

Armstrong Flooring, Inc.  
Form 10-K  
March 05, 2019

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

For the fiscal year ended December 31, 2018

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

Commission File Number 001-37589

ARMSTRONG FLOORING, INC.

(Exact name of Registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization) (I.R.S. employer Identification number)

47-4303305

2500 Columbia Avenue, PO Box 3025, Lancaster, Pennsylvania 17604

(Address of principal executive offices)

(717) 672-9611

(Registrant's telephone number, including area code)

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

Title of each class

Common Stock, \$0.0001 par value

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

Name of exchange on which registered

New York Stock Exchange

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes

No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that registrant was required to submit such files.) Yes  No

## Edgar Filing: Armstrong Flooring, Inc. - Form 10-K

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) 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, a smaller reporting company, or an emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer  Accelerated filer

Non-accelerated filer  Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the Registrant is a shell company (as defined by Rule 12b-2 of the Exchange Act).

Yes  No

The aggregate market value of the Common Stock of Armstrong Flooring, Inc. held by non-affiliates based on the closing price (\$14.04 per share) on the New York Stock Exchange (trading symbol AFI) as of June 30, 2018 was approximately \$292.3 million. As of February 28, 2019 the number of shares outstanding of the registrant's Common Stock was 25,835,850.

### DOCUMENTS INCORPORATED BY REFERENCE

Certain sections of Armstrong Flooring, Inc.'s definitive Proxy Statement for use in connection with its 2019 annual meeting of stockholders, to be filed no later than April 30, 2019 (120 days after the last day of our 2018 fiscal year), are incorporated by reference into Part III of this Form 10-K Report where indicated.

Armstrong Flooring, Inc.

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## CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

Certain statements in this Annual Report on Form 10-K ("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 commercial and residential markets and their effect on our operating results, and our ability to increase revenues, earnings and earnings before interest, taxes, depreciation and amortization. Words such as "anticipate," "expect," "intend," "plan," "target," "project," "predict," "believe," "may," "will," "would," "could," "should," "s" similar expressions are intended to 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;
- competition;
- availability and costs of raw materials and energy;
- key customers;
- construction activity;
- cost savings and productivity initiatives;
- strategic transactions;
- information systems and transition services;
- personnel;
- intellectual property rights;
- international operations;
- labor;
- claims and litigation;
- liquidity;
- debt;
- debt covenants;
- outsourcing;
- environmental and regulatory matters; and

other risks detailed from time to time in our filings with the Securities and Exchange Commission ("SEC"), press releases and other communications, including those set forth under "Risk Factors" included elsewhere in this 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.

## PART I

### Item 1. Business

Armstrong Flooring, Inc. ("AFI" or the "Company") is a Delaware corporation incorporated in 2015. When we refer to "AFI," "the Company," "we," "our," and "us" in this report, we are referring to Armstrong Flooring, Inc. and its consolidated subsidiaries.

We are a leading global producer of resilient flooring products for use primarily in the construction and renovation of commercial, residential and institutional buildings. We design, manufacture, source and sell flooring products primarily in North America and the Pacific Rim.

On April 1, 2016, we became an independent company as a result of the separation by Armstrong World Industries, Inc. ("AWI"), a Pennsylvania corporation, of its Resilient Flooring and Wood Flooring segments from its Building Products segment (the "Separation"). The Separation was effected by allocating the assets and liabilities related primarily to the Resilient Flooring and Wood Flooring segments to AFI and then distributing the common stock of AFI to AWI's shareholders (the "Distribution"). The Separation and Distribution (together, the "Spin-off") resulted in AFI and AWI becoming two independent, publicly traded companies, with AFI owning and operating the Resilient Flooring and Wood Flooring segments and AWI continuing to own and operate a ceilings business.

In November 2018, we entered into a definitive agreement to sell our North American wood flooring business to Tarzan Holdco, Inc. ("TZI"), a Delaware corporation and an affiliate of American Industrial Partners ("AIP"). The sale was completed on December 31, 2018. See Note 9 to the Consolidated Financial Statements for additional information related to discontinued operations. The historical financial results of the North American wood flooring business have been reflected in our Consolidated Financial Statements as a discontinued operation for all periods presented.

### Products and Markets

We hold leadership or significant market share positions in the product categories and markets in which we operate. We compete in the resilient flooring product category in North America and the Pacific Rim. The majority of our sales are in North America, where we serve both commercial and residential markets. In the Pacific Rim, we are principally focused on commercial markets.

The major markets in which we compete are:

North American Commercial — Our products are used in commercial and institutional buildings. Our revenue opportunities come from new construction as well as renovation of existing buildings. Industry analysts estimate that renovation work represents the majority of the total North American commercial market opportunity. Most of our revenue comes from four major segments of commercial building: education, healthcare, retail and office. We monitor U.S. construction starts and follow project activity. Our revenue from new construction can lag behind construction starts by as much as twenty-four months given that the installation of flooring typically occurs later in the construction process. We also monitor office vacancy rates, architectural activity, 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. We also believe that consumer preferences for product type, style, color, availability and affordability also significantly affect our revenue.

North American Residential — We sell products for use in single and multi-family housing. Homeowners, contractors, builders, and property management firms can choose from our innovative flooring products. We compete directly with other domestic and international suppliers of these products. Our flooring products also compete with carpet, stone, wood 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 a majority of the total

North American residential market opportunity. We monitor key U.S. statistics including 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 these indicators and our operating results. However, we 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 independent wholesale flooring distributors can significantly affect our revenue.

Outside of North America — We also serve commercial markets in the Pacific Rim region with over 80% of the sales in this region coming from China and Australia. The commercial segments we serve are similar to the North American market (education, retail, office and healthcare). However there is a higher penetration of resilient flooring in the hospitality (retail) and office segments in China than we see in North America. For the countries where we have significant revenue, we monitor various national statistics (such as GDP) as well as construction data (starts and project-related information).

LVT Investment — Luxury vinyl tile ("LVT") represents the fastest growing resilient flooring product category. Through enhanced wear layers and coatings, LVT delivers improved durability and lower maintenance over traditional vinyl tile. In addition, the utilization of advanced printing and embossing technology provides LVT with upgraded visual realism in a wide variety of attractive wood and stone designs. LVT's modular format offers a wide range of installation options for the professional and do-it-yourself installer, with an enhanced ease of installation when compared to other products such as wood or ceramic tile; this can be seen with the growing popularity of floating and rigid LVT floors. The largest market for LVT is North America. Historically, this market has been largely served by imported product manufactured in the Pacific Rim. In addition to our existing LVT capacity at our Kankakee, Illinois plant, we completed construction of an expansion to our Lancaster, Pennsylvania plant in 2016 and repurposed a portion of our Stillwater, Oklahoma vinyl sheet plant in 2017 to add LVT manufacturing capacity.

The following table provides an estimate of our 2018 net sales, by major markets.

North American Commercial		North American Residential		Outside of North America		Total
New	Renovation	New	Renovation	New	Renovation	
5%	35%	5%	35%	15%	5%	100%

Management has estimated the above data as the end-use of our products is not easily determinable.

#### Customers

We use our reputation, capabilities, service and brand recognition to develop long-standing relationships with our customers. We principally sell products through independent wholesale flooring distributors, who re-sell our products to retailers, builders, contractors, installers and others. In the commercial sector, we also have important relationships with subcontractors' alliances, large architect and design firms, and major facility owners in our focus segments. 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 and flooring retailers. In the North American residential sector, we also have important relationships with major home builders and retail buying groups. Additionally, when market conditions and available capacity warrant, we also provide products on an OEM basis to other flooring companies.

Approximately 75% of our consolidated net sales in 2018 are to distributors. Sales to large home centers account for approximately 15% of our consolidated sales in 2018. Our remaining sales are primarily to other retailers, end-use



customers and contractors.

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The Belknap White Group, which includes J. J. Haines and Company, Inc., accounted for 10% or more of our total consolidated net sales in 2018.

#### Working Capital

We produce goods for inventory and sell on credit to our customers. 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 flooring products compete with carpet, stone, wood and ceramic products. There is excess industry capacity for certain products in some geographies, which tends to increase price competition. The following companies are our primary competitors:

Beaulieu International Group, N.V., Congoleum Corporation, Forbo Holding AG, Gerflor Group, Halstead International (including Metroflor Corporation), Interface, Inc., Krono Holding AG, Mannington Mills, Inc., Mohawk Industries, Inc., Nora Systems GmbH (division of Interface, Inc), Shaw Industries, Inc., and Tarkett AG.

#### Raw Materials

We purchase raw materials from numerous suppliers worldwide in the ordinary course of business. The principal raw materials include: polyvinylchloride ("PVC") resins and films, plasticizers, fiberglass and felt backings, limestone, pigments, inks, stabilizers and coatings.

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. If these suppliers were unable to satisfy our requirements, we believe alternative supply arrangements would be available.

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.

#### Sourced Products

Some of our products are sourced from third parties. Our primary sourced products include LVT, vinyl sheet, installation and maintenance materials and accessories, and laminate. We purchase most of our sourced products from suppliers that are located outside of the U.S., primarily from Asia. Sales of sourced products represented approximately 35% of our total consolidated revenue in 2018.

In general, adequate supplies of sourced products are available to all of our businesses. However, availability can change for a number of reasons, including environmental conditions, laws and regulations, production and transportation disruptions and/or business decisions made by, or events that affect, our suppliers. If these suppliers were unable to satisfy our requirements, we believe alternative supply arrangements would be available.

## Seasonality

Generally, our sales in North America tend to be stronger in the second and third quarters of our fiscal year due to more favorable weather conditions, customer business cycles and education renovations typical during the summer months. We see similar patterns with respect to our sales in the Pacific Rim, though the timing of the Chinese New Year can affect buying behaviors.

## 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 AFI, including those before and after the Spin-off, 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.

We own or have a license to use certain trademarks, including, without limitation, Armstrong®, Alterna®, BBT®, Diamond 10® Technology, Excelon®, Imperial®, Initiator™, Inspiring Great Spaces®, Lock&Fold®, Luxe Plank®, Medintech®, Memories™, Natural Creations®, Station Square™, StrataMax®, Timberline®, and Vivero®, which 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 sublicense certain patents and trademarks to American Hardwood Flooring Company ("AHFC"), a subsidiary of TZI.

## Employees

As of December 31, 2018, we had approximately 1,800 full-time and part-time employees worldwide. Approximately 35% of our 900 production and maintenance employees are represented by labor unions. As of March 5, 2019, approximately 150 employees at one of our domestic plants continue to work under an expired collective bargaining agreement and negotiations continue. Contracts for remaining employees expire between 2019 and 2020. We believe that our relations with our employees are satisfactory. Out of our 1,800 employees, approximately 100 employees are part of the transition services agreement with TZI, and we expect most of them to transfer to TZI by the end of 2019.

## Legal and Regulatory Proceedings

AFI's 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.

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 and competitors, employees and other matters. For example, we are currently a party to various litigation matters that involve product liability, tort liability and other claims under a wide range of allegations, including illness due to exposure to certain chemicals used in the workplace, or medical conditions arising from exposure to product ingredients or the presence of trace contaminants. In some cases, these allegations involve multiple defendants and relate to legacy products that we and other defendants purportedly manufactured or sold. We believe these claims and allegations to be without merit and intend to defend them vigorously. 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, results of operations or cash flows.

We have not experienced a material adverse effect upon our capital expenditures or competitive position as a result of environmental control legislation and regulations. There were no material liabilities recorded at December 31, 2018 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 22 to the Consolidated Financial Statements and Risk Factors in 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 [www.armstrongflooring.com](http://www.armstrongflooring.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.

## 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;

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

- 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.

We compete with numerous flooring manufacturers in highly competitive markets. Competition can affect customer preferences, reduce demand for our products, negatively affect our product sales mix, leverage greater financial resources, or cause us to lower prices.

Our markets are highly competitive. We compete for sales of flooring products with many manufacturers and independent distributors of resilient flooring as well as with manufacturers who also produce other types of flooring products. Some of our competitors have greater financial resources than we do. Competition can reduce demand for our products, negatively affect our product sales mix or cause us to lower prices. Our failure to compete effectively through management of our product portfolio, by meeting consumer preferences, maintaining market share positions in our traditional categories and gaining market leadership in growth product categories such as LVT, 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 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.

If the availability of raw materials or energy decreases, or these and other sourcing 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 petroleum-based raw materials 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. We also source from overseas and could be subject to international trade costs, such as tariffs. This dependency and any 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, as well as increased transportation and trade costs, 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.

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.

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

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Our business has greater sales opportunities when construction activity is strong and, conversely, has 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 GDP, 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 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. We also announced a cost optimization plan in connection with the sale of our wood business. 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.

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 operations could be materially and adversely affected.

Disruptions to or failures of our various information systems could have an adverse effect on our business and could impact our ability to perform transitional services following the sale of our wood business.

We rely heavily on our information systems to operate our business activities, including, among other things, purchasing, distribution, inventory management, processing, shipping and receiving, billing and collection, financial reporting and record keeping. We also rely on our computer hardware, software and network for the storage, delivery and transmission of data to our sales and distribution systems, and certain of our production processes are managed and conducted by computer. Any interruption, whether caused by human error, natural disasters, power loss, computer viruses, system conversion, intentional acts of vandalism, or various forms of cyber crimes including and not limited to hacking, intrusions, malware or otherwise, could disrupt our normal operations and inhibit our ability to perform certain transition services in connection with the sale of our wood business. There can be no assurance that we can effectively carry out our disaster recovery plan to handle the failure of our information systems, or that we will be able to restore our operational capacity within sufficient time to avoid material disruption to our business. The occurrence of any of these events could cause unanticipated disruptions in service, decreased customer service and customer

satisfaction, harm to our reputation and loss or misappropriation of sensitive information, which could result in loss of customers, increased operating expenses and financial losses. Any such events could in turn have a material adverse effect on our business, financial condition, results of operations, and prospects.

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Our performance depends on our ability to attract, develop and retain talented management.

We must attract, develop and retain qualified and talented personnel in senior management, sales, marketing, product design, and operations. We compete with numerous companies for these employees and invest resources in recruiting, developing, motivating and retaining them. The failure to attract, develop, motivate and retain key employees could negatively affect our competitive position, execution on strategic priorities and operating results.

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 will 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, will 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 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 portion of our products move in international trade, with approximately 15% of our revenues from operations outside the United States and Canada in 2018. Our international trade is subject to currency exchange fluctuations, trade regulations, tariffs, 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, 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. 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, which 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.

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 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

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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.

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 will 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, or were improperly installed 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. For example, we are currently a party to various litigation matters that involve product liability, tort liability and other claims under a wide range of allegations, including illness due to exposure to certain chemicals used in the workplace, or medical conditions arising from exposure to product ingredients or the presence of trace contaminants. In some cases, these allegations involve multiple defendants and relate to legacy products that we and other defendants purportedly manufactured or sold. While we have processes and policies designed to mitigate these risks and to investigate and address such claims as they arise, we will not be able to 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.

We require a significant amount of liquidity to fund our operations.

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 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 pursuing;  
• 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.

Our credit agreement contains 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.

Our \$150 million secured credit facility (the “Credit Facility”) and the underlying credit agreement that governs our indebtedness includes covenants that, among other things, may impose significant operating and financial restrictions, including restrictions or limitations on our ability to engage in activities that may be in our best long-term interests. These covenants may restrict or limit our ability to:

- incur additional indebtedness;
- pay dividends on our capital stock or redeem, repurchase or retire our capital stock or indebtedness;
- make investments, loans, advances and acquisitions;
- engage in transactions with our affiliates;
- sell assets, including capital stock of our subsidiaries;
- consolidate or merge;
- create liens;
- change the nature of our business; and
- enter into sale and lease back transactions.

Under the terms of the Credit Facility, we are required to maintain a specified fixed charge coverage and net leverage 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 Credit Facility. If any such default occurs, the lenders under the 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.

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 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 22 to the Consolidated Financial Statements for further information related to environmental matters.

Our industry has been subject to claims relating to raw materials. 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.

#### Risks Related to the Separation from AWI

If the Separation and Distribution fails to qualify as a tax-free transaction for U.S. federal income tax purposes, then we could be subject to significant tax liability or tax indemnity obligations.

AWI received an opinion of AWI's tax counsel, Skadden, Arps, Slate, Meagher & Flom LLP, on the basis of certain facts, representations, covenants and assumptions set forth in such opinion, substantially to the effect that, for U.S. federal income tax purposes, the Separation and Distribution should qualify as a transaction that generally is tax-free to AWI and AWI's shareholders, for U.S. federal income tax purposes, under Sections 355 and 368(a)(1)(D) of the Internal Revenue Code.

Notwithstanding the tax opinion, the Internal Revenue Service ("IRS") could determine on audit that the Distribution should be treated as a taxable transaction if it determines that any of the facts, assumptions, representations or covenants set forth in the tax opinion is not correct or has been violated, or that the Distribution should be taxable for other reasons, including as a result of a significant change in stock or asset ownership after the Distribution, or if the IRS were to disagree with the conclusions of the tax opinion. If the Distribution is ultimately determined to be taxable, the Distribution could be treated as a taxable dividend to shareholders for U.S. federal income tax purposes, and shareholders could incur significant U.S. federal income tax liability. In addition, AWI and/or we could incur significant U.S. federal income tax liabilities or tax indemnification obligations, whether under applicable law or the Tax Matters Agreement that we entered into with AWI, if it is ultimately determined that certain related transactions undertaken in anticipation of the Distribution are taxable.

We will be required to satisfy certain indemnification obligations to AWI or may not be able to collect on indemnification rights from AWI.

Under the terms of the Separation and Distribution, we will indemnify AWI from and after the Separation and Distribution with respect to (i) all debts, liabilities and obligations allocated or transferred to us in connection with the Separation and Distribution (including our failure to pay, perform or otherwise promptly discharge any such debts, liabilities or obligations after the Separation and Distribution), (ii) any misstatement or omission of a material fact in our Information Statement, dated March 24, 2016, resulting in a misleading statement, (iii) any breach by us of the Separation and Distribution Agreement, the Employee Matters Agreement, the Tax Matters Agreement, the Campus Lease Agreement or the Trademark License Agreements and (iv) our ownership and operation of our business. We are

not aware of any existing indemnification obligations at this time, but any such indemnification obligations that may arise could be significant. Under the terms of the Separation and Distribution Agreement, AWI will indemnify us from and after the Separation and Distribution with respect to (i) all debts, liabilities and obligations allocated to AWI after the Separation and Distribution (including its failure to pay, perform or otherwise promptly discharge any such debts, liabilities or

obligations after the Separation and Distribution), (ii) any breach by AWI of the Separation and Distribution Agreement, the Employee Matters Agreement, the Tax Matters Agreement, the Campus Lease Agreement or the Trademark License Agreements and (iii) AWI's ownership and operation of its business. Our and AWI's ability to satisfy these indemnities, if called upon to do so, will depend upon our and AWI's future financial strength. If we are required to indemnify AWI, or if we are not able to collect on indemnification rights from AWI, our financial condition, liquidity or results of operations could be materially and adversely affected. We cannot determine whether we will have to indemnify AWI, or if AWI will have to indemnify us, for any substantial obligations after the Distribution.

#### Risks Related to our Common Stock

A stockholder's percentage of ownership in us may be diluted in the future.

A stockholder's percentage ownership in us may be diluted because of equity issuances for acquisitions, capital market transactions or otherwise, including, without limitation, equity awards that we may grant to our directors, officers and employees. Such issuances may have a dilutive effect on our earnings per share, which could adversely affect the market price of our common stock.

In addition, our amended and restated certificate of incorporation authorizes us to issue, without the approval of our stockholders, one or more classes or series of preferred stock having such designation, powers, preferences and relative, participating, optional and other special rights, including preferences over our common stock with respect to dividends and distributions, as our board of directors generally may determine. The terms of one or more classes or series of preferred stock could dilute the voting power or reduce the value of our common stock. For example, we could grant the holders of preferred stock the right to elect some number of our directors in all events or on the happening of specified events or to veto specified transactions. Similarly, the repurchase or redemption rights or liquidation preferences we could assign to holders of preferred stock could affect the residual value of our common stock.

Certain provisions in our amended and restated certificate of incorporation and bylaws, and of Delaware law, may prevent or delay an acquisition of our company, which could decrease the trading price of our common stock.

Our amended and restated certificate of incorporation and amended and restated bylaws contain, and Delaware law contains, provisions that are intended to deter coercive takeover practices and inadequate takeover bids by making such practices or bids unacceptably expensive to the bidder and to encourage prospective acquirers to negotiate with our board of directors rather than to attempt a hostile takeover. These provisions include, among others:

- the inability of our stockholders to call a special meeting;
- rules regarding how stockholders may present proposals or nominate directors for election at stockholder meetings;
- the right of our board of directors to issue preferred stock without stockholder approval;
- the initial division of our board of directors into three classes of directors, with each class serving a staggered three-year term, and this classified board provision could have the effect of making the replacement of incumbent directors more time consuming and difficult until we have phased out our staggered board;
- a provision that directors serving on a classified board may be removed by stockholders only for cause; and
- the ability of our directors, and not stockholders, to fill vacancies on our board of directors.

In addition, because we are subject to Section 203 of the General Corporation Law of the State of Delaware (the "DGCL"), this provision could also delay or prevent a change in control that stockholders may favor. Section 203

provides that, subject to limited exceptions, persons that acquire, or are affiliated with a person that acquires, more than 15% of the outstanding voting stock of a Delaware corporation shall not engage in any business combination with that corporation, including by merger, consolidation or acquisitions of additional shares, for a three-year period following

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the date on which that person or its affiliates becomes the holder of more than 15% of the corporation's outstanding voting stock.

We believe these provisions will protect our stockholders from coercive or otherwise unfair takeover tactics by requiring potential acquirers to negotiate with our board of directors and by providing our board of directors with more time to assess any acquisition proposal. These provisions are not intended to make us immune from takeovers. However, these provisions will apply even if the offer may be considered beneficial by some stockholders and the provisions could delay or prevent an acquisition that our board of directors determines is not in the best interests of AFI and its stockholders. These provisions may also prevent or discourage attempts to remove and replace incumbent directors.

Item 1B. Unresolved Staff Comments

None.

## Item 2. Properties

Our world headquarters is located in Lancaster, Pennsylvania. We entered into a lease agreement with AWI under which we lease certain portions of their current headquarters as our corporate headquarters. See Note 7 to the Consolidated Financial Statements for a discussion of the terms of the Campus Lease Agreement. We have also subleased a portion of our corporate headquarters to TZI in connection with the sale of our wood business.

