

USG CORP  
Form 10-K  
February 14, 2019

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

FORM 10-K  
(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2018

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_  
Commission File Number 1-8864

USG CORPORATION

(Exact name of Registrant as Specified in its Charter)

Delaware 36-3329400  
(State or Other Jurisdiction of (I.R.S. Employer  
Incorporation or Organization) Identification No.)

550 W. Adams Street, Chicago, Illinois 60661-3676  
(Address of Principal Executive Offices) (Zip Code)  
Registrant's Telephone Number, Including Area Code: (312) 436-4000

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

Title of Each Class	Name of Exchange on Which Registered
Common Stock, \$0.10 par value	New York Stock Exchange Chicago Stock Exchange

Preferred Stock Purchase Rights (subject to Rights Agreement dated December 21, 2006, as amended) New York Stock Exchange  
Chicago Stock Exchange

Securities Registered Pursuant to Section 12(g) of the Act: None

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 15(d) of the Exchange 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 the registrant was required to submit such files). Yes  No

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

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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 the 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 in Exchange Act Rule 12b-2). Yes  No

The aggregate market value of the registrant's common stock held by non-affiliates computed by reference to the New York Stock Exchange closing price on June 30, 2018 (the last business day of the registrant's most recently completed second fiscal quarter) was approximately \$3,488,342,026. Solely for this purpose, directors, executive officers and greater than 10% record shareholders are considered the affiliates of the registrant.

The number of shares of the registrant's common stock outstanding as of January 31, 2019 was 140,099,470.

Documents Incorporated By Reference: None.

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PART I

Item 1. BUSINESS

In this annual report on Form 10-K, “USG,” “we,” “our” and “us” refer to USG Corporation, a Delaware corporation, and its subsidiaries included in the consolidated financial statements, except as otherwise indicated or as the context otherwise requires.

General

USG, through our subsidiaries and joint ventures, is a leading manufacturer of building materials and innovative solutions that was originally formed in 1902. We produce a wide range of products for use in new residential, new nonresidential, and residential and nonresidential repair and remodel construction as well as products used in certain industrial processes. Our businesses are cyclical in nature and sensitive to changes in general economic conditions, including conditions in the North American housing and construction-based markets. Our expansion through two 50/50 joint ventures, referred to as USG Boral Building Products, or UBBP, we formed in 2014 with Boral Limited, or Boral, into the markets of Asia, Australasia, and the Middle East has significantly increased our exposure to the economic conditions in those areas.

The effects of market conditions on our operations are discussed in Part II, Item 7, Management’s Discussion and Analysis of Financial Condition and Results of Operations.

Merger Agreement with Knauf

On June 10, 2018, we entered into an Agreement and Plan of Merger, as it may be amended from time to time, or the Merger Agreement, with Gebr. Knauf KG, a limited partnership (Kommanditgesellschaft) organized under the laws of Germany, or Knauf, and World Cup Acquisition Corporation, a Delaware corporation and an indirect, wholly-owned subsidiary of Knauf, or Merger Sub. The Merger Agreement provides that, subject to the satisfaction of customary closing conditions, Merger Sub will be merged with and into USG, or the Merger, with USG continuing as the surviving corporation and an indirect, wholly-owned subsidiary of Knauf. Pursuant to the terms of the Merger Agreement, at the effective time of the Merger, each share of common stock, par value \$0.10, of USG issued and outstanding immediately prior to the effective time of the Merger (other than shares of common stock owned by Knauf and its subsidiaries, USG and its subsidiaries and certain excluded holders) will be converted into the right to receive \$43.50 in cash, without interest and subject to tax withholding, or the closing consideration. In addition, as contemplated by the Merger Agreement, we announced on August 9, 2018 that USG had declared a conditional special cash dividend of \$0.50 per share, or the conditional special dividend, payable to holders of record of our common stock as of the close of business on August 21, 2018. Payment of the conditional special dividend was conditioned on adoption of the Merger Agreement by our stockholders at the special meeting held on September 26, 2018, or the special meeting. The Merger Agreement was adopted by our stockholders at the special meeting and following certification of the vote in favor of adoption, the conditional special dividend was paid on October 2, 2018. The Merger, which is currently expected to close in early 2019, is subject to the satisfaction or waiver of certain customary closing conditions, including, among others, receipt of certain regulatory approvals. The Merger Agreement contains certain termination rights for both USG and Knauf. If the Merger Agreement is terminated under certain specified circumstances, we will be required to pay Knauf a termination fee of \$215 million.

See Note 4, Equity Method Investments, to the consolidated financial statements in Part II, Item 8 of this report for additional information regarding the default notice under the UBBP Shareholders Agreement delivered by Boral in connection with the Merger. Additional information about the Merger Agreement is set forth in Note 19, Merger Agreement, to the consolidated financial statements in Part II, Item 8 of this report, and our Current Report on Form 8-K filed with the Securities and Exchange Commission, or the SEC, on June 11, 2018.

Segments

Our reportable segments align with how we manage our businesses, review operating performance and allocate resources considering the discrete information available for the geographies within those divisions. Our operating structure is generally aligned by product type and consists of three divisions, in addition to UBBP: Gypsum, Performance Materials and Ceilings. The operations of the divisions are similar throughout North America.

Our operations are organized into five reportable segments: U.S. Wallboard and Surfaces, U.S. Performance Materials, U.S. Ceilings, Canada, and UBBP. See Note 13, Segments, to the consolidated financial statements in Part II, Item 8 of this report for financial information regarding our reportable segments.

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The following graph reflects the breakdown by segment of our 2018 consolidated net sales of \$3.3 billion. Net sales of UBBP of \$1.2 billion are excluded from the graph above as the joint ventures are accounted for as equity method investments.

Gypsum

**BUSINESS**

Our Gypsum division manufactures and markets gypsum and related products in the United States, Canada and Mexico. It is composed of our U.S. Wallboard and Surfaces segment, the Gypsum operations of our Canada segment and the Gypsum operations in Mexico, which do not rise to the level of a reportable segment and thus are included in Other. We are the largest manufacturer of gypsum wallboard in the United States and accounted for approximately 24.5% of total industry shipments of gypsum board in 2018. The gypsum board market, as determined by the Gypsum Association, includes gypsum wallboard, other gypsum-related paneling products and imports. As such, we've included the Gypsum products of USG Sheetrock® brand gypsum wallboard and Securock® brand glass mat sheathing and the Performance Materials product of Fiberock® brand gypsum fiber panels in our estimate of our market share of the gypsum board market. In Canada, we accounted for approximately 31% of Canadian domestic shipments of gypsum board in 2018.

**PRODUCTS**

Gypsum's products are used in a variety of building applications to construct walls and ceilings of residential, nonresidential and institutional buildings. We also produce gypsum-based products for agricultural and industrial customers to use in a wide variety of applications, including soil conditioning, road repair, fireproofing and ceramics. The major product lines within the Gypsum division are:

**WALLBOARD**

USG Sheetrock® brand gypsum wallboard and Securock® brand glass mat sheathing portfolios

Gypsum panels that provide aesthetic as well as sound-dampening, fire-retarding, abuse-resistance and moisture-control value

**SURFACES**

USG Sheetrock® brand joint compound portfolio, as well as corner bead, joint tape, and plaster

Used for finishing wallboard joints

Construction plaster products, sold under the brand names Red Top®, Imperial®, Diamond® and Supremo™ and industrial gypsum

Used to provide a custom finish for residential and commercial interiors and provide aesthetic, sound-dampening, fire-retarding and abuse-resistance value

As the leader in lightweight innovation, we offer the industry's broadest portfolio of lightweight gypsum panels for use in interior wall and ceiling applications including our USG Sheetrock® Brand UltraLight Panels and USG Sheetrock® Brand EcoSmart Panels. See Note 13, Segments, to the consolidated financial statements in Part II, Item 8 of this report for additional information regarding product types that accounted for more than 10% of our consolidated net sales.

Table of Contents**MANUFACTURING**

Our Gypsum division manufactures products at plants located throughout the United States, Canada and Mexico, some of which are shared with the Performance Materials division. See Item 2, Properties.

Gypsum rock is mined or quarried at company-owned locations in North America. See Item 2, Properties. Our mines and quarries provided approximately 53% of the gypsum used by our plants in North America in 2018. Some of our manufacturing plants purchase or acquire synthetic gypsum and natural gypsum rock from outside sources. In 2018, outside sources of synthetic gypsum and natural gypsum rock accounted for approximately 39% and 8%, respectively, of the gypsum used in our North American plants.

Synthetic gypsum is a byproduct of flue gas desulphurization carried out by electricity generation or industrial plants that burn coal as a fuel. The suppliers of this kind of gypsum are primarily power companies, which are required to operate scrubbing equipment for their coal-fired generating plants under federal environmental regulations. We have entered into a number of long-term supply agreements to acquire synthetic gypsum. Certain power companies have switched to using natural gas instead of coal for their electricity generation needs. In the event more power companies switch to using natural gas instead of coal, the availability of synthetic gypsum may decrease which could result in an increase to our cost. See Item 1A, Risk Factors.

We produce wallboard paper at four company-owned production facilities located in the United States. Vertical integration in paper helps to ensure a continuous supply of high-quality paper that is tailored to the specific needs of our production processes. We augment our paper needs through purchases from outside suppliers when necessary. We did not make any material purchases of paper from outside suppliers in 2018.

**MARKETING AND DISTRIBUTION**

Our Gypsum products are marketed and distributed through specialty wallboard distributors, building materials dealers, home improvement centers and other retailers and contractors. Sales of Gypsum products are seasonal in the sense that sales are generally greater from spring through autumn than during the remaining part of the year. Based on our estimates using publicly available data, internal surveys and industry shipment data for gypsum board, as reported by the Gypsum Association, we estimate that during 2018 volume demand for gypsum board was generated by:

- residential and nonresidential repair and remodel activity of about 50%,
- new residential construction of about 35%,
- new nonresidential construction of about 10%, and
- other activities, such as exports and temporary construction, of about 5%.

**COMPETITION**

Industry shipments of gypsum board in the United States (including gypsum wallboard, other gypsum-related paneling products and imports), as reported by the Gypsum Association, were an estimated 25.4 billion square feet in 2018, down approximately 1% from 25.7 billion square feet in 2017. Our share of the gypsum board market in the United States, which includes for comparability shipments of USG Sheetrock® brand gypsum wallboard, Fiberock® brand gypsum fiber panels and Securock® brand glass mat sheathing, decreased to 24.5% in 2018 from 25.4% in 2017.

The principal methods of competition are product quality and performance, range of products, product availability, product pricing, compatibility of systems and customer service. Our principal competitors include:

	United States	Canada	Mexico
American Gypsum Company LLC (a unit of Eagle Materials Inc.)	x		
Cabot Gypsum Company		x	
CertainTeed Corporation (a subsidiary of Compagnie de Saint-Gobain SA)	x	x	
Continental Building Products, Inc.	x	x	
Georgia-Pacific (a subsidiary of Koch Industries, Inc.)	x	x	
National Gypsum Company	x		
PABCO Gypsum (a division of PABCO Building Products)	x		
Panel Rey, S.A. (a Grupo Promax Company)	x		x
Plaka (a unit of Knauf International GmbH)			x





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Performance Materials

**BUSINESS**

Our Performance Materials division manufactures and markets a series of innovative products in the United States that provide solutions to our customers to help close the skilled labor gap and increase job site efficiency. It consists solely of our U.S. Performance Materials segment.

**PRODUCTS**

Performance Materials products are used in a variety of interior and exterior building applications of residential and nonresidential buildings, as well as in certain industrial applications. These products can be grouped under three product categories of underlayment, building envelope and structural. The major products within these three categories are as follows:

**UNDERLAYMENT**

USG Durock® brand cement board	Provides water and fire-resistant assemblies for both interior and exterior applications
Fiberock® brand backerboard	Includes abuse-resistant interior wall panels, tile backer boards and flooring underlayments
USG Durock™ brand shower systems	A fully bonded waterproofing system for tiled shower installations
USG Performance Flooring, including Levelrock® brand systems of poured gypsum flooring	Provides surface leveling, enhanced sound-dampening and fire-resistant performance for residential and commercial flooring applications

**BUILDING ENVELOPE**

Securock® ExoAir® 430 air barrier system	Integrated gypsum sheathing panels with pre-applied fluid air barrier membrane that provides structural performance and moisture, mold and air control
Securock® brand roof board portfolios	Roof boards for use in low-slope commercial roofing systems that provides moisture, mold and fire resistant value

**STRUCTURAL**

USG Structural Panels	High-strength, glass fiber, reinforced structural concrete panels for use in subfloor, roof deck, foundation walls and other noncombustible applications
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**MANUFACTURING**

Our Performance Materials division manufactures products at plants located throughout the United States, most of which are shared with our Gypsum division. See Item 2, Properties.

**MARKETING AND DISTRIBUTION**

Our Performance Materials products are marketed and distributed through specialty distributors, home improvement centers, contractors and other retailers. Sales of Performance Materials products are generally greater from spring through autumn than during the remaining part of the year. Based on our estimates using internal surveys, we estimate that during 2018 volume demand was generated by:

- residential and nonresidential repair and remodel activity of about 49%,
- new residential construction of about 13%,
- new nonresidential construction of about 33%, and
- other activity, including exports, of about 5%.

**COMPETITION**

The principal methods of competition are product quality and performance, range of products, product availability, product pricing, compatibility of systems and customer service. Our principal competitors include National Gypsum Company, Georgia Pacific, James Hardie Building Products, Schluter Systems, the ARDEX Group and Laticrete.

**Ceilings**

**BUSINESS**

Our Ceilings division manufactures and markets interior ceiling systems products in the United States, Canada and Mexico. It consists of our U.S. Ceilings segment, the ceilings operations of our Canada segment and our ceilings

operations in Mexico, which do not rise to the level of a reportable segment and are included in Other. We are a leading manufacturer and supplier of

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interior ceilings products including ceiling tile, ceiling grid and specialty ceilings used primarily in nonresidential applications. In 2017, we acquired Ceilings Plus, a leader in the specialty ceilings market. We estimate that we are the second-largest manufacturer of ceiling grid and acoustical ceiling tile.

**PRODUCTS**

The major product lines within the Ceilings division are:

**CEILING TILE**

Radar™, Eclipse™, Mars™ and Halcyon™ Provides qualities such as sound absorption, fire retardation and convenient access to the space above the ceiling for electrical and mechanical systems, air distribution and maintenance

**CEILING GRID**

Donn®, DX®, Fineline®, Centricitee™ and Identitee® DXI™ Provides qualities such as fire retardation and convenient access to the space above the ceiling for electrical and mechanical systems, air distribution and maintenance

**SPECIALTY CEILINGS**

Curvatura™, Compasso®, Radians®, Illusions™, Multiples™, Runways™, Barz™, Planx™, Mima™, Corniche™, Wallforms™ and Parti™ Provides qualities such as aesthetics, sound absorption, fire retardation and convenient access to the space above the ceiling for electrical and mechanical systems, air distribution and maintenance

**ENSEMBLE®**

Ensemble® Acoustical Drywall Ceiling Provides a monolithic drywall look with acoustical performance

**MANUFACTURING**

Our Ceilings division manufactures products at plants located in the United States and Canada. See Item 2, Properties. Principal raw materials used to produce Ceilings' products include mineral fiber, aluminum, steel, perlite and starch. We produce mineral fiber and obtain all other raw materials from outside suppliers.

**MARKETING AND DISTRIBUTION**

Ceilings sells products primarily in markets related to the construction and renovation of nonresidential buildings.

During 2018, based on our estimates using internal surveys, approximately:

75% of net sales were from repair and remodel activity, primarily nonresidential,

20% of net sales were from new nonresidential construction, and

5% of net sales were from new residential construction.

Products are marketed and distributed through a network of distributors, installation contractors and home improvement centers. Sales of Ceilings' products are seasonal in nature and are generally lower in the fourth quarter of the calendar year as compared to the first three quarters of the year.

**COMPETITION**

Principal methods of competition are product quality and performance, range of products, product availability, product pricing, compatibility of systems and customer service. Our principal competitors include the following:

	United States	Canada	Mexico
<b>Ceiling Tile</b>			
Armstrong World Industries, Inc.,	x	x	x
CertainTeed Corporation (a subsidiary of Compagnie de Saint-Gobain SA)	x	x	x
Odenwald Faserplattenwerk GmbH (OWA)	x	x	x
Rockfon (a subsidiary of Rockwool International A/S)	x	x	
<b>Ceiling Grid</b>			
CertainTeed Corporation (a subsidiary of Compagnie de Saint-Gobain SA)	x	x	x
Chicago Metallic Corporation (a subsidiary of Rockwool International A/S)	x	x	x
WAVE (a joint venture between Armstrong World Industries Inc. and Worthington Industries)	x	x	



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### USG Boral Building Products

#### BUSINESS

In 2014, we and certain of our subsidiaries formed UBBP, 50/50 joint ventures, with Boral. UBBP manufactures, distributes and sells certain building products, mines raw gypsum and sells natural and synthetic gypsum throughout Asia, Australasia and the Middle East. UBBP is a leader in most of the markets it serves. See Note 4, Equity Method Investments, to the consolidated financial statements in Part II, Item 8 of this report for additional information related to our equity method investments.

#### PRODUCTS

UBBP manufactures and distributes products for wall, ceiling, floor lining and exterior systems that utilize gypsum wallboard, referred to as plasterboard in the regions in which UBBP operates, mineral fiber ceiling tiles, steel grid and joint compound. UBBP's significant brand names include USG Boral Sheetrock® Brand premium plasterboard, USG Boral NextGen®, Elephant®, Jayaboard®, Durock® and Donn® DX®. UBBP launched USG Boral Sheetrock® Brand products, which leverages USG technology, in Australia, South Korea, Indonesia, Vietnam, China, Thailand, India and Oman. UBBP is able to sell USG Boral Sheetrock® Brand at a premium price in some markets and acceptance of lightweight technology continues to increase, which is led by Australia with a conversion rate above 90%.

#### MANUFACTURING

UBBP has 23 plasterboard lines, three gypsum mines and 36 other non-board lines for metal products, metal ceiling grid, ceiling tile, joint compound and cornice throughout twelve countries in Asia, Australasia and the Middle East.

#### Executive Officers of the Registrant

See Part III, Item 10, Directors, Executive Officers and Corporate Governance - Executive Officers of the Registrant (as of February 14, 2019).

#### Other Information

#### RESEARCH AND DEVELOPMENT

To differentiate through innovation and strengthen our leadership in the building materials industry, we perform extensive research and development at the USG Corporate Innovation Center in Libertyville, Illinois, using open innovation models and external partnerships. New technologies and products are developed by collaborating with suppliers, universities and national research laboratories to provide solutions to customer needs. With fire, acoustical, structural and environmental testing capabilities, the research center allows us to conduct our own on-site evaluation of products and systems. Chemical analysis and materials characterization support product development and safety/quality assessment programs. Development activities can be taken to an on-site pilot plant before being transferred to a full-size plant. Research and development activities have been focused on industry challenges including shortage of skilled labor, speed of construction and sustainability. UBBP also operates a research and development center in Thailand.

#### SUSTAINABILITY

The adoption of green building codes and standards, such as the Leadership in Energy and Environmental Design, or LEED, rating system established by the U.S. Green Building Council to encourage the design and construction of buildings that are environmentally friendly, combined with an increase in customer preference for products that can assist in obtaining LEED credit, or are otherwise environmentally preferable, has increased demand for products, systems and services that contribute to building sustainable spaces. Many of our products meet the requirements for the awarding of LEED credits, and we continue to develop new products and systems to address market demand for products that enable construction of buildings that require fewer natural resources to build, operate and maintain. Our competitors also have developed and introduced to the market more environmentally responsible products.

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

#### ENERGY

Our primary supplies of energy have been adequate, and we have not been required to curtail operations as a result of insufficient supplies. Supplies are likely to remain sufficient for our projected requirements. Currently, we are using swap

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contracts to hedge a significant portion of our anticipated purchases of natural gas to be used in our manufacturing operations over the next 12 months and beyond. We review our positions regularly and make adjustments as market conditions warrant.

**SIGNIFICANT CUSTOMERS**

On a worldwide basis, for each of the years ended December 31, 2018, 2017, and 2016, The Home Depot accounted for 24%, 23% and 23% of our net consolidated sales, respectively, and L&W Supply Corporation, or L&W, accounted for 14%, 16% and 19% of our consolidated net sales, respectively. On October 31, 2016, we completed the sale of L&W to American Builders & Contractors Supply Co., Inc., or ABC Supply, for \$675 million. Our U.S. Wallboard and Surfaces, U.S. Performance Materials, U.S. Ceilings and Canada segments each had net sales to these customers in each of those years.

**INTELLECTUAL PROPERTY**

We consider patents, copyrights, trademarks, trade secrets, proprietary technology and similar intellectual property as critical to our success. We hold numerous patents and have registered numerous trademarks of varying duration in multiple legal jurisdictions. Further, we have filed patent applications and applications for the registration of trademarks in the United States and internationally. Although we consider our patents, trademarks, trade secrets and licenses to constitute valuable assets, we do not regard any of our businesses as being materially dependent upon an individual patent, trademark, trade secret, or license.

**OTHER**

Because we generally fill orders upon receipt, no segment has any significant order backlog.

None of our segments have any special working capital requirements.

No material part of our business is subject to renegotiation of profits or termination of contracts or subcontracts at the election of any government.

As of December 31, 2018, we had approximately 7,300 employees worldwide in our consolidated operations.

