Agreement dated as of November 5, 2013 by and between the Company and Frank J. Ready, is incorporated by reference from the Current Report on Form 8-K filed on December 2, 2013, wherein it appeared as Exhibit 10.1.
- 10.71 Transition Agreement with Donald R. Maier, dated as of March 31, 2014, is incorporated by reference from the Report on Form 8-K filed on April 4, 2014, wherein it appeared as Exhibit 10.1.\*
- 11 Computation of Earnings Per Share.
- 12 Computation of Ratio of Earnings to Fixed Charges.
- 14 The Armstrong Code of Business Conduct, revised as of July 29, 2011, is incorporated by reference from the Current Report on Form 8-K filed on August 1, 2011, wherein it appeared as Exhibit 14.1.
- 21 Armstrong World Industries, Inc. s Subsidiaries.
- 23.1 Consent of Independent Registered Public Accounting Firm.



**Table of Contents**

23.2	Consent of Independent Auditors.
31.1	Certification of Chief Executive Officer required by Rule 13a-15(e) or 15d-15(e) of the Securities Exchange Act.
31.2	Certification of Chief Financial Officer required by Rule 13a-15(e) or 15d-15(e) of the Securities Exchange Act.
32.1	Certification of Chief Executive Officer required by Rule 13a and 18 U.S.C. Section 1350 (furnished herewith).
32.2	Certification of Chief Financial Officer required by Rule 13a and 18 U.S.C. Section 1350 (furnished herewith).
99.1	Worthington Armstrong Venture consolidated financial statements as of December 31, 2014 and 2013 and for the years ended December 31, 2014, 2013 and 2012.
99.2	Armstrong World Industries, Inc. Asbestos Personal Injury Settlement Trust Agreement dated as of October 2, 2006, by and among Armstrong World Industries, Inc. and trustees, is incorporated by reference from the Current Report on Form 8-K filed on October 2, 2006, wherein it appeared as Exhibit 10.2.
99.3	Stockholder and Registration Rights Agreement, dated as of October 2, 2006, by and between Armstrong World Industries, Inc. and the Armstrong World Industries, Inc. Asbestos Personal Injury Settlement Trust is incorporated by reference from the Current Report on Form 8-K filed on October 2, 2006, wherein it appeared as Exhibit 10.3.
99.4	Nomination and Shareholder Agreement with the persons or entities identified on Schedule I attached thereto (collectively the ValueAct Group and each individually, a member of the ValueAct Group), and Gregory P. Spivy in his individual capacity and as a member of the ValueAct Group (the ValueAct Designee ), is incorporated by reference from the Report on Form 8-K filed on December 15, 2014, wherein it appeared as Exhibit 99.1.
101.INS	XBRL Instance Document, filed herewith.
101.SCH	XBRL Taxonomy Extension Schema, filed herewith.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase, filed herewith.
101.DEF	XBRL Taxonomy Extension Definition Linkbase, filed herewith.
101.LAB	XBRL Taxonomy Extension Label Linkbase, filed herewith.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase, filed herewith.

\* Management Contract or Compensatory Plan.  
Filed herewith.

Table of Contents

SIGNATURES

Pursuant to the requirements of Section 13 or 15(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.

ARMSTRONG WORLD INDUSTRIES, INC.

(Registrant)

By: /s/ Matthew J. Espe  
President and Chief Executive Officer

Date: February 23, 2015

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Report has been signed below by the following persons on behalf of the registrant Armstrong and in the capacities and on the dates indicated.

Directors and Principal Officers of the registrant AWI:

Name	Title
Matthew J. Espe	President and Chief Executive Officer (Principal Executive Officer)
David S. Schulz	Senior Vice President and Chief Financial Officer (Principal Financial Officer)
Stephen F. McNamara	Vice President and Controller (Principal Accounting Officer)
Stanley A. Askren	Director
James J. Gaffney	Director
Tao Huang	Director
Michael F. Johnston	Director
Jeffrey Liaw	Director
Larry S. McWilliams	Director
James C. Melville	Director
James J. O Connor	Director
John J. Roberts	Director
Gregory P. Spivy	Director
Richard E. Wenz	Director

By: /s/ Matthew J. Espe  
(Matthew J. Espe)

As of February 23, 2015

By: /s/ David S. Schulz  
(David S. Schulz)

As of February 23, 2015

By: /s/ Stephen F. McNamara  
(Stephen F. McNamara)

As of February 23, 2015

Table of Contents**SCHEDULE II**

## Armstrong World Industries, Inc., and Subsidiaries

## Valuation and Qualifying Reserves of Accounts Receivable

(amounts in millions)

	2014	2013	2012
<b><u>Provision for Losses</u></b>			
Balance at beginning of year	\$ 3.2	\$ 3.9	\$ 4.5
Additions charged to earnings	2.1	0.9	1.7
Deductions	(1.1)	(1.6)	(2.1)
Divestitures			(0.2)
Balance at end of year	\$ 4.2	\$ 3.2	\$ 3.9
<b><u>Provision for Discounts and Warranties</u></b>			
Balance at beginning of year	\$ 21.8	\$ 28.4	\$ 30.5
Additions charged to earnings	112.6	129.5	127.5
Deductions	(113.5)	(136.1)	(129.5)
Divestitures			(0.1)
Balance at end of year	\$ 20.9	\$ 21.8	\$ 28.4