We produce and market our flooring products and services throughout the world, owning and operating 8 manufacturing plants in three countries. We operate 6 manufacturing plants located throughout the United States, (California, Illinois, Mississippi, Oklahoma, and Pennsylvania) and one plant each in China and Australia.

Our 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

We are involved in various claims and legal actions arising in the ordinary course of business. In the opinion of our management, the ultimate disposition of these matters will not have a material adverse effect on our consolidated financial condition, results of operations or cash flows.

## Item 4. Mine Safety Disclosures

Not applicable.

## PART II

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

AFI's common shares trade on the New York Stock Exchange under the ticker symbol "AFI." As of February 28, 2019, there were approximately 214 holders of record of AFI's common stock.

There were no dividends declared during 2018 or 2017.

AFI currently expects to return a portion of the net proceeds from the sale of the wood business to shareholders in an amount, manner, and timing to be determined by the board of directors. Return of the net proceeds rests solely within the discretion of our board of directors and will depend, among other things, upon AFI's earnings, capital requirements, financial condition, legal requirements, regulatory constraints, covenants associated with certain of AFI's debt service obligations, industry practice, and other relevant factors as determined by our board of directors.

## Issuer Purchases of Equity Securities

The following table includes information about our stock repurchases from October 1, 2018 to December 31, 2018:

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	Approximate Dollar Value of Shares that may yet be Purchased under the Plans or Programs
October 1 - 31, 2018	259	\$17.96	—	\$9 million
November 1 - 30, 2018	258	\$16.02	—	\$9 million
December 1 - 31, 2018	—	—	—	\$9 million
Total	517	—	—	\$9 million

<sup>1</sup> Shares reacquired through the withholding of shares to pay employee tax obligations upon the exercise of options or vesting of restricted units granted under our long-term incentive plans and those previously granted under AWI's long-term incentive plans, which were converted to AFI units on April 1, 2016.

## 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 Consolidated Financial Statements for periods prior to the Spin-off include the historical results of operations, assets and liabilities of the legal entities that are considered to comprise AFI and may not be indicative of results had we actually been a separate stand-alone entity during such periods, nor are they necessarily indicative of our future financial position, results of operations and cash flows. The historical financial results of the North American wood flooring business have been reflected in our Consolidated Financial Statements as a discontinued operation for all periods presented.

(Dollars in millions, except per share data)	Year Ended December 31,				
	2018	2017	2016	2015	2014
Income statement data					
Net sales	\$728.2	\$704.1	\$710.1	\$716.9	\$717.3
Operating (loss) income	(17.4 )	(12.7 )	(12.5 )	(11.7 )	17.9
(Loss) income from continuing operations	(19.1 )	(17.1 )	(16.2 )	(6.4 )	8.6
Per common share - basic <sup>(1)</sup>	\$(0.73 )	\$(0.63 )	\$(0.58 )	\$(0.23 )	\$0.31
Per common share - diluted <sup>(1)</sup>	(0.73 )	(0.63 )	(0.58 )	(0.23 )	0.31
Dividends declared per share of common stock	—	—	—	—	—
Balance sheet data (end of period)					
Total assets	\$708.2	\$890.1	\$904.4	\$870.6	\$858.0
Long-term debt	70.6	85.0	20.0	10.2	10.2

<sup>(1)</sup> For 2014-2015, basic and diluted earnings (loss) per share were calculated based on 27,738,779 shares of AFI common stock distributed on April 1, 2016.



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

### Overview

Armstrong Flooring, Inc. ("AFI" or the "Company") is a leading global producer of flooring products for use primarily in the construction and renovation of commercial, residential and institutional buildings. We design, manufacture, source and sell resilient flooring products primarily in North America and the Pacific Rim. As of December 31, 2018, we operated 8 manufacturing plants in three countries, including 6 manufacturing plants located throughout the U.S. and one plant each in China and Australia.

### Geographic Areas

See Note 3 to the Consolidated Financial Statements for additional financial information by geographic areas.

### Recent Events

On April 1, 2016, Armstrong World Industries, Inc. ("AWI"), a Pennsylvania corporation, separated AWI's Resilient Flooring and Wood Flooring segments from its Building Products segment (the "Separation"). The Separation was effected by allocating the assets and liabilities related primarily to the Resilient Flooring and Wood Flooring segments to AFI and then distributing the common stock of AFI to AWI's shareholders (the "Distribution"). The Separation and Distribution (together, the "Spin-off") resulted in AWI and AFI becoming two independent, publicly traded companies, with AFI owning and operating the Resilient Flooring and Wood Flooring segments and AWI continuing to own and operate a ceilings business. On the distribution date, each holder of AWI common stock received one share of AFI's common stock for every two shares of AWI's common stock held on the record date.

The Spin-off was completed pursuant to a Separation and Distribution Agreement and several other agreements with AWI related to the Separation, including a Transition Services Agreement, a Tax Matters Agreement, an Employee Matters Agreement, a Trademark License Agreement, a Transition Trademark Agreement and a Campus Lease Agreement, each of which was filed with the SEC as an exhibit to our Current Report on Form 8-K on April 4, 2016. These agreements govern the relationship between AFI and AWI following the Spin-off and provided for the allocation of various assets, liabilities, rights and obligations. For a discussion of each agreement, see the section entitled "Certain Relationships and Related Person Transactions — Agreements with AWI" in our Information Statement, dated March 24, 2016.

Our Registration Statement on Form 10 was declared effective by the SEC on March 15, 2016 and our common stock began regular-way trading on the New York Stock Exchange on April 4, 2016 under the symbol AFI.

During the second quarter of 2017, we acquired vinyl composition tile ("VCT") assets of Mannington Mills, Inc., a nationally recognized flooring company, for a cash purchase price of \$36.1 million including transaction costs (the "VCT Acquisition"). See Note 15 to the Consolidated Financial Statements for further information.

On November 14, 2018, AFI entered into a Stock Purchase Agreement with Tarzan Holdco Inc., ("TZI"), an affiliate of American Industrial Partners ("AIP"), to sell our North American wood flooring business. On December 31, 2018 AIP completed the purchase of all of the issued and outstanding shares of Armstrong Wood Products, Inc., a Delaware Corporation ("AWP"), including its direct and indirect wholly owned subsidiaries. We received proceeds of \$90.2 million, net of closing costs, transaction fees and taxes. The transaction is subject to a customary post-closing working capital adjustment process. The historical financial results of the North American wood flooring business have been

reflected in our Consolidated Financial Statements as a discontinued operation for all periods presented.

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

### Factors Affecting Our Business

#### Net Sales

#### Overview

Demand for our products is influenced by economic conditions. We closely monitor publicly available macroeconomic trend data that provides insight to commercial and residential market activity; this includes Gross Domestic Product growth indices, the Architecture Billings Index and the Consumer Confidence Index, as well as housing starts and existing home sales.

Demand for our products is also influenced by consumer preferences. During 2018, we continued to experience growth in the demand for luxury vinyl tile ("LVT") in conjunction with a decline in our traditional resilient products, particularly vinyl sheet. In addition, our channel partners raise or lower their inventory levels according to their expectations of market demand and consumer preferences, which directly affects our sales. Higher than normal inventory levels at distributors could impact sales in the first quarter of 2019, as could continued uncertainty around tariffs from products imported from China.

#### Markets

We compete in both the commercial and residential markets in North America and primarily the commercial market in the Pacific Rim. Our business operates in a competitive environment across all our product categories, and excess capacity exists in much of the industry. We continue to see efforts by various competitors to price aggressively as a means to gain market share.

We have experienced a decline in demand for our traditional resilient products, particularly vinyl sheet products used in residential applications. The decline in vinyl sheet is driven by loss of market share to competitors as well as consumer trends, which have continued to favor alternate products, including LVT products.

The flooring market continues to experience LVT growth. Given its attractive visuals and performance characteristics, LVT growth has exceeded that of the overall flooring market. We believe LVT growth has and will continue to come partially at the expense of other product categories in both the soft and hard surface flooring markets, with the largest impacts on the AFI portfolio within the vinyl sheet and VCT categories.

We are the largest producer of VCT. The market for VCT, which is primarily used in commercial environments, is a mature and well-structured category.

#### Operating Expenses

We have experienced increased raw material prices and basic energy costs which we expect to continue to experience in 2019. Additionally, we expect increases in transportation costs in 2019.

#### Tariff

The U.S. government announced a tariff of 10% on certain flooring products imported to the U.S. from China, effective on September 24, 2018. This tariff increase has an impact on products we import from China. In order to partially offset the impact, we have implemented price increases that went into effect in the fourth quarter of 2018. A

potential tariff increase to 25% was announced but has been delayed indefinitely. We expect to implement additional price changes in line with potential tariff rate increases if and when they become effective.

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

## Results of Operations

## 2018 Compared to 2017

## Consolidated Results from Continuing Operations

(Dollars in millions)	Year Ended December 31,			
	2018	2017	Change	
			\$	%
Net sales	\$728.2	\$704.1	\$24.1	3.4 %
Cost of goods sold	585.0	553.0	32.0	5.8 %
Gross profit	143.2	151.1	(7.9 )	(5.2)%
Selling, general and administrative expenses	160.6	163.8	(3.2 )	(2.0)%
Operating (loss)	(17.4 )	(12.7 )	(4.7 )	NM
Interest expense	4.8	2.7	2.1	
Other expense, net	2.9	3.7	(0.8 )	
(Loss) from continuing operations before income taxes	(25.1 )	(19.1 )	(6.0 )	
Income tax (benefit)	(6.0 )	(2.0 )	(4.0 )	
(Loss) from continuing operations	(19.1 )	(17.1 )	(2.0 )	
Earnings (loss) from discontinued operations, net of tax	9.9	(24.7 )	34.6	
Loss on disposal of discontinued operations, net of tax	(153.8 )	—	(153.8 )	
Net loss from discontinued operations	\$(143.9)	\$(24.7)	\$(119.2)	
Net (loss)	\$(163.0)	\$(41.8)	\$(121.2)	

NM: not meaningful

## Net Sales

Net sales by percentage point change are shown in the table below:

(Dollars in millions)	Year Ended		Change		Percentage Point Change		
	2018	2017	\$	%	Due to		
					Price/Volume	Mix	Currency
	\$728.2	\$704.1	\$24.1	3.4%	1.0	(2.2 )	4.5 0.1

Net sales for the year ended December 31, 2018 increased compared to the year ended December 31, 2017 primarily due to favorable mix and increase in price in response to higher input costs, partially offset by lower volume. Double-digit sales growth in LVT contributed to favorable mix while volume was impacted by declines in traditional categories.

## Operating (Loss)

Operating results for the year ended December 31, 2018 declined compared to the year ended December 31, 2017. The decline reflected the impact of higher input costs which more than offset the benefit of higher net sales, lower manufacturing costs, improved productivity and lower selling, general and administrative ("SG&A") expenses.



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

Other expense, net: Other expense, net of \$2.9 million and \$3.7 million for the years ended December 31, 2018 and 2017, respectively, primarily reflected costs for defined-benefit pension and postretirement plans.

Income tax expense: For the year ended December 31, 2018 we recorded an income tax benefit of \$6.0 million compared to an income tax benefit of \$2.0 million for the year ended December 31, 2017. The effective tax rates were 23.9% and 10.5% for the years ended December 31, 2018 and 2017, respectively. The tax benefit rate was higher in 2018 primarily due to domestic valuation allowances established during the prior period and the release of foreign valuation allowances in 2018 offset by the reduction in the U.S. tax rate from 35% to 21% in 2018.

Discontinued operations: For the year ended December 31, 2018 and 2017 discontinued operations earnings of \$9.9 million and loss of \$24.7 million, respectively, reflected the operating results of the North American wood flooring business. In 2018, we recognized a loss on the sale of the North American wood flooring business of \$153.8 million. See Note 9 to the Consolidated Financial Statements.

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

## 2017 Compared to 2016

## Consolidated Results from Continuing Operations

(Dollars in millions)	Year Ended December 31,			
	2017	2016	Change	
			\$	%
Net sales	\$704.1	\$710.1	\$(6.0 )	(0.8)%
Cost of goods sold	553.0	554.5	(1.5 )	(0.3)%
Gross profit	151.1	155.6	(4.5 )	(2.9)%
Selling, general and administrative expenses	163.8	168.1	(4.3 )	(2.6)%
Operating (loss)	(12.7 )	(12.5 )	(0.2 )	NM
Interest expense	2.7	1.5	1.2	
Other expense, net	3.7	6.9	(3.2 )	
(Loss) from continuing operations before income taxes	(19.1 )	(20.9 )	1.8	
Income tax (benefit)	(2.0 )	(4.7 )	2.7	
(Loss) from continuing operations	(17.1 )	(16.2 )	(0.9 )	
(Loss) earnings from discontinued operations, net of tax	(24.7 )	25.4	(50.1 )	
Net (loss) income	\$(41.8 )	\$9.2	\$(51.0)	

NM: not meaningful

## Net Sales

Net sales by percentage point change are shown in the table below:

(Dollars in millions)	Year Ended		Change		Percentage Point Change Due			
	December 31,				to			
	2017	2016	\$	%	Price	Volume	Mix	Currency
	\$704.1	\$710.1	\$(6.0)	(0.8)%	(1.3)	(2.3 )	2.7	0.1

Net sales for the year ended December 31, 2017 decreased compared to the year ended December 31, 2016 primarily due to lower volume and price, partially offset by favorable mix. Lower volume reflected a decline in sales of vinyl sheet and laminate products, partially offset by higher sales of LVT, which continued to achieve double-digit growth, and VCT. The decline in price reflected continued competitive pressure across our product categories. Favorable mix was driven by growth from our LVT products relative to declines in traditional categories.

## Operating (Loss)

Operating results for the year ended December 31, 2017 declined slightly compared to the year ended December 31, 2016. The decline reflected the impact of lower sales and higher input costs, partially offset by lower manufacturing costs, including lower costs related to our Lancaster, PA LVT operations compared to the prior-year period, and lower SG&A expenses.

Other expense, net: Other expense, net of \$3.7 million and \$6.9 million for the years ended December 31, 2017 and 2016, respectively, primarily reflected costs for defined-benefit pension and postretirement plans and, in 2016, the translation of unhedged cross-currency intercompany loans.





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

Income tax expense: For the year ended December 31, 2017, income tax benefit was \$2.0 million compared to an income tax benefit of \$4.7 million for the year ended December 31, 2016. The effective tax rates were 10.5% and 22.5% for the years ended December 31, 2017 and 2016, respectively. The loss from continuing operations in 2017 resulted in the recognition of domestic valuation allowances in the period. These valuation allowances, net of the effect from the geographic distribution of earnings and losses, resulted in a lower effective tax rate compared to 2016.

Discontinued operations: For the years ended December 31, 2017 and December 31, 2016 (loss) earnings from discontinued operations primarily reflected the operating results of our former North American wood flooring business. For the year ended December 31, 2016, discontinued operations also included \$1.7 million of non-cash tax benefits for our former European resilient flooring business related to pension expense deductions. See Note 9 to the Consolidated Financial Statements.

Liquidity and Capital Resources

In March 2017, our board of directors authorized a share repurchase program of up to \$50.0 million. The authorization of the repurchase program is aligned with our goal to increase the efficiency of our capital structure over time while preserving sufficient liquidity to invest in growth projects and other value-accretive opportunities. During 2018, we repurchased \$1.0 million of the Company's outstanding stock. From inception of the program through year end 2018, we repurchased 2.5 million shares under the program for a total cost of \$41.0 million. Any shares not used to fulfill employee stock award obligation are held in treasury as of December 31, 2018.

Our primary sources of liquidity are, and we anticipate that they will continue to be, cash generated from operations and borrowings under our new secured Credit Facility described below. We believe these sources are sufficient to fund our capital needs, planned capital expenditures, and to meet our interest and other contractual obligations in the near term, as well as any further share repurchases. Our liquidity needs for operations vary throughout the year with the majority of our cash flows generated in the second and third quarters. We believe the absence of cash flow from discontinued operations will not materially impact our future liquidity and capital resources.

Prior to the Spin-off, deemed transfers of cash to and from AWI's cash management system were reflected in net AWI investment in the historical combined financial statements.

Cash and cash equivalents totaled \$173.8 million as of December 31, 2018 of which \$140.9 million was held in the U.S.

Cash Flows

The discussion that follows includes cash flows related to discontinued operations.

The table below shows our cash provided (used) by operating, investing and financing activities:

(Dollars in millions)	Year Ended		
	December 31,		
	2018	2017	2016
Cash provided by operating activities	\$62.5	\$62.9	\$54.0
Cash provided by (used for) investing activities	60.6	(80.5 )	(36.9 )
Cash provided by financing activities	13.3	24.4	14.5



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

### Operating activities

Operating activities for 2018 provided \$62.5 million of cash. Cash was generated from earnings exclusive of net non-cash expenses, primarily loss on sale of discontinued operations, and depreciation and amortization. Changes in working capital primarily reflected higher inventory levels, higher accounts payable and accrued expenses, and lower accounts receivable.

Operating activities for 2017 provided \$62.9 million of cash. Cash was generated through earnings exclusive of non-cash expenses, primarily depreciation and amortization, impairment and pension, and by changes in working capital. Changes in working capital primarily reflected lower inventories, partially offset by lower accounts payable and accrued expenses and changes in other assets and liabilities.

Operating activities for 2016 provided \$54.0 million of cash. Cash was generated through earnings exclusive of non-cash expenses, primarily depreciation and amortization, partially offset by increased working capital. Increased working capital primarily reflected net changes in inventories and accounts payable and accrued expenses.

### Investing activities

Investing activities for 2018 provided cash of \$60.6 million primarily due to the net proceeds from the sale of discontinued operations, partially offset by purchases of property, plant and equipment.

Net cash used for investing activities of \$80.5 million and \$36.9 million for the years ended December 31, 2017 and 2016, respectively, was primarily due to purchases of property, plant and equipment. Included in the 2017 outflow was the cash paid for the acquisition of the VCT assets of Mannington Mills, Inc. for \$36.1 million including transaction costs.

### Financing activities

Net cash provided by financing activities was \$13.3 million, \$24.4 million and \$14.5 million for the years ended December 31, 2018, 2017 and 2016, respectively. Cash provided in 2018 primarily reflected proceeds from our new debt facility, partially offset by net payments on our ABL facility. Cash provided in 2017 primarily reflected net proceeds from debt partially offset by purchases of treasury stock. Cash provided in 2016 primarily reflected net proceeds from debt and transfers from AWI, net of the distribution paid at Separation.

### Debt

In connection with the sale of the wood business, on December 31, 2018, we entered into a credit agreement (the "Credit Agreement"). The Credit Agreement provides us with a \$150.0 million secured credit facility (the "Credit Facility"), consisting of a \$75.0 million revolving facility and a \$75.0 million term loan facility. The revolving facility includes a \$25.0 million sublimit for the issuance of letters of credit and a \$15.0 million sublimit for swing line loans. The Credit Facility is scheduled to mature on December 31, 2023. The Credit Agreement provides for an uncommitted accordion feature that allows us to request an increase in the revolving facility or the term loan facility in an aggregate amount not to exceed \$25.0 million.

As of December 31, 2018, total borrowings outstanding under our Credit Facility were \$75.0 million under Term Loan A and \$25.0 million under the revolving Credit Facility, while outstanding letters of credit were \$3.9 million. Proceeds from the new Credit Facility were utilized to repay borrowings of \$94.0 million under the \$225.0 million

ABL facility dated April 1, 2016. The \$225.0 million ABL Facility was closed as of December 31, 2018, without penalty. Capitalized fees related to the ABL facility of \$0.6 million were expensed as of December 31, 2018.

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

Borrowings under the new Credit Facility bear interest at a rate equal to an adjusted base rate or the London Interbank Offered Rate ("LIBOR") plus an applicable margin, which varies according to the net leverage ratio and was 0.75% as of December 31, 2018. As of December 31, 2018, the interest rate of 6.25% was determined using the base rate plus applicable margin. On January 4, 2019, the interest rate of 4.26% was determined as borrowings were converted to use LIBOR plus the applicable margin. We are required to pay a commitment fee, payable quarterly in arrears, on the average daily unused amount of the revolving Credit Facility, which varies according to the net leverage ratio and was 0.20% as of December 31, 2018. Outstanding letters of credit issued under the Credit Facility are subject to fees which will be due quarterly in arrears based on the applicable margin described above plus a fronting fee. The total rate for letters of credit was 1.875% as of December 31, 2018.

All obligations under the Credit Agreement are guaranteed by each of our wholly owned domestic subsidiaries that individually, or together with its subsidiaries, has assets of more than \$1.0 million. All obligations under the Credit Agreement, and guarantees of those obligations, are secured by all of the present and future assets of the Company and the guarantors, subject to certain exceptions and exclusions as set forth in the Credit Agreement and other security and collateral documents.

Borrowings under the revolving portion of the Credit Facility are presented on our Consolidated Balance Sheet as a short-term obligation. Borrowings under the Term Loan A portion of the Credit Facility are segregated on our Consolidated Balance Sheet with \$70.6 million net of fees shown as a long-term obligation and \$3.7 million presented as a short-term obligation due to quarterly principal repayment installments.

### Debt Covenants

The Credit Agreement requires us to comply with certain financial covenants calculated for the Company and its subsidiaries on a consolidated basis. Specifically, the Credit Agreement requires that we and our subsidiaries not:

• Permit the Consolidated Net Leverage Ratio (as defined in the Credit Agreement) at any time to be greater than 3.00 to 1.00; and

• Permit the Consolidated Fixed Charge Coverage Ratio (as defined in the Credit Agreement) at any time to be less than 1.25 to 1.00.

The Credit Agreement also contains customary affirmative covenants and events of default, including a cross-default provision in respect of any other indebtedness that has an aggregate principal amount exceeding \$15.0 million.

Our foreign subsidiaries had available lines of credit totaling \$8.7 million; there were no borrowing under these lines of credit as of December 31, 2018.

### 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 under contractual obligations existing as of December 31, 2018. 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

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

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.