See Item 1A, Risk Factors, for information regarding the risks associated with conducting business in international locations, as well as the possible effects that compliance with environmental laws and regulations may have on our businesses and operating results.

**Available Information**

We maintain a website at [www.usg.com](http://www.usg.com) and make available free of charge at this website our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports as soon as reasonably practicable after they are electronically filed with or furnished to the SEC. The information on our website is not, and will not be deemed to be, a part of this annual report on Form 10-K, or incorporated into any of our other filings with the SEC, except where we expressly incorporated such information. If you wish to receive a paper copy of any exhibit to our reports filed with or furnished to the SEC, the exhibit may be obtained, upon payment of reasonable expenses, by writing to: Corporate Secretary, USG Corporation, 550 West Adams Street, Chicago, Illinois 60661-3676.

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Item 1A. RISK FACTORS

Our business, financial condition, operating results and cash flows are subject to various risks and uncertainties. We have described below significant factors that may adversely affect us and our industry. You should carefully consider these factors, together with all of the other information in this annual report on Form 10-K and in other documents that we file with the SEC, before making any investment decision about our securities.

The Merger may not be completed within the expected timeframe, or at all, and the failure to complete the Merger could adversely affect the market price of our common stock, as well as our business, results of operations, and financial condition.

There can be no assurance that the Merger will be completed in the expected timeframe, or at all. The Merger Agreement contains a number of conditions that must be satisfied or waived prior to the completion of the Merger, including (i) the receipt of all consents, approvals or authorizations of, declarations or filings under applicable competition laws and foreign investment laws; (ii) the absence of certain legal impediments preventing the completion of the Merger; and (iii) the accuracy of the representations and warranties of the parties and the compliance by the parties with their respective covenants in the Merger Agreement. There can be no assurance that these conditions will be satisfied or waived, or the conditions to, or timing of, satisfying these conditions.

Many of the conditions to completion of the Merger are not within our control, and we cannot predict when or if these conditions will be satisfied (or waived, as applicable). Even if regulatory approval is obtained, it is possible conditions will be imposed that could result in a material delay in, or the abandonment of, the Merger or otherwise have an adverse effect on us. Further, though not a condition to completion of the Merger, there is a risk of availability of sufficient financing available to Knauf to allow it to pay the closing consideration.

If the Merger is not completed within the expected timeframe or at all, we may be subject to a number of material risks. The price of our common stock will likely decline to the extent that current market prices reflect a market assumption that the Merger will be completed, as opposed to our current operational performance and market conditions. In addition, some costs related to the Merger must be paid whether or not the Merger is completed, and we have incurred, and will continue to incur, significant fees for professional services and other transaction costs in connection with the Merger, as well as the diversion of management and resources towards the Merger, for which we will have received little or no benefit if completion of the Merger does not occur. We may also experience negative reactions from our investors, employees, suppliers and customers. In addition, if the Merger Agreement is terminated under certain specified circumstances, we will be required to pay Knauf a termination fee of \$215 million. Boral may also exercise its right to purchase our 50% interest in UBBP, as discussed further in Note 4, Equity Method Investments, to the consolidated financial statements in Part II, Item 8 of this report, in the event the Merger is not completed.

The pendency of the Merger could adversely affect our business, results of operations, financial condition and the market price of our common stock.

The pendency of the Merger has caused disruptions in, and created uncertainty surrounding, our business, which could have an adverse effect on our business, results of operations, financial condition and the market price of our common stock. These risks to our business include the following, all of which could be exacerbated by a delay in the completion of the Merger: (i) the potential negative impact on UBBP's business, results of operations and financial condition as a result of the uncertainty around the future ownership of UBBP; (ii) the effect of restrictions placed on us and our subsidiaries' ability to operate our businesses under the Merger Agreement, including our ability to pursue alternatives to the Merger; (iii) the risk of disruption resulting from the Merger, including the diversion of our management's attention from ongoing business operations; (iv) the effect of the pendency of the Merger on our ability to retain and hire employees; (v) the effect of the pendency of the Merger on our business relationships, operating results and businesses generally; (vi) the occurrence of any event giving rise to the right of a party to terminate the Merger Agreement; and (vii) the outcome of legal proceedings that have been instituted against us related to the Merger and any additional proceedings that may be instituted in the future.



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Our businesses are cyclical, regional and seasonal in nature and subject to industry downturns.

Our businesses are cyclical and sensitive to changes in general economic conditions, including conditions in the North American housing and construction-based markets. Housing starts in the United States remain below the long-term historical average of 1.44 million, while new nonresidential construction and the residential and nonresidential repair and remodel market in the United States have experienced slower than average growth over the past several years.

Moreover, we operate in a variety of regional markets, so our businesses are subject not only to general economic conditions, but also to localized economic conditions in each of those regions. Housing and construction-based markets are impacted by broader economic circumstances, including employment levels, the availability of skilled labor, household formation, home ownership rate, new and existing home price trends, availability of mortgage financing, interest rates, deductibility of mortgage interest and real estate taxes, consumer confidence, job growth and discretionary business investment, and these markets may experience a downturn. Adverse conditions in the markets or regions where we operate, or the failure of these markets or regions to return to historical levels, may have a material adverse effect on our business, financial condition, operating results and cash flows.

In addition, our businesses are seasonal and impacted by pre-buy activity in advance of price increases, which has caused in the past, and will likely cause in the future, our quarterly results to vary significantly. This variability in our sales impacts our cost structure as we may need to maintain staffing levels and consistency of supply to meet anticipated demand in future quarters. In addition, unfavorable weather conditions, such as snow, heavy rainfall or natural disasters could reduce construction activity and adversely affect demand for our products.

We operate in highly competitive markets, and we may not be able to maintain current price levels for our products or achieve price increases for our products.

The markets for our products are competitive, and competition varies by region. Principal methods of competition include product quality and performance, range of products, product availability, product pricing, compatibility of systems and customer service. Prices for our products are affected by demand and available supply in the markets for our products. Currently, there is excess wallboard production capacity in the United States and Canada. Several of our competitors have also recently added, or are in the process of adding, capacity in the United States, and new competitors have entered certain markets, including wallboard imports from Mexico into certain regions in the South. Excess production capacity could negatively impact our ability to implement price increases or cause us to reduce pricing to maintain or grow our sales. Any inability to maintain or increase prices, particularly in light of cost inflation, including in raw materials, transportation and labor, could further adversely affect our business, financial condition, operating results and cash flows.

We are dependent on sales to our major customers, and the number of our customers with significant buying power is increasing.

For the year ended December 31, 2018, our two largest customers, The Home Depot and L&W, collectively accounted for approximately 38% of our sales, while our top four customers collectively accounted for approximately 50% of our sales. We face strong competition for these and our other major customers. As is customary in our industry, we generally do not enter into long-term contracts with our customers, which may choose to reduce or delay purchases of our products at any time. If one or more of our major customers reduces or delays substantial orders, our business, financial condition, operating results and cash flows may be materially and adversely affected, particularly for the period in which the reduction or delay occurs and also possibly for subsequent periods.

Certain of our customers are also large companies with significant buying power. The ongoing consolidation taking place in the gypsum specialty dealer channel will likely further enhance the ability of certain of our customers to seek more favorable terms, including pricing, for the products that they purchase from us. Accordingly, our ability to maintain or raise prices in the future may be limited, including during periods of raw material and other cost increases such as 2018. If we are forced to reduce prices or to maintain prices during periods of increased costs, or if we lose customers because of pricing or other methods of competition, our business, financial condition, operating results and cash flows may be materially and adversely affected.

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L&W is currently our largest customer in the gypsum specialty dealer channel, accounting for 14% of our consolidated net sales in 2018. Specialty dealers often have multiple suppliers for product categories. Following the sale of L&W in 2016, L&W diversified its supplier base, resulting in a reduction in our sales to L&W, and this diversification continued in 2018. To address the loss of sales to L&W, we have made efforts to grow our business with current customers and serve new customers. However, our efforts to replace the loss of sales to L&W may not be successful, and we may experience market share loss or unfavorable pricing, in which case our net sales, operating results and cash flows may be materially and adversely impacted.

A small number of our stockholders could significantly influence our business, affairs and stock price.

Based on filings made with the SEC, as of January 31, 2019 Berkshire Hathaway Inc. controlled approximately 31% of our common stock and Knauf controlled approximately 10.5% of our common stock. Accordingly, a small number of our stockholders have affected, and in the future may continue to affect, matters requiring approval by stockholders, including the election of directors. One or more of these stockholders may have interests that differ from other stockholders and may vote on such matters in a way that is adverse to the interests of those other stockholders. In addition, if one or more of these stockholders engage in sales of our common stock, our share price may decline. Increased costs, or decreased availability, of key raw materials, transportation or energy will increase our cost of products sold.

The cost and availability of raw materials, transportation and energy are critical to our operations. We use substantial quantities of natural gypsum, synthetic gypsum, wastepaper, mineral fiber, steel, perlite, starch, siloxane and plastic pails. We have experienced significant inflation in the cost of many of these items. In addition, the cost of certain of these items has been volatile, and availability has sometimes been limited. We obtain some of these materials from a limited number of suppliers or sole source suppliers, which increases the risk of unavailability. We are not always able to pass increased costs on to our customers due to market conditions or existing agreements with our customers at agreed prices. In addition, imposition of more or new tariffs, quotas, trade barriers, and similar restrictions on the importation of raw materials used in our products may increase our costs. If price increases for our finished products significantly trail the increase in costs, our business, financial condition, operating results and cash flows may be materially and adversely affected. As an example, in 2018 we were not able to completely offset the significant increases in raw material costs, in particular for synthetic gypsum, natural gypsum and siloxane, which negatively impacted operating profit.

Approximately 39% of the gypsum used in our plants is synthetic gypsum. Nine of our Gypsum plants in operation use synthetic gypsum for all of their needs, while another four use it for some of their needs. The suppliers of synthetic gypsum are primarily coal-fired electricity generating plants, many of whom have switched to using natural gas instead of coal for their electricity generation needs due to its lower cost. As a result, we have experienced increases in the cost of synthetic gypsum and the cost to transport synthetic gypsum to our plants. In addition, existing or future changes in environmental regulations may make it more difficult or costly for power companies to burn coal, which may result in a further shift away from coal-based sources of energy. If this occurs, the availability of synthetic gypsum will likely continue to decrease. We could incur substantial costs in connection with any significant reduction in the availability of synthetic gypsum, including costs to convert our plants to use natural gypsum, costs to obtain or develop additional sources of natural gypsum or increased costs to transport synthetic gypsum to our plants from farther away, which may materially and adversely affect our business, financial condition, operating results and cash flows.

Transportation costs are a significant portion of our variable costs because we are responsible in most cases for delivering our products to our customers. Reductions in the availability of certain modes of transportation, such as trucking, could limit our ability to deliver our products to our customers on time or obtain raw materials, which may materially and adversely affect our business, financial condition, operating results and cash flows. During 2018 we experienced a shortage of available trucks and truck drivers, which resulted in significant increases in our transportation costs and adversely impacted our profitability. Increases in the cost of fuel, or if we are required to transport raw materials or finished products over longer distances, could result in further material increases in the cost of transportation that could also materially and adversely affect our operating profits.

Similarly, paper is also a significant component of our variable costs. We produce a majority of our wallboard paper at our paper mill in Otsego, Michigan with the remainder produced at three other company-owned production facilities, and augment our paper needs through purchases from outside suppliers when necessary. If our utilization increases or if our current supply of wallboard paper is disrupted, particularly at our Otsego paper mill, we may be required to purchase additional paper from outside suppliers, which may only be available at increased cost. We also buy various grades of wastepaper, and shortages occur periodically in one or more grades and may vary among geographic regions. As a result, we have experienced, and in the future may experience, volatility in wastepaper availability and cost, affecting the mix of products manufactured at particular locations or the cost of producing them.

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We use natural gas extensively in the production of our products in the United States, Canada and Mexico. The price of natural gas can fluctuate significantly because of weather, environmental or other regulatory changes, which can materially impact our results of operations for a particular period. In an attempt to reduce our price risk related to fluctuations in natural gas prices, we enter into hedging agreements using swaps for natural gas purchases in the United States and Canada. Because we hedge the majority of our exposures, we would not be able to participate, for the portion we hedged, in substantial or extended declines in natural gas prices. As a result, our costs would remain elevated in such an environment. During periods of rising natural gas prices on the other hand, our production costs will rise to a lesser extent because of our hedging activities.

Our facilities may experience unexpected operational difficulties or catastrophic events.

Our facilities may be forced to cease operations unexpectedly due to equipment failures or events beyond our control, such as hurricanes, fires, floods, earthquakes or other environmental catastrophes. Any equipment downtime or facility damage may hinder our ability to meet customer demand, reduce our sales or impede our ability to deliver our products in an efficient and cost-effective manner, and could require that we make significant capital expenditures. Several of our plants, and production lines within our plants, are dedicated to specific products. If any of those plants or lines are unable to operate for a prolonged period, it would reduce our ability to effectively compete in the markets for those products, which could materially and adversely affect our business, financial condition, operating results and cash flows.

We do not have majority control over UBBP, which involves risks not otherwise present when we operate our business through wholly-owned entities.

A substantial portion of our international operations are conducted through UBBP, which are operated in accordance with the terms of a Shareholders Agreement. UBBP involves risks not otherwise present when we operate our business through wholly-owned entities, including:

Entering into the Merger Agreement to be acquired by Knauf constituted a change of control under the Shareholders Agreement such that, even if the Merger is not completed, or if certain other events of default under the Shareholders Agreement occur with respect to us, we may be required to sell our entire interest in UBBP to Boral at fair market value, as determined in accordance with the Shareholders Agreement. In the event we are forced to sell our interest in UBBP, it may be under terms that we do not consider favorable to us. On August 28, 2018, Boral delivered a default notice under the Shareholders Agreement to commence the process to establish the fair market value of our 50% interest in UBBP. Once fair market value is established, Boral will have the right to purchase our 50% interest in UBBP in accordance with the Shareholders Agreement. Boral's exercise of its right to purchase our 50% interest in UBBP could occur prior to the closing of the Merger Agreement, in which case we would receive the cash proceeds for our interest, and we would no longer own an interest in UBBP.

In the event we are required to sell our interest in UBBP to Boral, we may be restricted from competing in UBBP's markets for a period of time, many of which we anticipate to be high-growth markets. In addition, in the event we are required to sell our interest in UBBP to Boral, certain of our intellectual property will continue to be licensed to UBBP on an exclusive basis for a period of time.

Certain major decisions with respect to UBBP require the majority or unanimous approval of the joint ventures' boards or shareholders, which could result in a deadlock given the 50/50 ownership and equal board representation structure. Boral may have economic or other business interests or goals that are or become inconsistent with ours, and we may not be able to obtain approval of certain matters that would be in our or UBBP's best interests. In addition, we may be required to spend additional resources to resolve any dispute with Boral.

A deadlock with respect to certain fundamental decisions may result in the triggering of a sale process of UBBP. In such a case, the terms of the sale may be less attractive than if we had held onto our investment.

The Shareholders Agreement limits our ability to transfer our interest in UBBP. As a result, we may be unable to sell our interest in UBBP when we would otherwise like.

UBBP may not pay dividends if such payments are, among other things, restricted pursuant to the terms of the credit facilities maintained by UBBP, inconsistent with the then-applicable strategic plan, or illegal. Accordingly, we may not receive dividend payments from UBBP in the amounts that we currently anticipate or at all, which may adversely impact our ability to receive any economic benefit from UBBP.

In the event Boral is subject to a change of control, or if certain other events of default under the Shareholders Agreement occur with respect to Boral, we will have the right to acquire Boral's interest in UBBP at fair market value, but it may be on terms that we do not find favorable. In this circumstance, if we do not complete the

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acquisition due to lack of funding or otherwise, we would remain in the joint venture, but possibly under ownership that we do not find acceptable.

In certain circumstances, a capital call may be issued to the shareholders of UBBP in order to obtain additional funding for the joint ventures' operations. If we do not provide capital and Boral does, Boral may receive additional shares in UBBP, thereby diluting our interest and diminishing our rights under the Shareholders Agreement. Further, although we intend for UBBP to be self-funding, we may nonetheless determine in the future that we need to provide additional capital in order for UBBP to continue operating.

Boral may become insolvent, refuse to make additional capital contributions or fail to meet its obligations under the Shareholders Agreement or the two share sale and subscription agreements entered into with Boral, which may result in certain liabilities to us.

UBBP has relied in part on new products and technology we have developed. UBBP is contractually entitled to some, but not all, of our new products and recently licensed several new products and technologies from us, including USG Sheetrock® Brand EcoSmart Panels and Ensemble® Acoustical Drywall Ceiling. If UBBP is unable to successfully commercialize on our innovation efforts, the opportunity to grow the joint ventures or for us to deploy our products in UBBP's territory will be adversely impacted.

UBBP is required to protect our licensed trade secrets and confidential intellectual property in its territory, which includes countries where there is a high risk of intellectual property loss, and we also expend significant efforts to secure and enforce our intellectual property rights in UBBP's territory. If UBBP is not diligent with its protections or our efforts are insufficient and competitors acquire our trade secrets and confidential intellectual property, then there may be a material adverse impact on our business both inside and outside of UBBP's territory.

If any of these risks were to materialize, our business, financial condition, operating results and cash flows could be materially and adversely impacted.

Our international operations expose us to risks that would not otherwise be present in our U.S. operations.

Our international business operations in the countries within the territory of UBBP and in Canada and Mexico, including our ability to introduce new products into these markets, are important to our operations, growth and prospects. Our foreign operations and our international expansion subject us to a number of risks, including:

- sensitivity to general economic conditions in each of the countries in which we or UBBP operate, including, in particular, the housing and construction-based markets;
- compliance with United States laws affecting operations outside of the United States, such as the Foreign Corrupt Practices Act or similar anti-bribery laws and regulations, or corruption in foreign countries;
- compliance with a variety of local laws and regulations, including environmental and safety laws and regulations;
- changes in U.S. or foreign tax laws and the interpretation of those laws;
- imposition of more or new tariffs, quotas, trade barriers, and similar restrictions on our sales outside the United States, including cross-border intercompany sales;
- fluctuations in currency values and the impact on our consolidated results;
- changes in foreign currency exchange controls;
- discriminatory or conflicting fiscal policies;
- difficulties enforcing intellectual property and contractual rights, and securing information and infrastructure, in certain jurisdictions;
- greater risk of uncollectible accounts and longer collection cycles; and
- nationalization of properties by foreign governments.

Moreover, political and economic changes or volatility, geopolitical regional conflicts, terrorist activity, political unrest, civil strife, acts of war, epidemics, public corruption and other economic or political uncertainties could interrupt and negatively affect our business operations. All of these factors could result in increased costs or decreased revenues, and could materially and adversely affect our business, financial condition, operating results and cash flows.

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Our success is dependent on our ability to innovate and protect our intellectual property and other proprietary rights. We believe that we maintain a leadership position and price premium in part because of our innovation and introduction of new products. As a result, our success also depends, in part, upon securing and enforcing our intellectual property rights. We rely on a combination of contractual rights and patent, copyright, trademark and trade secret laws to establish and protect our intellectual property. Despite our efforts to safeguard and maintain our intellectual property, the steps we have taken may be limited in their effect. Existing patent, copyright, trademark and trade secret laws offer only limited protection, and it may be expensive and time consuming to assert these protections against competitors who infringe on our rights, and our patents could be invalidated or circumvented. In addition, others may develop substantially equivalent or superseding proprietary technology, or competitors may offer similar competing products that do not infringe on our intellectual property rights, thereby substantially reducing the value of our proprietary rights. Moreover, the laws of some foreign countries in which our products are or may be manufactured or sold may not protect our products or intellectual property rights to the same extent as do the laws of the United States. This risk may be heightened in connection with our investments in UBBP because it results in the use of our intellectual property in additional foreign jurisdictions, some of which lack robust or accessible intellectual property protection enforcement mechanisms.

We intend to continue making investments in research and development to develop new and improved products and more efficient manufacturing methods in order to maintain our market leadership position. If we do not make these investments, or we are not able to successfully commercialize our innovation efforts, our revenues, operating results and market share may be materially and adversely affected.

Our businesses are capital intensive, leading to high levels of fixed costs, and capital expenditures to maintain our market leadership position and expand our businesses may not achieve their intended results.

Our businesses are capital intensive, and regularly require capital expenditures to maintain equipment, expand operations, improve efficiency and comply with applicable laws and regulations. We are limited in our ability to quickly reduce fixed costs in response to reduced demand for our products, so these fixed costs may result in higher average unit costs and lower margins if we are unable to offset with price increases. Alternatively, we may not be able to quickly respond to unanticipated increased demand for our products, which could result in our inability to satisfy customer demand and loss of market share.

In order to standardize and automate production across our businesses, we are investing in capital improvement projects, including an anticipated \$300 million investment in Advanced Manufacturing that began in late 2016, which we believe will materially improve our operating results. Future downturns in our industry or businesses may prevent us from having the funds necessary to make anticipated capital expenditures, and there may be delays or cost increases in completing these projects. Our return on investment from our Advanced Manufacturing investments or other capital expenditures may not be sufficient to recover the expenses associated with these initiatives and we may not achieve the expected \$100 million in incremental EBITDA from Advanced Manufacturing in the anticipated timeframe. See Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity Outlook for additional information regarding our Advanced Manufacturing initiatives.

A disruption in our information technology systems due to a catastrophic event or security breach could interrupt or damage our operations.