(Dollars in millions)	2019	2020	2021	2022	2023	Thereafter	Total
Debt	\$3.7	\$3.8	\$7.5	\$7.5	\$77.5	\$ —	\$100.0
Operating lease obligations <sup>(1)</sup>	10.0	7.1	2.0	0.3	0.2	0.8	20.4
Scheduled interest and fee payments <sup>(2)</sup>	4.4	3.8	4.0	3.8	3.8	—	19.8
Unconditional purchase obligations <sup>(3)</sup>	11.6	6.4	1.4	—	—	—	19.4
Pension contributions <sup>(4)</sup>	0.2	—	—	—	—	—	0.2
Other obligations <sup>(5)</sup>	6.0	—	—	—	—	—	6.0
Total contractual obligations	\$35.9	\$21.1	\$14.9	\$11.6	\$81.5	\$ 0.8	\$165.8

<sup>(1)</sup> Operating lease obligations include the minimum payments due under existing agreements with non-cancelable lease terms in excess of one year.

<sup>(2)</sup> For debt with variable interest rates, we projected future interest payments based on market interest rates and the balance outstanding as of December 31, 2018.

<sup>(3)</sup> 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 on usage.

<sup>(4)</sup> Pension contributions include estimated required contributions for our defined-benefit pension plans. We are not presenting estimated payments in the table above beyond 2019 as funding can vary significantly from year to year based upon changes in the fair value of plan assets, funding regulations and actuarial assumptions.

<sup>(5)</sup> Other obligations include inventory in transit where the title has not been assumed by us, however we are committed to make payment once the shipment reaches its destination as per the contract.

The table does not include \$1.6 million of unrecognized tax benefits 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 8 to the Consolidated Financial Statements for more information.

This table excludes obligations related to postretirement benefits since we voluntarily provide these benefits. The amount of benefit payments we made in 2018 was \$8.0 million. See Note 18 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 2020. Had these agreements terminated as of December 31, 2018, we would have been obligated to purchase approximately \$2.1 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.

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, 2018. Letters of credit are currently arranged through our Credit Facility. See Note 17 to the Consolidated Financial Statements for more information.





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

(Dollars in millions)	2019	2020	2021	2022	2023	Thereafter	Total
Other Commercial Commitments							
Letters of credit	\$3.9	—	—	—	—	—	\$3.9

## 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 ongoing 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 and Postretirement Benefit Costs** — We maintain pension and postretirement plans throughout North America, 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 mortality rates. 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, 2018, we assumed a discount rate of 4.40% for the U.S. defined-benefit pension plans. As of December 31, 2018, we assumed a discount rate of 4.30% for the U.S. postretirement plans. The effects of any change in discount rate will be amortized into earnings as described below. Absent any other changes, a one-quarter percentage point increase or decrease in the discount rates for the U.S. pension and postretirement plans would change 2019 operating income by approximately \$1.2 million.

We manage 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 20 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. These forecasted gross returns are reduced by estimated management fees and expenses. The actual loss on plan assets achieved for 2018 was 5.90%. 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 2018 U.S. pension cost was 5.85%. We have assumed a return on plan assets during 2019 of 6.30%. The 2019 expected return on assets was calculated in a manner consistent with 2018. A one-quarter percentage point increase or decrease in the 2019 assumption would increase or decrease 2019 operating income by approximately \$0.9 million.

We use the Society of Actuaries RP-2014 Generational Mortality Table with MP-2018 generational projection scales.

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

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 nine years for our U.S. postretirement plans. Changes in assumptions could have significant effects on earnings in future years.

See Note 18 to the Consolidated Financial Statements for additional information.

**Impairments of Intangible and Tangible Assets** — We review long-lived asset groups, which include long-lived intangible and tangible assets, for impairment when indicators of impairment exist, such as operating losses and/or negative cash flows. If an evaluation of the undiscounted future cash flows generated by the asset indicates impairment, the asset is written down to its estimated fair value, which is based on its discounted future cash flows. The principal assumption used in these impairment tests is future cash flows, which are derived from those used in our operating plan and strategic planning processes.

The revenue and cash flow estimates used in applying our impairment and recoverability tests are based on management's analysis of information available at the time of the impairment test. Actual results lower than the estimate could lead to significant future impairments. If future testing indicates that fair values have declined below carrying value, our financial condition and results of operations would be affected.

There were no material impairment charges in 2018.

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 2 and 15 to the Consolidated Financial Statements for additional information.

**Income Taxes** — For purposes of our Consolidated Financial Statements, for the periods prior to April 1, 2016, we recorded income tax expense and deferred tax balances as if we filed separate tax returns on a stand-alone basis apart from AWI, which we refer to as the "separate return method." The separate return method applies the accounting guidance for income taxes to the stand-alone financial statements as if we were a separate taxpayer and a stand-alone enterprise for the periods presented. The calculation of the provision for income taxes, deferred tax assets and liabilities, valuation allowances against deferred tax assets, and accruals for uncertain tax positions on a separate return basis requires a considerable amount of judgment and use of both estimates and allocations. As a stand-alone entity, our deferred taxes and effective tax rate may differ from those in the historical periods.

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”) 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,

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

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.

As further described in Note 8 to the Consolidated Financial Statements, our Consolidated Balance Sheet as of December 31, 2018 includes net deferred income tax assets of \$33.4 million. Included in this amount are deferred federal income tax assets for postretirement and postemployment benefits of \$16.7 million, foreign NOL deferred tax assets of \$16.3 million, state NOL deferred income tax assets of \$0.7 million, and federal NOL deferred income tax assets of \$2.3 million. We have established valuation allowances in the amount of \$29.7 million consisting of \$17.5 million for foreign deferred tax assets, primarily foreign operating loss carryovers, \$2.8 million for state deferred tax assets, and \$9.4 million federal 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.

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 \$69.6 million for state income tax purposes during the respective realization periods (ranging from 2019 to 2038) in order to fully realize the net deferred income tax assets.

Our ability to utilize deferred tax assets may be impacted by certain future events, such as changes in tax legislation and insufficient future taxable income prior to expiration of certain deferred tax assets.

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.

See Note 8 to the Consolidated Financial Statements for additional information.

Sales-related Accruals - We provide direct customer and end-user warranties for our products and honor approved accommodation claims. Standard warranties cover manufacturing defects that would prevent the product from performing in line with its intended and marketed use. Generally, the terms of these warranties range up to 30 years

(limited lifetime), and provide for the repair or replacement of the defective product including limited labor costs. We collect and analyze warranty and accommodation claims data with a focus on the historical amount of claims, the products involved, the amount of time between the warranty claims and the products' respective sales and the amount of current sales.

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

We also maintain numerous customer relationships that incorporate different sales incentive programs (primarily volume rebates and promotions). The rebates vary by customer and usually include tiered incentives based on the level of customers' purchases. Certain promotional allowances are also tied to customer purchase volumes. We estimate the amount of expected annual sales during the course of the year and use the projected sales amount to estimate the cost of the incentive programs. For sales incentive programs that are on the same calendar basis as our fiscal calendar, actual sales information is used in the year-end accruals.

The amount of actual experience related to these accruals could differ significantly from the estimated amounts during the year. If this occurs, we adjust our accruals accordingly. We maintained sales-related accruals for warranty and accommodation claims and sales incentives of \$13.6 million and \$13.0 million as of December 31, 2018 and 2017, respectively. We record the costs of these accruals as a reduction of gross sales.

### Accounting Pronouncements Effective in Future Periods

See Note 2 to the Consolidated Financial Statements for a description of recent accounting pronouncements including the dates, or expected dates, of adoption, and effects, or expected effects, on our disclosures, results of operations, and financial condition.



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

## Market Risk

We are exposed to market risk from changes in foreign currency exchange rates that could impact our financial condition, results of operations and cash flows. We enter into derivative contracts, including contracts to hedge our foreign currency exchange rate exposures. Forward swap contracts are entered into for periods consistent with underlying exposure and do not constitute positions independent of those exposures. Derivative financial instruments are used 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 exposure to potential nonperformance on such instruments. Developments in the capital markets are regularly monitored.

We are subject to interest rate market risk in connection with our Credit Facility. As of December 31, 2018, our Credit Facility provided variable rate borrowings consisting of a \$75.0 million revolving facility and a \$75.0 million term loan facility. The revolving facility includes a \$25.0 million sublimit for the issuance of letters of credit and a \$15.0 million sublimit for swing loans, net of \$3.9 million of letters of credit. The Term Loan A portion of our Credit Facility bears interest at a variable rate based on LIBOR or a base rate plus an applicable margin. An assumed 25 basis point change in interest rates would change interest expense on our Credit Facility by \$0.4 million if fully drawn and outstanding for the entire year.

## Counterparty Risk

We only enter into derivative transactions with established counterparties having a credit rating of BBB or better, and counterparty credit default swap levels and credit ratings are monitored on a regular basis in an effort to reduce the risk of counterparty default. All of our derivative transactions with counterparties are governed by master International Swap and Derivatives Association, Inc. 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 neither post nor receive cash collateral with any counterparty for our derivative transactions. As of December 31, 2018, we had no cash collateral posted or received for any of our derivative transactions. These ISDAs do not have credit contingent features; however, a default under our Credit Facility would trigger a default under these agreements.

## Exchange Rate Sensitivity

We manufacture and sell our products in a number of countries 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. AFI enters into foreign currency forward exchange contracts to reduce its remaining exposure. As of December 31, 2018, our major foreign currency exposures are to the Canadian Dollar, the Chinese Renminbi, and the Australian Dollar. A 10% strengthening of all currencies against the U.S. dollar compared to December 31, 2018 levels would increase our forecasted 2019 earnings before income taxes by approximately \$0.4 million, including the impact of current foreign currency forward exchange contracts.

The table below details our outstanding currency instruments as of December 31, 2018:

(Dollars in millions)	Maturing in 2019	Maturing in 2020	Total
On Balance Sheet Foreign Exchange Related Derivatives			
Notional amounts	\$ 39.0	\$ 3.6	\$42.6

Liabilities at fair value, net	1.0	0.1	1.1
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Item 8. Financial Statements

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

	Page Number
<u>Reports of Independent Registered Public Accounting Firm</u>	<u>33</u>
Financial Statements:	
<u>Consolidated Statements of Operations for the Years Ended December 31, 2018, 2017 and 2016</u>	<u>36</u>
<u>Consolidated Statements of Comprehensive Income (Loss) for the Years Ended December 31, 2018, 2017 and 2016</u>	<u>37</u>
<u>Consolidated Balance Sheets as of December 31, 2018 and 2017</u>	<u>38</u>
<u>Consolidated Statements of Stockholders' Equity for the Years Ended December 31, 2018, 2017 and 2016</u>	<u>39</u>
<u>Consolidated Statements of Cash Flows for the Years Ended December 31, 2018, 2017 and 2016</u>	<u>40</u>
<u>Notes to Consolidated Financial Statements</u>	<u>41</u>

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors

Armstrong Flooring, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Armstrong Flooring, Inc. and subsidiaries (the “Company”) as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income (loss), stockholders’ equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes and financial statement schedule of valuation and qualifying reserves (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company’s internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 5, 2019 expressed an unqualified opinion on the effectiveness of the Company’s internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, effective January 1, 2018, the Company adopted Financial Accounting Standards Board (FASB) Topic 606, Revenue from Contracts with Customers, and the related FASB Accounting Standard Updates using the modified retrospective transition method.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company’s auditor since 2015.

Philadelphia, Pennsylvania

March 5, 2019

Report of Independent Registered Public Accounting Firm



To the Stockholders and Board of Directors

Armstrong Flooring, Inc.:

Opinion on Internal Control Over Financial Reporting

We have audited Armstrong Flooring, Inc. and subsidiaries' (the "Company") internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets of the Company as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes and financial statement schedule of valuation and qualifying reserves (collectively, the "consolidated financial statements"), and our report dated March 5, 2019 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

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 Report on Internal Control over Financial Reporting within Item 9A. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. 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 of internal control over financial reporting 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.

Definition and Limitations of Internal Control Over Financial Reporting

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.

/s/ KPMG LLP

Philadelphia, Pennsylvania  
March 5, 2019

Armstrong Flooring, Inc. and Subsidiaries  
 Consolidated Statements of Operations  
 (Dollars in millions, except per share data)

	Year Ended December 31,		
	2018	2017	2016
Net sales	\$728.2	\$704.1	\$710.1
Cost of goods sold	585.0	553.0	554.5
Gross profit	143.2	151.1	155.6
Selling, general and administrative expenses	160.6	163.8	168.1
Operating (loss)	(17.4 )	(12.7 )	(12.5 )
Interest expense	4.8	2.7	1.5
Other expense, net	2.9	3.7	6.9
(Loss) from continuing operations before income taxes	(25.1 )	(19.1 )	(20.9 )
Income tax (benefit)	(6.0 )	(2.0 )	(4.7 )
(Loss) from continuing operations	(19.1 )	(17.1 )	(16.2 )
Earnings (loss) from discontinued operations, net of tax	9.9	(24.7 )	25.4
Loss on disposal of discontinued operations, net of tax	(153.8 )	—	—
Net (loss) earnings from discontinued operations	(143.9 )	(24.7 )	25.4
Net (loss) income	\$(163.0)	\$(41.8)	\$9.2
Basic (loss) earnings per share of common stock:			
Basic (loss) per share of common stock from continuing operations	\$(0.73 )	\$(0.63 )	\$(0.58 )
Basic (loss) earnings per share of common stock from discontinued operations	(5.54 )	(0.91 )	0.91
Basic (loss) earnings per share of common stock	\$(6.27 )	\$(1.54 )	\$0.33
Diluted (loss) earnings per share of common stock:			
Diluted (loss) per share of common stock from continuing operations	\$(0.73 )	\$(0.63 )	\$(0.58 )
Diluted (loss) earnings per share of common stock from discontinued operations	(5.54 )	(0.91 )	0.90
Diluted (loss) earnings per share of common stock	\$(6.27 )	\$(1.54 )	\$0.32

See accompanying notes to consolidated financial statements.



Armstrong Flooring, Inc. and Subsidiaries  
 Consolidated Statements of Comprehensive Income (Loss)  
 (Dollars in millions, except per share data)

	Year Ended December		
	31,		
	2018	2017	2016
Net (loss) income	\$(163.0)	\$(41.8)	\$9.2
Changes in other comprehensive (loss) income, net of tax:			
Foreign currency translation adjustments	(6.0 )	7.2	(8.2 )
Derivatives gain (loss)	1.7	(1.5 )	(1.6 )
Pension and postretirement adjustments	7.8	1.6	2.2
Total other comprehensive income (loss)	3.5	7.3	(7.6 )
Total comprehensive (loss) income	\$(159.5)	\$(34.5)	\$1.6

See accompanying notes to consolidated financial statements.

Armstrong Flooring, Inc. and Subsidiaries  
Consolidated Balance Sheets  
(Dollars in millions, except par value)

	December 31, 2018	December 31, 2017
Assets		
Current assets:		
Cash	\$ 173.8	\$ 40.1
Accounts and notes receivable, net	39.0	52.6
Inventories, net	139.5	117.0
Current assets of discontinued operations	—	149.5
Income tax receivable	0.6	3.6
Prepaid expenses and other current assets	18.0	27.5
Total current assets	370.9	390.3
Property, plant and equipment, less accumulated depreciation and amortization of \$318.8 and \$296.1, respectively	296.1	310.6
Intangible assets, less accumulated amortization of \$12.0 and \$5.2, respectively	32.0	38.6
Noncurrent assets of discontinued operations	—	130.3
Deferred income taxes	5.6	14.0
Other noncurrent assets	3.6	6.3
Total assets	\$ 708.2	\$ 890.1
Liabilities and Stockholders' Equity		
Current liabilities:		
Short-term debt	\$ 25.0	\$ —
Current installments of long-term debt	3.7	—
Accounts payable and accrued expenses	141.4	124.1
Current liabilities of discontinued operations	—	26.1
Income tax payable	0.5	0.8
Total current liabilities	170.6	151.0
Long-term debt	70.6	85.0
Postretirement benefit liabilities	55.7	69.9
Pension benefit liabilities	11.3	2.3
Other long-term liabilities	6.7	7.2
Noncurrent liabilities of discontinued operations	—	22.7
Noncurrent income taxes payable	0.2	0.1
Deferred income taxes	2.1	1.9
Total liabilities	317.2	340.1
Stockholders' equity:		
Common stock with par value \$.0001 per share: 100,000,000 shares authorized; 28,284,358 issued and 25,832,193 outstanding shares as of December 31, 2018 and 28,183,218 issued and 25,734,222 outstanding shares as of December 31, 2017	—	—
Preferred stock with par value \$.0001 per share: 15,000,000 shares authorized; none issued	—	—
Treasury stock, at cost, 2,452,165 shares as of December 31, 2018 and 2,448,996 shares as of December 31, 2017	(39.7	) (39.9 )
Additional paid-in capital	678.6	674.2
(Accumulated deficit)	(186.3	) (31.8 )
Accumulated other comprehensive (loss)	(61.6	) (52.5 )

Total stockholders' equity	391.0	550.0
Total liabilities and stockholders' equity	\$ 708.2	\$ 890.1

See accompanying notes to consolidated financial statements.

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Armstrong Flooring, Inc. and Subsidiaries  
Consolidated Statements of Stockholders' Equity  
(Dollars in millions)

	Common Stock		Treasury Stock		Net AWI Investment	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings (Accumulated Deficit)	Total Equity
	Shares	Amount	Shares	Amount					
December 31, 2015	—	\$ —	—	\$—	\$ 622.0	\$—	\$ 2.0	\$ —	\$ 624.0
Net (loss) income	—	—	—	—	(0.8 )	—	—	10.0	9.2
Net transfers from (to) AWI	—	—	—	—	96.6	—	(54.2 )	—	42.4
Cash distribution paid to AWI	—	—	—	—	(50.0 )	—	—	—	(50.0 )
Reclassification of net parent investment to additional paid-in capital	—	—	—	—	(667.8 )	667.8	—	—	—
Issuance of common stock at separation	27,738,779	—	—	—	—	—	—	—	—
Stock-based employee compensation, net	156,892	—	—	—	—	5.5	—	—	5.5
Other comprehensive (loss)	—	—	—	—	—	—	(7.6 )	—	(7.6 )
December 31, 2016	27,895,671	\$ —	—	\$—	\$—	\$ 673.3	\$ (59.8 )	\$ 10.0	\$ 623.5
Net (loss)	—	—	—	—	—	—	—	(41.8 )	(41.8 )
Net transfers to AWI	—	—	—	—	(0.8 )	—	—	—	(0.8 )
Repurchase of common stock	(2,455,604 )	—	2,455,604	(40.0 )	—	—	—	—	(40.0 )
Reclassification of net parent investment to additional paid-in capital	—	—	—	—	0.8	(0.8 )	—	—	—
Stock-based employee compensation, net	294,155	—	(6,608 )	0.1	—	1.7	—	—	1.8
Other comprehensive income	—	—	—	—	—	—	7.3	—	7.3
December 31, 2017	25,734,222	\$ —2,448,996	—	\$ (39.9 )	\$—	\$ 674.2	\$ (52.5 )	\$ (31.8 )	\$ 550.0
Cumulative effect of adoption of ASC 606 new revenue recognition standard as of January 1	—	—	—	—	—	—	—	(4.1 )	(4.1 )
Cumulative effect of adoption on ASU 2018-02 related to tax reform as of January 1	—	—	—	—	—	—	(12.6 )	12.6	—
Net (loss)	—	—	—	—	—	—	—	(163.0 )	(163.0 )

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Repurchase of common stock	(69,353 )	—	69,353	(1.0 )	—	—	—	(1.0 )					
Stock-based employee compensation, net	167,324	—	(66,184 )	1.2	—	4.4	—	5.6					
Other comprehensive income	—	—	—	—	—	—	3.5	3.5					
December 31, 2018	25,832,193	\$	—2,452,165	\$	(39.7)	\$	—678.6	\$	(61.6 )	\$	(186.3 )	\$	391.0

See accompanying notes to consolidated financial statements.

Armstrong Flooring, Inc. and Subsidiaries  
Consolidated Statements of Cash Flows  
(Dollars in millions)

	Year Ended December		
	31,		
	2018	2017	2016
Cash flows from operating activities:			
Net (loss) income	\$(163.0)	\$(41.8)	\$9.2
Adjustments to reconcile net (loss) income to net cash provided by operating activities:			
Depreciation and amortization	55.1	78.7	46.6
Loss on disposal of discontinued operations	153.8	—	—
Intangible asset impairment	—	12.5	—
Deferred income taxes	2.4	(3.0)	(5.2)
Stock-based compensation	5.4	2.2	5.7
U.S. pension expense	6.8	8.9	6.5
Write off of debt financing costs	0.6	—	—
Other non-cash adjustments, net	(0.8)	(0.6)	6.0
Changes in operating assets and liabilities:			
Receivables	16.3	(2.5)	(3.2)
Inventories	(39.4)	30.4	(19.8)
Accounts payable and accrued expenses	16.8	(10.5)	9.9
Income taxes payable and receivable	2.8	(3.0)	(0.6)
Other assets and liabilities	5.7	(8.4)	(1.1)
Net cash provided by operating activities	62.5	62.9	54.0
Cash flows from investing activities:			
Purchases of property, plant and equipment	(35.3)	(44.8)	(37.6)
Net proceeds from sale of discontinued operations	90.2	—	—
Proceeds from the sale of assets	5.7	0.4	0.5
Cash paid for acquisition	—	(36.1)	—
Other investing activities	—	—	0.2
Net cash provided by (used for) investing activities	60.6	(80.5)	(36.9)
Cash flows from financing activities:			
Proceeds from revolving credit facility	82.0	90.0	110.0
Payments on revolving credit facility	(142.0)	(25.0)	(90.0)
Issuance of long-term debt	75.0	—	—
Financing costs	(0.7)	—	(1.4)
Payments of long-term debt	—	—	(10.0)
Payments on capital lease	(0.2)	(0.2)	—
Purchases of treasury stock	(1.0)	(40.0)	—
Cash distribution paid to AWI	—	—	(50.0)
Proceeds from exercised stock options	0.8	1.4	0.3
Value of shares withheld related to employee tax withholding	(0.6)	(1.8)	—
Net transfers from AWI	—	—	55.6
Net cash provided by financing activities	13.3	24.4	14.5
Effect of exchange rate changes on cash and cash equivalents	(1.6)	1.6	(1.0)
Net increase in cash and cash equivalents	134.8	8.4	30.6
Cash and cash equivalents at beginning of year	39.0	30.6	—

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Cash and cash equivalents at end of year	\$173.8	\$39.0	\$30.6
Cash and cash equivalents at end of year from discontinued operations	—	(1.1 )	(1.6 )
Cash and cash equivalents at end of year of continuing operations	\$173.8	\$40.1	\$32.2
Supplemental Cash Flow Disclosure:			
Amounts in accounts payable for capital expenditures	\$8.5	\$7.8	\$12.9
Interest paid	3.4	2.8	1.5
Income taxes (refunded) paid, net	(1.4 )	(2.8 )	8.1
Supplemental Schedule of Non-Cash Investing and Financing Activities:			
Capital expenditures funded by capital lease borrowings	\$—	\$—	\$1.2
See accompanying notes to consolidated financial statements.			

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Armstrong Flooring, Inc. and Subsidiaries  
Notes to Consolidated Financial Statements  
(Dollars in millions, except per share data)

NOTE 1. BUSINESS AND BASIS OF PRESENTATION

Business

Armstrong Flooring, Inc. ("AFI") is a leading global producer of resilient flooring products for use primarily in the construction and renovation of residential, commercial and institutional buildings. AFI designs, manufactures, sources and sells resilient flooring products in North America and the Pacific Rim. When we refer to "AFI," "the Company," "we," "our," and "us" in this report, we are referring to Armstrong Flooring, Inc., a Delaware corporation, and its consolidated subsidiaries.

Former Parent Separation

On April 1, 2016, we became an independent company as a result of the separation by Armstrong World Industries, Inc. ("AWI"), a Pennsylvania corporation, of its Resilient Flooring and Wood Flooring segments from its Building Products segment (the "Separation"). The Separation was effected by allocating the assets and liabilities related primarily to the Resilient Flooring and Wood Flooring segments to AFI and then distributing the common stock of AFI to AWI's shareholders (the "Distribution"). The Separation and Distribution (together, the "Spin-off") resulted in AFI and AWI becoming two independent, publicly traded companies, with AFI owning and operating the Resilient Flooring and Wood Flooring segments and AWI continuing to own and operate a ceilings business.

Discontinued Operations

On November 14, 2018, AFI entered into a Stock Purchase Agreement with Tarzan Holdco, Inc. ("TZI"), a Delaware corporation and an affiliate of American Industrial Partners ("AIP"), to sell its North American wood flooring business. On December 31, 2018, AIP completed the purchase of all of the issued and outstanding shares of Armstrong Wood Products, Inc. ("AWP"), a Delaware corporation, including its direct and indirect wholly owned subsidiaries.

Basis of Presentation

The historical results of operations and financial position of the North American wood flooring business are reported as discontinued operations in the Consolidated Statements of Operations and the Consolidated Balance Sheets. The historical information in the accompanying Notes to the Consolidated Financial Statements have been restated to reflect the effects of the sale of the North American wood flooring business. For further information on discontinued operations, see Note 9.

Prior to April 1, 2016, AFI operated as a part of AWI. The financial information for periods prior to April 1, 2016 was prepared on a combined basis from AWI's historical accounting records and is presented herein on a stand-alone basis as if the operations had been conducted independently of AWI. Beginning April 1, 2016, the financial information was prepared on a consolidated basis. The Consolidated Financial Statements of AFI presented are not indicative of our future performance, and, for periods prior to April 1, 2016, do not necessarily reflect what our historical financial condition, results of operations and cash flows would have been if we had operated as a separate, stand-alone entity during those periods.

For periods prior to April 1, 2016, AFI was comprised of certain stand-alone legal entities for which discrete financial information was available, as well as portions of legal entities for which discrete financial information was not available (the "Shared Entities"). For the Shared Entities for which discrete financial information was not available, such as shared utilities, taxes, and other shared costs, allocation methodologies were applied to allocate amounts to AFI. The Consolidated Statements of Operations and Comprehensive Income (Loss) for these periods include all revenues and costs attributable to AFI, including costs for facilities, functions and services used by AFI. The results of operations for those periods also include allocations of costs for administrative functions and services performed on behalf of AFI by centralized staff groups within AWI, AWI's general corporate expenses and certain pension and other retirement benefit costs for those periods. All of the allocations and estimates in the Consolidated Financial



Statements are based on assumptions that AFI management believes are reasonable.

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Armstrong Flooring, Inc. and Subsidiaries  
Notes to Consolidated Financial Statements  
(Dollars in millions, except per share data)

All charges and allocations of cost for facilities, functions and services performed by AWI prior to the Spin-off were deemed paid by AFI to AWI in cash, in the period in which the cost was recorded in the Consolidated Statements of Operations. Prior to the Spin-off, transactions between AWI and AFI were accounted for through net AWI investment. Prior to the Spin-off, AFI's portion of current income taxes payable was deemed to have been remitted to AWI in the period the related tax expense was recorded. AFI's portion of current income taxes receivable was deemed to have been remitted to AFI by AWI in the period to which the receivable applies only to the extent that a refund of such taxes could have been recognized by AFI on a stand-alone basis under the law of the relevant taxing jurisdiction.

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

**Consolidation Policy**

The Consolidated Financial Statements and accompanying data in this report include the accounts of AFI and its 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 ("GAAP"), 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 2018 presentation.

**Revenue Recognition**

We recognize revenue when control of the promised goods is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods.

Our primary performance obligation to our customers is the delivery of flooring products pursuant to purchase orders. Control of the products we sell transfers to our customers at the point in time when the goods are shipped. Our standard sales terms are primarily Free On Board ("FOB") shipping point. Our typical payment terms are 30 days and our sales arrangements do not contain any significant financing component for our customers. Our customer arrangements do not generate contract assets or liabilities that are material to the Consolidated Financial Statements.

Each purchase order sets forth the transaction price for the products purchased under that arrangement. Some customer arrangements include variable consideration, such as volume rebates, some of which depend upon our customers meeting specified performance criteria, such as a purchasing level over a period of time. We use judgment to estimate the most likely amount of variable consideration at each reporting date.

We generally do not incur any incremental costs to obtain or fulfill our customer contracts that require capitalization and expense such costs as incurred when the amortization period is less than one year.

We disaggregate revenue based on customer geography as this category represents the most appropriate depiction of how the nature, timing and uncertainty of revenues and cash flows are impacted by economic factors. See Note 3 to the Consolidated Financial Statements for our revenues disaggregated by geography.

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Armstrong Flooring, Inc. and Subsidiaries  
Notes to Consolidated Financial Statements  
(Dollars in millions, except per share data)

#### Warranties

We provide our customers with a product warranty that provides assurance that the products we sell meet standard specifications and are free of defects. We maintain a reserve for claims incurred under our standard product warranty programs. We allocate a portion of the transaction price for each sale to our performance obligation to provide service type warranties to our customers.

#### Sales Incentives

Sales incentives to customers are reflected as a reduction of net sales.

#### Shipping and Handling Costs

We treat shipping and handling that occurs after our customer obtains control of the products as a fulfillment activity and not as a promised service. Shipping and handling costs are reflected as a component of cost of goods sold.

#### Advertising Costs

We recognize advertising expenses 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. The cost of plan amendments that provide for benefits already earned by plan participants is amortized over the expected future working lifetime or the life expectancy of plan participants. A market-related value of plan assets methodology is utilized in the calculation of expected return on assets. The methodology recognizes gains and losses on long duration bonds immediately, while gains and losses on other assets are recognized in the calculation over a five-year period. We use a December 31 measurement date for our pension and postretirement benefit plans.

#### Taxes

For the periods prior to April 1, 2016, operations of certain businesses included in our Consolidated Financial Statements are divisions of legal entities included in AWI's consolidated U.S. federal and state income tax returns, or tax returns of non-U.S. subsidiaries of AWI. The provision for income taxes and related balance sheet accounts of such entities have been prepared and presented in the Consolidated Financial Statements based on a separate return basis. Differences between our separate return income tax provision and cash flows attributable to income taxes for businesses that were divisions of legal entities have been recognized as capital contributions from, or dividends to, AWI within net AWI investment.

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 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

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Armstrong Flooring, Inc. and Subsidiaries  
Notes to Consolidated Financial Statements  
(Dollars in millions, except per share data)

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 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 account for all interest and penalties on uncertain income tax positions as income tax expense.

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 sum of the weighted average number of shares of common stock outstanding during the period and the weighted average number of stock-based awards that have vested but not yet been issued 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.

#### 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 and miscellaneous receivables, net of allowances for doubtful accounts, customer credits and warranties are reported in accounts and notes receivable on a net basis. Cash flows from the collection of receivables are classified as operating cash flows on the Consolidated Statements of Cash Flows.

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 available financial statements and forecasts, as well as discussions with legal counsel and the management of the debtor company. We provide allowances as events occur which impact the collectibility of the receivable. 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

U.S. inventories are valued at the lower of cost or market, and cost is determined using the last-in, first-out ("LIFO") method of accounting. Non-U.S. inventories are valued at the lower of cost or net realizable value, and cost is determined using the first-in, first-out ("FIFO") method of accounting.

Property Plant and Equipment

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Armstrong Flooring, Inc. and Subsidiaries  
Notes to Consolidated Financial Statements  
(Dollars in millions, except per share data)

Property, plant and equipment is recorded at cost reduced by accumulated depreciation. Depreciation expense is recognized on a straight-line basis over 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 accelerated obsolescence or wear, such as tooling and engraving equipment, are depreciated over shorter periods (3 to 7 years). Heavy production equipment, such as conveyors, kilns and mixers, 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 amortized over 3 to 7 years.

Property, plant and equipment is tested for impairment when indicators of impairment exist, such as operating losses and/or negative cash flows. If an evaluation of the undiscounted future cash flows generated by an asset group indicates impairment, the asset group is written down to its estimated fair value, which is based on its discounted future cash flows. The principal assumption used in these impairment tests is future cash flows, which are derived from those used in our operating plan and strategic planning processes.

#### Intangible Assets

Our indefinite-lived intangible assets are primarily trademarks which are integral to our corporate identity and expected to contribute indefinitely to our corporate cash flows. We conduct our annual impairment test for indefinite-lived intangible assets during the fourth quarter and we conduct interim impairment tests if indicators of potential impairment exist.

An impairment is recognized if the carrying amount of the asset exceeds its fair value. We first perform a qualitative assessment to determine if it is necessary to perform a quantitative impairment test. If a quantitative impairment test is deemed necessary, the method used to determine the fair value of our indefinite-lived intangible assets is the relief-from-royalty method. The principal assumptions used in our application of this method are revenue growth rate, discount rate and royalty rate. Revenue growth rates are derived from those used in our operating plan and strategic planning processes. The discount rate assumption is calculated based upon an estimated weighted average cost of capital, which we believe 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 overall profits. The method used for valuing our indefinite-lived intangible assets did not change from prior periods.

Our long-lived intangible assets are primarily contractual arrangements (amortized over 5 years), which includes non-compete agreements, and intellectual property (amortized over 2 to 15 years), which includes developed technology and patents. We review long-lived intangible assets for impairment if indicators of potential impairment exist, such as operating losses and/or negative cash flows. If an evaluation of the undiscounted future cash flows generated by the asset indicates impairment, the asset group is written down to its estimated fair value, which is based on its discounted future cash flows. The principal assumption used in these impairment tests is future cash flows, which are derived from those used in our operating plan and strategic planning processes.

#### Foreign Currency Transactions

For our subsidiaries with non-U.S. dollar functional currency, assets and liabilities are translated at period-end exchange rates. 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 ("AOCI") within



equity. Gains or losses on foreign currency transactions are recognized through net income (loss).

#### Stock-Based Employee Compensation

We issue stock-based compensation to certain employees and non-employee directors in different forms, including performance stock awards ("PSAs"), performance stock units ("PSUs"), and restricted stock units ("RSUs"). We record

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Armstrong Flooring, Inc. and Subsidiaries  
Notes to Consolidated Financial Statements  
(Dollars in millions, except per share data)

stock-based compensation expense based on an estimated grant-date fair value. The expense is reflected as a component of selling, general and administrative ("SG&A") expenses on our Consolidated Statements of Operations. Stock-based compensation expense includes an estimate for forfeitures and anticipated achievement levels and is generally recognized on a straight-line basis over the vesting period for the entire award.

#### Net AWI Investment

The Consolidated Statements of Stockholders' Equity include net cash transfers and other property transfers between AWI and AFI. The net AWI investment balance included assets and liabilities incurred by AWI on behalf of AFI such as accrued liabilities related to corporate allocations including administrative expenses for legal, accounting, treasury, information technology, human resources and other services. Other assets and liabilities recorded by AWI, whose related income and expense had been allocated to AFI, were also included in net AWI investment.

All intercompany transactions effected through net AWI investment were considered cash receipts and payments and are reflected in financing activities in the accompanying Consolidated Statements of Cash Flows.

The impact of the Spin-off on equity is reflected in net transfers from AWI and distribution paid to AWI on the Consolidated Statements of Stockholders' Equity and the Consolidated Statements of Cash Flows. The components on the Consolidated Statements of Stockholders' Equity and the Consolidated Statements of Cash Flows were as follows:

	Year Ended December 31, 2016	
	Consolidated Statements of Stockholders' Equity	Consolidated Statements of Cash Flows - Financing Activities
Net transfers from AWI for the three months prior to Spin-off	\$53.6	\$ 53.6
Net transfers (to) from AWI upon Spin-off	(11.2)	9.0
Other activity concurrent with Spin-off	—	(7.0)
	42.4	55.6
Cash distribution paid to AWI upon Spin-off	(50.0)	(50.0)
Net transfers (to) from AWI	\$(7.6)	\$ 5.6

Additionally, during 2017, we recorded adjustments primarily related to the tax attributes assumed upon the Spin-off in the amount of \$0.7 million.

#### Recently Adopted Accounting Standards

On January 1, 2018, we adopted Accounting Standards Codification ("ASC") 606, "Revenue from Contracts with Customers," and all the related amendments. The impact of the standard is limited to our accounting for warranties and returns. We adopted the standard using the modified retrospective transition method and we recorded a cumulative catch up adjustment to increase accumulated deficit in the amount of \$4.1 million, increase prepaid expenses and other current assets by \$0.4 million and decrease accounts receivable, net by \$4.5 million. The adoption of the standard did not have a material impact on our results of operations or cash flows, but did result in new

disclosures.

On January 1, 2018, we adopted Accounting Standards Update ("ASU") 2016-01, "Recognition and Measurement of Financial Assets and Financial Liabilities." The guidance addresses certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. Most notably, this new guidance requires equity investments (except those accounted for under the equity method of accounting or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income. Adoption did not have a material impact on our financial condition, results of operations or cash flows.

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On January 1, 2018, we adopted ASU 2016-16, "Intra-Entity Transfers of Assets Other Than Inventory." The guidance requires entities to recognize income tax consequences of many intercompany asset transfers other than inventory at the transaction date. Adoption of this standard did not have a material impact on our financial condition, results of operations or cash flows.

On January 1, 2018, we adopted ASU 2017-07, "Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost." The guidance requires the service cost component of net periodic benefit cost to be presented in the income statement line items with compensation cost and all other components of net periodic benefit cost to be presented outside operating income. Previously, all components of net periodic benefit cost were recorded within cost of goods sold and selling, general and administrative ("SG&A") expense. We applied this standard retrospectively in the period of adoption. The table below presents the impact of adoption on our results of operations:

	Year Ended December 31, 2017		
	Prior to Adoption	Impact of Adoption	Upon Adoption
Cost of goods sold	\$555.1	\$ (2.1 )	\$ 553.0
Selling, general and administrative expenses	164.6	(0.8 )	163.8
Operating (loss)	(15.6 )	2.9	(12.7 )
Other expense, net	0.8	2.9	3.7

	Year Ended December 31, 2016		
	Prior to Adoption	Impact of Adoption	Upon Adoption
Cost of goods sold	\$556.1	\$ (1.6 )	\$ 554.5
Selling, general and administrative expenses	168.7	(0.6 )	168.1
Operating (loss)	(14.7 )	2.2	(12.5 )
Other expense, net	4.7	2.2	6.9

ASU 2017-07 does not impact our financial condition or cash flows.

On January 1, 2018, we early adopted ASU 2017-12, "Targeted Improvements to Accounting for Hedging Activities." The guidance eliminates the requirement to separately measure and report hedge ineffectiveness and it requires the presentation of all items that affect earnings in the same income statement line as the hedged item. This standard did not have a material impact on our financial condition, results of operations or cash flows.

On January 1, 2018, we early adopted ASU 2018-02, "Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income." The guidance permits entities to reclassify tax effects stranded in AOCI as a result of tax reform to retained earnings. We applied this standard in the period of adoption and we reclassified \$12.6 million from accumulated other comprehensive (loss) into accumulated deficit. There will be no impact on results of operations or cash flows.

In March 2018, the Financial Accounting Standards Board ("FASB") issued ASU 2018-05, "Income Taxes". This guidance addresses the recognition of taxes payable or refundable for the current year and the recognition of deferred

tax liabilities and deferred tax assets for the future tax consequences of events that have been recognized in an entity's financial statements or tax returns. This guidance was effective immediately upon issuance. The adoption did not have a material impact on our financial condition, results of operations or cash flows.

Recently Issued Accounting Standards

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In February 2016, the FASB issued ASU 2016-02, "Leases." The guidance, and subsequent amendments issued, requires a lessee to recognize the assets and liabilities that arise from a lease agreement. Specifically, this new guidance will require lessees to recognize a liability to make lease payments and a right-of-use asset representing its right to use the underlying asset for the lease term, with limited exceptions. This new guidance is effective for annual reporting periods beginning after December 15, 2018 and must be adopted under a modified retrospective basis. The FASB allows companies transition and practical expedient elections to simplify the transition of the new standard. We have elected the following:

• We have elected to not restate comparative prior periods but instead recognize a cumulative effect adjustment to the opening balance of retained earnings in the period of adoption.

• We have elected to use the hindsight practical expedient with respect to determining the lease term allowing us to consider the actual outcome of lease renewals, termination options, and purchase options and in assessing impairment of right-of-use assets for existing leases.

• We have elected to combine lease and non-lease components as a single component and account for it as a lease for all asset classes excluding real estate.

• We have elected to use a portfolio approach to determine the discount rate.

Upon adoption, we will record the right-of-use assets and the lease liabilities related to our operating leases with a lease term in excess of one year. Based on our assessment to date, we expect adoption of the standard will result in recognizing an increase in our lease related assets and liabilities of less than \$10 million on our Consolidated Balance Sheet. We do not believe there will be a material impact on results of operations or cash flows.

In June 2016, the FASB issued ASU 2016-13, "Measurement of Credit Losses on Financial Instruments." The guidance requires immediate recognition of estimated credit losses that are expected to occur over the remaining life of many financial assets. This new guidance is effective for annual and interim periods in fiscal years beginning after December 15, 2019, but early adoption is permitted for annual and interim periods in fiscal years beginning after December 15, 2018. We are currently evaluating the impact the adoption of this standard would have on our financial condition, results of operations and cash flows.

In August 2018, the FASB issued ASU 2018-13, "Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement." The guidance eliminates, adds and modifies certain disclosure requirements. This new guidance is effective for fiscal years beginning after December 15, 2019 for public companies. Early adoption is permitted for either the entire standard or provisions that eliminate or modify requirements. Adoption of the standard will not impact our financial condition, results of operations or cash flows.

In August 2018, the FASB issued ASU 2018-14, "Disclosure Framework-Changes to the Disclosure Requirements for Defined Benefit Plans." The guidance changes the disclosure requirements by eliminating certain disclosures that are no longer considered cost beneficial and added new ones that are considered pertinent. The guidance is effective for fiscal years ending December 15, 2020 for public companies. Early adoption is permitted. Adoption of the standard will not impact our financial condition, results of operations or cash flows.

In August 2018, the FASB issued ASU 2018-15, "Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract." The guidance aligns the requirements for capitalizing implementation costs in a cloud computing arrangement service contract with the requirements for capitalizing implementation costs incurred for an internal use software license. Capitalized implementation costs should be amortized over the term of the service agreement on a straight-line basis and should be assessed for impairment in a

manner similar to long-lived assets. This new guidance is effective for fiscal years beginning after December 15, 2019 for public companies. Early adoption is permitted. We are continuing to evaluate the impact the adoption of this standard will have on our financial condition, results of operations and cash flows.

Subsequent Events

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We have evaluated subsequent events for potential recognition and disclosure through the date the Consolidated Financial Statements included in the Form 10-K were issued.

NOTE 3. NATURE OF OPERATIONS

Geographic Areas

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

	Year Ended December		
	31,		
	2018	2017	2016
Net trade sales			
United States	\$563.4	\$549.9	\$565.3
China	68.7	59.3	51.2
Canada	49.2	48.6	51.5
Other	46.9	46.3	42.1
Total	\$728.2	\$704.1	\$710.1

The long-lived assets in the table below include property, plant and equipment, net. Long-lived assets by geographic area are reported by location of the operations to which the asset is attributed.

	December 31, December	
	2018	31, 2017
United States	\$ 205.9	\$ 212.5
China	78.0	85.0
Other	12.2	13.1
Total	\$ 296.1	\$ 310.6

Information about Major Customers

In 2018, net sales to one customer exceeded 10% of our total net sales. Total revenue from this customer was \$122.6 million in 2018. We monitor the creditworthiness of our customers and generally do not require collateral.

NOTE 4. SEVERANCE EXPENSE

In connection with the divestiture of our North American wood flooring business we announced a cost optimization plan to improve our existing cost structure by eliminating essentially all shared costs that will not be covered by transition service agreements with AIP. The new structure is expected to better reflect the simplification of our operations as a purely resilient flooring company. We eliminated approximately 45 positions, and the impacted employees received severance benefits. We recognized charges of \$2.4 million in SG&A expenses in the fourth quarter of 2018.

In the first quarter of 2018, we announced that we were changing our residential go-to-market strategy and empowering our distributors with the responsibilities of marketing, merchandising and direct sales representation. The new structure was designed to provide enhanced support and responsiveness to retailers. As a result of the reorganization, approximately 70 positions were eliminated, and the impacted employees received severance benefits. We recognized charges of \$3.1 million primarily in SG&A expenses.





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In the first quarter of 2017, we announced the combination of our commercial and residential go-to-market structures and related organization. The new structure was designed to provide enhanced support and responsiveness to retailers and contractors and to foster greater alignment with distributors, which cover both commercial and residential markets. As a result of this reorganization, approximately 40 positions were eliminated, and the impacted employees received severance benefits. We recognized charges of \$4.6 million in SG&A expense as a result of this reorganization.