In the conduct of our business we collect, use, transmit and store data on information systems. We have put in place security measures designed to protect against unauthorized access to, or corruption of, our information systems and data or disruption of our operations. However, advanced cybersecurity threats are increasingly difficult to identify and prevent. The security measures we have implemented may not be sufficient to prevent breaches, and we may be required to incur additional costs to strengthen our systems as cyber-attacks continue to evolve. Any security breach or compromise of our information systems could significantly impact our operations, damage our reputation, cause the disclosure of confidential customer, employee, supplier or company information, including our intellectual property, and result in significant losses, litigation, fines and costs. The regulatory environment related to information security, data collection and privacy is also growing more rigorous, with new and constantly changing requirements applicable to our business, and compliance with those requirements could result in additional costs.

We also compete through our use and improvement of information technology. In order to remain competitive, we need to provide customers with timely, accurate, easy-to-access information about product availability, orders and delivery status. While we have provided manual processes for short-term failures and disaster recovery capability, a prolonged disruption of systems or other failure to meet customers' expectations regarding the capabilities and reliability of our systems may materially and adversely affect our operating results.



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Compliance with environmental and safety laws and regulations or product safety concerns could cause us to make modifications to how we manufacture our products, negatively affect our results and also require that we make significant capital investments or otherwise increase our costs.

We operate plants, mines and quarries in North America. As a result, we are subject to numerous federal, state, local and foreign laws and regulations governing the protection of the environment and occupational health and safety, including laws regulating air emissions, wastewater discharges, the management and disposal of hazardous materials and wastes, and the health and safety of our employees. We are also required to obtain permits from governmental authorities for certain operations. If we were to fail to comply with these laws, regulations or permits, we could incur fines, penalties or other sanctions and be subject to private litigation. In addition, in the past we have been, and in the future could be, held responsible for costs and damages arising from any contamination at our past or present facilities or at third-party waste disposal sites. Further, new environmental and safety laws and regulations may cause us to incur material expenses relating to compliance, impact the availability and cost of raw materials and have a material and adverse impact on our operations and results.

Many U.S. and foreign jurisdictions have adopted or are considering measures to reduce greenhouse gas, or GHG, emissions, including carbon dioxide and methane. Legislation or regulations requiring reductions in GHG emissions could affect future expansions or modifications at our plants, mines and quarries and may require that we incur significant costs and additional capital investment to satisfy permitting requirements. In addition, enactment of new climate change legislation, regulatory initiatives or treaties impacting the locations where we conduct business could have a material adverse effect on our operations. For example, legislation establishing a “carbon tax” on energy use or a “cap and trade” could materially and adversely increase the cost of energy used in our manufacturing processes. Legal challenges to the U.S. EPA’s final rule regarding the use of synthetic gypsum, or subsequent state legislation, could also result in laws or regulations that adversely affect the classification, use, storage and disposal of synthetic gypsum. Such laws or regulations may require significant capital investments to convert those plants and lines that use synthetic gypsum to natural gypsum.

The building materials industry has been subject to claims relating to raw materials, as well as claims for incidents of catastrophic loss, such as building fires. We have rigorous product safety and quality standards and a strong commitment to product safety and quality. However, if our products do not meet applicable safety standards or customers’ expectations regarding safety, we could experience decreased sales, increased costs and/or be exposed to legal and reputational risks. Events that give rise to actual, potential or perceived product safety concerns could expose us to government enforcement action and/or private litigation. Reputational damage caused by real or perceived product safety concerns could negatively affect our business and results of operations, and product liability insurance coverage may not be available or adequate in all circumstances to cover claims that may arise in the future. Legal and governmental proceedings, including those involving antitrust, tax, environmental, intellectual property, the Merger or other matters, may result in significant costs.

We are party to litigation and governmental proceedings, including legal proceedings in connection with the Merger. We could become subject to additional legal claims in the future, some of which could become material. We may also initiate legal proceedings to defend and enforce our proprietary rights. The outcome of legal and governmental proceedings may differ from our expectations because the outcomes of litigation and governmental proceedings are often difficult to reliably predict. Various developments can lead to changes in management’s estimates of liabilities. Those developments include judicial rulings or judgments, settlements, or regulatory developments or changes in applicable law. A future adverse ruling, settlement or unfavorable development could result in charges that could have a material adverse effect on our results of operations in any particular period, or we could be unsuccessful in protecting our intellectual property. For a more detailed discussion of certain of the legal proceedings in which we are involved, see Item 3, Legal Proceedings, below.

We may pursue acquisitions, joint ventures and other transactions to complement or expand our businesses, which even if completed, may involve a number of risks, or we may not be able to pursue a desired transaction under the Merger Agreement.

We may pursue additional opportunities to acquire businesses or technologies and to form joint ventures that we believe could complement, enhance or expand our current businesses or product lines or that might otherwise offer us

growth opportunities. Such pursuits may be costly and unsuccessful and cause diversion of management's attention from day-to-day operations. Even if completed, potential issues associated with these activities could include, among other things, difficulty with integrating

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business operations, infrastructure and personnel, and our ability to realize the full extent of the expected returns, benefits, cost savings or synergies as a result of a transaction within the anticipated time frame, or at all.

Under the Merger Agreement, we and our subsidiaries are prohibited from acquiring any business or forming any joint venture, subject to certain exceptions. This restriction to pursue a transaction that we may otherwise believe to be in our best interest could have an adverse effect on our business, financial condition, operating results and cash flows. Significant changes in factors and assumptions used to measure our defined benefit plan obligations, actual investment returns on pension assets and other factors could negatively impact our operating results and cash flows. The recognition of costs and liabilities associated with the pension and postretirement plans is affected by assumptions made by management and used by actuaries engaged by us to calculate the benefit obligations and the expenses recognized for these plans. The inputs used in developing the required estimates 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 costs and liabilities are the discount rate, the estimated long-term return on plan assets for the funded plans, retirement rates, and mortality rates. These assumptions are generally updated annually.

As of December 31, 2018, our pension plans were underfunded by \$137 million and our unfunded postretirement plan liabilities were approximately \$132 million. While discount rates have increased in 2018, in recent years declining interest rates have negatively impacted the funded status of our pension and postretirement plans. If the interest rates decline again, funding requirements for our pension plans may become more significant. If our cash flows and capital resources are insufficient to fund our obligations under these pension and postretirement plans, we could be forced to reduce or delay investments and capital expenditures, seek additional capital, or incur indebtedness.

We are generally not permitted to return capital to our stockholders under the Merger Agreement, and even if we are able to do so, we may not be able to fully execute our stock repurchase program and may not otherwise return capital to our stockholders in the foreseeable future.

In February 2018 we announced an increase in our stock repurchase program, bringing the total size of the program to \$500 million. However, the Merger Agreement limits our ability to repurchase shares of our common stock, subject to certain exceptions, and share repurchases under the program will not continue so long as the Merger Agreement is in effect and has not been terminated. If the program were to recommence, there is no guarantee as to the exact number of shares or value that will be repurchased and we may discontinue purchases at any time. Whether we make any further repurchases would depend on many factors, including but not limited to our business and financial performance, the business and market conditions at the time, including the price of our shares, and other factors that management considers relevant. Additionally, we expect to fund any repurchases under our stock repurchase program through cash on hand, which may impact our ability to pursue potential strategic opportunities. Although our stock repurchase program is intended to enhance long-term stockholder value, short-term stock price fluctuations could reduce the program's effectiveness and there can be no assurance that any stock repurchases will enhance stockholder value.

In addition, the Merger Agreement also limits our ability to declare any dividend in respect of our common stock, other than the conditional special dividend paid to holders of our common stock in connection with the Merger. Other than the conditional special dividend, we have not paid a dividend on our common stock since the first quarter of 2001, and there can be no assurance that we will do so in the foreseeable future.

Our credit agreement also limits our ability to pay a dividend or repurchase our stock unless specified borrowing availability and fixed charge coverage ratio tests are met, and it prohibits payment of a dividend or repurchase of our stock if a default exists under the agreement. Accordingly, we may be required to cease repurchasing stock for periods of time in order to maintain compliance with our credit agreement terms. If we do not pay dividends or continue to execute on our stock repurchase program, investors will have to rely on the possibility of stock appreciation and sell their shares to realize a return on their investment.

We may not be able to pursue certain strategic opportunities unless we increase our indebtedness and leverage ratio. Our level of indebtedness also requires us to dedicate a portion of our cash flow to debt payments and limits our ability to engage in certain business activities.

As of December 31, 2018, we had \$1.1 billion of outstanding debt, consisting of senior notes and industrial revenue bonds, which is slightly above our target leverage ratio range of 1.5x to 2.0x adjusted debt/EBITDA. We may not be

able to pursue certain strategic opportunities that may otherwise be available to us without incurring additional indebtedness and thereby increasing our leverage ratio outside of our target range.

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Our current debt service obligations also require us to dedicate a portion of our cash flow from operating activities to payments on our indebtedness, which reduces the availability to use our cash flow for other purposes, including capital expenditures, research and development efforts, potential acquisitions or investments. If we are unable to fund our business activities, meet our obligations under our debt agreements or are contractually restricted from pursuing activities or transactions that we believe are in our long-term best interests, including any activities prohibited by the Merger Agreement, our business, financial condition, results of operations and cash flows could be adversely affected. Our indebtedness also may increase our vulnerability to economic and industry downturns and changing market conditions and place us at a competitive disadvantage relative to competitors that have less debt. We are required to post letters of credit or cash as collateral primarily in connection with our hedging transactions, insurance programs and bonding activities. The amounts of collateral we are required to post may vary based on our financial position and credit ratings. Use of letters of credit as collateral reduces our borrowing availability under our domestic revolving credit agreement and, therefore, like the use of cash as collateral, reduces our overall liquidity and our ability to fund other business activities.

The terms of our debt agreements, including our credit facility, may also limit our ability to engage in certain activities and transactions that may be in our long-term interest. Among other things, unless we obtain approval, the covenants contained in our debt agreements may restrict or limit our ability to incur additional indebtedness, pay dividends or repurchase our common stock, make guarantees, sell our assets or make other fundamental changes, engage in mergers, acquisitions and dispositions, make investments, change our business purpose, or enter into certain transactions with affiliates. We may also be required to maintain specified financial ratios, which may require that we take action to reduce our debt or to act in a manner contrary to our current business plans. Our ability to comply with these covenants and financial ratios may be affected by events beyond our control, and we may not be able to continue to meet those covenants and ratios. Breach of any of the covenants or ratios contained in the agreements governing our debt, or our inability to pay interest on, or principal of, our outstanding debt as it becomes due, could result in an event of default, in which case, our lenders could declare all amounts outstanding to be immediately due and payable. If this occurs, we may not be able to refinance the accelerated debt on favorable terms, or at all, or repay the accelerated debt, and our liquidity may be adversely impacted.

Item 1B. UNRESOLVED STAFF COMMENTS

None

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## Item 2.PROPERTIES

Our leased corporate headquarters is located in Chicago, Illinois. We operate plants, mines, quarries, and other facilities throughout North America. The locations of our production properties in operation for our consolidated segments as of December 31, 2018 are as follows (plants are owned unless otherwise indicated):

	U.S. Wallboard and Surfaces		U.S. Performance Materials			U.S. Ceilings		
	Gypsum wallboard and other gypsum products	Surface preparation and joint treatment products	Under-layment	Building Envelope	Structural	Ceiling Tile	Ceiling Grid	Specialty Ceilings
Alabaster (Tawas City), Michigan	x							
Aliquippa, Pennsylvania <sup>1</sup>	x							
Atlanta, Georgia <sup>3</sup>								x
Auburn, Washington		x						
Baltimore, Maryland <sup>1</sup>	x	x	x					
Bridgeport, Alabama <sup>1</sup>	x	x						
Cartersville, Georgia							x	
Chamblee, Georgia		x						
Cloquet, Minnesota						x		
Commerce, California <sup>3</sup>								x
Dallas, Texas		x						
Delavan, Wisconsin					x			
Detroit (River Rouge), Michigan	x		x					
East Chicago, Indiana <sup>1</sup>	x	x						
Fort Dodge, Iowa	x	x	x					
Galena Park, Texas <sup>1</sup>	x	x						
Greenville, Mississippi						x		
Gypsum, Ohio <sup>1</sup>		x	x	x				
Jacksonville, Florida <sup>1</sup>	x	x		x				
New Orleans, Louisiana <sup>1</sup>			x					
Norfolk, Virginia <sup>1</sup>	x							
North Kansas City, Missouri	x							
	x							

Oakfield, New York							
Otsego, Michigan	x						
Phoenix (Glendale), Arizona <sup>3</sup>		x					
Plaster City, California	x				x		
Port Reading, New Jersey		x					
Rainier, Oregon	x						
Shoals, Indiana <sup>2</sup>	x						
Sigurd, Utah	x	x					
Southard, Oklahoma	x			x			
Sperry, Iowa <sup>2</sup>	x						
Stockton, California							x
Sweetwater, Texas	x			x		x	
Torrance, California		x		x			
Walworth, Wisconsin						x	
Washingtonville, Pennsylvania <sup>1,3</sup>	x						
Westlake, Ohio							x
Weirton, West Virginia <sup>3</sup>		x					x

<sup>1</sup> Plants supplied fully by synthetic gypsum  
<sup>2</sup> Plants supplied partially by synthetic gypsum  
<sup>3</sup> Leased

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	Canada			
	Gypsum wallboard and other gypsum products	Surface preparation and joint treatment products	Ceiling Grid	Specialty Ceilings
Calgary, Alberta <sup>3</sup>		x		
Hagersville, Ontario <sup>2</sup>	x	x		
Montreal, Quebec <sup>2</sup>	x	x		
Oakville, Ontario			x	x
Surrey, British Columbia <sup>3</sup>		x		

<sup>2</sup> Plants supplied partially by synthetic gypsum

<sup>3</sup> Leased

OTHER

We operate the following facilities located in Mexico for our gypsum wallboard and other gypsum products that are not included in the above reportable segments:

Monterrey, Nuevo Leon San Luis Potosi, San Luis Potosi

Puebla, Puebla Tecoman, Colima

Saltillo, Coahuila

We operate the following facilities in the United States, Canada and Mexico:

Paper

Galena Park, Texas

Oakfield, New York

North Kansas City, Missouri

Otsego, Michigan

Mines or quarries

Alabaster, Michigan

Shoals, Indiana

Fort Dodge, Iowa

Sigurd, Utah

Hagersville, Ontario

Southard, Oklahoma

Monterrey, Nuevo Leon

Sperry, Iowa

Plaster City, California

Sweetwater, Texas

San Luis Potosi, San Luis Potosi Tecoman, Colima

We operate a mica-processing plant at Spruce Pine, North Carolina. We manufacture mineral fiber products at Red Wing, Minnesota, and Walworth, Wisconsin, and metal specialty systems at Oakville, Ontario.

Gypsum's USG Sheetrock® brand gypsum wallboard plants operated at approximately 60% of capacity during 2018.

### Item 3. LEGAL PROCEEDINGS

See Part II, Item 8, Financial Statements and Supplementary Data - Notes to Consolidated Financial Statements, Note 17, Litigation, for information on legal proceedings.

### Item 4. MINE SAFETY DISCLOSURES

The information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K promulgated by the SEC is included in Exhibit 95 to this report.



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## PART II

## Item MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND 5. ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock trades on the New York Stock Exchange, or NYSE, and the Chicago Stock Exchange under the symbol USG. The NYSE is the principal market for our common stock. As of January 31, 2019, there were 1,580 record holders of our common stock. Except for the conditional special dividend disclosed in Item 1, Business, we currently do not pay dividends on our common stock. Our credit facility limits our ability to pay cash dividends on or repurchase our common stock unless specified borrowing availability and fixed charge ratios are met. In addition, the Merger Agreement limits our ability to pay dividends on or repurchase shares of our common stock as discussed below

See Part III, Item 12, Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters, for information regarding common stock authorized for issuance under equity compensation plans.

Pursuant to our Deferred Compensation Program for Non-Employee Directors, five of our non-employee directors deferred the \$120,000 annual equity grant and two of our non-employee directors deferred all or a portion of the quarterly retainer payment that those non-employee directors were entitled to receive on December 31, 2018 under our Non-Employee Director Compensation Program, into a total of approximately 14,655 deferred stock units. These units will increase or decrease in value in direct proportion to the market value of our common stock and will be paid in shares of common stock following termination of service as a director. The issuance of these deferred stock units was effected through a private placement under Section 4(a)(2) of the Securities Act of 1933, as amended, and was exempt from registration under Section 5 of that Act. Following the adoption of the Merger Agreement by our stockholders and the payment of the conditional special dividend, on October 2, 2018, six of our non-employee directors received an aggregate total of approximately 2,732 dividend equivalents on outstanding deferred stock units in the form of additional deferred stock units.

## PERFORMANCE GRAPH

The following graph and table compare the cumulative total stockholder return on our common stock with the Standard and Poor's 500 Index, or S&P 500, and the Dow Jones U.S. Construction and Materials Index, or DJUSCN, in each case assuming an initial investment of \$100 and full dividend reinvestment, for the five-year period ended December 31, 2018.

	Value of Investment as of December 31,					
	2013	2014	2015	2016	2017	2018
USG	\$ 100	\$ 99	\$ 86	\$ 102	\$ 136	\$ 152
S&P 500	100	114	115	129	157	150
DJUSCN	100	99	106	127	147	115

All amounts are rounded to the nearest dollar.

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On February 1, 2017, we announced that our Board of Directors, or our Board, approved a stock repurchase program of \$250 million, and on February 1, 2018 we announced an increase in this stock repurchase program, bringing the total size of the program to \$500 million. Under the program, we may repurchase shares from time to time in open market transactions or in privately-negotiated transactions in accordance with applicable securities laws, including under plans complying with Rule 10b5-1 under the Securities Exchange Act of 1934, as amended, or the Exchange Act. The program remains in effect and has no set expiration date, and approximately \$240 million of shares may yet be purchased under the program. However, there has been no repurchase activity under the program since April 2018. In addition, the Merger Agreement limits our ability to repurchase shares of our common stock, subject to certain exceptions, and share repurchases under the program will not continue so long as the Merger Agreement is in effect and has not been terminated.

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## Item 6. SELECTED FINANCIAL DATA

(millions, except per-share and employee data)

	Years Ended December 31,				
	2018	2017	2016	2015	2014
	(a)	(a)	(b)	(b)	(b)
<b>Statement of Income Data:</b>					
Net sales	\$3,336	\$3,204	\$3,017	\$2,913	\$2,904
Cost of products sold	2,730	2,548	2,317	2,269	2,294
Gross profit	606	656	700	644	610
Selling and administrative expenses	379	303	297	300	324
Litigation settlement charge (c)	—	—	—	—	48
Long-lived asset impairment charges (d)	—	—	10	—	90
Contract termination charge and (recovery) loss on receivable (e)	—	—	(3)	(7)	15
Operating profit	227	353	396	351	133
Income from equity method investments	42	59	49	48	33
Interest expense, net	(50)	(65)	(141)	(161)	(178)
Income and gain from sale of equity method investment to related party (f)	—	—	—	13	2
Gain on deconsolidation of subsidiaries and consolidated joint ventures (g)	—	—	—	—	27
Loss on extinguishment of debt	—	(22)	(37)	(19)	—
Other income, net	8	10	7	4	16
Income from continuing operations before income taxes	227	335	274	236	33
Income tax (expense) benefit (h)	(34)	(238)	(63)	740	(7)
Income from continuing operations	193	97	211	976	26
Income (loss) from discontinued operations, net of tax	3	(9)	20	15	12
Gain on sale of discontinued operations, net of tax	—	—	279	—	—
Net income	196	88	510	991	38
Less: Net income attributable to noncontrolling interest	—	—	—	—	1
Net income attributable to USG	\$196	\$88	\$510	\$991	\$37
<b>Income from continuing operations per average common share:</b>					
Basic	\$1.38	\$0.67	\$1.45	\$6.70	\$0.18
Diluted	1.36	0.66	1.44	6.62	0.17
<b>Balance Sheet Data (as of the end of the year):</b>					
Working capital	\$550	\$576	\$527	\$408	\$546
Cash and cash equivalents (b)	328	394	427	442	231
Property, plant and equipment, net (b)	1,838	1,762	1,707	1,771	1,891
Total assets	3,842	3,851	3,869	4,736	3,936
Long-term debt (i)	1,079	1,078	1,083	1,675	2,191
Total stockholders' equity	1,919	1,845	1,886	1,436	408
Cash dividend declared per share	0.50	—	—	—	—

Results have been adjusted from the originally reported amounts to reflect the adoption of Accounting Standard (a) Update (ASU) 2017-07 which we adopted on January 1, 2018. See Note 2, Recent Accounting Pronouncements, to our consolidated financial statements in Part II, Item 8 of this report.

Results have been adjusted from the originally reported amounts to reflect L&W, which was sold on October 31, 2016, as a discontinued operation. We recorded a gain of \$279 million on the sale of the business. See Note 3,

(b) Acquisitions and Dispositions, to our consolidated financial statements in Part II, Item 8 of this report. The Statements of Income results have also been adjusted to reflect the adoption of ASU 2017-07.

(c) Reflects a charge related to the settlement of the U.S. wallboard pricing class action lawsuits.

- Reflects long-lived asset impairment charges on mining operations in 2016. See Note 12, Long-Lived Asset Impairment Charges, to our consolidated financial statements in Part II, Item 8 of this report. The amount in 2014
- (d) reflects impairment charges on manufacturing facilities, capitalized costs for the construction of future facilities and ocean vessels.
  - (e) Item relates to our shipping operations, which we exited in 2015.  
Reflects the gain recorded on the sale of our equity method investment in our Knauf-USG joint venture to our
  - (f) 50/50 joint venture partner in 2015 and our share of the net income from the equity method investment for all periods presented.
  - (g) Reflects the gain recorded on the deconsolidation and contribution to UBBP of certain of our wholly-owned subsidiaries and consolidated joint ventures.  
Income tax expense for 2018 and 2017 includes a benefit of \$11 million and a charge of \$145 million, respectively,
  - (h) related to the Tax Cuts and Jobs Act, or the 2017 Tax Act. See Note 14, Income Taxes, to our consolidated financial statements in Part II, Item 8 of this report. The 2015 benefit includes the reversal of a tax valuation allowance of \$731 million.
  - (i) Excludes currently maturing portion of long-term debt.

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## Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

## OVERVIEW

USG, through our subsidiaries and joint ventures, is a leading manufacturer of building materials and innovative solutions. We produce a wide range of products under recognized brand names including Sheetrock®, Durock®, Fiberock®, and Securock® serving the new residential, new nonresidential, and residential and nonresidential repair and remodel construction markets as well as products used in certain industrial processes, enabling our customers to build the outstanding spaces where people live, work and play. See Note 19, Merger Agreement, to the consolidated financial statements in Part II, Item 8 of this report for information related to the Merger.

## KEY STRATEGIES

Our strategy includes the following four pillars:

- Profitably grow our core portfolio,
- Innovate to address industry challenges,
- Align and enable our organization, and
- Maintain disciplined capital allocation.

## MARKET CONDITIONS AND OUTLOOK

Our businesses are cyclical in nature and sensitive to changes in general economic conditions, including conditions in the housing and construction-based markets in North America. Our business in the markets of Asia, Australasia, and the Middle East also significantly exposes us to the economic conditions in those areas. However, the UBBP joint ventures have helped diversify USG's overall exposure to changes in North American economic conditions.

The following table summarizes the current market conditions and outlook for our primary end markets in North America.

End Market	Lead time	Metric	Source	Market Condition/Outlook
New Residential	Installation of gypsum products <sup>(a)</sup> into a single family home typically follows a housing start by 90-120 days	Housing starts (seasonally adjusted)	U.S. Census Bureau	November 2018 - 1.179 million <sup>(e)</sup> November 2017 - 1.122 million <sup>(e)</sup> December 2017 - 1.202 million
			Industry forecast (Blue Chip Economic Indicators)	2019 - 1.21 million to 1.34 million <sup>(b)</sup>
New Nonresidential	Installation of gypsum <sup>(a)</sup> and ceilings products typically follows signing of construction contracts by about 12 to 18 months	Change in floor space for which contracts are signed	Dodge Data & Analytics	2018 from 2017 - no change
			Industry forecast (Dodge Data & Analytics) <sup>(c)</sup>	2019 from 2018 - no change
Repair and Remodel <sup>(d)</sup>	Remodels typically begin within two years from purchase	Sales of existing homes (seasonally adjusted)	National Association of Realtors	2018 - 5.34 million 2017 - 5.51 million

<sup>(a)</sup> Gypsum products include products manufactured and marketed by our U.S. Wallboard and Surfaces segment and Fiberock® brand gypsum fiber panels manufactured and marketed by our U.S. Performance Materials segment.

<sup>(b)</sup> Forecast based on the average of the bottom ten and top ten forecasts included in the report, respectively.

<sup>(c)</sup> Dodge Data & Analytics' forecast includes several building types which do not generate significant demand for our products.

<sup>(d)</sup> The repair and remodel market includes renovation of both residential and nonresidential buildings.

<sup>(e)</sup>

At the time of the filing of this Form 10-K, December 2018 housing starts were not available from the U.S. Census Bureau.

While sales of products in our U.S. Wallboard and Surfaces and U.S. Performance Materials segments have generally improved with the modest recovery in residential housing, the segments continue to be adversely affected by the low level of residential and other construction activity compared to historical averages. The results of our U.S. Ceilings segment, which primarily serves the nonresidential market, have shown some improvement over the longer term. However, the results also continue to be adversely affected by the low levels of new nonresidential construction activity as compared to historical averages. Our U.S. Ceilings segment is also adversely affected by changing construction preferences, such as the shift to open plenum and specialty ceilings. We acquired Ceilings Plus in 2017 to help address this trend.

Modest improvement is also expected in the construction industry in Canada. Other international markets, including those that are within the UBBP territory, provide opportunities for our operations to serve the demand in these regions. The

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construction growth rate in Australia is expected to remain low, driven by low residential housing growth. In South Korea, the construction industry has slowed and forecasts low growth rates in the residential and commercial sectors. The construction industry in Thailand is projecting growth, driven by non-residential infrastructure spending. Several emerging markets which are within the UBBP territory are forecasted to experience growth. The markets within the UBBP territory are adopting modern construction practices and newer technology, which provide more opportunities. We anticipate that the performance of the UBBP joint ventures will partially offset some of the potential cyclicity in our North American businesses.

The following table summarizes the industry information on U.S. wallboard shipments and capacity.

U.S. Industry Information	Metric	Source	Market Condition/Outlook
U.S. industry shipments of gypsum board <sup>(a)</sup>	Billion of square feet (bsf)	Gypsum Association	Twelve months 2018 - 25.4 bsf
		USG forecast	Twelve months 2017 - 25.7 bsf
			2019 shipments expected to increase by low single digits
U.S. wallboard capacity	Billion of square feet (bsf)	Gypsum Association	1/1/2019 - 34.1 bsf
U.S. industry capacity utilization rate	Annualized shipments as a percentage of industry capacity	USG estimate	Twelve months 2018 - 74% Twelve months 2017 - 76%

<sup>(a)</sup> The gypsum board market as determined by the Gypsum Association includes gypsum wallboard, other gypsum-related paneling products, such as glass mat sheathing and gypsum fiber boards, and imports.

We shipped 5.81 billion square feet of USG Sheetrock<sup>®</sup> brand gypsum wallboard in 2018, a 5% decrease from 6.12 billion square feet in 2017. Our share of the gypsum board market in the United States, which includes, for comparability, shipments of the Gypsum products of USG Sheetrock<sup>®</sup> brand gypsum wallboard and Securock<sup>®</sup> brand glass mat sheathing and the Performance Materials product of Fiberock<sup>®</sup> brand gypsum fiber panels, decreased to 24.5% in 2018 from 25.4% in 2017.

There is excess wallboard production capacity industry-wide in the United States. Based on current industry trends and forecasts, demand for gypsum wallboard is expected to increase in 2019, but the magnitude of any increase will depend on the levels of housing starts and repair and remodel activity, among other factors. We project that the industry capacity utilization rate will increase modestly in 2019 compared to 2018.

We could experience pressure on gypsum wallboard selling prices and our gross margins at these levels of capacity utilization. Our U.S. Wallboard and Surfaces segment implemented a price increase for wallboard in February 2019. However, it is uncertain that we will be able to maintain the increase or obtain additional increases in our selling prices. If we are unable to maintain or implement additional price increases, our net sales, operating results and cash flows may be materially and adversely impacted.

**GEOGRAPHIC INFORMATION**

In 2018, we recorded \$3.3 billion of net sales in our consolidated statement of income, and net sales for UBBP, which are not included in our consolidated statements of income, were \$1.2 billion. The following charts reflect the geographic breakdown of net sales for the year ended December 31, 2018.

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CURRENCY IMPACT

The impact of currency on consolidated and segment results for 2018 and 2017 has been derived by translating current period results at the year-to-date average foreign currency rates for the period ending December 31, 2017 and December 31, 2016, respectively.



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## CONSOLIDATED RESULTS OF OPERATIONS

(millions, except per-share data)	2018	2017 (a)	2016 (a)	Favorable (Unfavorable) 2018 vs. 2017 2017 vs. 2016					
				\$	%	\$	%	\$	%
Net sales	\$3,336	\$3,204	\$3,017	\$132	4 %	\$187	6 %		
Cost of products sold	2,730	2,548	2,317	(182 )	(7 )%	(231 )	(10 )%		
Gross profit	606	656	700	(50 )	(8 )%	(44 )	(6 )%		
Selling and administrative expenses	379	303	297	(76 )	(25 )%	(6 )	(2 )%		
Long-lived asset impairment charges	—	—	10	—	*	10	100 %		
Recovery of receivable	—	—	(3 )	—	*	(3 )	(100)%		
Operating profit	227	353	396	(126 )	(36 )%	(43 )	(11 )%		
Income from equity method investments	42	59	49	(17 )	(29 )%	10	20 %		
Interest expense	(57 )	(69 )	(145 )	12	17 %	76	52 %		
Interest income	7	4	4	3	75 %	—	— %		
Loss on extinguishment of debt	—	(22 )	(37 )	22	100 %	15	41 %		
Other income, net	8	10	7	(2 )	*	3	43 %		
Income from continuing operations before income taxes	227	335	274	(108 )	(32 )%	61	22 %		
Income tax (expense) benefit	(34 )	(238 )	(63 )	204	*	(175 )	*		
Income from continuing operations	193	97	211	96	99 %	(114 )	(54 )%		
Income (loss) from discontinued operations, net of tax	3	(9 )	20	12	*	(29 )	*		
Gain on sale of discontinued operations, net of tax	—	—	279	—	*	(279 )	*		
Net income	\$196	\$88	\$510	\$108	123 %	\$(422 )	(83 )%		
Diluted earnings per share - net income	\$1.38	\$0.60	\$3.46	\$0.78		\$(2.86)			

\* not meaningful

(a) Results have been adjusted from the originally reported amounts to reflect the adoption of ASU 2017-07 which we adopted on January 1, 2018. See Note 2, Recent Accounting Pronouncements, to our consolidated financial statements in Part II, Item 8 of this report.

## NET SALES

Consolidated net sales in 2018 increased \$132 million, or 4%, compared with 2017, driven by higher net sales in all four consolidated segments. The increase reflected higher prices for most of our products including USG Sheetrock® brand gypsum wallboard, USG Sheetrock® brand joint compound, USG Durock® brand cement board, Securock® brand roof boards, ceiling tile and grid. The increase in sales was also due to higher volumes of USG Performance Flooring, including Levelrock® brand gypsum underlayment, ceiling tile and grid. Partially offsetting the increased prices and volumes were lower volumes of USG Sheetrock® brand gypsum wallboard and USG Sheetrock® brand joint compound. On a consolidated basis, foreign currency exchange rate fluctuations unfavorably impacted our net sales by \$2 million.

Consolidated net sales in 2017 increased \$187 million, or 6%, compared with 2016, driven by higher net sales in all four consolidated segments. The increase reflected higher volumes of USG Sheetrock® brand gypsum wallboard, USG Sheetrock® brand joint compound, USG Durock® brand cement board, USG Durock™ brand glass-mat tile backerboard, Fiberock® brand tile backerboard and underlayment and ceiling tile offset by lower volumes of ceiling grid and lower prices for gypsum wallboard and joint compound. On a consolidated basis, foreign currency exchange rate fluctuations positively impacted our net sales by \$6 million.

## GROSS PROFIT

Gross profit was \$606 million in 2018 compared to \$656 million in 2017. As a percentage of net sales, gross profit was 18.2% in 2018 and 20.5% in 2017. The decrease of \$50 million in gross profit was driven by increased costs per unit of products across our four consolidated segments and higher transportation costs, offset by higher volumes and higher average selling prices in our U.S. Performance Materials, U.S. Ceilings and Canada segments and higher

average selling prices in our U.S. Wallboard and Surfaces segment. Also contributing to the decrease in gross profit were costs incurred for the expansion of our Jacksonville and Delavan facilities, offset by the gain of \$13 million on the sale of a surplus property and \$27 million in incremental savings driven by our Advanced Manufacturing initiatives.

Gross profit was \$656 million in 2017 compared to \$700 million in 2016. As a percentage of net sales, gross profit was 20.5% in 2017 and 23.2% in 2016. The decrease of \$44 million in gross profit was driven by increased costs of manufacturing due primarily to higher costs of raw materials, notably waste paper and steel, and a \$3 million less favorable adjustment to our asset retirement obligation due to changes in cash flow estimates. Also driving the decrease was the absence of \$7 million for items recorded in 2016, which included a gain of \$11 million for the sale of surplus property offset by a \$2

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million adjustment to customer reserves and \$2 million of severance and other charges related to the decision to indefinitely idle our mining operations in Little Narrows, Nova Scotia, Canada.

**SELLING AND ADMINISTRATIVE EXPENSES**

Selling and administrative expenses totaled \$379 million in 2018, \$303 million in 2017 and \$297 million in 2016. As a percentage of net sales, selling and administrative expenses increased to 11.4% in 2018 compared to 9.5% in 2017 and 9.8% in 2016. Our selling and administrative expenses in 2018 included \$19 million in costs associated with the Merger, \$11 million in costs associated with the integration of USG Ceilings Plus and our business unit realignment announced in the fourth quarter of 2017, an \$8 million charge for the termination of a marketing contract associated with U.S. Performance Materials products, a \$5 million charge for a legal judgment on a contract dispute from 2004 and \$6 million in selling and administrative expenses for USG Ceilings Plus. The remaining \$27 million increase in selling and administrative expenses primarily reflected planned increased marketing and compensation expenses in support of our strategy and increased costs for information technology and professional fees related to system implementation.

The increase of \$6 million in selling and administrative expenses for 2017 reflected higher costs for marketing and services including those in support of product growth initiatives offset by the absence of \$4 million for the exit of commercial office space, which reflected the remaining lease term and accelerated depreciation.

**LONG-LIVED ASSET IMPAIRMENT CHARGES**

We recorded long-lived asset impairment charges of \$10 million in 2016. These charges resulted from the decision to indefinitely idle our mining operations in Little Narrows, Nova Scotia, Canada, after completing a review of our gypsum sourcing needs. See Note 12, Long-Lived Asset Impairment Charges, to our consolidated financial statements in Part II, Item 8 of this report for additional information related to long-lived asset impairment charges.

**RECOVERY OF RECEIVABLE**

In 2016, we recovered \$3 million of a previously deemed uncollectible receivable through a settlement agreement.

**INCOME FROM EQUITY METHOD INVESTMENTS**

Income from equity method investments was \$42 million in 2018, \$59 million in 2017, and \$49 million in 2016. The decrease from 2017 to 2018 was driven by a decrease in the net income of UBBP, due primarily to lower margins in South Korea, Indonesia and Thailand offset by lower selling and administrative expenses.

The increase from 2016 to 2017 was driven by an increase in the net income of UBBP, which was due to a favorable currency impact of \$2 million and the absence of \$8 million in impairment charges recorded in 2016.

**INTEREST EXPENSE**

Interest expense was \$57 million in 2018, \$69 million in 2017 and \$145 million in 2016. The decrease in interest expense in 2018 reflected lower interest rates on outstanding debt. The decrease in interest expense for 2017 as compared to 2016 primarily reflected lower debt levels and lower interest rates on our outstanding debt.

**LOSS ON EXTINGUISHMENT OF DEBT**

We recorded a loss on extinguishment of debt, including premiums and write-off of unamortized debt issuance costs, of \$22 million in 2017 and \$37 million in 2016. The loss in 2017 included \$21 million, primarily for premiums paid as a result of a tender offer and repurchase of our 7.75% Senior Notes due 2018, referred to as our 7.75% Notes, and write-off of \$1 million for deferred fees upon the amendment of our credit facility. The loss in 2016 was a result of the early redemption of our 6.3% Senior Notes due 2016 and repayment of our 7.875% Senior Notes due 2020 and 5.875% Senior Notes due 2021.

**OTHER INCOME, NET**

Other income, net was \$8 million in 2018 compared to \$10 million in 2017. During 2018, we recorded a loss of \$8 million on the sale of our interest in a joint venture in South Africa, inclusive of \$4 million of deferred currency loss and \$2 million of net losses on foreign currency transactions offset by the non-service cost components of pension and postretirement plans of \$18 million. In 2017, we recorded \$12 million of pension settlement charges related to lump sum benefits paid to former USG employees and \$4 million of net losses on foreign currency transactions offset by non-service cost components of pension and postretirement plans of \$26 million.

Other income, net was \$10 million in 2017 as compared to \$7 million in 2016. The increase of \$3 million primarily reflected lower pension settlement expense of \$8 million in 2017 offset by the absence of the receipt of \$4 million in

remaining

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payments under a settlement agreement with a former trading partner. The remaining fluctuation was driven by foreign currency transactions.

**INCOME TAX EXPENSE (BENEFIT)**

Our effective tax rate was 15% in 2018, 71% in 2017 and 23% in 2016. Our effective tax rate has historically been sensitive to the geographic mix of earnings. When the percentage of pretax earnings generated outside of the United States increased, our effective tax rate generally decreased. Conversely, when the percentage of pretax earnings generated outside of the United States decreased, our effective tax rate generally increased.

The effective tax rate for each of 2018, 2017 and 2016 was significantly impacted by the charges and credits described in detail below. Excluding the impact of these charges and credits, the effective tax rate was 20% in 2018, 28% in 2017 and 31% in 2016.

Income tax expense was \$34 million in 2018 compared with income tax expense of \$238 million in 2017. Income tax expense in 2018 reflected the lower federal rate enacted in connection with the 2017 Tax Act and included a \$11 million non-cash tax benefit related to the finalization of the measurement of the 2017 Tax Act in the fourth quarter of 2018. Additionally, \$7 million of tax benefit was recorded for stock-based compensation during the year.

Income tax expense was \$238 million in 2017 compared with income tax expense of \$63 million in 2016. The income tax expense in 2017 included a \$145 million non-cash tax charge related to the revaluation and change in realizability of our deferred tax assets due to the 2017 Tax Act.

Income tax expense was \$63 million in 2016 and was related to tax expense from domestic, foreign, state and local jurisdictions. This expense was partially offset by foreign tax credits attributable to tax planning strategies to optimize foreign tax credit utilization and management's intention to amend its tax returns for the tax years 2012-2014 in order to claim credits for previously deducted foreign tax.

**INCOME (LOSS) FROM DISCONTINUED OPERATIONS, NET OF TAX**

We recorded income in 2018 from discontinued operations of \$3 million driven by net pension and postretirement benefits. In 2017, the loss of \$9 million primarily related to a pension settlement charge triggered by lump sum benefits paid to former employees of L&W. The income of \$20 million for 2016 primarily reflected the income recorded by L&W prior to the sale to ABC Supply on October 31, 2016. We also recorded losses of \$1 million and \$2 million in 2017 and 2016, respectively, related to our European operations which were sold in December 2012. See Note 3, Acquisitions and Dispositions, to our consolidated financial statements in Part II, Item 8 of this report for additional information.

**GAIN ON SALE OF DISCONTINUED OPERATIONS, NET OF TAX**

In 2016, we completed the sale of L&W, our distribution business, to ABC Supply and received proceeds of \$675 million, inclusive of a \$6 million final working capital adjustment. The sale resulted in a gain, net of tax, of \$279 million. See Note 3, Acquisitions and Dispositions, to our consolidated financial statements in Part II, Item 8 of this report for additional information.

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## SEGMENT RESULTS OF OPERATIONS

Net sales and operating profit (loss) for our consolidated reportable segments were as follows:

(millions)	2018	2017 (a)	2016(a)	Favorable (Unfavorable)						
				2018 vs. 2017		2017 vs. 2016				
	\$	%	\$	%	\$	%	\$	%		
<b>Net Sales:</b>										
U.S. Wallboard and Surfaces	\$1,927	\$1,916	\$1,778	\$11	1 %	\$138	8 %			
U.S. Performance Materials	392	373	357	19	5 %	16	4 %			
U.S. Ceilings	541	477	467	64	13 %	10	2 %			
Canada	448	405	389	43	11 %	16	4 %			
Other	252	245	220	7	3 %	25	11 %			
Eliminations	(224 )	(212 )	(194 )	(12 )	(6 )%	(18 )	(9 )%			
<b>Total</b>	<b>\$3,336</b>	<b>\$3,204</b>	<b>\$3,017</b>	<b>\$132</b>	<b>4 %</b>	<b>\$187</b>	<b>6 %</b>			
<b>Operating Profit (Loss):</b>										
U.S. Wallboard and Surfaces	\$248	\$306	\$328	(58 )	(19 )%	\$(22 )	(7 )%			
U.S. Performance Materials	(8 )	24	40	(32 )	(133)%	(16 )	(40)%			
U.S. Ceilings	78	92	98	(14 )	(15 )%	(6 )	(6 )%			
Canada	19	13	27	6	46 %	(14 )	(52)%			
Other	14	11	(4 )	3	27 %	15	*			
Corporate	(124 )	(92 )	(93 )	(32 )	(35 )%	1	1 %			
Eliminations	—	(1 )	—	1	*	(1 )	*			
<b>Total</b>	<b>\$227</b>	<b>\$353</b>	<b>\$396</b>	<b>\$(126)</b>	<b>(36 )%</b>	<b>\$(43 )</b>	<b>(11)%</b>			

\*Not meaningful

Results have been adjusted from the originally reported amounts to reflect the adoption of ASU 2017-07 which we (a) adopted on January 1, 2018. See Note 2, Recent Accounting Pronouncements, to our consolidated financial statements in Part II, Item 8 of this report.

## U.S. Wallboard and Surfaces

Our U.S. Wallboard and Surfaces segment manufactures and markets gypsum and related products in the United States. These products are used in a variety of building applications to construct walls and ceilings of residential, nonresidential and institutional buildings, as well as in certain industrial applications.