In 2016, we reorganized certain administrative functions, resulting in the elimination of six positions, including the Chief Operating Officer position. We recognized charges of \$1.7 million in SG&A expense as a result of this reorganization.

**NOTE 5. STOCK-BASED COMPENSATION**

Prior to the Spin-off, AWI issued stock-based compensation awards to employees and directors that became employees or directors of AFI. These awards included employee stock options, employee and director RSUs, and employee PSUs. Stock-based compensation expense until the Spin-off in 2016 was allocated to AFI based on direct expenses for AFI employees and a proportional allocation for employees that were providing services to both companies prior to the Spin-off.

In April 2016, AFI adopted the Armstrong Flooring, Inc. 2016 Long-Term Incentive Plan (the "2016 LTIP") and the Armstrong Flooring, Inc. 2016 Directors' Stock Unit Plan (the "2016 Directors' Plan"), which collectively comprised a new compensation program that allows for the grant to certain employees and non-employee directors of AFI different forms of benefits, including PSAs, PSUs, and RSUs. On June 2, 2017, our stockholders approved an amendment and restatement of the 2016 LTIP. Under the 2016 LTIP, our board of directors initially authorized up to 5,500,000 shares of common stock for issuance and the amendment authorized an additional 2,100,000 shares of common stock of issuance, for a total of 7,600,000 shares, which includes all shares that have been issued under the 2016 LTIP. Our board of directors authorized up to 600,000 shares of common stock that may be issued pursuant to the 2016 Directors' Plan. As of December 31, 2018, 2,566,814 shares and 245,363 shares were available for future grants under the 2016 LTIP and the 2016 Directors' Plan, respectively.

**New Awards**

The Management Development and Compensation Committee of the Board of Directors granted the following awards under the 2016 LTIP Plan and the 2016 Directors' Plan:

**PSAs and PSUs** — PSAs and PSUs were granted to key executive employees and certain management employees of AFI. The PSAs and PSUs are units of restricted Company common stock that vest based on the achievement of certain performance conditions. The performance condition for 75.0% of the awards is based on earnings before interest, taxes, depreciation and amortization ("EBITDA"). The performance condition for the remaining 25.0% of the awards is based on cumulative free cash flow, defined as cash flow from operations, less cash used in investing activities. Performance awards issued to key executive employees in 2016 and 2017 are also indexed to the achievement of specified levels of absolute total shareholder return, and the fair value was measured using a Monte-Carlo simulation on the date of grant. For performance awards that are not indexed to the achievement of specified levels of absolute total shareholder return, the fair value was measured using our stock price on the date of grant. If the performance conditions are met, the awards vest at the conclusion of the performance period, which is generally at the end of the

third fiscal year following the date of grant.

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The following table summarizes the assumptions used to measure the fair value of the annual grant of performance awards that are also indexed to the achievement of specified levels of absolute total shareholder return.

	2017	2016
Weighted-average grant-date fair value	\$15.41	\$12.44

Assumptions

Risk-free rate of return	1.6	%	0.8	%
Expected volatility	31.4	%	36.2	%
Expected term (in years)	3.0		2.8	
Expected dividend yield	—		—	

We did not issue any such awards in 2018.

The risk free rate of return was 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 award. The expected volatility was based on peer volatility since, as of the valuation date, we did not have a sufficient number of trading days to rely on our own trading history. The expected term represented the performance period on the underlying award. The expected dividend yield was assumed to be zero because, at the time of each grant, we had no plans to declare a dividend.

RSUs — RSUs were granted to certain management employees of AFI. The RSUs are units representing shares of Company common stock which are converted to shares of Company common stock at the end of the service period. There are no performance conditions associated with these awards. Vesting occurs with one third of the awards vesting at the end of one, two and three years from the date of grant. The fair value of RSUs was measured using our stock price on the date of grant.

Director Awards — RSUs were granted to our non-employee directors under the 2016 Directors' Plan. These awards generally have a vesting period of one year, and any dividends paid prior to vesting are forfeitable if the award does not vest. The awards are generally payable six months following the director's separation from service on the board. The fair value of non-employee director RSUs was measured using our stock price on the date of grant. The following table summarizes activity related to the non-employee director RSUs.

	2018	2017
Vested and not yet delivered as of December 31,	174,442	140,146
Granted	67,288	48,722
Outstanding as of December 31,	241,730	188,868

Modified Awards

In connection with the Spin-off, in accordance with the Employee Matters Agreement between AFI and AWI, certain executives, employees and non-employee directors were entitled to receive equity compensation awards of AFI in replacement of previously outstanding awards granted prior to the Spin-off under various AWI stock incentive plans. These awards included stock options, RSUs, and PSUs. In connection with the Spin-off, these awards were converted into new AFI equity awards using a formula designed to preserve the intrinsic value of the awards immediately prior to the Spin-off on April 1, 2016. The modification did not result in a change to the value of the awards. Therefore, no additional compensation expense related to the award modification was recorded. The terms and conditions of the AWI awards were replicated and, as necessary, adjusted to ensure that the vesting schedule and economic value of the

awards was unchanged by the conversion.

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The modified PSUs were initially issued with performance conditions based on AWI's results. At modification, two of the three years of performance had occurred. For the third year, which occurred after the Spin-off, award payout was at the target level.

The following table summarizes information about AFI's modified stock options:

	Number of Shares (in thousands)	Weighted-Average Exercise Price (per share)	Weighted-Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (in millions)
Outstanding as of December 31, 2017	533.6	\$ 12.77	4.7	\$ 2.2
Exercised	(66.1 )	11.65		
Cancelled	(14.0 )	14.15		
Outstanding as of December 31, 2018	453.5	12.89	3.6	0.2
Options exercisable	453.5	12.89	3.6	0.2

The options expire between 2019 and 2024. 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 following table presents information related to stock option exercises:

	Year Ended December 31, 2018 2017	
Total intrinsic value of stock options exercised	\$0.3	\$0.5
Cash proceeds received from stock options exercised	0.8	1.4

Total Awards

The table below summarizes activity related to the PSAs, PSUs, and RSUs. The non-employee director activity is not reflected in the RSU activity below.

	PSAs and PSUs Number of Shares (in thousands)		RSUs Number of Shares (in thousands)	
	Weighted-Average Grant-Date Fair Value (per share)	Weighted-Average Grant-Date Fair Value (per share)	Weighted-Average Grant-Date Fair Value (per share)	Weighted-Average Grant-Date Fair Value (per share)
Non-vested as of December 31, 2017	892.7	\$ 13.93	231.6	\$ 15.77
Granted	354.7	13.94	308.3	16.12
Vested	—	—	(137.0)	15.32
Forfeited	(144.9 )	14.27	(78.3 )	16.79

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Non-vested as of December 31, 2018 1,102.5 13.88 324.6 16.13

The table above contains 6,895 and 5,228 PSUs as of December 31, 2018 and 2017, respectively, which are accounted for as liability awards as they may be settled in cash. The table above contains 6,825 and 5,676 RSUs as of December 31, 2018 and 2017, respectively, which are accounted for as liability awards as they may be settled in cash.

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In 2018, the weighted-average grant-date fair value of performance-based awards and RSUs granted was \$13.94 and \$16.12, respectively. No PSAs and PSUs vested in 2018. The fair value of RSUs that vested in 2018 was \$2.1 million.

In 2017, the weighted-average grant-date fair value of performance-based awards and RSUs granted was \$16.54 and \$17.21, respectively. The fair value of PSAs and PSUs that vested in 2017 was \$0.7 million and RSU's that vested in the same year was \$3.1 million.

Stock-based compensation expense is generally recognized on a straight-line basis over the vesting period and is recorded as a component of SG&A. Total stock-based compensation expense included in the Consolidated Statements of Operations and the related tax effects are presented in the table below:

	Year Ended December 31,		
	2018	2017	2016
Stock-based compensation expense	\$4.7	\$1.5	\$5.4
Income tax benefit	1.1	0.8	2.5

To the extent the vesting-date fair value is greater than the grant-date fair value, the excess tax benefit is recorded as an income tax benefit in the Consolidated Statements of Operations. For the years ended December 31, 2018 and 2017, the income tax expense was \$0.1 million and income tax benefit \$0.5 million, respectively related to grant-date fair value from the exercise of stock options and vesting of stock-based awards.

As of December 31, 2018, \$6.5 million of total unrecognized compensation expense related to non-vested stock-based compensation arrangements is expected to be recognized over a weighted-average period of 1.9 years.

**NOTE 6. OPERATING 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. Total rent expense was \$11.0 million, \$10.1 million and \$8.5 million in 2018, 2017, and 2016, respectively.

Future minimum payments at December 31, 2018 by year and in the aggregate, having non-cancelable lease terms in excess of one year are as follows:

	Total Minimum Lease Payments
2019	\$ 10.0
2020	7.1
2021	2.0
2022	0.3
2023	0.2
Thereafter	0.8
Total	\$ 20.4



The table above includes AFI lease obligations to AWI. The AFI sublease to TZI is cancellable within less than one year and is therefore excluded from the table above. The termination fee to cancel the sublease before the end of the sublease term is \$2.5 million.

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**NOTE 7. RELATIONSHIP WITH AWI**

On April 1, 2016, in connection with the completion of the Spin-off, we entered into several agreements with AWI that provided for the separation and allocation between AFI and AWI of the assets, employees, liabilities and obligations of AWI and its subsidiaries attributable to periods prior to, at and after the Spin-off. These agreements also govern the relationship between AFI and AWI subsequent to the completion of the Spin-off.

These agreements included a Transition Services Agreement, a Tax Matters Agreement, an Employee Matters Agreement, a Trademark License Agreement, a Transition Trademark Agreement and a Campus Lease Agreement.

Under the Transition Services Agreement, AFI and AWI provided various services to each other, including information technology, accounts payable, payroll, and other financial functions and administrative services through December 31, 2017.

The Tax Matters Agreement generally governs AFI's and AWI's respective rights, responsibilities and obligations after the Spin-off with respect to tax liabilities and benefits, tax attributes, the preparation and filing of tax returns, the control of audits and other tax proceedings, and other matters regarding taxes for any tax period ending on or before the distribution date, as well as tax periods beginning after the distribution date. In addition, the Tax Matters Agreement provides that AFI is liable for taxes incurred by AWI that may arise if AFI takes, or fails to take, certain actions that may result in the separation, the distribution or certain related transactions failing to qualify as tax-free for U.S. federal income tax purposes. AWI received an opinion from its tax counsel that the Spin-off qualified as a tax-free transaction for AWI and its shareholders.

The Employee Matters Agreement governs certain compensation and employee benefit obligations with respect to the current and former employees and non-employee directors of AFI and AWI. Pursuant to this agreement and in connection with the Distribution, AWI transferred assets and liabilities from the Shared Plans sponsored by AWI to AFI that relate to active AFI employees and certain former AFI employees to mirror plans established by AFI.

Pursuant to the Trademark License Agreement, AWI provided AFI with a perpetual, royalty-free license to use the "Armstrong" trade name and logo.

Pursuant to the Transition Trademark License agreement, AFI provided AWI with a five-year, royalty-free license to use the "Inspiring Great Spaces" tagline, logo and related color scheme.

Under the Campus Lease Agreement, AFI leased certain portions of AWI's campus for use as AFI's corporate headquarters. The Campus Lease Agreement provides for an initial term of five years from April 1, 2016.

**NOTE 8. INCOME TAXES**

Historically, AFI was included with the AWI and affiliated entities in filing a consolidated U.S. federal income tax return, and as part of a unitary or combined group in some states. Income taxes are computed and reported herein under the separate return method as if AFI were a separate taxpayer for periods prior to and on March 31, 2016. Use of the separate return method requires significant judgment and may result in differences when the sum of the amounts allocated to stand-alone tax provisions are compared with amounts presented in Consolidated Financial Statements. In that event, the related deferred tax assets and liabilities could be significantly different from those presented herein.

U.S. Tax Reform

On December 22, 2017, the U.S government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the “Tax Reform Act”). The Tax Reform Act made broad and complex changes to the U.S. tax code

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that has impacted our fiscal year ending December 31, 2018, including, but not limited, reducing the U.S. federal corporate tax rate from 35% to 21% effective January 1, 2018, limiting the carryover of net operating losses to 80% of taxable income, and modifying the deductibility of certain expenses.

We recognized the income tax effects of the Tax Reform Act in our 2017 Consolidated Financial Statements in accordance with SAB No. 118, which provides SEC staff guidance for the application of ASC Topic 740, "Income Taxes," in the reporting period in which the Tax Reform Act was signed into law. We completed our analysis of the Tax Reform Act during 2018 and recorded an additional income tax expense of \$0.1 million in 2018, due to the impact of filing our 2017 U.S. Federal Tax Return.

The following table presents loss from continuing operations before income taxes for U.S. and international operations based on the location of the entity to which such earnings are attributable:

	Year Ended December 31,		
	2018	2017	2016
Domestic	\$(28.1)	\$(18.0)	\$(15.1)
Foreign	3.0	(1.1 )	(5.8 )
Total	\$(25.1)	\$(19.1)	\$(20.9)

The following table presents the components of the income tax benefit:

	Year Ended December 31,		
	2018	2017	2016
Current			
Federal	\$0.3	\$(4.7)	\$(0.9)
Foreign	0.6	(0.4 )	(0.4 )
State and local	0.2	—	0.3
Subtotal	1.1	(5.1 )	(1.0 )
Deferred			
Federal	(4.6 )	(0.3 )	(3.8 )
Foreign	(2.5 )	0.1	0.5
State and local	—	3.3	(0.4 )
Subtotal	(7.1 )	3.1	(3.7 )
Total	\$(6.0)	\$(2.0)	\$(4.7)

As of December 31, 2018, we reviewed our position with regard to foreign unremitted earnings and determined that unremitted earnings would continue to be permanently reinvested. Accordingly, we have not recorded foreign withholding taxes on approximately \$11.3 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 practicable to calculate the residual income tax that would result if these basis differences reversed due to the complexities of the tax law and the hypothetical nature of the calculations.

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The following table presents the differences between our income tax benefit at the U.S. federal statutory income tax rate and our effective income tax rate:

	Year Ended		
	December 31,		
	2018	2017	2016
Continuing operations tax at statutory rate	\$(5.3)	\$(6.7)	\$(7.3)
(Decrease)/increase in valuation allowances on deferred foreign income tax assets	(3.4 )	2.0	2.4
Permanent book/tax differences	1.7	0.6	3.6
Tax on foreign and foreign-source income	1.1	(1.4 )	(1.5 )
Increase in valuation allowances on deferred state income tax assets	0.7	5.2	—
State income tax benefit, not of federal benefit	(0.6 )	(0.8 )	(0.6 )
Research and development credits	(0.6 )	(0.7 )	(0.8 )
Increase in valuation allowances on deferred federal income tax assets	0.2	—	—
Impact of Tax Reform Act	0.1	0.8	—
State law changes, net of federal benefit	—	(1.1 )	—
Domestic production activities	—	—	(0.4 )
Other	0.1	0.1	(0.1 )
Total	\$(6.0)	\$(2.0)	\$(4.7)

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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 in the appropriate jurisdiction 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 2016 through 2018, as well as future reversals of existing taxable temporary differences and projections of future profit before tax and foreign source income.

	December 31, December	
	2018	31, 2017
Deferred income tax assets (liabilities)		
Postretirement and postemployment benefits	\$ 16.7	\$ 20.2
Net operating losses	19.3	30.4
Accrued expenses	9.1	8.3
Deferred compensation	5.5	2.4
Customer claims reserves	2.9	2.9
Goodwill	2.2	2.6
Pension benefit liabilities	2.3	0.4
Tax credit carryforwards	2.6	2.5
Intangibles	1.7	0.6
Other	0.8	1.3
Total deferred income tax assets	63.1	71.6
Valuation allowances	(29.7	) (29.7 )
Net deferred income tax assets	33.4	41.9
Accumulated depreciation	(20.2	) (21.2 )
Inventories	(8.7	) (8.1 )
Other	(1.0	) (0.5 )
Total deferred income tax liabilities	(29.9	) (29.8 )
Net deferred income tax assets	\$ 3.5	\$ 12.1
Deferred income taxes have been classified in the Consolidated Balance Sheet as:		
Deferred income tax assets—noncurrent	\$ 5.6	\$ 14.0
Deferred income tax liabilities—noncurrent	(2.1	) (1.9 )
Net deferred income tax assets	\$ 3.5	\$ 12.1

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 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.



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The following table presents the components of our valuation allowance against deferred income tax assets:

	Year Ended	
	December	
	31,	
	2018	2017
Federal	\$9.4	\$0.1
State	2.8	6.1
Foreign	17.5	23.5
Total	\$29.7	\$29.7

The valuation allowances offset federal, state and foreign deferred tax assets, credits, and operating loss carryforwards.

The following is a summary of our net operating loss ("NOL") carryforwards:

	Year Ended	
	December	
	31,	
	2018	2017
State	\$17.6	\$17.8
Foreign	65.3	83.2
Federal	14.0	30.5

As of December 31, 2018, federal NOL carryforwards expire between 2019 and 2038, state NOL carryforwards expire between 2019 and 2038, and foreign NOL carryforwards expire between 2019 and 2023.

We estimate we will need to generate future taxable income of approximately \$69.6 million for state income tax purposes during the respective realization periods (ranging from 2019 to 2038) in order to fully realize the net deferred income tax assets discussed above.

We have \$1.6 million of unrecognized tax benefits ("UTBs") as of December 31, 2018. Of this amount, \$0.1 million, net of federal benefit, if recognized in future periods, would impact the reported effective tax rate.

It is reasonably possible that certain UTBs 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 no changes to UTBs.

The following table presents a reconciliation of the total amounts of UTBs, excluding interest and penalties:

	2018	2017	2016
Unrecognized tax benefits as of January 1,	\$4.8	\$5.0	\$81.9
Gross change for current year positions	0.2	0.4	1.3
(Decreases) for prior period positions	(3.4 )	(0.6 )	(78.2 )
Unrecognized tax benefits balance as of December 31,	\$1.6	\$4.8	\$5.0



The 2018 decrease related to prior period positions includes \$3.1 million related to discontinued operations. The 2017 decrease related to prior period positions includes \$0.5 million that resulted from the reduction of the U.S. income tax rate from 35% to 21% since these positions represent a reduction of U.S. net operating losses. The \$78.2 million decrease for prior period positions in 2017 were UTBs allocated to AFI as a result of the separate return method, which remained with AWI upon Spin-off.

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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, China and the U.S. Generally, we have open tax years subject to tax audit on average of between three years and six years. With few exceptions, the statute of limitations is no longer open for state or non-U.S. income tax examinations for the years before 2012. 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 2012 through 2018 are subject to future potential tax adjustments.

The following table details amounts related to certain other taxes:

	Year Ended December 31,		
	2018	2017	2016
Payroll taxes	\$11.7	\$10.9	\$11.5
Property and franchise taxes	2.5	2.5	2.6

#### NOTE 9. DISCONTINUED OPERATIONS

In November 2018, we entered into a definitive agreement to sell our wood business to TZI, an affiliate of AIP. The sale was completed in December 2018. The proceeds from the sale were \$90.2 million, net of closing costs, transaction fees and taxes. The transaction is subject to a customary post-closing working capital adjustment process, which is expected to be completed in the first quarter of 2019.

On December 31, 2018, in connection with the sale of our wood business, TZI and AFI entered into agreements related to transition services, intellectual property, and subleases.

Pursuant to the transition service agreement AFI will provide transitional services in areas including human resources, customer service, operations, finance and IT. In consideration for the services, TZI will pay AFI monthly fees that vary based on the scope of services provided, plus a \$3.0 million administrative fee. TZI will reimburse AFI for AFI's out-of-pocket costs and expenses in connection with providing the services.

Pursuant to the intellectual property agreement, AFI provided TZI a non-exclusive, royalty-free, non-sublicensable, non-assignable license in and to certain trademarks.

Under the subleases agreement TZI will lease certain premises located at the AFI campus through March 30, 2021 with the option to terminate the sublease any time after six months from the effective date of the sublease with 30-days' prior notice. Upon such termination, TZI will pay a termination fee of \$2.5 million.

As a part of the transition service agreement, we are facilitating sales into Canada through our Canadian subsidiary. The financial results of the wood business have been reclassified as discontinued operations for all periods presented. The Consolidated Statements of Cash Flows does not separately report the cash flows of the discontinued operation.

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The following is a summary of the operating results of the wood business, which are included in discontinued operations.

	Year Ended December 31,		
	2018	2017	2016
Net Sales	\$387.0	\$429.6	\$483.1
Cost of goods sold	330.7	407.5	407.6
Gross profit	56.3	22.1	75.5
Selling, general and administrative expenses	36.6	39.4	42.3
Intangible asset impairment	—	12.5	—
Operating earnings (loss)	19.7	(29.8 )	33.2
Interest expense	—	0.1	—
Other expense, net	—	1.0	0.7
Earnings (loss) before income tax	19.7	(30.9 )	32.5
Income tax expense (benefit)	9.8	(6.2 )	8.8
Net earnings (loss) from discontinued operations	\$9.9	\$(24.7 )	\$23.7

	Year Ended December 31,		
	2018	2017	2016
Depreciation and Amortization	\$10.3	\$40.0	\$14.1
Capital Expenditures	(8.0 )	(12.3 )	(11.9 )

The following is a summary of the results related to the net loss on disposal of wood business which is included in discontinued operations:

	Year Ended December 31, 2018
(Loss) on disposal of discontinued operations before income tax	\$(153.8 )
Income tax (benefit)	—
Net (loss) on disposal of discontinued operations	\$(153.8 )

The following is a summary of the assets and liabilities of the discontinued operations as of December 31, 2017.

	Year Ended December 31, 2017
Cash	\$(1.1 )
Accounts and notes receivable, net	27.1
Inventories, net	119.0
Other assets	4.5
Current assets of discontinued operations	\$ 149.5

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	Year Ended December 31, 2017
Property plant and equipment, net	\$ 107.5
Intangible assets, net	21.8
Other noncurrent assets	1.0
Noncurrent assets of discontinued operations	\$ 130.3

	Year Ended December 31, 2017
Accounts payable and accrued expenses	\$ 26.1
Current liabilities of discontinued operations	\$ 26.1

	Year Ended December 31, 2017
Long-term debt	\$ 1.0
Postretirement benefit liabilities	2.9
Pension benefit liabilities	3.4
Deferred income taxes	13.1
Other liabilities	2.3
Noncurrent liabilities of discontinued operations	\$ 22.7

#### European Resilient Flooring

On December 4, 2014, AWI's Board of Directors approved the cessation of funding to its DLW subsidiary, which at the time was our European flooring business. As a result, DLW management filed for insolvency in Germany on December 11, 2014.