## 2018 COMPARED WITH 2017

Net sales for U.S. Wallboard and Surfaces in 2018 were \$1.9 billion, an increase of \$11 million, or 1%, compared with 2017. The net sales increase was due to the following:

(millions)	Sales		Volume		Price	
	\$	%	\$	%	\$	%
Change to 2018 from 2017						
USG Sheetrock® brand gypsum wallboard	\$(19)	(2)%	\$(50)	(5)%	\$31	3%
USG Sheetrock® brand joint compound	5	2 %	(1 )	— %	6	2%
Other	25					
<b>Total increase in net sales</b>	<b>\$11</b>	<b>1 %</b>				

Sales for USG Sheetrock® brand gypsum wallboard decreased \$19 million in 2018 compared to 2017 due to lower volumes offset by a higher average selling price. We shipped 5.81 billion square feet of USG Sheetrock® brand gypsum wallboard in 2018, a 5% decrease from 6.12 billion square feet in 2017. Offsetting the decrease in volumes were higher average selling prices in USG Sheetrock® brand gypsum wallboard driven by the 2018 price increases.

Sales for USG Sheetrock® brand joint compound increased \$5 million in 2018 compared to 2017 due to a higher average selling price offset by lower volumes. The increase in average selling price was driven by a price increase in the first quarter of 2018. U.S. Wallboard and Surfaces net sales also increased \$25 million due to higher net sales of other products, including glass-mat panels and surfaces products, higher royalties and higher freight as a result of higher sales.

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Operating profit for U.S. Wallboard and Surfaces was \$248 million in 2018 and \$306 million in 2017, or a \$58 million decrease, and reflected the following:

(millions)	Operating Profit (a)	Volume	Price	Cost
	\$	\$	\$	\$
Change to 2018 from 2017				
USG Sheetrock® brand gypsum wallboard	\$ (42 )	\$ (21 )	\$ 31	\$(52)
USG Sheetrock® brand joint compound	(13 )	—	6	(19 )
Other	(3 )			
Total decrease in operating profit	\$ (58 )			

The decrease in operating profit primarily reflected lower gross profits of USG Sheetrock® brand gypsum wallboard and USG Sheetrock® brand joint compound and higher transportation costs and selling and administrative expenses. The lower gross profit of USG Sheetrock® brand gypsum wallboard reflected higher cost per unit and lower volumes offset by higher average selling price. The higher per unit cost primarily reflected an increase in costs per unit of 25% for fixed costs and 10% for conversion costs due to higher labor costs, an increase in costs per unit of 6% for raw materials, primarily for synthetic gypsum, gypsum rock and oil based commodity products offset by lower paper costs.

The lower gross profit for USG Sheetrock® brand joint compound reflected a higher per unit cost offset by higher average selling price. The higher per unit cost for joint treatment reflected increased cost per unit for raw materials, primarily resin used for containers and transportation costs.

Offsetting the higher costs across the segment were \$17 million of savings attributable to our Advanced Manufacturing initiatives and a \$13 million gain on the sale of a surplus property. Increased selling and administrative expenses reflected increased compensation and marketing expenses. As a percentage of sales, selling and administrative expenses increased 40 basis points.

**2017 COMPARED WITH 2016**

Net sales for U.S. Wallboard and Surfaces in 2017 increased \$138 million, or 8%, compared with 2016. The net sales increase was due to the following:

(millions)	Sales		Volume		Price	
	\$	%	\$	%	\$	%
Change to 2017 from 2016						
USG Sheetrock® brand gypsum wallboard	\$52	6%	\$59	6%	\$(7)	<del>%</del>
USG Sheetrock® brand joint compound	21	6%	23	6%	(2)	<del>%</del>
Other	65					
Total increase in net sales	\$138 8%					

The increase in net sales reflected higher volumes of USG Sheetrock® brand gypsum wallboard due to higher shipments to big box retailers and specialty dealers, including new customers, and higher volumes of USG Sheetrock® brand joint compound as a result of higher shipments to big box retailers. We shipped 6.12 billion square feet of USG Sheetrock® brand gypsum wallboard in 2017, a 6% increase from 5.76 square feet in 2016. Offsetting the increase in volumes were lower average selling prices in USG Sheetrock® brand gypsum wallboard and USG Sheetrock® brand joint compound primarily driven by a change in mix and regional pricing differences as we balance price and volume across the country with new customers and the continued transition under the L&W supply agreement.

Sales also increased by \$65 million due to net sales of other products including glass-mat panels, paper and joint compound accessory products, \$8 million in higher royalties and higher freight as a result of higher sales.



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Operating profit for U.S. Wallboard and Surfaces was \$306 million in 2017 and \$328 million in 2016, or a \$22 million decrease, and reflected the following:

(millions)	Operating Profit (a)	Volume	Price	Cost
	\$	\$	\$	\$
Change to 2017 from 2016				
USG Sheetrock® brand gypsum wallboard	\$ (16 )	\$ 26	\$(7 )	\$(35)
USG Sheetrock® brand joint compound	(1 )	6	(2 )	(5 )
Other	(5 )			
Total decrease in operating profit	\$ (22 )			

Results have been adjusted from the originally reported amounts to reflect the adoption of ASU 2017-07 which we (a) adopted on January 1, 2018. See Note 2, Recent Accounting Pronouncements, to our consolidated financial statements in Part II, Item 8 of this report.

The decrease in operating profit primarily reflected higher per unit costs of USG Sheetrock® brand gypsum wallboard and USG Sheetrock® brand joint compound partially offset by higher volumes of these products as discussed above. Higher manufacturing per unit costs of USG Sheetrock® brand gypsum wallboard reflected an increase in per unit cost of 11% for raw materials, primarily due to waste paper. Offsetting the higher costs for raw materials were improved per unit costs of 3% for energy and 2% for fixed costs due to higher volumes. The increased per unit costs of USG Sheetrock® brand joint compound were also driven by increased costs of raw materials.

Further contributing to the decrease in operating profit in 2017 was a \$5 million less favorable adjustment year over year to our asset retirement obligations due to changes in cash flow estimates and the absence of \$9 million for items recorded in 2016, which included a gain of \$11 million for the sale of surplus property offset by a \$2 million adjustment to customer reserves. Offsetting the decrease in operating profit was higher gross profit of \$9 million on other products including glass-mat panels, and lower selling and administrative expenses of \$3 million. As a percentage of sales, selling and administrative expenses decreased 50 basis points.

#### U.S. Performance Materials

Our U.S. Performance Materials segment manufactures and markets a series of innovative products in the United States in the product categories of underlayment, building envelope and structural. These products are used in a variety of interior and exterior building applications of residential and nonresidential buildings, as well as in certain industrial applications.

#### 2018 COMPARED WITH 2017

Net sales for U.S. Performance Materials in 2018 were \$392 million, an increase of \$19 million, or 5%, compared with 2017. The net sales increase was due to the following:

(millions)	Sales		Volume		Price	
	\$	%	\$	%	\$	%
Change to 2018 from 2017						
USG Durock® brand cement board	\$4	3 %	\$1	1 %	\$32	%
USG Performance Flooring	9	13 %	9	13 %	—	— %
Securock® brand roof boards	5	11 %	(1 )	(2 ) %	6	13 %
Other	1					
Total increase in net sales	\$19	5 %				

The increase in net sales was driven by higher volumes of USG Durock® brand cement board, and USG Performance Flooring, which includes Levelrock® brand gypsum underlayment, due to increased shipments to all customer segments and organic growth in key markets. Also driving the increase in U.S. Performance Materials is higher average selling price for USG Durock® brand cement board and Securock® brand roof boards.

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Operating loss for U.S. Performance Materials was \$8 million in 2018 compared to operating profit of \$24 million in 2017, or a \$32 million decrease, and reflected the following:

(millions)	Operating Profit (a)	Volume	Price	Cost
	\$	\$	\$	\$
Change to 2018 from 2017				
USG Durock® brand cement board	\$ (3 )	\$	—\$ 3	\$(6)
USG Performance Flooring	4	9	—	(5 )
Securock® brand roof boards	1	—	6	(5 )
Selling and administrative expenses	(19 )			
Other	(15 )			
Total decrease in operating profit	\$ (32 )			

The decrease in operating profit was driven primarily by higher selling and administrative expenses and miscellaneous costs as well as a higher cost per unit of USG Durock® brand cement board, USG Performance Flooring, including Levelrock® brand gypsum underlayment, and Securock® brand roof boards. The increased cost per unit of each reflected higher raw material and transportation costs. Offsetting the higher costs was improved pricing of USG Durock® brand cement board and USG Securock® brand roof boards and \$5 million of savings across the segment attributable to our Advanced Manufacturing initiatives.

The \$19 million increase in selling and administrative expenses was reflective of increased marketing and compensation expenses, including the addition of technical sales personnel to accelerate the adoption of new products and an \$8 million charge for the termination of a marketing contract. As a percentage of sales, selling and administrative expenses increased 240 basis points. Included in Other was \$10 million of higher miscellaneous costs, including our expansion of our Jacksonville and Delavan facilities and higher depreciation expense.

**2017 COMPARED WITH 2016**

Net sales for U.S. Performance Materials in 2017 increased \$16 million, or 4%, compared with 2016. The net sales increase was due to the following:

(millions)	Sales	Volume	Price
	\$ %	\$ %	\$ %
Change to 2017 from 2016			
USG Durock® brand cement board	\$3 2 %	\$32 %	\$— %
USG Durock™ brand glass-mat tile backerboard	3 39%	3 39%	— %
Fiberock® brand tile backerboard and underlayment	2 7 %	3 12 %	(1)(5)%
Other	8		
Total increase in net sales	\$164 %		

The increase in net sales in 2017 was driven by increased volumes of USG Durock® brand cement board, USG Durock™ brand glass-mat tile backerboard and Fiberock® brand tile backerboard and underlayment. The higher volumes of these products primarily reflected increased sales into the repair and remodel market with higher shipments to big box retailers and specialty dealers. Lower average selling price of Fiberock® brand tile backerboard and underlayment slightly offset the increases in volumes.

The increase in Other reflected higher sales of \$8 million of other products including Securock® brand roof boards, Levelrock® brand gypsum underlayment, tile and flooring accessories and Securock® ExoAir® 430 air barrier system and higher freight due to increased shipments.

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Operating profit for U.S. Performance Materials was \$24 million in 2017 and \$40 million in 2016, or a \$16 million decrease, and reflected the following:

(millions)	Operating Profit (a)	Volume	Price	Cost
	\$	\$	\$	\$
Change to 2017 from 2016				
USG Durock® brand cement board	\$ (2 )	\$ 1	\$ —	\$(3)
USG Durock™ brand glass-mat tile backerboard	1	1	—	—
Fiberock® brand tile backerboard and underlayment	(1 )	1	(1 )	(1 )
Other	(14 )			
Total decrease in operating profit	\$ (16 )			

Results have been adjusted from the originally reported amounts to reflect the adoption of ASU 2017-07 which we (a) adopted on January 1, 2018. See Note 2, Recent Accounting Pronouncements, to our consolidated financial statements in Part II, Item 8 of this report.

The decrease in operating profit in 2017 reflected lower gross profit on USG Durock® brand cement board and Fiberock® brand tile backerboard and underlayment as a result of higher per unit cost offset by higher gross profit on USG Durock™ brand glass-mat tile backerboard. The increased per unit cost for Durock® brand cement board primarily reflected increased transportation costs offset by lower cost of raw materials. The higher cost per unit for Fiberock® brand tile backerboard and underlayment was driven by an increase in the cost of raw materials, primarily waste paper, and increased transportation costs offset slightly by lower energy costs.

Included in Other was lower gross profit on other products of \$8 million, including Securock® brand roof boards, which reflected higher costs of raw materials and transportation costs, a \$1 million increase in operational reserves and \$4 million of higher selling and administrative expenses. As a percentage of sales, selling and administrative expenses increased 100 basis points which reflected increased marketing and compensation costs.

#### U.S. Ceilings

Our U.S. Ceilings segment manufactures and markets interior ceiling systems products in the United States and is a leading supplier of interior ceilings products used primarily in nonresidential applications.

#### 2018 COMPARED WITH 2017

Net sales for U.S. Ceilings increased to \$541 million in 2018, a \$64 million, or 13%, increase from \$477 million in 2017. The increase reflected the following:

(millions)	Sales	Volume	Price
	\$ %	\$ %	\$ %
Change to 2018 from 2017			
Ceiling grid	\$1611%	\$32%	\$139%
Ceiling tile	94%	32%	62%
Specialty ceilings	36 *		
Other	3		
Total increase in net sales	\$64		

\* not meaningful

The increase in net sales of ceiling grid and ceiling tile was primarily driven by higher average selling price and higher volumes. The increased average selling price for ceiling grid resulted from multiple price increases and the higher average selling price for ceiling tile reflected product mix. Further contributing to the increase in net sales for U.S. Ceilings were \$36 million of incremental sales from USG Ceilings Plus for specialty ceilings.

Operating profit for U.S. Ceilings of \$78 million in 2018 decreased \$14 million, or 15%, from \$92 million in 2017. The decrease reflected the following:

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	Operating Profit	Volume	Price	Cost
(millions)	\$	\$	\$	\$
Change to 2018 from 2017				
Ceiling grid	\$ 6	\$ 2	\$ 13	\$(9)
Ceiling tile	(2 )	1	6	(9 )
Other	(18 )			
Total decrease in operating profit	\$ (14 )			

The decrease in operating profit reflected higher selling and administrative expenses and lower gross margin for ceiling tile offset by higher margin for ceiling grid. The increase in ceiling grid gross margin was due primarily to higher average selling price partially offset by higher costs per unit. The higher cost per unit for ceiling grid was driven primarily by increased raw material costs, primarily steel. Gross profit for ceiling tile decreased compared to 2017 due to an increased cost per unit partially offset by higher volumes and a higher average selling price. The increased cost per unit for ceiling tile was due to increased cost for raw materials, primarily mineral fiber costs. The increased costs per unit for both ceiling grid and ceiling tile were slightly offset by \$4 million in incremental savings across the segment from our Advanced Manufacturing initiatives.

The increase in gross profit for ceiling grid was offset by higher costs for USG Ceilings Plus, which included \$7 million of integration costs and \$6 million of additional selling and administrative expenses. As a percentage of sales, selling and administrative expenses for U.S. Ceilings increased by 270 basis points.

**2017 COMPARED WITH 2016**

Net sales for U.S. Ceilings increased to \$477 million in 2017, a \$10 million, or 2%, increase from \$467 million in 2016. The increase reflected the following:

	Sales		Volume		Price	
(millions)	\$	%	\$	%	\$	%
Change to 2017 from 2016						
Ceiling grid	\$(2 )	(1)%	\$(3)	(2)%	\$ 11	%
Ceiling tile	6	2 %	6	2 %	—	—%
Other	6					
Total increase in net sales	\$ 10					

The increase in net sales reflected higher sales of ceiling tile of \$6 million due to higher volumes, primarily to our specialty dealers, offset by lower sales of ceiling grid of \$2 million as a result of lower volumes, primarily to our customers in the retail channel. The increase in other included one month of net sales of \$4 million from USG Ceilings Plus for specialty ceilings, \$1 million in higher royalties and higher freight due to increased sales.

Operating profit for U.S. Ceilings of \$92 million in 2017 decreased \$6 million, or 6%, from \$98 million in 2016. The decrease reflected the following:

	Operating Profit	Volume	Price	Cost
(millions)	\$	\$	\$	\$
Change to 2017 from 2016				
Ceiling grid	\$ (8 )	\$ (2 )	\$ 1	\$(7)
Ceiling tile	(2 )	—	—	(2 )
Other	4			
Total decrease in operating profit	\$ (6 )			

Results have been adjusted from the originally reported amounts to reflect the adoption of ASU 2017-07 which we (a) adopted on January 1, 2018. See Note 2, Recent Accounting Pronouncements, to our consolidated financial statements in Part II, Item 8 of this report.

The decrease in operating profit for 2017 was driven by a decrease in gross profit for both ceiling grid and ceiling tile in 2017 compared with 2016. The lower gross profit for ceiling grid reflected lower volumes and higher per unit cost partially offset by higher average selling price. The higher per unit cost for ceiling grid was due to an increase in raw

materials costs, primarily steel. The decrease in gross profit for ceiling tile primarily reflected higher per unit cost which was driven by an

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increase in energy costs due to higher prices of natural gas. Other primarily included a decrease in miscellaneous costs and selling and administrative expenses. As a percentage of sales, selling and administrative expenses declined by 50 basis points.

Canada <sup>(a)</sup>

Our Canada segment manufactures gypsum products and ceiling grid and markets gypsum products, ceiling grid and ceiling tile in Canada and is a leading supplier of gypsum wallboard. These products are used in a variety of building applications, including residential, nonresidential and institutional buildings, as well as in certain industrial applications.

2018 COMPARED WITH 2017

Net sales for our Canada segment in 2018 were \$448 million, an increase of \$43 million compared to net sales in 2017 of \$405 million. Sales of gypsum wallboard increased \$23 million due to a 6% increase of average selling price and a 4% increase in volume. Also increasing Canada net sales were \$6 million for glass-mat panels and industrial gypsum products, \$3 million of specialty ceilings, \$3 million for ceiling tile and grid and increased freight costs.

Operating profit for our Canada segment was \$19 million in 2018 compared with \$13 million in 2017. Gross profit for gypsum wallboard increased \$8 million due to higher volume and higher average selling price offset by a higher per unit cost. Gross profit of other products was flat compared to 2017. Selling and administrative expenses increased \$2 million in 2018 compared to 2017.

2017 COMPARED WITH 2016

Net sales for our Canada segment in 2017 were \$405 million, an increase of \$16 million compared to net sales in 2016 of \$389 million. Sales of gypsum wallboard increased \$15 million due to a 10% increase of average selling price offset by a 2% decrease in volume. The increase in the average selling price reflected the final decisions of the Canadian authorities on the minimum pricing of gypsum board into Western Canada. The decisions were as a result of an anti-dumping proceeding initiated by a competing Canadian wallboard manufacturer. The minimum pricing of gypsum board in Western Canada also reduced our volumes. The increase in net sales in 2017 was also driven by an increase of \$5 million in other products, including glass-mat panels, industrial products and specialty ceilings, and a favorable impact of foreign currency translation of \$7 million offset by a decrease in net sales of joint treatment of \$3 million and ceiling tile of \$2 million and lower freight of \$6 million.

Operating profit for our Canada segment was \$13 million in 2017 compared with \$27 million in 2016. This decrease of \$14 million reflected a lower gross profit on joint treatment of \$3 million and ceiling grid of \$1 million. Also negatively impacting operating profit were increased royalties of \$9 million, higher losses on our foreign exchange contracts of \$7 million and higher other miscellaneous costs of \$4 million. Offsetting these reductions to operating profit was an increase in gross profit for gypsum wallboard of \$10 million driven primarily by the increase in average selling price offset by an increase of 6% in cost due to higher costs of waste paper. Selling and administrative expenses decreased 40 basis points as a percentage of sales.

Results have been adjusted from the originally reported amounts to reflect the adoption of ASU 2017-07 which we (a) adopted on January 1, 2018. See Note 2, Recent Accounting Pronouncements, to our consolidated financial statements in Part II, Item 8 of this report.

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## USG Boral Building Products

UBBP, our 50/50 joint ventures with Boral, manufactures, distributes and sells certain building products, mines raw gypsum and sells natural and synthetic gypsum throughout Asia, Australasia and the Middle East. UBBP also manufactures and distributes products for wall, ceiling, floor lining and exterior systems that utilize gypsum wallboard, referred to as plasterboard in the regions in which UBBP operates, mineral fiber ceiling tiles, steel grid and joint compound. See Note 4, Equity Method Investments, for additional information regarding the default notice under the UBBP Shareholders Agreement delivered by Boral in connection with the Merger.

The following reflects the net sales and operating profit as recorded by UBBP and the equity income recorded by USG:

(millions)	2018	2017	2016	Favorable (Unfavorable)			
				2018 vs. 2017		2017 vs. 2016	
	\$		\$	%	\$	%	
Net sales	\$1,182	\$1,200	\$1,052	\$(18)	(2)%	\$148	14%
Operating profit <sup>(a)</sup>	117	160	133	(43)	(27)%	27	20%
USG share of income from investment accounted for using the equity method <sup>(b)</sup>	42	59	49	(17)	(29)%	10	20%

<sup>(a)</sup> Operating profit in 2016 included long-lived asset impairment charges of \$14 million for Oman and \$8 million for China.

<sup>(b)</sup> USG share of income from investment accounted for using the equity method in 2016 included long-lived asset impairment charges of \$4 million for Oman and \$4 million for China.

## 2018 COMPARED WITH 2017

Net sales for UBBP decreased \$18 million to \$1.2 billion in 2018. The decrease reflected lower shipments of plasterboard in South Korea and China, partially offset by higher shipments in Australia, Thailand, India and Vietnam. Plasterboard shipments decreased 3% in 2018 to 4.7 billion square feet from 4.9 billion square feet in 2017. Shipments of adjacent products, including mineral fiber ceiling tiles and performance material products increased in 2018 as compared to 2017. Net sales of UBBP also reflected an unfavorable impact of currency translation of \$10 million. Operating profit for UBBP decreased to \$117 million in 2018 from \$160 million in 2017. Operating profit in 2018 reflected lower margins in South Korea, Thailand, Indonesia and Australia. Lower margins were reflective of higher input costs, including energy and raw materials of waste paper, steel, and gypsum, which were partially offset by lower selling and administrative expenses.

Our share of equity income from UBBP was \$42 million in 2018 compared to \$59 million in 2017. The decrease reflected lower net income recorded by UBBP.

## 2017 COMPARED WITH 2016

Net sales for UBBP increased \$148 million to \$1.2 billion in 2017. The increase reflected higher shipments of plasterboard in South Korea, China, Australia, and Thailand, offset by lower shipments in Vietnam and Thailand. Plasterboard shipments increased 7% in 2017 to 4.9 billion square feet from 4.6 billion square feet in 2016 and reflected continued improved market acceptance of lightweight products. Shipments of adjacent products, including joint compounds and steel studs, also increased in 2017 as compared to 2016. Net sales of UBBP also reflected a favorable impact of currency translation of \$27 million.

Operating profit for UBBP increased to \$160 million in 2017 from \$133 million in 2016. The increase of \$27 million reflected improved margins in Australia, South Korea, Thailand, China and Indonesia. While margins improved overall, UBBP incurred higher costs for raw materials, notably waste paper, steel, and energy. UBBP's operating profit also included a favorable currency impact of \$4 million. Offsetting the increased margins were higher selling and administrative expenses reflective of higher sales. Operating profit for 2016 also included impairment of long-lived assets in China of \$8 million and in Oman of \$14 million.

Our share of equity income from UBBP was \$59 million in 2017 compared to \$49 million in 2016. The increase was driven by a favorable currency impact of \$2 million and the absence of the 2016 long-lived asset impairment charges. Corporate<sup>(a)</sup>

Operating expenses for Corporate were \$124 million in 2018, \$92 million in 2017 and \$93 million in 2016. The increase reflected Merger-related costs of \$19 million, \$5 million for a legal judgment on a contract dispute from 2004 and business realignment costs of \$5 million. The remaining increase of \$3 million primarily reflected increased costs for information technology and professional fees related to system implementation offset by lower incentive compensation expenses.



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The decrease of \$1 million in 2017 from 2016 reflected the absence of \$4 million in charges for the remaining lease term and accelerated depreciation associated with the exit of commercial office space, and lower costs for incentive compensation offset by higher costs for marketing and services including those in support of product growth initiatives.

<sup>(a)</sup> Results for 2017 and 2016 have been adjusted from the originally reported amounts to reflect the adoption of ASU 2017-07 which we adopted on January 1, 2018. See Note 2, Recent Accounting Pronouncements, to our consolidated financial statements in Part II, Item 8 of this report.

## Liquidity and Capital Resources

## LIQUIDITY

As of December 31, 2018, we had \$426 million of cash and cash equivalents and marketable securities compared with \$493 million as of December 31, 2017. See discussion below under Cash Flows for an explanation of this change. Our total liquidity was \$597 million as of December 31, 2018 (including \$171 million of borrowing availability under our credit facility) compared to \$648 million as of December 31, 2017 (including \$155 million of borrowing availability under our credit facility). The decrease in liquidity primarily reflected lower operating performance in 2018.

We invest in cash equivalents and marketable securities pursuant to an investment policy that has preservation of principal as its primary objective. The policy includes provisions regarding diversification, credit quality and maturity profile that are designed to minimize the overall risk profile of our investment portfolio. The securities in the portfolio are subject to normal market fluctuations. See Note 5, Marketable Securities, to the consolidated financial statements in Part II, Item 8 of this report for additional information regarding our investments in marketable securities.

Total debt as of December 31, 2018 and 2017 consisted of senior notes and industrial revenue bonds and amounted to \$1.079 billion (\$1.089 billion in aggregate principal amount less \$10 million of unamortized debt issuance costs) and \$1.078 billion (\$1.089 billion in aggregate principal amount less \$11 million of unamortized debt issuance costs), respectively. See Note 6, Debt, to the consolidated financial statements in Part II, Item 8 of this report for additional information about our debt.

We maintain a credit facility with a maximum borrowing limit of \$220 million (including a \$50 million borrowing sublimit for our subsidiary CGC Inc. (or CGC) that is available to fund working capital needs and other general corporate purposes and matures on May 1, 2022. The facility is guaranteed by certain of our significant subsidiaries and secured by such parties' eligible trade receivables and inventory. The maximum borrowing limit under the credit agreement may be increased up to \$450 million at our request and with our lenders' approval. The credit agreement contains other covenants and events of default that are customary for similar agreements. The credit agreement specifies that the maximum principal that may be borrowed is impacted by any outstanding borrowings and letters of credit under the credit agreement, by a borrowing base (comprised of eligible trade receivables and inventory), and the minimum excess availability that may be required due to the Covenant Trigger Threshold, described below, being applicable. As of December 31, 2018, the maximum principal we could borrow after taking into account the foregoing factors was approximately \$171 million.

The credit agreement contains a covenant that would require us to maintain a minimum fixed charge coverage ratio of not less than 1.0-to-1.0 in the event that excess availability falls below the Covenant Trigger Threshold equal to 10% of the lesser of (a) the aggregate revolving commitment and (b) the aggregate of the USG and CGC borrowing base. As of December 31, 2018, our fixed charge coverage ratio was 1.29-to-1.0; and therefore, we are not required to maintain minimum excess availability of no less than the Covenant Trigger Threshold so that the financial covenant will remain inapplicable.

As of December 31, 2018 and during the year then ended, there were no borrowings under the facility. Had there been any borrowings as of that date, the applicable interest rate would have been 3.81% for loans in the U.S. and 3.31% for loans in Canada. Outstanding letters of credit as of December 31, 2018 totaled \$19 million.

Under the Merger Agreement, we are prohibited from incurring, guaranteeing or assuming any indebtedness, or issuing or selling any debt securities, guarantees, loans or advances that were not in existence as of the date of the Merger Agreement, subject to certain exceptions.



Table of Contents**CASH FLOWS**

The following table presents a summary of our cash flows:

(millions)	2018	2017	2016
Net cash provided by (used for):			
Operating activities from continuing operations	\$281	\$382	\$314
Investing activities from continuing operations	(195 )	(225 )	70
Financing activities from continuing operations	(150 )	(202 )	(1,129)
Discontinued operations	3	6	726
Effect of exchange rate changes on cash	(5 )	6	(5 )
Net decrease in cash and cash equivalents	\$(66 )	\$(33 )	\$(24 )

Operating Activities: Net cash provided by operating activities decreased in 2018 from 2017 due primarily to lower operating margins and an increase in cash outflows related to working capital. This was led by an increase in inventories due to increased costs for raw materials and higher balances of finished goods, slightly offset by an increase in accounts payable, which also reflected higher costs of materials. We received \$12 million less in dividends from UBBP compared to 2017. In 2018, we contributed \$63 million to our pension and postretirement plans as compared to \$77 million in 2017. We made \$53 million in interest payments, net of capitalized interest, in 2018 as compared to \$82 million in 2017. The decrease in interest payments primarily reflected lower interest rates on our outstanding debt throughout 2018.

As of December 31, 2018, working capital (current assets less current liabilities) amounted to \$550 million, and the ratio of current assets to current liabilities was 2.31-to-1. As of December 31, 2017, working capital amounted to \$576 million, and the ratio of current assets to current liabilities was 2.39-to-1.

Higher cash provided by operating activities in 2017 compared to 2016 was due primarily to lower cash payments to our pension and postretirement plans and lower cash payments for interest. In 2017, we contributed \$77 million to our pension and postretirement plans as compared to \$174 million in 2016. We made \$82 million in interest payments in 2017 as compared to \$153 million in 2016. The decrease in interest payments primarily reflected lower debt levels and lower interest rates on outstanding debt. These lower cash outflows were offset by an increase in cash outflows related to working capital. This was led by an increase in accounts receivable as a result of higher sales, an increase in inventories due to increased costs for raw materials and a decrease in accrued employee compensation and interest expense, offset by an increase in accounts payable, which also reflected higher costs of materials.

Investing Activities: Investing cash flows used \$195 million of net cash in 2018 and \$225 million during 2017, a decrease of \$30 million. Significant cash outflows in 2018 included \$219 million for capital expenditures as compared to \$168 million in 2017. The increase of \$51 million for capital expenditures reflected expenditures for the replacement, modernization and expansion of operations, including Advanced Manufacturing initiatives. This was offset by net sales of marketable securities of \$1 million in 2018 compared to net purchases of \$8 million in 2017. In addition, in 2018 we disposed of assets and an equity method investment which generated \$17 million of cash and we received a \$4 million payment on a loan from a related party. Significant cash outflows in 2017 that did not repeat in 2018 included \$52 million for the acquisition of Ceilings Plus.

Investing cash flows used \$225 million of net cash in 2017 and provided \$70 million of net cash during 2016. Net purchases of marketable securities was \$8 million in 2017, compared to net sales of \$139 million in 2016. Significant cash outflows in 2017 reflected \$168 million for capital expenditures and \$52 million for our acquisition of Ceilings Plus. The increase of \$85 million in 2017 as compared to 2016 for capital expenditures reflected expenditures for the replacement, modernization and expansion of operations, including Advanced Manufacturing initiatives.

Financing Activities: The net cash used for financing activities in 2018 reflected the repurchase of \$76 million of common stock under our stock repurchase program. See Part II, Item 5 of this report for restrictions on our stock repurchase program. We also paid \$70 million for the conditional special dividend pursuant to the Merger Agreement. See Note 19, Merger Agreement, in Part II, Item 8 of this report for additional information regarding the conditional special dividend and the Dividend Make-Whole Amount Plan.

The net cash used for financing activities in 2017 was driven by the \$520 million paid to redeem \$500 million of our 7.75% Notes, including tender premiums, and the repurchase of \$184 million of common stock under our stock

repurchase program. This was partially offset by the issuance of \$500 million of our 4.875% Senior Notes due 2027, referred to as our 4.875% Notes, net of debt issuance fees. The net cash used for financing activities in 2016 included the repayment of \$1.1 billion of debt during the year.

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Discontinued Operations: Net cash provided by discontinued operations was \$3 million, \$6 million and \$726 million for 2018, 2017 and 2016, respectively. The cash received in 2017 primarily reflected a working capital adjustment associated with the sale of L&W. The cash inflow in 2016 reflected the cash received for the sale of L&W for \$669 million and higher cash inflows for accounts payable offset by higher cash outflows for accounts receivable and inventories.

**LIQUIDITY OUTLOOK**

In 2019, we plan to spend approximately \$200 million on capital expenditures in the normal course of our business, which includes approximately \$50 million allocated for Advanced Manufacturing projects to standardize and automate production across our businesses, approximately \$76 million for growth investments, and approximately \$74 million for maintenance. Estimated future spending on approved capital expenditures for the replacement, modernization and expansion of operations totaled \$173 million as of December 31, 2018. We have slowed the pace of investment in Advanced Manufacturing based on business conditions and investment priorities, and intend to invest \$300 million total over a longer period than originally planned. The program has delivered the anticipated benefits to date and we continue to expect to achieve \$100 million in incremental EBITDA, but over a longer timeframe than originally communicated.

Interest payments for 2019 are expected to be \$57 million. We expect to fund our capital expenditures and our interest payments with cash from operations or cash on hand.

Our Board of Directors has approved the authorization to repurchase up to \$500 million under our stock repurchase program. As of December 31, 2018, we have repurchased \$260 million, leaving \$240 million of authorization remaining. The program remains in effect and has no set expiration date; however, there has been no repurchase activity under the program since April 2018. In addition, the Merger Agreement limits our ability to repurchase shares of our common stock, subject to certain exceptions. Share repurchases under the program will not continue as long as the Merger Agreement is in effect and has not been terminated.

The Merger Agreement also contains certain termination rights for both USG and Knauf. If the Merger Agreement is terminated under certain specified circumstances, we will be required to pay Knauf a termination fee of \$215 million. Since formation, UBBP was funded from its net cash flows from operations and third-party financing. It is our intent that as an ongoing operation, UBBP will continue to self-fund. UBBP targets the distribution of 50% of combined after tax profits to USG and Boral; however, this dividend may be adjusted by the UBBP board with unanimous resolution. During the second and fourth quarters of 2018, UBBP paid cash dividends on earnings through September 2018 of which our 50% share totaled \$30 million.

Had certain U.S. Dollar denominated performance targets been satisfied by UBBP, we would have been obligated to pay Boral an earnout payment in an amount up to \$50 million in 2019, based on UBBP performance during the first five years. The performance period ended on December 31, 2018. Because the performance targets were not achieved, no earnout will be paid.

We believe that cash on hand, cash equivalents, marketable securities, cash available from future operations and our credit facility will provide sufficient liquidity to fund our operations for at least the next 12 months. Cash requirements include, among other things, capital expenditures, working capital needs, employee retirement plans funding, interest payments and other contractual obligations.

Table of Contents**CONTRACTUAL OBLIGATIONS AND OTHER COMMITMENTS**

As of December 31, 2018, our contractual obligations and commitments were as follows:

(millions)	Payments Due by Period				
	Total	2019	2020-2021	2022-2023	Thereafter
Debt obligations (a)	\$1,089	\$—	\$ —	\$ —	\$ 1,089
Other long-term liabilities (b)	487	5	26	4	452
Interest payments (c)	513	57	114	115	227
Purchase obligations (d)	624	187	225	63	149
Capital expenditures (e)	150	100	50	—	—
Operating leases	136	46	66	18	6
Unrecognized tax benefits (f)	14	1	7	5	1
Total	\$3,013	\$396	\$ 488	\$ 205	\$ 1,924

(a) Excludes unamortized deferred issuance costs of \$10 million.

(b) Other long-term liabilities primarily consist of asset retirement obligations that principally extend over a 50-year period. The majority of associated payments are payable toward the latter part of that period.

(c) Reflects estimated interest payments on debt obligations as of December 31, 2018.

(d) Purchase obligations primarily consist of contracts to purchase energy, certain raw materials and finished goods.

(e) Reflects estimates of future spending on active capital projects that were approved prior to December 31, 2018 but were not completed by that date.

(f) Reflects estimated payments (if required) of gross unrecognized tax benefits.

The table above excludes liabilities related to both our defined benefit pension plans and postretirement benefits (retiree health care and life insurance). For 2018, our defined benefit pension plans had no minimum funding requirements under the Employee Retirement Income Security Act of 1974. We are evaluating our level of funding for pension plans and currently estimate that we will contribute approximately \$62 million to our pension plans in 2019. We voluntarily provide postretirement benefits for eligible employees and retirees and estimate cash payments to be \$9 million in 2019. See Note 9, Employee Retirement Plans, to the consolidated financial statements in Part II, Item 8 for additional information on future expected cash payments for pension and other postretirement benefits.

**OFF-BALANCE-SHEET ARRANGEMENTS**

With the exception of letters of credit, it is not our business practice to use off-balance-sheet arrangements, such as third-party special-purpose entities.

**GUARANTEES**

We are party to a variety of agreements under which we may be obligated to indemnify a third party with respect to certain matters. We do not consider the maximum potential amount of future payments that we could be required to make under these agreements to be material.

**Legal Contingencies**

We are named as defendants in litigation arising from our operations, including lawsuits or claims arising from commercial disputes, product performance or warranties, product liability, and worksite or vehicular accidents. In 2015, USG, our subsidiary United States Gypsum Company, our former subsidiary L&W Supply Corporation, and seven other wallboard manufacturers were named as defendants in a lawsuit filed by twelve homebuilders alleging that the defendants conspired to fix the price of wallboard sold in the United States. Earlier, in 2013, class action lawsuits making similar allegations were filed in Canada on behalf of a class of purchasers of wallboard in Canada. We believe that the cost, if any, of resolving the homebuilders' lawsuit and Canadian class action litigation will not have a material effect on our results of operations, financial position or cash flows. In 2015, United States Gypsum Company was served with a federal grand jury subpoena requesting the production of company records in connection with a federal investigation of the gypsum drywall industry. Two former employees of USG have also been served with subpoenas. In the third quarter of 2018, we were informed that the grand jury investigation was closed. No charges were brought.

See Note 17, Litigation, to the consolidated financial statements in Part II, Item 8 of this report for additional information regarding litigation matters. See, also, Part I, Item 1A, Risk Factors, for information regarding the possible effects of environmental laws and regulations on our businesses.

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## Critical Accounting Policies

In preparing our consolidated financial statements in conformity with accounting principles generally accepted in the United States, we make decisions that impact the reported amounts of assets, liabilities, revenues and expenses, and related disclosures. Such decisions include the selection of the appropriate accounting principles to be applied and the assumptions on which to base accounting estimates. In reaching such decisions, we apply judgments based on our understanding and analysis of the relevant circumstances, current developments and historical experience. Actual amounts could differ materially from those estimated at the time the consolidated financial statements are prepared. Our significant accounting policies are described in Note 1 to the consolidated financial statements in Part II, Item 8 of this report. Some of these significant accounting policies require us to make difficult, subjective or complex judgments or estimates. An accounting estimate is considered to be critical if it meets both of the following criteria: (1) the estimate requires assumptions about matters that are highly uncertain at the time the accounting estimate is made and (2) different estimates reasonably could have been used, or changes in the estimate are reasonably likely to occur from period to period, that would have a material impact on the presentation of our financial condition, changes in financial condition, results of operations or cash flows. Our critical accounting estimates are as follows:

**EMPLOYEE RETIREMENT PLANS**

We maintain defined benefit pension plans for most of our employees. Most of these plans require employee contributions in order to accrue benefits. We also maintain plans that provide postretirement benefits (retiree health care and life insurance) for eligible existing retirees and for eligible active employees who may qualify for coverage in the future. The accounting for these plans depend on assumptions made by management, which are used by actuaries we engage to calculate the projected and accumulated benefit obligations and the annual expense recognized for these plans. The assumptions used in developing the required estimates primarily include discount rates, expected return on plan assets for the funded plans, compensation increase rates, retirement rates, mortality rates and, for postretirement benefits, retirement rates and levels of a company-provided subsidy.

We determined the assumed discount rate based on a hypothetical AA yield curve represented by a series of annualized individual discount rates. Each underlying bond issue is required to have a credit rating of Aa or better by Moody's Investors Service or a credit rating of AA or better by Standard & Poor's Global Ratings. We consider the underlying types of bonds and our projected cash flows of the plans in evaluating the yield curve selected. The use of a different discount rate would impact net pension and postretirement benefit costs and benefit obligations. In determining the expected return on plan assets, we use a "building block" approach, which incorporates historical experience, our pension plan investment guidelines, asset allocation, and expectations for long-term rates of return. The use of a different rate of return would impact net pension cost. A one-half percentage point change in the assumed discount rate and return on plan asset rate would have the following effects (dollars in millions):

Assumptions	Percentage Change	Increase (Decrease) in	
		2019 Net Annual Benefit Cost	2018 Projected Benefit Obligation
<b>Pension Benefits:</b>			
Discount rate	0.5% increase	\$(7)	\$(79)
Discount rate	0.5% decrease	7	87
Expected return on plan assets	0.5% increase	(8)	N/A
Expected return on plan assets	0.5% decrease	8	N/A
<b>Postretirement Benefits:</b>			
Discount rate	0.5% increase	\$(1)	\$(8)
Discount rate	0.5% decrease	1	9

Compensation increase rates are based on historical experience and anticipated future management actions.

Retirement rates are based primarily on actual plan experience, while standard actuarial tables are used to estimate mortality rates.



We no longer have significant exposure to health care cost trend rates due to the modifications we made to our U.S. postretirement health care plan. The changes limit the increase in the annual amount we pay for retiree health care coverage for certain current and future retirees to 3%. They also require retiree medical plan participants to purchase individual coverage in the Affordable Insurance Exchanges or individual Medicare marketplace using a company-funded subsidy based upon years of service at retirement.

Results that differ from these assumptions are accumulated and amortized over future periods and, therefore, generally affect the net benefit cost of future periods. The sensitivity of assumptions reflects the impact of changing one assumption at a

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time and is specific to conditions at the end of 2018. Economic factors and conditions could affect multiple assumptions simultaneously, and the effects of changes in assumptions are not necessarily linear.

See Note 9, Employee Retirement Plans, to our consolidated financial statements in Part II, Item 8 of this report for additional information regarding costs, plan obligations, plan assets discount rates and other assumptions.

**INCOME TAXES**

We record income taxes (benefit) under the asset and liability method. Under this method, deferred tax assets and liabilities are recognized based on the future tax consequences to temporary differences between the financial statement carrying values of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply in the years in which the temporary differences are expected to be recovered or paid.

The 2017 Tax Act amended the Internal Revenue Code to reduce tax rates and modify policies, credits and deductions. For businesses, the 2017 Tax Act reduced the corporate federal tax rate from a maximum of 35% to a flat 21%. The provisional effect on deferred tax assets and liabilities of the change in tax rates was recognized in earnings in the period ended December 31, 2017, which was when the change was enacted, and finalized in the fourth quarter of 2018 at the completion of the Staff Accounting Bulletin 118 measurement period. As a result, in the fourth quarter of 2018 we recorded a tax benefit of \$11 million resulting from the release of a portion of the valuation allowance on our foreign tax credit carryforward, as well as a reversal of sequestration previously recorded on our AMT credits based upon recently issued guidance from the United States Office of Management and Budget. Ongoing guidance and accounting interpretation for the 2017 Tax Act are expected over the coming months and years and we will consider any changes in the accounting for the 2017 Tax Act in the period in which such additional guidance is issued. We do not expect the ongoing guidance and interpretations to have a material impact on our financial statements.

A reduction of the carrying values of deferred tax assets by a valuation allowance is required 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 periodically. 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, the duration of statutory carryforward periods, our experience with operating loss and tax credit carryforwards not expiring unused and tax planning strategies. A history of cumulative losses for a certain threshold period is a significant form of negative evidence used in the assessment, and we are required to have a policy regarding the duration of the threshold period. We believe the historical cyclical nature of our operations show economic cycles ranging from 7 to 10 years with demand troughs historically showing recovery over four years. Accordingly, we have a policy of four years as our threshold period for cumulative losses.