The DLW insolvency filing in 2014 resulted in presenting DLW for all historical periods prior to the Spin-off as a discontinued operation. The insolvency filing did not meet the U.S. tax criteria to be considered disposed of until the first quarter of 2015. In determining the U.S. tax impact of the disposition, the liabilities, including an unfunded pension liability of approximately \$115.0 million, were considered proceeds. Accordingly, a non-cash income tax benefit of \$43.4 million was recorded in 2015 within discontinued operations for the tax benefit of the future pension deductions. As AWI is solely responsible for any shortfall, and the beneficiary of any excess, at the closure of the DLW insolvency proceedings, DLW is excluded from our financial position, results of operations and cash flows after the Spin-off.

The following is a summary of the operating results of DLW, which are reflected in these Consolidated Financial Statements for periods prior to the Spin-off.

	Year Ended December 31, 2016
(Loss) on disposal of discontinued operations before income tax	\$ (0.1 )
Income tax benefit	1.8
Gain on disposal of discontinued operations, net of tax	\$ 1.7



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## NOTE 10. EARNINGS PER SHARE OF COMMON STOCK

The table below shows a reconciliation of the numerator and denominator for basic and diluted earnings per share calculations for the periods indicated.

	Year Ended December 31,		
	2018	2017	2016
<b>Numerator</b>			
(Loss) from continuing operations	\$(19.1 )	\$(17.1 )	\$(16.2 )
(Loss) earnings from discontinued operations, net of tax	(143.9 )	(24.7 )	25.4
Net (loss) income	\$(163.0)	\$(41.8 )	\$ 9.2
<b>Denominator</b>			
Weighted average number of common shares outstanding	25,780,214	26,977,475	27,773,434
Weighted average number of vested shares not yet issued	188,195	136,504	91,903
Weighted average number of common shares outstanding - Basic	25,968,409	27,113,979	27,865,337
Dilutive stock-based compensation awards outstanding	—	—	212,147
Weighted average number of common shares outstanding - Diluted	25,968,409	27,113,979	28,077,484

On April 1, 2016, AWI distributed 27,738,779 shares of AFI's common stock to AWI's shareholders.

For the years ended December 31, 2018 and December 31, 2017, the diluted loss per share was calculated using basic common shares outstanding, as inclusion of potentially dilutive common shares would be anti-dilutive. For the year ended December 31, 2016, the diluted earnings per share was calculated using the diluted weighted average number of common shares outstanding during the period, determined using the treasury stock method.

Performance-based employee compensation awards are considered potentially dilutive in the initial period in which the performance conditions are met.

The following awards were excluded from the computation of diluted (loss) earnings per share:

	Year Ended December 31,		
	2018	2017	2016
Potentially dilutive common shares excluded from diluted computation as inclusion would be anti-dilutive	474,910	743,678	201,994
Performance awards excluded from diluted computation, as performance conditions not met	862,256	849,483	646,698

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## NOTE 11. ACCOUNTS AND NOTES RECEIVABLE

The following table presents accounts and notes receivables, net of allowances:

	December 31, December 31,	
	2018	2017
Customer receivables	\$ 45.4	\$ 59.8
Miscellaneous receivables	6.2	4.8
Less: allowance for product warranties, discounts and losses	(12.6 )	(12.0 )
Total	\$ 39.0	\$ 52.6

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.

Allowance for product claims represents expected reimbursements for cost associated with warranty repairs and customer accommodation claims, the majority of which is provided to our independent distributors through a credit against accounts receivable from the distributor to AFI.

The following table summarizes the activity for the allowance for product claims:

	Year Ended December 31,	
	2018	2017
Balance as of January 1,	\$(5.6)	\$(5.1)
Cumulative effect of adoption of new revenue recognition standard as of January 1	(1.7 )	—
Reductions for payments	7.5	8.9
Current year claim accruals	(6.6 )	(9.4 )
Balance as of December 31,	\$(6.4)	\$(5.6)

## NOTE 12. INVENTORIES

The following table presents details related to our inventories, net:

	December 31, December	
	2018	31, 2017
Finished goods	\$ 110.5	\$ 91.5
Goods in process	5.7	5.4
Raw materials and supplies	23.3	20.1
Total	\$ 139.5	\$ 117.0

Inventories valued on a LIFO basis \$ 113.3 \$ 91.2

Inventories valued on FIFO or other basis \$ 26.2 \$ 25.8

The distinction between the use of different methods of inventory valuation is primarily based on the geographic location of the manufacturing facility.

Inventory values were lower than would have been reported on a total FIFO basis by \$3.0 million and \$0.3 million as of December 31, 2018 and 2017, respectively.

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NOTE 13. PREPAID EXPENSES AND OTHER CURRENT ASSETS

The following table presents details related to our prepaid expenses and other current assets:

	December 31, December 31,	
	2018	2017
Prepaid expenses	\$ 6.8	\$ 14.4
Merchandising materials	9.4	11.1
Other	1.8	2.0
Total	\$ 18.0	\$ 27.5

NOTE 14. PROPERTY, PLANT AND EQUIPMENT

The following table presents details related to our property, plant and equipment, net:

	December 31, December 31,	
	2018	2017
Land	\$ 29.6	\$ 30.2
Buildings	91.8	91.5
Machinery and equipment	452.8	441.8
Computer software	19.2	17.2
Construction in progress	21.5	26.0
Less accumulated depreciation and amortization	(318.8 )	(296.1 )
Total	\$ 296.1	\$ 310.6

NOTE 15. INTANGIBLE ASSETS

The following table details amounts related to our intangible assets:

	Estimated Useful Life	December 31, 2018		December 31, 2017	
		Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Long-lived intangible assets					
Contractual arrangements	5 years	\$ 36.4	\$ 10.7	\$ 36.6	\$ 4.1
Intellectual property	2-15 years	5.0	1.3	4.9	1.1
Subtotal		41.4	\$ 12.0	41.5	\$ 5.2
Indefinite-lived intangible assets					
Trademarks and brand names	Indefinite	2.6		2.3	
Total		\$ 44.0		\$ 43.8	

Year Ended  
 December 31,  
 2018 2017 2016  
 Amortization  
 expense \$7.2 \$4.2 \$0.4



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During the second quarter of 2017, we acquired vinyl composition tile ("VCT") assets for \$36.1 million, consisting of equipment and trademarks of Mannington Mills, Inc. ("Mannington Mills") under an agreement that included non-compete provisions. We allocated \$33.6 million of the purchase price to intangible assets and the remainder to inventories and equipment. The assigned intangible asset classes were contractual arrangements, \$33.3 million, with an estimated useful life of five years, and intellectual property, \$0.3 million, with an estimated useful life of two years.

In addition, Mannington Mills is eligible for contingent consideration of up to \$9.0 million based on sales of our VCT flooring products for the twelve month periods ending June 30, 2019 and June 30, 2020 ("measurement periods") compared to a base period of combined AFI and Mannington Mills sales for the 12 month period ended June 30, 2017. The contingent consideration is tiered for each of the separate twelve month measurement periods ranging from consideration of zero to a maximum of \$4.5 million in each measurement period. No contingent liability has been recognized as we concluded that such liability is not probable. Any contingent liability recognized will be recorded as an adjustment to the value of the acquired assets.

	2019	2020	2021	2022	2023
Expected annual amortization expense	\$7.1	\$7.0	\$7.0	\$3.7	\$0.4

#### NOTE 16. ACCOUNTS PAYABLE AND ACCRUED EXPENSES

The following table details amounts related to our accounts payable and accrued expenses:

	December 31, December 31,	
	2018	2017
Payables, trade and other	\$ 99.5	\$ 93.6
Employment costs	25.0	13.6
Other accrued expenses	16.9	16.9
Total	\$ 141.4	\$ 124.1

#### NOTE 17. DEBT

The following table presents details related to our debt:

	December 31, December 31,	
	2018	2017
Revolver	\$ 25.0	\$ —
Current portion of Term Loan A	3.7	—
Noncurrent portion of Term Loan A	70.6	—
ABL Facility	—	85.0
Total	\$ 99.3	\$ 85.0

In connection with the sale of the wood business, on December 31, 2018, the Company entered into a credit agreement (the "Credit Agreement"). The Credit Agreement provides the Company with a \$150.0 million secured Credit Facility (the "Credit Facility"), consisting of a \$75.0 million revolving facility and a \$75.0 million term loan facility. The revolving facility includes a \$25.0 million sublimit for the issuance of letters of credit and a \$15.0 million sublimit for swing line loans. The Credit Facility is scheduled to mature on December 31, 2023. The Credit Agreement provides for a uncommitted accordion feature that allows the Company to request an increase in the revolving facility or the term loan facility in an aggregate amount not to exceed \$25.0 million.



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As of December 31, 2018, total borrowings outstanding under our Credit Facility were \$75.0 million under Term Loan A and \$25.0 million under the revolving Credit Facility, while outstanding letters of credit were \$3.9 million. Proceeds from the new Credit Facility were utilized to repay borrowings of \$94.0 million under the \$225.0 million ABL facility dated April 1, 2016. The \$225.0 million ABL Facility was closed as of December 31, 2018, without penalty. Capitalized fees related to the ABL Facility of \$0.6 million were expensed as of December 31, 2018.

Borrowings under the new Credit Facility bear interest at a rate equal to an adjusted base rate or the London Interbank Offered Rate ("LIBOR") plus an applicable margin, which varies according to the net leverage ratio and was 0.75% as of December 31, 2018. As of December 31, 2018, the interest rate of 6.25% was determined using the base rate plus applicable margin. On January 4, 2019, the interest rate of 4.26% was determined as borrowings were converted to use LIBOR plus the applicable margin. We are required to pay a commitment fee, payable quarterly in arrears, on the average daily unused amount of the revolving Credit Facility, which varies according to the net leverage ratio and was 0.20% as of December 31, 2018. Outstanding letters of credit issued under the Credit Facility are subject to fees which will be due quarterly in arrears based on the applicable margin described above plus a fronting fee. The total rate for letters of credit was 1.875% as of December 31, 2018.

All obligations under the Credit Agreement are guaranteed by each of the Company's wholly owned domestic subsidiaries that individually, or together with its subsidiaries, has assets of more than \$1.0 million. All obligations under the Credit Agreement, and guarantees of those obligations, are secured by all of the present and future assets of the Company and the guarantors, subject to certain exceptions and exclusions as set forth in the Credit Agreement and other security and collateral documents.

Borrowings under the revolving portion of the Credit Facility are presented on our Consolidated Balance Sheet as a short-term obligation. Borrowings under the Term Loan A portion of the Credit Facility are segregated on our Consolidated Balance Sheet with \$70.6 million net of fees shown as a long-term obligation and \$3.7 million presented as a short-term obligation due to quarterly principal repayment installments.

In addition, the Credit Agreement requires the Company to comply with certain financial covenants calculated for the Company and its subsidiaries on a consolidated basis. Specifically, the Credit Agreement requires that the Company and its subsidiaries not:

- Permit the Consolidated Net Leverage Ratio (as defined in the Credit Agreement) at any time to be greater than 3.00 to 1.00; and
- Permit the Consolidated Fixed Charge Coverage Ratio (as defined in the Credit Agreement) at any time to be less than 1.25 to 1.00.

The Credit Agreement also contains customary affirmative covenants and events of default, including a cross-default provision in respect of any other indebtedness that has an aggregate principal amount exceeding \$15.0 million.

Our foreign subsidiaries had available lines of credit totaling \$8.7 million; there were no borrowing under these lines of credit as of December 31, 2018.

#### NOTE 18. PENSION AND OTHER POSTRETIREMENT BENEFIT PROGRAMS

For periods prior to April 1, 2016, certain of our North American employees participated in defined-benefit pension and postretirement plans (the "Shared Plans") sponsored by AWI. The related net benefit plan obligations of the Shared Plans were not included in our Consolidated Balance Sheets as we did not sponsor the Shared Plans and had no rights

or obligations related to the Shared Plans' assets or liabilities. Our Consolidated Statements of Operations include Shared Plan expenses for our active and retired employees as well as an allocation of Shared Plan expenses. The Shared Plan expenses presented in our Consolidated Financial Statements represent the allocation of plan costs to AFI and do not represent cash payments to AWI or to the Shared Plans.

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Effective April 1, 2016, upon separation from AWI, AFI created defined-benefit pension and postretirement plans, which provide North American employees and retirees who previously participated in the Shared Plans the same defined-benefit pension and postretirement benefits that had been previously provided by AWI. As a result of the Separation, and based on an analysis provided by our actuaries, AFI assumed defined-benefit pension plan assets of \$381.4 million, defined-benefit pension benefit obligations of \$385.4 million, defined-benefit postretirement benefit obligations of \$82.9 million and accumulated other comprehensive loss of \$101.8 million. Our U.S. defined-benefit pension plans were amended to freeze accruals for remaining salaried non-production employees, effective December 31, 2017.

On November 14, 2018, AFI entered into a Stock Purchase Agreement with TZI, an affiliate of American Industrial Partners ("AIP"), to sell our North American wood flooring business. On December 31, 2018, AIP completed the purchase of all of the issued and outstanding shares of Armstrong Wood Products, Inc. As a result of the sale, all plan participants in the Hartco Retiree Welfare Plan, one of AFI's three postretirement plans, were transferred to AHF, LLC, an affiliate of AIP. The transfer of all liabilities for the Hartco Retiree Welfare Plan were effective as of December 31, 2018. Also, as a result of the North American wood flooring business sale, AFI transferred a portion of the Retirement Income Plan ("RIP"), as of December 31, 2018 to AHF, LLC. The U.S. pension plan disclosures show the spun off liability and asset amounts and include the allocated actuarial loss for the affected participants.

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. We also have defined-contribution pension plans for eligible employees.

#### Defined-Benefit Pension Plans

The following tables summarize the balance sheet impact of the pension 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. The disclosures also include our two Canadian pension plans.

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	U.S. Pension Plans		Canadian Pension Plans	
	2018	2017	2018	2017
Change in benefit obligation:				
Projected benefit obligations as of January 1,	\$395.8	\$364.4	\$17.8	\$16.7
Liabilities transferred to AHF, LLC	(11.5 )	—	—	—
Service cost	3.8	5.4	—	—
Interest cost	14.6	15.4	0.6	0.6
Foreign currency translation adjustment	—	—	(1.2 )	1.2
Actuarial (gain)/loss	(33.4 )	28.4	0.5	1.1
Benefits paid	(22.9 )	(17.8 )	(2.1 )	(1.8 )
Projected benefit obligations as of December 31,	346.4	395.8	15.6	17.8
Change in plan assets:				
Fair value of plan assets as of January 1,	390.8	363.2	17.1	16.5
Assets to be transferred to AHF, LLC	(8.1 )	—	—	—
Actual return on plan assets	(22.8 )	45.3	(0.4 )	1.2
Employer contribution	0.1	0.1	0.1	—
Foreign currency translation adjustment	—	—	(1.1 )	1.2
Benefits paid	(22.9 )	(17.8 )	(2.1 )	(1.8 )
Fair value of plan assets as of December 31,	337.1	390.8	13.6	17.1
Funded status of the plans	\$(9.3 )	\$(5.0 )	\$(2.0 )	\$(0.7 )
Accumulated benefit obligation as of December 31,	\$345.1	\$394.5	\$15.6	\$17.8

The table below presents the weighted-average assumptions used in computing the benefit obligations and net periodic benefit cost for the defined-benefit pension plans:

	U.S. Pension Plans		Canadian Pension Plans	
	2018	2017	2018	2017
Weighted average assumptions used to determine benefit obligations as of December 31,				
Discount rate	4.40%	3.75%	3.80%	3.30%
Rate of compensation increase	3.25%	3.25%	n/a	n/a
Weighted average assumptions used to determine net periodic benefit cost for the period:				
Discount rate	3.75%	4.30%	3.30%	3.80%
Expected return on plan assets	5.85%	6.10%	4.90%	5.40%
Rate of compensation increase	3.25%	3.10%	n/a	n/a

Basis of Rate-of-Return Assumption

Long-term asset class return assumptions are determined based on the expected performance of the asset classes over 20 years. For the U.S. plans, these forecasted gross returns were reduced by estimated management fees and expenses, yielding a long-term return forecast of 5.85% and 6.10% for the years ended December 31, 2018 and 2017,

respectively.

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For our Canadian plans, these forecasted gross returns were reduced by estimated management fees and expenses, yielding a long-term return forecast of 4.90% and 5.40% for the years ended December 31, 2018 and 2017.

Defined-benefit pension plans with benefit obligations in excess of plan assets were as follows:

	U.S. Pension Plans		Canadian Pension Plans	
	2018	2017	2018	2017
Projected benefit obligation, December 31	\$346.4	\$395.8	\$15.2	\$17.3
Accumulated benefit obligation, December 31	345.1	394.5	15.2	17.3
Fair value of plan assets, December 31	337.1	390.8	13.1	16.5

The components of net periodic pension cost for the U.S. defined-benefit pension plans were as follows:

	Year Ended December 31,		
	2018	2017	2016
Service cost of benefits earned during the period	\$3.8	\$5.4	\$4.3
Interest cost on projected benefit obligation	14.6	15.4	11.7
Expected return on plan assets	(22.2)	(22.7)	(17.4)
Amortization of prior service cost	—	0.4	0.3
Recognized net actuarial loss	10.7	10.5	7.7
Allocated benefit cost from Shared Plans	—	—	2.2
Net periodic pension cost	\$6.9	\$9.0	\$8.8

The components of net periodic pension (credit) cost for the Canadian defined-benefit pension plans were as follows:

	Year Ended December 31,		
	2018	2017	2016
Interest cost on projected benefit obligation	\$0.6	\$0.6	\$0.5
Expected return on plan assets	(0.8)	(0.9)	(0.8)
Amortization of net actuarial loss	0.2	0.2	0.2
Allocated benefit cost from Shared Plans	—	—	0.1
Net periodic pension (credit) cost	\$—	\$(0.1)	\$—

#### Investment Policies

Our primary investment objective is to maintain the funded status of the plans 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 and treasury 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.

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





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Each asset class used has a defined asset allocation target and allowable range. The tables below show the asset allocation targets and the December 31, 2018 and 2017 positions for each asset class:

	Target Weight at December 31, 2018		Position at December 31, 2018	2017
U.S. Asset Class				
Fixed income securities	60 %		59 %	56 %
Equities	40 %		41 %	44 %

	Target Weight at December 31, 2018		Position at December 31, 2018	2017
Canadian Asset Class				
Fixed income securities	50 %		50 %	49 %
Equities	48 %		48 %	49 %
Other	2 %		2 %	2 %

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.

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The following tables set forth by level within the fair value hierarchy a summary of the U.S. and Canadian defined-benefit pension plan assets, net of payables for administrative expenses, measured at fair value on a recurring basis:

	Value at December 31, 2018			
	Level 1	Level 2	Level 3	Total
U.S. Plans				
Fixed income securities	\$—	\$202.4	\$	-\$202.4
Equities	—	143.2	—	143.2
Other	(0.4 )	—	—	(0.4 )
Net assets measured at fair value	\$(0.4)	\$345.6	\$	-\$345.2
Assets to be transferred to AHF, LLC				(8.1 )
Fair value of plan assets				\$337.1

	Value at December 31, 2017			
	Level 1	Level 2	Level 3	Total
U.S. Plans				
Fixed income securities	\$—	\$219.2	\$	-\$219.2
Equities	—	172.1	—	172.1
Other	(0.5 )	—	—	(0.5 )
Net assets measured at fair value	\$(0.5)	\$391.3	\$	-\$390.8

	Value at December 31, 2018			
	Level 1	Level 2	Level 3	Total
Canadian Plans				
Fixed income securities	\$—	\$6.9	\$	-\$6.9
Equities	—	6.5	—	6.5
Other	0.2	—	—	0.2
Net assets measured at fair value	\$0.2	\$13.4	\$	-\$13.6

	Value at December 31, 2017			
	Level 1	Level 2	Level 3	Total
Canadian Plans				
Fixed income securities	\$—	\$8.4	\$	-\$8.4
Equities	—	8.3	—	8.3
Other	0.4	—	—	0.4
Net assets measured at fair value	\$0.4	\$16.7	\$	-\$17.1

Following is a description of the valuation methodologies used for assets.

Fixed income securities — Consists of registered investment funds, common and collective trust funds, and segregated funds investing in fixed income securities tailored to institutional investors. The fair values of the investments in this

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class are based on the underlying securities in each fund's portfolio, which is the amount the fund would receive for the security upon a current sale.

Equities — Consists of investments in funds investing in equities tailored to institutional investors. The fair value of each fund is based on the underlying securities in each fund's portfolio, which is the amount the fund would receive for the security upon a current sale.

Other — Consists 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. The carrying amounts of payables and receivables approximate fair value due to the short-term nature of these instruments.

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Defined-Benefit Postretirement Benefit Plans

The following tables summarize the balance sheet impact of the postretirement benefit plans, as well as the related benefit obligations, assets, funded status and rate assumptions.