We weigh, based upon the level of objectivity, all available evidence in our assessment related to the realization of deferred tax assets. Our ability to generate sufficient taxable income in the future, taking into consideration federal foreign tax credits limitations and expirations and state laws on net operating loss, or NOL, expirations, will determine the need for a valuation allowance.

We recognize the tax benefits of an uncertain tax position only if those benefits are more likely than not 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 14, Income Taxes, to our consolidated financial statements in Part II, Item 8 of this report for additional information regarding these items.

**Recently Issued Accounting Pronouncements**

See Note 2, Recent Accounting Pronouncements, to the consolidated financial statements in Part II, Item 8 of this report for information related to new accounting standards.

**Forward-Looking Statements**

This report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 related to management's expectations about future conditions, including, but not limited to, statements regarding the Merger with Knauf, including expected timing, completion and effects of the Merger and its pendency. Any forward-looking statements

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represent our views only as of the date of this report and should not be relied upon as representing our views as of any subsequent date, and we undertake no obligation to update any forward-looking statement. Forward-looking statements include, but are not limited to, statements under the following headings: (1) “Business” about: (a) the availability of synthetic gypsum and sufficiency of energy supplies; and (b) demand for new products and systems that meet regulatory and customer sustainability standards and preferences and our ability to provide such products and systems to maintain our competitive position; (2) “Risk Factors” about significant factors that may adversely affect us and our industry, including the Merger; (3) “Legal Proceedings” and “Legal Contingencies” about the outcome and effect of ongoing and future legal and governmental proceedings; and (4) “Management’s Discussion and Analysis” about: (a) market conditions and outlook, including anticipated changes in new residential and nonresidential construction and repair and remodel spending, the construction industries in the U.S. and Canada and the countries within the UBBP territory, UBBP's effect on the cyclical nature of our North American businesses, U.S. industry shipments of gypsum board, demand for gypsum wallboard and industry capacity utilization rate, and our selling prices and margins; (b) our liquidity outlook, including our expected capital expenditures and interest payments, and the funding thereof, our planned investment, timing and returns from our Advanced Manufacturing projects, the execution of our stock repurchase program, UBBP's dividend policy and its ability to self-fund, and cash requirements and adequacy of resources to fund them; (c) future contributions to our pension plans and cash payments for postretirement benefits; and (d) the impact of ongoing tax guidance and interpretations.

Some of the risk factors that affect our business and financial results are discussed in this report under the caption “Risk Factors.” You should recognize that actual business, market or other conditions, including the risk factors discussed in “Risk Factors” and those described elsewhere in this report or in our other SEC filings, could cause our actual results to differ materially from those stated in the forward-looking statements.

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**Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

We use derivative instruments to manage selected commodity price and foreign currency exposures. We do not use derivative instruments for speculative trading purposes, and we typically do not hedge beyond five years.

**COMMODITY PRICE RISK**

We use swap contracts to manage our exposure to fluctuations in commodity prices associated with anticipated purchases of natural gas. Currently, a significant portion of our anticipated purchases of natural gas is hedged for 2019. The aggregate notional amount of these hedge contracts in place as of December 31, 2018 was 41 million mmBTUs, and they mature by December 31, 2022. We review our positions regularly and make adjustments as market and business conditions warrant. The fair value of these contracts was a \$12 million unrealized loss as of December 31, 2018.

A sensitivity analysis was prepared to estimate the potential change in the fair value of our natural gas hedge contracts assuming a hypothetical 10% change in market prices. Based on the results of this analysis, which may differ from actual results, the potential change in the fair value of our natural gas hedge contracts was \$9 million as of December 31, 2018 and 2017. This analysis does not consider the underlying exposure.

**FOREIGN CURRENCY EXCHANGE RISK**

We have foreign exchange forward contracts to hedge forecasted purchases of products and services denominated in foreign currencies. The notional amount of these contracts was \$98 million as of December 31, 2018, and they mature by December 31, 2019. The fair value of these contracts was a \$6 million unrealized gain as of December 31, 2018.

A sensitivity analysis was prepared to estimate the potential change in the fair value of our foreign exchange forward contracts assuming a hypothetical 10% change in foreign exchange rates. Based on the results of this analysis, which may differ from actual results, the potential change in the fair value of our foreign exchange forward contracts as of December 31, 2018 and 2017 was \$10 million and \$11 million, respectively. This analysis does not consider the underlying exposure.

**INTEREST RATE RISK**

As of December 31, 2018, all of our outstanding debt was fixed-rate debt. Consequently, our debt is not subject to risk from changing interest rates.

A sensitivity analysis was prepared to estimate the potential change in fair value of our marketable securities portfolio assuming a hypothetical 100-basis-point increase in interest rates. Based on the results of this analysis, which may differ from actual results, the potential change in fair value of our marketable securities as of December 31, 2018 and 2017 was immaterial in both years.

See Notes 1, Significant Accounting Policies, and 7, Derivative Instruments, to the consolidated financial statements in Part II, Item 8 for additional information regarding our financial exposures.

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All other schedules have been omitted because they are not required or applicable or the information is included in the consolidated financial statements or notes thereto.

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CONSOLIDATED STATEMENTS OF INCOME

(millions, except share and per-share data)	Years Ended December 31,		
	2018	2017	2016
Net sales	\$3,336	\$ 3,204	\$ 3,017
Cost of products sold	2,730	2,548	2,317
Gross profit	606	656	700
Selling and administrative expenses	379	303	297
Long-lived asset impairment charges	—	—	10
Recovery of receivable	—	—	(3 )
Operating profit	227	353	396
Income from equity method investments	42	59	49
Interest expense	(57 )	(69 )	(145 )
Interest income	7	4	4
Loss on extinguishment of debt	—	(22 )	(37 )
Other income, net	8	10	7
Income from continuing operations before income taxes	227	335	274
Income tax expense	(34 )	(238 )	(63 )
Income from continuing operations	193	97	211
Income (loss) from discontinued operations, net of tax	3	(9 )	20
Gain on sale of discontinued operations, net of tax	—	—	279
Net income	\$196	\$ 88	\$ 510
Earnings per common share - basic:			
Income from continuing operations	\$1.38	\$ 0.67	\$ 1.45
Income (loss) from and gain on sale of discontinued operations	0.02	(0.06 )	2.04
Net income	\$1.40	\$ 0.61	\$ 3.49
Earnings per common share - diluted:			
Income from continuing operations	\$1.36	\$ 0.66	\$ 1.44
Income (loss) from and gain on sale of discontinued operations	0.02	(0.06 )	2.02
Net income	\$1.38	\$ 0.60	\$ 3.46
Average common shares	140,250,482	144,447,488	145,929,506
Dilutive awards under long-term incentive plan	2,360,818	2,263,358	1,731,473
Average diluted common shares	142,611,300	146,710,846	147,660,979
Cash dividend declared per share	\$0.50	\$ —	\$ —
See accompanying Notes to Consolidated Financial Statements			

Table of ContentsUSG CORPORATION  
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(millions)	Years Ended December 31,		
	2018	2017	2016
Net income	\$196	\$88	\$510
Other comprehensive income (loss), net of tax:			
Derivatives qualifying as cash flow hedges:			
Gain (loss) on derivatives qualifying as cash flow hedges, net of tax (benefit) of \$1, (\$10), and \$2, respectively	6	(14)	1
Less: Reclassification adjustment for loss on derivatives included in net income, net of tax (benefit) of \$0, (\$3), and (\$4), respectively	(2)	(3)	(6)
Net derivatives qualifying as cash flow hedges	8	(11)	7
Pension and postretirement benefits:			
Changes in pension and postretirement benefits, net of tax (benefit) of \$9, (\$27), and (\$19), respectively	28	(65)	(34)
Less: Amortization of prior service cost included in net periodic benefit cost, net of tax (benefit) of (\$2), (\$10), and (\$7), respectively	(6)	(14)	(9)
Net pension and postretirement benefits	34	(51)	(25)
Foreign currency translation:			
Changes in foreign currency translation, net of tax of \$0 in all periods	(40)	58	(53)
Less: Translation loss realized upon sale of foreign equity method investment, net of tax (benefit) of (\$2), \$0, and \$0, respectively	(4)	—	—
Net foreign currency translation	(36)	58	(53)
Other comprehensive income (loss), net of tax	6	(4)	(71)
Comprehensive income	\$202	\$84	\$439

See accompanying Notes to Consolidated Financial Statements



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USG CORPORATION  
 CONSOLIDATED BALANCE SHEETS

(millions,  
 except  
 share data)  
 December 31,  
 2018      2017

Assets

Cash  
 and  
 cash  
 equivalents  
 Short-term  
 marketable  
 securities  
 Receivables  
 (net  
 of  
 reserves:  
 2018  
 - 233      233  
 \$10  
 and  
 2017  
 -  
 \$9)

Inventories 252

Income  
 taxes  
 receivable  
 Other  
 current  
 assets  
 Total  
 current  
 assets

Long-term  
 marketable  
 securities  
 Property,  
 plant  
 and  
 equipment,  
 net  
 Deferred  
 income  
 taxes

2018      2017

\$328      \$394

55      62

233      233

10      9

252      252

15      15

44      35

991      991

37      37

838      1,762

287      287

662      686

Equity  
method  
investments  
Goodwill  
and  
40 43  
intangible  
assets  
Other  
42 45  
assets  
Total  
\$3,842 \$3,851  
assets

Liabilities  
and  
Stockholders'  
Equity  
Accounts  
\$290 \$280  
payable  
Accrued  
129 135  
expenses  
Income  
taxes —  
payable  
Total  
current 415  
liabilities  
Long-term  
1,079 1,078  
debt  
Deferred  
income 4  
taxes  
Pension  
and  
of 254 326  
postretirement  
benefits  
Other  
164 183  
liabilities  
Total  
1,923 2,006  
liabilities

Stockholders'  
Equity:  
Preferred —  
stock  
– \$1  
par  
value,  
authorized  
36,000,000  
shares;  
outstanding

-  
 none  
 Common  
 stock  
 – \$0.10  
 par  
 value;  
 authorized  
 200,000,000  
 shares; 15  
 issued:  
 2018  
 and  
 2017  
 -  
 146,513,000  
 shares  
 Treasury  
 stock  
 at  
 cost;  
 2018  
 -  
 6,420,000 (169 )  
 shares  
 and  
 2017  
 -  
 5,571,000  
 shares  
 Additional  
 paid-in capital  
 3,057  
 Accumulated  
 other  
 comprehensive  
 loss  
 (383 ) (389 )  
 Retained  
 earnings  
 (accumulated  
 deficit)  
 (543 ) (669 )  
 Total  
 stockholders'  
 equity  
 Total  
 liabilities  
 and  
 stockholders'  
 equity

See accompanying Notes to Consolidated Financial Statements



Table of ContentsUSG CORPORATION  
CONSOLIDATED STATEMENTS OF CASH FLOWS

(millions)	Years Ended		
	December 31,		
	2018	2017	2016
Operating Activities			
Net income	\$ 196	\$ 88	\$ 510
Less: Income (loss) from discontinued operations, net of tax	3	(9	) 20
Less: Gain on sale of discontinued operations, net of tax	—	—	279
Income from continuing operations	193	97	211
Adjustments to reconcile income from continuing operations to net cash:			
Depreciation, depletion, amortization, and accretion	150	132	134
Loss on extinguishment of debt	—	22	37
Long-lived asset impairment charges	—	—	10
Recovery of receivable	—	—	(3
Share-based compensation expense	21	18	18
Deferred income taxes	28	255	57
(Gain) loss on asset dispositions	(12	) 1	(9
Loss on sale of equity method investment	8	—	—
Income from equity method investments	(42	) (59	) (49
Dividends received from equity method investments	30	42	47
Pension settlement	—	12	20
(Increase) decrease in working capital			
Receivables	(5	) (32	) 6
Income taxes receivable, net	(4	) (12	) 3
Inventories	(42	) (13	) (20
Other current assets	1	(3	) 9
Payables	7	20	21
Accrued expenses	(2	) (36	) (39
Increase in other assets	—	4	—
Decrease in pension and other postretirement benefits	(40	) (57	) (142
Decrease in other liabilities	(23	) (13	) (6
Other, net	13	4	9
Net cash provided by operating activities of continuing operations	281	382	314
Net cash provided by operating activities of discontinued operations	3	—	59
Net cash provided by operating activities	\$ 284	\$ 382	\$ 373
Investing Activities			
Purchases of marketable securities	(102	) (105	) (274
Sales or maturities of marketable securities	103	97	413
Capital expenditures	(219	) (168	) (83
Net proceeds from asset dispositions	14	2	12
Net proceeds from sale of equity method investment	3	—	—
Acquisition of business, including working capital adjustment	2	(52	) —
Receipt of collection on loan from former joint venture	4	—	—
Return of capital	—	—	1
Insurance proceeds	—	1	1
Net cash (used for) provided by investing activities of continuing operations	(195	) (225	) 70
Net cash provided by investing activities of discontinued operations	—	6	667

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Net cash (used for) provided by investing activities				\$(195)	\$(219)	\$737
Financing Activities						
Issuance of debt				—	500	—
Repayment of debt				—	(521 )	(1,131 )
Payment of debt issuance fees				—	(8 )	—
Issuance of common stock				11	15	4
Repurchase of common stock				(76 )	(184 )	—
Repurchases of common stock to satisfy employee tax withholding obligations				(15 )	(4 )	(2 )
Conditional special dividend				(70 )	—	—
Net cash used for financing activities of continuing operations				\$(150)	\$(202)	\$(1,129)
(continued on the next page)						

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Table of ContentsUSG CORPORATION  
CONSOLIDATED STATEMENTS OF CASH FLOWS

(millions)	Years Ended December 31,		2016
	2018	2017	
Effect of exchange rate changes on cash	(5 )	6	(5 )
Net decrease in cash and cash equivalents from continuing operations	(69 )	(39 )	(750 )
Net increase in cash and cash equivalents from discontinued operations	3	6	726
Net decrease in cash and cash equivalents	\$ (66 )	\$ (33 )	\$ (24 )
Cash, cash equivalents, and restricted cash at beginning of period	394	427	451
Cash, cash equivalents, and restricted cash at end of period	\$ 328	\$ 394	\$ 427
Supplemental Cash Flow Disclosures:			
Interest paid, net of interest capitalized	\$ 53	\$ 82	\$ 153
Income taxes paid, net of refunds received	9	10	4
Noncash Investing and Financing Activities:			
Amount in accounts payable for capital expenditures	\$ 23	\$ 18	\$ 15

Reversal of USG			
Boral Building	—	—	(24 )
Products earnout			
Dividend Payable 2	—	—	
See accompanying Notes to Consolidated Financial Statements			



Table of ContentsUSG CORPORATION  
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(millions, except share data)	Common Shares Issued (000)	Treasury Shares (000)	Common Stock	Treasury Stock	Additional Paid-in Capital	Accumulated		Total Stockholders' Equity
						Other Comprehensive Income (Loss)	Retained Earnings (Deficit)	
Balance as of January 1, 2016	145,667	—	\$ 15	\$ —	\$ 3,027	\$ (314 )	\$(1,292)	\$ 1,436
Net income							510	510
Other comprehensive loss						(71 )		(71 )
Share-based compensation					18			18
Tax deficiencies in share-based compensation					(11 )			(11 )
Stock issuances	500	85		2	4			6
Repurchase of common stock		(85 )		(2 )				(2 )
Balance as of December 31, 2016	146,167	—	\$ 15	\$ —	\$ 3,038	\$ (385 )	\$(782 )	\$ 1,886
Impact due to adoption of ASU 2016-09 (stock compensation)							25	25
Net income							88	88
Other comprehensive loss						(4 )		(4 )
Share-based compensation					18			18
Stock issuances	346	577		19	(5 )			14
Repurchase of common stock		(6,148 )		(188 )				(188 )
Other					6			6
Balance as of December 31, 2017	146,513	(5,571 )	\$ 15	\$ (169 )	\$ 3,057	\$ (389 )	\$(669 )	\$ 1,845
Impact due to adoption of ASU 2014-09 (revenue recognition)							2	2
Net income							196	196
Other comprehensive loss						6		6
Share-based compensation					21			21
Stock issuances		1,682		60	(48 )			12
Repurchase of common stock		(2,553 )		(91 )				(91 )
Conditional special dividend							(72 )	(72 )
Balance as of December 31, 2018	146,513	(6,442 )	\$ 15	\$ (200 )	\$ 3,030	\$ (383 )	\$(543 )	\$ 1,919

See accompanying Notes to Consolidated Financial Statements

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In the following Notes to Consolidated Financial Statements, “USG,” “we,” “our” and “us” refer to USG Corporation and its subsidiaries included in the consolidated financial statements, except as otherwise indicated or as the context otherwise requires.

1. Significant Accounting Policies

Nature of Operations

USG, through our subsidiaries and joint ventures, is a leading manufacturer of building materials and innovative solutions. We produce a wide range of products for use in new residential, new nonresidential, and residential and nonresidential repair and remodel construction as well as products used in certain industrial processes. Our products are distributed through building materials dealers, specialty wallboard distributors, home improvement centers, other retailers and sold directly to contractors.

Segments

Our operating structure is generally aligned by product type and consists of three divisions, in addition to USG Boral Building Products, or UBBP, our joint ventures in Asia, Australasia and the Middle East: Gypsum, Performance Materials and Ceilings. The operations of the divisions are similar throughout North America. Our reportable segments reflect the operating structure and align with how we manage our business, review operating performance and allocate resources considering the discrete information available for the geographies within the divisions. We have five reportable segments: U.S. Wallboard and Surfaces, U.S. Performance Materials, U.S. Ceilings, Canada, and UBBP.

Our reportable segments are determined considering both qualitative and quantitative metrics for aggregation of the product type within geographies for which discrete financial information is available. Our U.S. Wallboard and Surfaces, U.S. Performance Materials and U.S. Ceilings reportable segments were identified based on products manufactured and marketed. Our Canada segment is a separately reportable segment; while it has similar qualitative factors to U.S. operations, it has different quantitative metrics and, therefore, cannot be aggregated. Our operating segments in Mexico and Latin America, as well as our mining operation in Little Narrows, Nova Scotia, Canada, which we indefinitely idled in 2016, are included in Other, as reconciling items to our consolidated segments.

Consolidation and Presentation

Our consolidated financial statements include the accounts of USG Corporation and its majority-owned subsidiaries. Entities in which we have more than a 20% but not more than 50% ownership interest are accounted for using the equity method of accounting. All intercompany balances and transactions are eliminated in consolidation.

Use of Estimates

The preparation of our consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions. These estimates and assumptions affect the reported amounts of assets, liabilities, revenues and expenses. Actual results could differ from these estimates.

Revenue Recognition

We recognize revenue upon transfer of control of our products to the customer which generally occurs upon shipment. We enter into agreements with customers to offer rebates, generally based on achievement of specified sales levels and various marketing allowances that are common industry practice. Reductions to revenue for customer programs and incentive offerings, including promotions and other volume-based incentives, are estimated using the most likely amount method and recorded in the period in which the sale occurs. Provisions for early payment discounts are accrued in the same period in which the sale occurs. We do not have any material payment terms as payment is received shortly after the point of sale. We pay commissions to third parties to obtain contracts. As these contracts are less than one year, these costs are expensed as incurred.

Shipping and Handling Costs

We include shipping and handling costs billed to customers in net sales and account for related costs as fulfillment activities and present the expenses in "Cost of products sold" when control of our products transfers to the customer.

Advertising

Advertising expenses consist of media advertising and related production costs and sponsorships. We charge advertising expenses to earnings as incurred. These expenses amounted to \$15 million, \$10 million and \$12 million for the years ended December 31, 2018, 2017 and 2016, respectively, and are included in "Selling and administrative expenses" in our consolidated statements of income.

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## Research and Development

We charge research and development expenditures to earnings as incurred. These expenditures amounted to \$22 million, \$23 million and \$24 million for the years ended December 31, 2018, 2017 and 2016, respectively, and are included in "Cost of products sold" and "Selling and administrative expenses" in our consolidated statements of income.

## Legal Costs

We expense legal costs as incurred.

## Income Taxes

We record income tax expense under the asset and liability method. Under this method, deferred tax assets and liabilities are recognized based on temporary differences between the financial statement carrying values of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply in the years in which the temporary differences are expected to be recovered or paid. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in earnings in the period when the change is enacted. Valuation allowances are recorded to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized.

A reduction of the carrying values of deferred tax assets by a valuation allowance is required if, based on all 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 at each reporting date. 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, the duration of statutory carryforward periods, our experience with operating loss and tax credit carryforwards not expiring unused and tax planning strategies.

A history of cumulative losses for a certain threshold period is a significant form of negative evidence used in the assessment, and we are required to have a policy regarding the duration of the threshold period. We believe the historical cyclical nature of our operations show economic cycles ranging from 7 to 10 years with demand troughs historically showing recovery over four years. Accordingly, we have a policy of four years as our threshold period for cumulative losses.

## Inventory Valuation

All of our inventories are stated at the lower of cost or net realizable value and are valued under the average cost method. Our inventories include materials, labor and applicable factory overhead costs. Depreciation associated with manufacturing assets is excluded from inventory cost but is included in "Cost of products sold".