	2018	2017
Change in benefit obligation:		
Projected benefit obligations as January 1,	\$76.4	\$80.3
Service cost	0.4	0.4
Interest cost	2.6	3.2
Plan participants' contributions	1.6	1.7
Effect of curtailment	(0.2 )	—
Actuarial (gain)/loss	(9.0 )	0.5
Benefits paid	(9.6 )	(9.7 )
Projected benefit obligation as of December 31,	62.2	76.4

Change in plan assets:

Fair value of plan assets as January 1,	—	—
Employer contribution	8.0	8.0
Plan participants' contribution	1.6	1.7
Benefits paid	(9.6 )	(9.7 )
Fair value of plan assets as of December 31,	—	—
Funded status of the plans	\$(62.2)	\$(76.4)

The table below presents the weighted-average assumptions used in computing the benefit obligations and net periodic benefit cost for the U.S. defined-benefit postretirement benefit plans:

	2018	2017
Weighted average discount rate used to determine benefit obligations as of December 31,	4.30%	3.60%
Weighted average discount rate used to determine net periodic benefit cost	3.60%	4.05%

The components of net periodic postretirement benefit cost (credit) were as follows:

	Year Ended		
	December 31,		
	2018	2017	2016
Service cost of benefits earned during the period	\$0.4	\$0.4	\$0.1
Interest cost on accumulated postretirement benefit obligations	2.6	3.2	2.6
Amortization of prior service (credit)	—	—	(0.2 )
Amortization of net actuarial (gain)	(2.5 )	(2.4 )	(3.3 )
Allocated benefit (credit) from Shared Plans	—	—	(0.3 )
Net periodic postretirement benefit cost (credit)	\$0.5	\$1.2	\$(1.1)

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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 8.6% to 11.1% for post-65 retirees (depending on plan type) was assumed for 2019, decreasing ratably to an ultimate rate of 4.5% by 2027. 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 on the defined-benefit postretirement benefit plans for 2019:

	One percentage point Increase/Decrease	
(Decrease) increase on total service and interest cost components	\$ —	\$ —
(Decrease) increase on postretirement benefit obligation	(0.8)	1.0

Financial Statement Impacts

Amounts recognized in assets and (liabilities) on the Consolidated Balance Sheets at year end consist of:

	U.S. Pension Benefits		Canadian Pension Benefits	
	2018	2017	2018	2017
Pension benefit liabilities	\$(9.3)	\$(1.6)	\$(2.0)	\$(0.7)
Net amount recognized	\$(9.3)	\$(1.6)	\$(2.0)	\$(0.7)

  

	Postretirement Benefits	
	2018	2017
Accounts payable and accrued expenses	\$(6.5 )	\$(6.5 )
Postretirement benefit liabilities	(55.7 )	(69.9 )
Net amount recognized	\$(62.2)	\$(76.4)

Pre-tax amounts recognized in AOCI at year end for our pension and postretirement benefit plans consist of:

	U.S. Pension Benefits		Canadian Pension Benefits	
	2018	2017	2018	2017
Net actuarial (loss)	\$(124.2)	\$(127.4)	\$(4.7)	\$(3.8)

	Postretirement Benefits	
	2018	2017
Net actuarial gain	\$41.0	\$34.8

We expect to amortize \$8.9 million and \$0.3 million of previously unrecognized net actuarial losses into U.S. and Canadian plan pension cost, respectively, in 2019. We expect to amortize \$3.3 million of previously unrecognized net actuarial gains into postretirement benefit cost in 2019.

We expect to contribute \$0.1 million each to our U.S. and Canadian defined-benefit pension plans and \$6.5 million to our U.S. postretirement benefit plans in 2019.





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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. and Canadian plans:

	U.S. Pension Benefits	Canadian Pension Benefits	Postretirement Benefits
2019	\$ 16.8	\$ 1.3	\$ 6.5
2020	18.4	1.3	6.2
2021	18.7	1.2	6.0
2022	19.9	1.1	5.8
2023	20.6	1.1	5.4
2024-2028	113.6	5.0	21.4

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

Costs for defined-contribution pension plans were \$6.2 million in 2018 and \$6.5 million in 2017.

#### NOTE 19. DERIVATIVE FINANCIAL INSTRUMENTS

We are exposed to market risk from changes in foreign exchange rates that could impact our financial condition, results of operations and cash flows. We enter into derivative contracts, including contracts to hedge our foreign currency exchange rate exposures. Exposure to individual counterparties is controlled and derivative financial instruments are entered into with a diversified group of major financial institutions. Forward swap contracts are entered into for periods consistent with underlying exposure and do not constitute positions independent of those exposures. At inception, hedges designated 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. Derivatives are formally assessed both at inception and at least quarterly thereafter, to ensure that derivatives 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, hedge accounting is discontinued, 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. Counterparty credit default swap levels and credit ratings are monitored on a regular basis in an effort to reduce the risk of counterparty default. 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 exposure in situations where gain and loss positions are outstanding with a single counterparty. We neither post nor receive cash collateral with any counterparty for our derivative transactions. These ISDAs do not have credit contingent features; however, a default under our Credit Facility would trigger a default under these agreements.

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#### Currency Rate Risk – Sales and Purchases

We manufacture and sell our products in a number of countries 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. Before considering the impacts of any hedging, our major foreign currency exposures as of December 31, 2018, based on operating profits by currency, are from the Canadian Dollar, the Chinese Renminbi, and the Australian Dollar.

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. These cash flow hedges are executed quarterly, generally up to 18 months forward. The notional amount of these hedges was \$24.9 million and \$26.2 million as of December 31, 2018 and 2017, respectively. Gains and losses on these instruments are recorded in other comprehensive income (loss), to the extent effective, until the underlying transaction is recognized in earnings. The mark-to-market gains or losses on ineffective portions of hedges are recognized in SG&A expense.

#### 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 expense, net. The offsetting gains and losses on the related derivative contracts are also recorded in other expense, net. 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 \$17.7 million and \$20.0 million as of December 31, 2018 and 2017, respectively.

#### Financial Statement Impacts

The following table presents the classification of derivative assets and liabilities within the Consolidated Balance Sheets. The foreign exchange contracts outstanding are presented gross as we have not netted derivative assets with derivative liabilities:

	December 31, 2018		December 31, 2017	
	Assets (1)	Liabilities (2)	Assets (1)	Liabilities (2)
Derivatives designated as cash flow hedging instruments				
Foreign exchange contracts	\$ 1.1	\$ —	\$ —	\$ 0.8
Derivatives not designated as hedging instruments				
Foreign exchange contracts	—	—	—	0.3
Total	\$ 1.1	\$ —	\$ —	\$ 1.1

(1) Derivative assets are classified within prepaid expenses and other current assets as well as other non-current assets.

(2) Derivative liabilities are classified within accounts payable and accrued expenses as well as other long-term liabilities.

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The following tables summarize the impact of the effective portion of derivative instruments on the Consolidated Statements of Operations and Comprehensive Income (Loss):

	Gains (losses) recognized in other comprehensive income ("OCI") <sup>(3)</sup>			(Losses) gains reclassified from AOCI <sup>(3)</sup>		
	Year Ended December 31, 2018 2017 2016			Year Ended December 31, 2018 2017 2016		
<b>Cash flow hedges</b>						
Foreign exchange contracts	\$2.0	\$(1.9)	\$(1.7)	\$(0.3)	\$(0.4)	\$0.7
	Gains (losses) recognized in income <sup>(3)</sup>			Year Ended December 31, 2018 2017 2016		

<b>Non-designated hedges</b>						
Foreign exchange contracts	\$1.5	\$(2.0)	\$0.8			

<sup>(3)</sup> Gains (losses) were included in net sales and cost of goods sold.

As of December 31, 2018, the amount of existing gains in AOCI expected to be recognized in earnings over the next twelve months is \$0.9 million.

**NOTE 20. FINANCIAL INSTRUMENTS**

Financial instruments are required to be disclosed at fair value in the financial statements.

The fair value of cash, accounts receivable, accounts payable and accrued liabilities approximate their carrying amounts due to the short-term maturities of these assets and liabilities.

	Fair Value at December 31, 2018			
	Carrying amount	Level 1	Level 2	Level 3 Total
<b>Financial assets</b>				
Foreign exchange contracts	\$1.1	\$ 1.1	\$—	\$ —\$1.1
Total financial assets	\$1.1	\$ 1.1	\$—	\$ —\$1.1
<b>Financial liabilities</b>				
Total debt	\$(99.3)	\$ —	\$(99.3)	\$ —\$(99.3)
Total financial liabilities	\$(99.3)	\$ —	\$(99.3)	\$ —\$(99.3)

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	Fair Value at December 31, 2017			
	Carrying amount	Level 1	Level 2	Level 3 Total
Financial liabilities				
Derivatives designated as hedging instruments:				
Foreign exchange contracts	\$(0.8 )	\$(0.8 )	\$—	\$ —\$(0.8 )
Derivatives not designated as hedging instruments:				
Foreign exchange contracts	(0.3 )	(0.3 )	—	— (0.3 )
Total debt	(85.0 )	—	(85.0 )	— (85.0 )
Total financial liabilities	\$(86.1 )	\$(1.1 )	\$(85.0 )	\$ —\$(86.1 )

Total debt as of December 31, 2018, consisted of the outstanding borrowings under the Credit Facility dated December 31, 2018. Borrowings under the Credit Facility are quoted in markets that are not active, or inputs which are observable, either directly or indirectly, for substantially the full term of the liability (Level 2 inputs) and accordingly, the carrying amount approximates fair value.

Total debt as of December 31, 2017 consisted primarily of the outstanding borrowings under the ABL Facility. Borrowings under the ABL Facility were quoted in markets that are not active, or inputs which are observable, either directly or indirectly, for substantially the full term of the liability (Level 2 inputs) and accordingly, the carrying amount approximates fair value.

The fair values of our net foreign currency contracts were estimated from market quotes, which are considered to be Level 1 inputs.

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

#### NOTE 21. STOCKHOLDERS' EQUITY

##### Common Stock Repurchase Plan

On March 6, 2017, we announced that our board of directors had approved a share repurchase program pursuant to which we are authorized to repurchase up to \$50.0 million of our outstanding shares of common stock (the "Program"). Repurchases under the Program may be made through open market and block transactions, including Rule 10b5-1 plans, at such times and in such amounts as management deems appropriate, subject to market and business conditions, regulatory requirements and other factors. The Program does not obligate us to repurchase any particular amount of common stock and may be suspended or discontinued at any time without notice. For the year ended December 31, 2018, we repurchased approximately 69,000 shares under the Program for a total cost of \$1.0 million, or an average price of \$14.20 per share. From inception of the Program through December 31, 2018, we repurchased approximately 2.5 million shares under the Program for a total cost of \$41.0 million, with an average price of \$16.23 per share.

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Accumulated Other Comprehensive (Loss) Income

The amounts and related tax effects allocated to each component of OCI in 2018, 2017 and 2016 are presented in the table below.

	Pre-tax Amount	Tax Impact	After-tax Amount
2018			
Foreign currency translation adjustments	\$ (6.0 )	\$ —	\$ (6.0 )
Derivative adjustments	2.3	(0.6 )	1.7
Pension and postretirement adjustments	8.5	(0.7 )	7.8
Total other comprehensive income	\$ 4.8	\$ (1.3 )	\$ 3.5
2017			
Foreign currency translation adjustments	\$ 7.2	\$ —	\$ 7.2
Derivative adjustments	(2.0 )	0.5	(1.5 )
Pension and postretirement adjustments	2.2	(0.6 )	1.6
Total other comprehensive (loss)	\$ 7.4	\$ (0.1 )	\$ 7.3
2016			
Foreign currency translation adjustments	\$ (8.2 )	\$ —	\$ (8.2 )
Derivative adjustments	(2.0 )	0.4	(1.6 )
Postretirement adjustments	3.3	(1.1 )	2.2
Total other comprehensive (loss)	\$ (6.9 )	\$ (0.7 )	\$ (7.6 )

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The following table summarizes the activity, by component, related to the change in AOCI for December 31, 2018 and 2017:

	Foreign Currency Translation Adjustments	Derivative Adjustments	Pension and Postretirement Adjustments	Total Accumulated Other Comprehensive Income (Loss)
Balance, December 31, 2016	\$ 0.5	\$ 0.5	\$ (60.8 )	\$ (59.8 )
Other comprehensive income (loss) before reclassifications, net of tax impact of \$ — , \$0.7, \$1.2 and \$1.9	7.2	(1.9 )	(5.4 )	(0.1 )
Amounts reclassified from accumulated other comprehensive income	—	0.4	7.0	7.4
Net current period other comprehensive income (loss)	7.2	(1.5 )	1.6	7.3
Balance, December 31, 2017	\$ 7.7	\$ (1.0 )	\$ (59.2 )	\$ (52.5 )
Cumulative effect of adoption of ASU 2018-02 as of January 1	—	0.1	(12.7 )	(12.6 )
Other comprehensive income (loss) before reclassifications, net of tax impact of \$ — , (\$0.5), \$1.0 and \$0.5	(6.0 )	1.4	1.2	(3.4 )
Amounts reclassified from accumulated other comprehensive income	—	0.3	6.6	6.9
Net current period other comprehensive income (loss)	(6.0 )	1.7	7.8	3.5
Balance, December 31, 2018	\$ 1.7	\$ 0.8	\$ (64.1 )	\$ (61.6 )

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The amounts reclassified from AOCI and the affected line item of the Consolidated Statements of Operations are presented in the table below.

	Year Ended			Affected Line Item
	December 31,			
	2018	2017	2016	
Derivative adjustments				
Foreign exchange contracts - purchases	\$(0.1)	\$0.1	\$0.3	Cost of goods sold
Foreign exchange contracts - purchases	—	(0.1 )	—	Earnings (loss) from discontinued operations
Foreign exchange contracts - sales	0.4	0.3	(1.0 )	Net sales
Foreign exchange contracts - sales	0.1	0.3	(0.8 )	Earnings (loss) from discontinued operations
Total expense/(income) before tax	0.4	0.6	(1.5 )	
Tax impact	(0.1 )	(0.2 )	0.2	Income tax (benefit)
Tax impact	—	—	0.3	Earnings (loss) from discontinued operations
Total expense (income), net of tax	0.3	0.4	(1.0 )	
Pension and postretirement adjustments				
Prior service cost amortization	—	0.4	0.1	Other expense, net
Amortization of net actuarial loss	8.4	8.4	4.6	Other expense, net
Amortization of net actuarial loss	(0.1 )	—	0.1	Earnings (loss) from discontinued operations
Total expense before tax	8.3	8.8	4.8	
Tax impact	(1.8 )	(1.8 )	(1.6 )	Income tax (benefit)
Tax impact	0.1	—	(0.1 )	Earnings (loss) from discontinued operations
Total expense, net of tax	6.6	7.0	3.1	
Total reclassifications for the period	\$6.9	\$7.4	\$2.1	

#### NOTE 22. 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

In connection with our current or legacy manufacturing operations, or those of former owners, we may from time to time become 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

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international Superfund and similar type environmental laws. For those matters, we may have rights of contribution or reimbursement from other parties or coverage under applicable insurance policies, however, we cannot predict with certainty the future identification of or expenditure for any investigation, closure or remediation of any environmental site.

Summary of Financial Position

There were no material liabilities recorded as of December 31, 2018 and December 31, 2017 for potential environmental liabilities that we consider probable and for which a reasonable estimate of the probable liability could be made.

Antidumping and Countervailing Duty Cases

In October 2010, a coalition of U.S. producers of multilayered wood flooring (not including AWI and its subsidiaries) filed petitions seeking antidumping duties (“AD”) and countervailing duties (“CVD”) with the United States Department of Commerce (“DOC”) and the United States International Trade Commission against imports of multilayered wood flooring from China. The AD and CVD petitions ultimately resulted in DOC issuing AD and CVD orders (the “Orders”) against multilayered wood flooring imported into the U.S. from China. These Orders and the associated additional duties they have imposed have been the subject of extensive litigation, both at DOC and in the U.S. courts.

Prior to the sale of our North American wood flooring business on December 31, 2018, we produced multilayered wood flooring domestically and imported multilayered wood flooring from third party suppliers in China. Until October 2014, AWI also operated a plant in Kunshan, China (“Armstrong Kunshan”) that manufactured multilayered wood flooring for export to the U.S. As a result, we have been directly involved in the multilayered wood flooring-related litigation at DOC and in the U.S. courts. Our consistent view through the course of this matter has been, and remains, that our imports were neither dumped nor subsidized. In 2013, in the sole DOC investigation of AWI and its subsidiaries (as a mandatory respondent in connection with the first annual administrative review), Armstrong Kunshan received a final CVD rate of 0.98% and a final AD rate of 0.00%.

Litigation regarding this matter has continued in the U.S. courts. Armstrong Kunshan as well as other respondents have appealed the DOC’s original decision to apply an AD rate to AWI and its subsidiaries and other “separate rate” respondents in the original investigation (for which we received a final initial AD rate of 3.31%) to the Court of Appeals for the Federal Circuit (“CAFC”). The CAFC, on February 15, 2017, found that DOC did not make the requisite factual findings necessary to support its original investigation determination. The CAFC vacated and remanded the U.S. Court of International Trade (“CIT”) decision for further proceedings. On July 3, 2018, the CIT issued a ruling ordering DOC to revoke the AD order with respect to Armstrong Kunshan and two other respondents. Petitioners have filed notice of appeal. At this time, therefore, the ultimate outcome of the litigation is uncertain, as well as the status of the revocation of the AD order with respect to Armstrong Kunshan. We will continue to pursue the case. We believe success on appeal could result in a final revocation of the AD order with respect to Armstrong Kunshan and its prior entries under the order.

The DOC also continues to conduct annual administrative reviews of the AD and CVD final duty rates under the Orders. Armstrong Kunshan was not selected as a mandatory respondent for the second, third and fourth reviews and, therefore, was not subject to individual review, but we are subject to the rates applicable to importers that were not individually reviewed (the “separate rate” or “all other” respondents).

The second administrative review period covered 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). In July 2015, the DOC issued a final “all others” CVD rate of 0.99% and a 13.74% AD rate. The AD rate was determined solely on the basis of the AD duty rate assigned to the only mandatory respondent that did not receive a de minimis rate. DOC assigned these rates to all separate rate respondents that were not individually investigated, including Armstrong Kunshan. We, along with other respondents, have filed complaints against DOC challenging the AD rate in the CIT. If such rates are ultimately upheld after any court appeals are exhausted, the estimated additional liability to us for the



relevant period is approximately \$5.0 million, which is recorded in accounts payable and accrued expenses. The court

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(Dollars in millions, except per share data)

granted the preliminary injunction requested by plaintiffs on August 13, 2015, and enjoined the U.S. Government agencies from causing or permitting liquidation of unliquidated entries of multilayered wood flooring from China, pending final decision on the case. On June 8, 2018, the CIT issued a decision and order remanding the review determination to DOC to reconsider certain valuation methodologies. A revised decision by DOC is pending and must be approved by the Court.

The third administrative review period covered all multilayered wood flooring imports made between December 1, 2013 and November 30, 2014 (AD) and between January 1, 2013 and December 31, 2013 (CVD). On May 16, 2016 the DOC issued a final "all others" CVD rate of 1.38% and on July 13, 2016, DOC imposed a 17.37% "all others" AD rate. The AD rate was determined again solely on the basis of the AD duty rate assigned to the only mandatory respondent that did not receive a de minimis rate. DOC assigned these rates to all separate rate respondents that were not individually investigated, including Armstrong Kunshan. We continue to defend our import practices by pursuing our available legal rights and remedies, including litigation at DOC and in the U.S. courts. If such rates are ultimately upheld after any potential court appeals are exhausted, the estimated additional liability to us for the relevant period is approximately \$6.2 million, which is recorded in accounts payable and accrued expenses. We successfully filed an injunction request. The court granted the preliminary injunction on January 4, 2017 and enjoined the U.S. Government agencies from causing or permitting liquidation of unliquidated entries of multilayered wood flooring from China, pending final decision on the case. The preliminary injunction also ensures that our entries made during the 2013-14 review period will ultimately be liquidated in accordance with the final decision by the courts. On November 26, 2018, the CIT issued a decision and order upholding DOC's determination Armstrong and other affected "separate rate" parties have filed appeals to the Court of Appeals for the Federal Circuit and those appeals remain pending. AWI and Armstrong Kunshan were not subject to review during the fourth administrative review period, however, we are liable for other manufacturers' applicable rates to the extent we were importer of record of products covered by the AD/CVD orders during this period. The fourth administrative review period covered all multilayered wood flooring imports made between December 1, 2014 and November 30, 2015 (AD) and between January 1, 2014 and December 31, 2014 (CVD). On May 15, 2017, the DOC published a final "all others" CVD rate of 1.06% and on June 5, 2017, DOC imposed a de minimus "all others" AD rate which will apply to our multilayered wood flooring imports during this period. We have begun receiving refunds for our multilayered wood flooring imports during this time period as our deposit rate exceeded this de minimus rate. The petitioners initially appealed this decision, but withdrew their appeal on October 17, 2017. We will accrue and make cash deposits for duties when we are the importer of record at the rates established by the DOC based on the fourth administrative review process. Administrative reviews for the fifth review period (December 1, 2015-November 30, 2016 for AD and January 1, 2015-December 31, 2015 for CVD) have been initiated. We were not subject to review for this period; however, we will be liable for other manufacturers' applicable rates to the extent we were importer of record of products covered by the AD/CVD orders during this period. On June 14, 2018, DOC published a final "all others" CVD rate of 0.85% and on July 18, 2018, DOC published a final "all others" AD rate of 0.00% for our multilayered wood flooring imports during this time period. The U.S. International Trade Commission completed a sunset review of the original Orders in the fourth quarter of 2017 and determined to continue the Orders for an additional five year period.

Armstrong Kunshan was not sold as part of the North American wood sale but was sold to a separate buyer in December 2018. We retained the right to elect to defend and control the defense of the above matters, as well as the right to any related refunds or payments, and agreed to indemnify and hold the buyer from and against any and all duties, penalties, fines or other charges.

We have consistently pursued our legal rights and possible remedies to recover certain antidumping duty deposits and we are currently seeking to resolve this matter, if possible, outside of continued litigation.

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

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Armstrong Flooring, Inc. and Subsidiaries  
Notes to Consolidated Financial Statements  
(Dollars in millions, except per share data)

with suppliers, distributors and competitors, employees and other matters. For example, we are currently a party to various litigation matters that involve product liability, tort liability and other claims under a wide range of allegations, including illness due to exposure to certain chemicals used in the workplace, or medical conditions arising from exposure to product ingredients or the presence of trace contaminants. In some cases, these allegations involve multiple defendants and relate to legacy products that we and other defendants purportedly manufactured or sold. We believe these claims and allegations to be without merit and intend to defend them vigorously. For these matters, we also may have rights of contribution or reimbursement from other parties or coverage under applicable insurance policies.

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, results of operations or cash flows.

NOTE 23. QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

	2018 Quarter Ended			
	March 31	June 30	September 30	December 31
Net sales	\$164.3	\$201.2	\$ 208.9	\$ 153.8
Gross profit	29.3	43.7	45.2	25.0
(Loss) earnings from continuing operations	(10.4 )	0.2	6.0	(14.9 )
Per share of common stock:				
Basic	\$(0.40 )	\$0.01	\$ 0.24	\$(0.57 )
Diluted	(0.40 )	0.01	0.23	(0.57 )

	2017 Quarter Ended			
	March 31	June 30	September 30	December 31
Net sales	\$160.8	\$188.4	\$ 195.5	\$ 159.4
Gross profit	32.8	45.0	43.9	29.4
(Loss) earnings from continuing operations	(12.2 )	2.5	15.2	(22.6 )
Per share of common stock:				
Basic	\$(0.44 )	\$0.09	\$ 0.57	\$(0.87 )
Diluted	(0.44 )	0.09	0.57	(0.87 )

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.

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

Not applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

The Company maintains a system of disclosure controls and procedures to give reasonable assurance that information required to be disclosed in the Company's reports filed or submitted under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. These controls and procedures also give reasonable assurance that information required to be disclosed in such reports is accumulated and communicated to management to allow timely decisions regarding required disclosures.

As of December 31, 2018, the Company's Chief Executive Officer (the "CEO") and Chief Financial Officer (the "CFO"), together with management, conducted an evaluation of the effectiveness of the Company's disclosure controls and procedures pursuant to Rules 13a-15(e) and 15d-15(e) of the Exchange Act. Based on that evaluation, the CEO and CFO concluded that these disclosure controls and procedures are effective at the reasonable assurance level described above.

Management Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of consolidated financial statements for external purposes in accordance with U.S. generally accepted accounting principles ("GAAP").

Management assessed our internal control over financial reporting as of December 31, 2018, the end of our fiscal year. Management based its assessment on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Management's assessment included evaluation of elements such as the design and operating effectiveness of key financial reporting controls, process documentation, accounting policies, and our overall control environment.

Based on this assessment, management has concluded that our internal control over financial reporting was effective as of the end of the fiscal year to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external reporting purposes in accordance with GAAP. We reviewed the results of management's assessment with the Audit Committee of our Board of Directors.

Our independent registered public accounting firm, KPMG LLP, independently assessed the effectiveness of the company's internal control over financial reporting, as stated in the firm's attestation report, which is included within Part II, Item 8 of this Form 10-K and incorporated by reference into this Item 9A.

Changes in Internal Controls over Financial Reporting

As of January 4, 2019, Ronald D. Ford resigned from his position as Senior Vice President and CFO and Douglas B. Bingham, Vice President, Treasury and Investor Relations, became the Senior Vice President, CFO and Treasurer. The role and responsibilities of principal accounting officer of the Company previously held by Mr. Ford were assumed by the Vice President and Controller, Tracy L. Marines.

No change in our internal control over financial reporting occurred during the fiscal quarter ended December 31, 2018 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## PART III

## Item 10. Directors, Executive Officers and Corporate Governance

## Executive Officers of the Company (as of March 5, 2019):

Name; Company Position	Age	Other Business Experience During the Last Five Years*
Donald R. Maier, President and CEO Director (since March 30, 2016)	54	Armstrong World Industries, Inc. EVP & CEO, Flooring Products (2014 to 2016) SVP, Global Operations Excellence (2010 to 2014)
Douglas B. Bingham, SVP, Chief Financial Officer & Treasurer (since January 2019)	43	Armstrong Flooring, Inc. VP, Treasury and Investor Relations (April 2016 - January 2019) Armstrong World Industries, Inc. Director, Treasury & Risk Management (2014 to 2016) General Manager, Finance, Building Products - Asia (2011 to 2014)
John C. Bassett, SVP, Human Resources (since March 30, 2016)	56	Armstrong World Industries, Inc. VP, Flooring Products, Human Resources (2014 to 2016) General Manager, Flooring Products, Hardwood Manufacturing (2012 to 2014) VP, Human Resources, Global Operating & Supply Chain (2010 to 2012)
Brent A. Flaharty, SVP, North American Sales (since March 2017)	46	Armstrong Flooring, Inc. VP, Residential Sales (December 2016 - March 2017) Mag Instrument, Inc. Chief Revenue Officer (2016) Exemplis Corporation Chief Marketing Officer (2015 - 2016) Masonite International Corporation Vice President and Business Leader, North America (2012 - 2015)
Christopher S. Parisi, SVP, General Counsel, Secretary & Chief Compliance Officer (since March 30, 2016)	48	Armstrong World Industries, Inc. VP, Associate General Counsel and Secretary (2014 to 2016) VP, Corporate Governance (2011 to 2014)
Dominic C. Rice, Chief Product Officer & SVP, Global Operations (since February 2018)	58	Armstrong Flooring, Inc. SVP, Global Operations & Manufacturing (March 2017 - February 2018) SVP, North America Commercial (March 2016 - March 2017)
Tracy L. Marines, VP, Controller (since January 2019)	47	Armstrong World Industries, Inc. VP, Flooring Products, Commercial (2010 to 2016) Armstrong Flooring, Inc. Director, Controller (2018) Director, Financial Reporting & Consolidation (2018) Senior Manager, Financial Reporting & Consolidation (2017-2018) Senior Manager, Financial Reporting (2016-2017) Manager, Financial Reporting (2016) Armstrong World Industries, Inc. Manager, Financial Reporting (2008-2016)

All executive officers are elected by our board of directors to serve in their respective capacities until their successors are elected and qualified or until their earlier resignation or removal.

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## Code of Ethics

We have adopted a Code of Business Conduct that applies to all employees, executives and directors, specifically including our CEO, our CFO 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 <https://www.armstrongflooring.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 also 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 2018 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 2019 annual meeting of stockholders to be filed no later than April 30, 2019.

## 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 2019 annual meeting of stockholders to be filed no later than April 30, 2019.

## 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,” “Management and Directors,” and “Securities Authorized for Issuance Under Equity Compensation Plans” in the Company’s proxy statement for its 2019 annual meeting of stockholders to be filed no later than April 30, 2019.

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 2019 annual meeting of stockholders to be filed no later than April 30, 2019.

Item 14. Principal Accountant Fees and Services

The information required by Item 14 is incorporated by reference to the sections entitled “Audit Committee Report” in the Company’s proxy statement for its 2019 annual meeting of stockholders to be filed no later than April 30, 2019.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a)(1) - Financial Statements are included in Part II, Item 8 of the Annual Report on Form 10-K.

(a)(2) - Schedule II - Valuation and Qualifying Accounts is submitted as a separate section of this report. Schedules I, III, IV and V are not applicable to the Company and, therefore, have been omitted.

(a)(3) - Listing of Exhibits

Exhibit Number	Description
2.1	<u>Separation and Distribution Agreement by and between Armstrong Flooring, Inc., and AFI Intermediate Co. (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on April 4, 2016).</u>
3.1	<u>Amended and Restated Certificate of Incorporation of Armstrong Flooring, Inc. dated March 30, 2016 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on April 4, 2016).</u>
3.2	<u>Amended and Restated Bylaws of Armstrong Flooring, Inc. dated March 30, 2016 (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on April 4, 2016).</u>
10.1	<u>Transition Services Agreement, dated as of April 1, 2016, by and between Armstrong World Industries, Inc. and Armstrong Flooring, Inc. (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on April 4, 2016).</u>
10.2	<u>Tax Matters Agreement, dated as of April 1, 2016, by and between Armstrong World Industries, Inc. and Armstrong Flooring, Inc. (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on April 4, 2016).</u>
10.3	<u>Employee Matters Agreement, dated as of April 1, 2016, by and between Armstrong World Industries, Inc. and Armstrong Flooring, Inc. (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on April 4, 2016).</u>
10.4	<u>Trademark License Agreement, dated as of April 1, 2016, by and between Armstrong World Industries, Inc. and Armstrong Flooring, Inc. (incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on April 4, 2016).</u>
10.5	<u>Transition Trademark License Agreement, dated as of April 1, 2016, by and between Armstrong World Industries, Inc. and Armstrong Flooring, Inc. (incorporated by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on April 4, 2016).</u>

10.6 Campus Lease Agreement, dated as of April 1, 2016, by and between Armstrong World Industries, Inc. and Armstrong Flooring, Inc. (incorporated by reference to Exhibit 10.6 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on April 4, 2016).

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- 10.7 Stock Purchase Agreement by and between Armstrong Flooring, Inc. and Tarzan Holdco, Inc., dated November 14, 2018 (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on November 15, 2018).
- 10.8 Transition Services Agreement, dated as of December 31, 2018, by and between Armstrong Flooring, Inc. and AHF Holding, Inc. (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with U.S. Securities and Exchange Commission on January 7, 2019).
- 10.9 Intellectual Property Agreement, dated as of December 31, 2018, by and among Armstrong Flooring, Inc., AFI Licensing LLC, AHF Holding, Inc. and Armstrong Hardwood Flooring Company (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on January 7, 2019).
- 10.10 Sublease, dated as of December 31, 2018, by and among Armstrong Flooring, Inc., and Armstrong Hardwood Flooring Company (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on January 7, 2019).
- 10.11 Credit Agreement, dated December 31, 2018, by and among Armstrong Flooring, Inc., as borrower, the guarantors named therein, the lenders party thereto and Bank of America, N.A., as administrative agent for the lenders thereunder (incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on January 7, 2019).
- 10.12 Amended and Restated Armstrong Flooring, Inc. 2016 Long-Term Incentive Plan (incorporated herein by reference to Exhibit 4.3 to the Registration Statement on Form S-8 filed by Armstrong Flooring, Inc. with the SEC on August 7, 2017).\*
- 10.13 Form of 2016 Long-Term Performance - Based Restricted Stock Grant - Tier 1 Executive - Free Cash Flow (incorporated by reference to Exhibit 10.9 to the Company's Quarterly Report on Form 10-Q filed with the U.S. Securities and Exchange Commission on August 12, 2016).\*
- 10.14 Form of 2016 Long-Term Performance - Based Restricted Stock Grant - Tier 1 Executive - EBITDA (incorporated by reference to Exhibit 10.10 to the Company's Quarterly Report on Form 10-Q filed with the U.S. Securities and Exchange Commission on August 12, 2016).\*
- 10.15 Form of 2016 Long-Term Performance - Based Restricted Stock Grant - Free Cash Flow (incorporated by reference to Exhibit 10.11 to the Company's Quarterly Report on Form 10-Q, as filed with the U.S. Securities and Exchange Commission on May 9, 2016).\*
- 10.16 Form of 2016 Long-Term Performance - Based Restricted Stock Grant - EBITDA (incorporated by reference to Exhibit 10.12 to the Company's Quarterly Report on Form 10-Q, as filed with the U.S. Securities and Exchange Commission on May 9, 2016).\*
- 10.17 Form of 2016 Long-Term Performance - Based Restricted Stock Grant - Non U.S. (China) - Free Cash Flow - Payable in Cash.(incorporated by reference to Exhibit 10.13 to the Company's Quarterly Report on Form 10-Q, as filed with the U.S. Securities and Exchange Commission on May 9, 2016).\*

10.18 Form of 2016 Long-Term Performance - Based Restricted Stock Grant - Non U.S. (China) - EBITDA - Payable in Cash (incorporated by reference to Exhibit 10.14 to the Company's Quarterly Report on Form 10-Q, as filed with the U.S Securities and Exchange Commission on May 9, 2016). \*

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- 10.19 Form of 2016 Long-Term Time - Based Restricted Stock Grant - U.S. and Non-U.S. (incorporated by reference to Exhibit 10.15 to the Company's Quarterly Report on Form 10-Q, as filed with the U.S Securities and Exchange Commission on May 9, 2016). \*
- 10.20 Form of 2016 Long-Term Time - Based Restricted Stock Grant - Non-U.S. (China) - Payable in Cash(incorporated by reference to Exhibit 10.16 to the Company's Quarterly Report on Form 10-Q, as filed with the U.S Securities and Exchange Commission on May 9, 2016). \*
- 10.21 Form of 2017 Long-Term Performance - Based Restricted Stock Grant - Tier 1 Executive - Free Cash Flow. (incorporated by reference to Exhibit 10.1 to the Company's Amended Quarterly Report on Form 10-Q/A filed with the U.S. Securities and Exchange Commission on May 9, 2017).\*
- 10.22 Form of 2017 Long-Term Performance - Based Restricted Stock Grant - Tier 1 Executive - EBITDA. (incorporated by reference to Exhibit 10.2 to the Company's Amended Quarterly Report on Form 10-Q/A filed with the U.S. Securities and Exchange Commission on May 9, 2017).\*
- 10.23 Form of 2017 Long-Term Performance - Based Restricted Stock Grant - Tier 2 Executive - Free Cash Flow. (incorporated by reference to Exhibit 10.3 to the Company's Amended Quarterly Report on Form 10-Q/A filed with the U.S. Securities and Exchange Commission on May 9, 2017).\*
- 10.24 Form of 2017 Long-Term Performance - Based Restricted Stock Grant - Tier 2 Executive - EBITDA. (incorporated by reference to Exhibit 10.4 to the Company's Amended Quarterly Report on Form 10-Q/A filed with the U.S. Securities and Exchange Commission on May 9, 2017).\*
- 10.25 Form of 2017 Long-Term Performance - Based Restricted Stock Grant - Non U.S. (China) - Free Cash Flow - Payable in Cash. (incorporated by reference to Exhibit 10.5 to the Company's Amended Quarterly Report on Form 10-Q/A filed with the U.S. Securities and Exchange Commission on May 9, 2017).\*
- 10.26 Form of 2017 Long-Term Performance - Based Restricted Stock Grant - Non U.S. (China) - EBITDA - Payable in Cash. (incorporated by reference to Exhibit 10.6 to the Company's Amended Quarterly Report on Form 10-Q/A filed with the U.S. Securities and Exchange Commission on May 9, 2017).\*
- 10.27 Form of 2017 Long-Term Performance - Based Restricted Stock Grant - U.S. and non- U.S. (incorporated by reference to Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q filed with the U.S. Securities and Exchange Commission on May 8, 2017).\*
- 10.28 Form of 2017 Long-Term Performance - Based Restricted Stock Grant - Non U.S. (China) - Payable in Cash. (incorporated by reference to Exhibit 10.8 to the Company's Quarterly Report on Form 10-Q filed with the U.S. Securities and Exchange Commission on May 8, 2017).\*
- 10.29 Form of 2018 Long-Term Performance - Based Restricted Stock Grant - CEO - EBITDA (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed with the U.S. Securities and Exchange Commission on May 8, 2018).\*
- 10.30 Form of 2018 Long-Term Performance - Based Restricted Stock Grant - CEO - Free Cash Flow (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed with the U.S. Securities and

Exchange Commission on May 8, 2018).\*



- 10.31 Form of 2018 Long-Term Performance - Based Restricted Stock Grant - Tier 1 Executive - EBITDA (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed with the U.S. Securities and Exchange Commission on May 8, 2018).\*
- 10.32 Form of 2018 Long-Term Performance - Based Restricted Stock Grant - Tier 1 Executive - Free Cash Flow (incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q filed with the U.S. Securities and Exchange Commission on May 8, 2018).\*
- 10.33 Form of 2018 Long-Term Performance - Based Restricted Stock Grant - Tier 2 Executive - EBITDA (incorporated by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q filed with the U.S. Securities and Exchange Commission on May 8, 2018).\*
- 10.34 Form of 2018 Long-Term Performance - Based Restricted Stock Grant - Tier 2 Executive - Free Cash Flow (incorporated by reference to Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q filed with the U.S. Securities and Exchange Commission on May 8, 2018).\*
- 10.35 Form of 2018 Long-Term Time-Based Restricted Stock Grant - U.S. and Non-U.S. (incorporated by reference to Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q filed with the U.S. Securities and Exchange Commission on May 8, 2018).\*
- 10.36 Form of 2018 Long-Term Performance - Based Restricted Stock Grant - Non U.S. (China) - EBITDA - Payable in Cash (incorporated by reference to Exhibit 10.8 to the Company's Quarterly Report on Form 10-Q filed with the U.S. Securities and Exchange Commission on May 8, 2018).\*
- 10.37 Form of 2018 Long-Term Performance - Based Restricted Stock Grant - Non U.S. (China) - Free Cash Flow - Payable in Cash (incorporated by reference to Exhibit 10.9 to the Company's Quarterly Report on Form 10-Q filed with the U.S. Securities and Exchange Commission on May 8, 2018).\*
- 10.38 Form of 2018 Long-Term Time-Based Restricted Stock Grant - Non-U.S. (China) - Payable in Cash (incorporated by reference to Exhibit 10.10 to the Company's Quarterly Report on Form 10-Q filed with the U.S. Securities and Exchange Commission on May 8, 2018).\*
- 10.39 Armstrong Flooring, Inc. 2016 Directors Stock Unit Plan (incorporated herein by reference to Exhibit 4.4 to the Registration Statement on Form S-8 filed by Armstrong Flooring, Inc. with the SEC on April 4, 2016).\*
- 10.40 Form of Director Stock Unit Grant Agreement (incorporated by reference to Exhibit 10.18 to the Company's Quarterly Report on Form 10-Q, as filed with the U.S. Securities and Exchange Commission on May 9, 2016).\*
- 10.41 Armstrong Flooring, Inc. Nonqualified Deferred Compensation Plan (incorporated by reference to Exhibit 10.10 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on April 4, 2016).\*
- 10.42 Retirement Benefit Equity Plan of Armstrong Flooring, Inc. (incorporated by reference to Exhibit 10.11 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on April 4, 2016).\*



- 10.43 Form of Indemnification Agreement with Directors and Officers (incorporated by reference to Exhibit 10.23 to the Company's Quarterly Report on Form 10-Q filed with the U.S. Securities and Exchange Commission on August 12, 2016).\*
- 10.44 Amended and Restated Change in Control Severance Agreement with Mr. Maier dated December 1, 2017 (incorporated by reference to Exhibit 10.30 to the Company's Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission on March 6, 2018).\*
- 10.45 Form of Amended and Restated Change in Control Severance Agreement with Messrs. Bassett, Hess, Parisi, and Rice dated December 1, 2017, and Mr. Bingham dated January 7, 2019 (incorporated by reference to Exhibit 10.31 to the Company's Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission on March 6, 2018).\*
- 10.46 Amended and Restated Change in Control Severance Agreement with Mr. Flaharty dated December 1, 2017 (incorporated by reference to Exhibit 10.32 to the Company's Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission on March 6, 2018).\*
- 10.47 Severance Pay Plan for Executive Employees of Armstrong Flooring, Inc. (incorporated by reference to Exhibit 99.2 to the Company's Current Report on Form 8-K filed with the U.S. Securities and Exchange Commission on September 2, 2016).\*
- 10.48 Form of Severance Agreement between David S. Schulz and Armstrong World Industries, Inc. (incorporated by reference to Exhibit 10.3 to Armstrong World Industries, Inc.'s Current Report on Form 8-K filed with the U.S. Securities and Exchange Commission on March 10, 2015).\*
- 10.49 Separation Agreement and Release with Mr. Bondi dated February 1, 2018 (incorporated by reference to Exhibit 10.35 to the Company's Annual Report on Form 10-K filed with the U.S. Securities Exchange Commission on March 6, 2018).\*
- 10.50 Separation Agreement and Release with Mr. Ford dated January 10, 2019\*†
- 21.1 Subsidiaries of Armstrong Flooring, Inc. †
- 23.1 Consent of Independent Registered Public Accounting Firm.†
- 31.1 Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.†
- 31.2 Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.†
- 32.1 Certification of Principal Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.†
- 32.2 Certification of Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.†



101.INS XBRL Instance Document†

101.SCH XBRL Taxonomy Extension Schema Document†

101.CAL XBRL Taxonomy Extension Calculation Linkbase Document†

101.DEF XBRL Taxonomy Extension Definition Linkbase Document†

101.LAB XBRL Taxonomy Extension Label Linkbase Document†

101.PRE XBRL Taxonomy Extension Presentation Linkbase Document†

\* Management Contract or Compensatory Plan.

† Filed herewith.

Item 16. Form 10-K Summary

None.

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## SCHEDULE II

Armstrong Flooring, Inc.

Valuation and Qualifying Reserves

(Dollars in millions)

	Balance at beginning of year	Additions charged to earnings	Deductions	ASC 606 Cumulative Catchup Adjustment	Balance at end of year
2016					
Provision for bad losses	\$ 0.4	\$ —	\$ (0.1 )	\$ —	\$ 0.3
Provision for discounts	7.7	61.8	(64.7 )	—	4.8
Provision for warranties	5.2	6.9	(7.0 )	—	5.1
Reserve for inventories	0.4	0.7	(0.4 )	—	0.7
2017					
Provision for bad losses	\$ 0.3	\$ 0.1	\$ —	\$ —	\$ 0.4
Provision for discounts	4.8	55.3	(54.1 )	—	6.0
Provision for warranties	5.1	9.4	(8.9 )	—	5.6
Reserve for inventories	0.7	0.4	(0.2 )	—	0.9
2018					
Provision for bad losses	\$ 0.4	\$ 0.2	\$ —	\$ —	\$ 0.6
Provision for discounts	6.0	61.0	(59.7 )	(1.7 )	5.6
Provision for warranties	5.6	6.6	(7.5 )	1.7	6.4
Reserve for inventories	0.9	0.3	(0.6 )	—	0.6

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 Flooring, Inc.  
(Registrant)

Date: March 5, 2019

By: /s/ Donald R. Maier

Donald R. Maier  
Director, President and Chief Executive Officer  
(As Duly Authorized Officer and Principal Executive Officer)

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 and in the capacities and on the dates indicated.

Directors and Principal Officers of the registrant AFI:

/s/ Donald R. Maier	Director, President and Chief Executive Officer (Principal Executive Officer)	March 5, 2019
Donald R. Maier		
/s/ Douglas B. Bingham	Senior Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer)	March 5, 2019
Douglas B. Bingham		
/s/ Tracy L. Marines	Vice President and Controller (Principal Accounting Officer)	March 5, 2019
Tracy L. Marines		
/s/ Michael F. Johnston	Director	March 5, 2019
Michael F. Johnston		
/s/ Kathleen S. Lane	Director	March 5, 2019
Kathleen S. Lane		
/s/ Jeffrey Liaw	Director	March 5, 2019
Jeffrey Liaw		
/s/ Michael W. Malone	Director	March 5, 2019
Michael W. Malone		
/s/ Larry S. McWilliams	Director	March 5, 2019
Larry S. McWilliams		
/s/ James C. Melville	Director	March 5, 2019
James C. Melville		

/s/ James J. O'Connor Director

James J. O'Connor

March 5,  
2019

/s/ Jacob H. Welch Director

Jacob H. Welch

March 5,  
2019