## Earnings per Share

Basic earnings per share is based on the weighted average number of common shares outstanding. Diluted earnings per share is based on the weighted average number of common shares outstanding plus the dilutive effect, if any, of market share units, or MSUs, restricted stock units, or RSUs, performance shares, stock options and the deferred shares associated with our deferred compensation program for non-employee directors. The shares that were not included in the computation of diluted earnings per share for those periods because their inclusion would be anti-dilutive were as follows:

(millions, common shares)	2018	2017	2016
Stock options, RSUs, MSUs and performance shares	—	0.7	1.5
Deferred shares associated with a deferred compensation program for non-employee directors	—	0.2	0.2

## Business Combinations

Business combinations are accounted for using the acquisition method of accounting. The purchase price of the acquisition is allocated to the tangible and intangible assets acquired and liabilities assumed based on their fair values at the acquisition date. The calculation of fair value of the identified intangible assets are determined using cash flow models following the income approach or a discounted market-based methodology approach. Significant inputs include projected revenues, gross margins, operating expenses, estimated attrition rate and discount rates. The excess of fair value of the purchase price over the fair values of the tangible and identifiable intangible assets acquired and

liabilities assumed is recorded as goodwill. During the measurement period, which may be up to one year from the acquisition date, we may record adjustments to the net assets with the corresponding offset to goodwill. The results of operations of the acquired business are included in our consolidated results of operations beginning on the date of the acquisition. Acquisition-related expenses are expensed as incurred.

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### Cash and Cash Equivalents

Cash and cash equivalents include highly liquid investments, primarily money market funds, with maturities of three months or less at the time of purchase.

### Marketable Securities

Our marketable securities, which meet the definition of debt securities, are classified as available-for-sale securities and reported at fair value, with unrealized gains and losses excluded from earnings and reported in accumulated other comprehensive income (loss), or AOCI. If it is deemed that marketable securities have unrealized losses that are other than temporary, these losses will be recorded in earnings immediately. Situations in which losses may be considered other than temporary include when we have decided to sell a security, or when it is more likely than not that we will be required to sell the security, before we recover its amortized cost basis. Cost basis for securities sold are determined on a first-in-first-out basis.

### Receivables

Receivables are recorded at net realizable value, which includes allowances for cash discounts and doubtful accounts. We review the collectability of receivables on an ongoing basis and reserve for receivables determined to be uncollectible. This determination is based on the delinquency of the account, the financial condition of the customer and our collection experience.

We include short-term financing receivables in "Receivables" and long-term financing and loan receivables in "Other assets" on our consolidated balance sheets. Financing and loan receivables are recorded at net realizable value which includes an allowance for credit losses. We review the collectability of financing and loan receivables on an ongoing basis and reserve for financing and loan receivables determined to be uncollectible. This determination is based on the delinquency of the account and the financial condition of the other party. As of December 31, 2018 and 2017, the allowance for credit losses was immaterial.

### Equity Method Investments

The equity method of accounting is used for investments in joint ventures that we do not consolidate, but over which we have the ability to exercise significant influence. These investments are initially recorded at cost and subsequently adjusted for our share of the net income or loss and cash contributions and distributions to or from these entities. If the underlying net assets in our investments are denominated in a foreign currency, we adjust the value of our investment for translation gains or losses with a corresponding adjustment to our AOCI.

Losses in the value of an equity method investment that are other than temporary are recognized when the current fair value of the investment is less than its carrying value. We review our investments in equity method investments for impairment whenever factors indicate an other than temporary loss in value. If we conclude a loss in value is other than temporary, an impairment charge is recognized for the difference between the investment's carrying value and its estimated fair value.

### Property, Plant and Equipment

Property, plant and equipment is recorded at cost. We record depreciation of property, plant and equipment on a straight-line basis over the expected useful lives of the assets. We have determined estimated useful lives to be 50 years for buildings and improvements, a range of 10 to 25 years for machinery and equipment, and a range of 5 to 7 years for computer software and systems development costs. Leasehold improvements are capitalized and amortized over the shorter of the remaining lease term or economic useful life. We record depletion to spread the cost of gypsum and other applicable resources over the estimated quantities of material recoverable.

We capitalize interest during the active construction period of major capital projects. Capitalized interest is added to the cost of the underlying assets and is depreciated over the useful lives of those assets. We recorded capitalized interest of \$6 million, \$3 million and \$1 million for the years ended December 31, 2018, 2017 and 2016, respectively. Facility start-up costs that cannot be capitalized are expensed as incurred and recorded in "Cost of products sold".

Property, plant and equipment is reviewed for impairment when indicators of a potential impairment are present by comparing the carrying values of the assets with their estimated future undiscounted cash flows. If we determine an impairment exists, the asset is written down to fair value.

### Intangible Assets

We perform impairment tests for intangible assets with indefinite useful lives once a year, or more frequently if events occur or circumstances change that would more likely than not reduce the fair value of an intangible asset below its carrying value. The impairment test for assets with indefinite lives consists of a comparison of the fair value of the asset with its carrying value. If the carrying value of an intangible asset exceeds its fair value, an impairment loss is recognized in an amount equal to that excess. Intangible assets determined to have indefinite useful lives, primarily composed of trade names, are not amortized. An

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income approach is used for valuing trade names. Assumptions used in the income approach include projected revenues and assumed royalty, long-term growth and discount rates. As of December 31, 2018 and 2017, our indefinite lived intangibles, which are included in "Goodwill and intangible assets" on our consolidated balance sheets, totaled \$18 million and \$19 million, respectively.

We perform impairment tests on definite lived intangible assets upon identification of events or circumstances that may indicate the carrying value of the assets might be unrecoverable by comparing their undiscounted cash flows with their carrying value. If we determine impairment exists, the assets are written down to estimated fair value. As of December 31, 2018 and 2017, our definite lived intangibles, which are included in "Goodwill and intangible assets" on our consolidated balance sheets, totaled \$7 million and \$8 million, respectively.

### Goodwill

We perform an impairment test on goodwill as of October 1, or more frequently if events occur or circumstances change that would more likely than not reduce the fair value below its carrying value. In testing goodwill for impairment, we have the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the estimated fair value of a reporting unit is less than its carrying value, including goodwill. If we elect to perform a qualitative assessment and determine that an impairment is more likely than not, we are then required to perform a quantitative impairment test, otherwise no further analysis is required.

We also may elect not to perform the qualitative assessment and, instead, proceed directly to the quantitative impairment test. Our assessment compares the current fair value of each reporting unit to its carrying value, including goodwill. If the carrying value of a reporting unit exceeds its fair value, we recognize an impairment loss equal to the difference between the carrying value and the estimated fair value of the reporting unit. As of December 31, 2018 and 2017, goodwill totaled \$15 million and \$16 million, respectively, and is included in "Goodwill and intangible assets" on our consolidated balance sheets.

### Asset Retirement Obligations

Our asset retirement obligations include reclamation requirements as regulated by government authorities or contractual obligations related principally to assets such as our mines, quarries, landfills, ponds and wells. The accounting for asset retirement obligations requires estimates by management about the timing of asset retirements, the cost of retirement obligations, discount and inflation rates used in determining fair values and the methods of remediation associated with our asset retirement obligations. We generally use assumptions and estimates that reflect the most likely remediation method on a site-by-site basis. Our estimated liability for asset retirement obligations is revised annually, and whenever events or changes in circumstances indicate that a revision to the estimate is necessary.

In instances where a decrease in the asset retirement obligation is in excess of the related remaining net book value of the asset retirement costs, the excess is recorded to the consolidated statement of income as a reduction in "Cost of products sold." Asset retirement obligations are included in "Other liabilities" on the consolidated balance sheets.

### Share-Based Compensation

Our current long-term incentive plan authorizes the Board's Compensation and Organization Committee to provide equity-based compensation in the form of stock options, stock appreciation rights, restricted stock, RSUs, MSUs, performance shares and units, and other cash incentive and share-based awards for the purpose of providing our employees, officers and non-employee directors incentives and rewards for performance. We award share-based compensation to employees in the form RSUs, MSUs and performance shares and to non-employee directors in the form of shares of our common stock. We last granted stock options in 2012. All grants under share-based payment programs are accounted for at fair value at the date of grant. We recognize expense on share-based awards to employees expected to vest over the service period, which is the shorter of the period until the employees' retirement eligibility dates or the service period of the award. We record forfeitures as they occur.

### Derivative Instruments

We use derivative instruments to manage selected commodity price and foreign currency exposures. We do not use derivative instruments for speculative trading purposes and we typically do not hedge beyond five years. All derivative instruments are recorded on the balance sheet at fair value. For derivatives designated as cash flow hedges,



the effective portion of changes in the fair value of the derivative is recorded to AOCI, and is reclassified to earnings when the underlying forecasted transaction affects earnings. The ineffective portion of changes in the fair value of the derivative is reported in "Cost of products sold" in the current period. For contracts designated as cash flow hedges, we reassess the probability of the underlying forecasted transactions occurring on a quarterly basis. For derivatives designated as net investment hedges, we record changes in fair

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value to AOCI. For derivatives not designated as hedging instruments, all changes in fair value are recorded to earnings in the current period. Cash flows from derivative instruments are included in operating activities in our consolidated statements of cash flows.

We use swaps to hedge a significant portion of our anticipated purchases of natural gas to be used in our manufacturing operations. Generally, we hedge the cost of a majority of our anticipated purchases of natural gas over the next 12 months. However, we review our positions regularly and make adjustments as market conditions warrant. The majority of contracts currently in place are designated as cash flow hedges and the remainder are not designated as hedging instruments.

We have operations outside of the United States and use forward contracts to hedge the risk of changes in cash flows resulting from selected forecasted intercompany and third-party sales or purchases, as well as intercompany loans, denominated in non-U.S. currencies, or to hedge the risk of selected changes in our net investment in foreign subsidiaries. These contracts are designated as either cash flow or net investment hedges or are not designated as hedging instruments.

### Purchase Obligations

In the ordinary course of business we have entered into unconditional purchase obligations, which include noncancelable purchase commitments and take-or-pay arrangements with suppliers for the purchase of goods and services. On an ongoing basis, we review our agreements and assess the likelihood of a shortfall compared to the commitments and record a liability if the shortfall is probable and estimable.

### Foreign Currency Translation

We translate foreign-currency-denominated assets and liabilities into U.S. Dollars at the exchange rates existing as of the respective balance sheet dates. We translate income and expense items at the average exchange rates during the respective periods. We record translation adjustments resulting from fluctuations in exchange rates to AOCI on our consolidated balance sheets.

We record transaction gains and losses to earnings. We recorded a total transaction loss of \$6 million in 2018, a loss of \$4 million in 2017 and a gain of \$3 million in 2016. Transaction gains and losses are included in "Other income, net" in our consolidated statements of income.

### Fair Value Measurements

Certain assets and liabilities are required to be recorded at fair value. The estimated fair values of those assets and liabilities have been determined using market information and valuation methodologies. Changes in assumptions or estimation methods could affect the fair value estimates. However, we do not believe any such changes would have a material impact on our financial condition, results of operations or cash flows. There are three levels of inputs that may be used to measure fair value:

Level 1 – Quoted prices for identical assets and liabilities in active markets;

Level 2 – 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; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets; and

Level 3 – Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

Certain assets and liabilities are measured at fair value on a nonrecurring basis rather than on an ongoing basis, but are subject to fair value adjustments in certain circumstances, such as an acquisition, when there is evidence of impairment or when a new liability is being established that requires fair value measurement.

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## 2. Recent Accounting Pronouncements

## Recently Adopted Accounting Pronouncements

We adopted Accounting Standard Update, or ASU, 2014-09, "Revenue from Contracts with Customers (Topic 606)," and all related amendments on January 1, 2018 using the modified retrospective method and practical expedients. Topic 606 supersedes the revenue recognition requirements in "Revenue Recognition (Topic 605)" and requires entities to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

On January 1, 2018, we recorded an increase of \$2 million to our opening balance of retained earnings for the cumulative effect of adopting Topic 606. The adjustment related to a change to the point in time at which we record revenue for most customers. Prior period amounts have not been restated and continue to be reported under the legacy accounting guidance of Topic 605. As of and for the year ended December 31, 2018, the impact of applying Topic 606 as compared to applying Topic 605 is immaterial to our financial statements.

We adopted ASU 2017-07, "Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost," on January 1, 2018 using the practical expedient. This ASU required us to disaggregate and present current service cost along with other current compensation costs for employees while presenting other net benefit cost components below operating profit. In addition, only the service cost component of net benefit cost is eligible for capitalization in our inventory and fixed assets. We retrospectively adopted the presentation of service cost and prospectively adopted the capitalization of only service cost into inventory and fixed assets.

The effect of the adoption of ASU 2017-07 on our consolidated statements of income for the year ended December 31, 2017 and 2016 was as follows.

(millions)	Year ended December 31, 2017			Year ended December 31, 2016		
	As Restated	Adjustment for Adoption of ASU 2017-07	As Previously Reported	As Restated	Adjustment for Adoption of ASU 2017-07	As Previously Reported
Gross profit	\$656	\$ (9 )	\$ 665	\$700	\$ (5 )	\$ 705
Operating profit	353	(14 )	367	396	2	394
Other income, net	10	14	(4 )	7	(2 )	9
Net income	88	—	88	510	—	510

In the fourth quarter of 2018 we early adopted ASU 2018-14, "Compensation-Retirement Benefits-Defined Benefit Plans-General (Topic 715-20): Disclosure Framework-Changes to the Disclosure Requirements for Defined Benefit Plans," which modifies the disclosure requirements for defined benefit pension plans and other post-retirement plans. The adoption resulted in new disclosures, including comparative information for all years presented and the removal of certain disclosures no longer required.

We adopted ASU 2016-18, "Statement of Cash Flows (Topic 230): Restricted Cash," which requires amounts generally described as restricted cash and restricted cash equivalents to be included with cash and cash equivalents when reconciling beginning-of-period and end-of-period total amounts shown on the statement of cash flows using the retrospective approach. The adoption resulted in a \$9 million reduction of our net cash provided by investing activities on our consolidated statement of cash flows for the year ended December 31, 2016.

We adopted ASU 2016-09, "Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting," on January 1, 2017. This ASU simplifies certain aspects of accounting for employee share-based payments. Upon adoption, we recorded to retained earnings a \$25 million cumulative-effect adjustment for previously unrecognized excess tax benefits and an immaterial cumulative-effect adjustment for the reversal of cumulative forfeiture estimates to record forfeitures as they occur.

We adopted ASU 2018-02, "Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income," in the first quarter of 2018. The ASU allows for the reclassification of stranded tax effects on items resulting from the Tax Cuts and Jobs Act, or the 2017 Tax Act, from accumulated other comprehensive income, or AOCI, to retained earnings. We elected not to reclassify the income tax effects of the 2017 Tax Act.

We adopted ASU 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments" on January 1, 2018 using the retrospective transition method. Topic 230 addresses specific cash flow issues with the

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stated objective of reducing the existing diversity in practice. There was no impact on adoption to our consolidated cash flow statements and disclosures as we were already compliant with the provisions of the standard.

**Recently Issued Accounting Pronouncements**

The Financial Accounting Standards Board, or FASB, issued ASU 2016-02, "Leases (Topic 842)," which supersedes existing lease guidance. The new standard requires lessees to recognize assets and liabilities on the balance sheet for the rights and obligations created by long-term leases and to disclose additional quantitative and qualitative information about leasing arrangements. Subsequently, the FASB has issued various ASUs to provide further clarification around certain aspects of Topic 842. We will adopt the new standard on January 1, 2019 using the modified retrospective transition method and will record a cumulative-effect adjustment to the opening balance of retained earnings at the adoption date.

At transition, we will elect the package of practical expedients that allow us not to reassess under the new standard prior conclusions about lease identification, lease classification and initial direct costs. We expect to make the election to treat lease and non-lease components as a single lease component at the transition date. We are continuing to assess the completeness of our portfolio of leases, determine changes required in our lease accounting processes, and in the process of inputting our active leases into our new accounting software. The adoption of Topic 842 is expected to have a significant impact on our consolidated balance sheets and increase our disclosures on leases.

In August 2018, the FASB, issued ASU 2018-15, "Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract," which clarifies the accounting for implementation costs in cloud computing arrangements.

ASU 2018-15 is effective for us on January 1, 2020, and earlier adoption is permitted. We are currently evaluating the impact of this standard on our consolidated financial statements.

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments". Topic 326 eliminates the probable initial recognition threshold and, instead, requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. This standard is effective for us on January 1, 2020, and earlier adoption is permitted. We are currently evaluating the impact of Topic 326 on our consolidated financial position, results of operations and disclosures. We do not expect the adoption of Topic 326 to have a significant impact to our consolidated financial statements.

In August 2017, the FASB issued ASU 2017-12, "Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities," which expands and refines hedge accounting for both non-financial and financial risk components and aligns the recognition and presentation of the effects of the hedging instrument and the hedged item in the financial statements. The new standard is effective for us on January 1, 2019. We do not expect the adoption of ASU 2017-12 to have a significant impact to our consolidated financial statements or disclosures.

In August 2018, the FASB issued ASU 2018-13, "Fair Value Measurement - Disclosure Framework (Topic 820)".

The updated guidance improves the disclosure requirements on fair value measurements. The ASU is effective for us on January 1, 2020. Early adoption is permitted for any removed or modified disclosures. We are currently assessing the timing and impact of adoption.

**3. Acquisitions and Dispositions****Acquisition of Ceilings Plus**

On November 30, 2017, we completed our acquisition of Ceilings Plus for \$50 million, net of working capital adjustments. The addition of Ceilings Plus to our U.S. Ceilings segment expands our operations in the specialty ceilings markets. We finalized our valuation in the second quarter of 2018. The fair value of tangible assets acquired, less liabilities assumed, in connection with the Ceilings Plus acquisition was \$15 million. The fair value of intangible assets acquired, which included customer relationships and trade names, totaled \$20 million. The resulting goodwill recorded was \$15 million and all is expected to be deductible for tax purposes. The goodwill consists largely of Ceilings Plus' expected future product sales and synergies with the existing U.S. Ceilings product offerings. No impairment was recorded in 2018.

**Discontinued Operations**

On October 31, 2016, we completed the sale of our L&W distribution business to ABC Supply for total cash consideration of \$675 million inclusive of the final working capital adjustment and recorded a gain on the sale of \$279 million. For the year ended December 31, 2016, L&W met the criteria to be classified as held for sale and to be presented as a discontinued operation.

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The summarized financial information related to L&W that has been excluded from continuing operations and reported as a discontinued operation is as follows:

	Ten months ended October 31, 2016
(millions)	
Net sales	\$ 1,252
Cost of products sold	1,196
Gross profit	56
Selling and administrative expenses <sup>(a)</sup>	22
Operating profit	34
Income tax expense	12
Net income from discontinued operations	\$ 22

Gain on sale of discontinued operations \$ 279

(a) The ten month period ended October 31, 2016 included transaction costs of \$8 million.

For the twelve months ended December 31, 2017 and 2016, we recorded a net loss of \$9 million and net income of \$22 million, respectively, to "Income (loss) from discontinued operations." The 2017 amounts reflected a \$8 million loss for L&W primarily due to a pension settlement and a loss of \$1 million for our European operations which were sold in December 2012. The 2016 net income from discontinued operations was comprised of the \$22 million net income for L&W operations for the ten months prior to the disposition and expense of \$2 million for our European operations which were sold in December 2012.

Upon the close of the sale, we entered into a supply agreement with L&W. For the year ended December 31, 2018 and 2017, we recorded sales of \$471 million and \$510 million, respectively, and cash inflows related to payments on trade receivables of \$467 million and \$489 million, respectively. For the year ended December 31, 2016, the sales sold by L&W to third party customers totaled \$568 million, and for the two months in 2016 after the sale of L&W, we recorded a cash inflow of \$102 million related to payments on trade receivables.

#### 4. Equity Method Investments

Equity method investments were as follows:

(millions)	December 31, 2018		December 31, 2017	
	Carrying Value	Ownership Percentage	Carrying Value	Ownership Percentage
USG Boral Building Products	\$ 660	50%	\$ 679	50%
Other equity method investments	2	50%	\$ 7	33% - 50%
Total equity method investments	\$ 662		\$ 686	

#### Investments in USG Boral Building Products (UBBP)

UBBP is our 50/50 joint ventures with Boral Limited, or Boral. We account for our investment in UBBP using the equity method of accounting. During 2018, UBBP paid cash dividends on earnings through December 2018 of which our 50% share totaled \$30 million. As of December 31, 2018, the amount of our consolidated retained earnings which represents undistributed earnings from UBBP is \$72 million.

The satisfaction by UBBP of certain U.S. Dollar denominated performance targets for the 5 years ended December 31, 2018 would have required us to pay Boral an earnout payment of up to \$50 million. The performance targets were not satisfied by UBBP. At December 31, 2018 and 2017, there is no liability recorded for the earnout payment.

UBBP is operated in accordance with the terms of a Shareholders Agreement. The Shareholders Agreement provides that a change of control, which includes the signing of the Merger Agreement, with respect to one party constitutes an event of default that allows the non-defaulting party the opportunity to purchase the defaulting shareholder's interest in UBBP for fair market value, as determined in accordance with the Shareholders Agreement. On August 28, 2018, Boral delivered a default notice under the Shareholders Agreement to commence the process to establish the fair

market value of our 50% interest in UBBP. Once fair market value is established, Boral will have the right to purchase our 50% interest in UBBP in accordance with the Shareholders Agreement. Boral's exercise of its right to purchase our 50% interest in UBBP could occur prior to the

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closing of the Merger Agreement (as defined in Note 19, Merger Agreement), in which case we would receive the cash proceeds for our interest, and we would no longer own an interest in UBBP.

Our underlying net assets in our investments are denominated in a foreign currency, and translation gains or losses will impact the recorded value of our investments. Translation gains and losses recorded in other comprehensive income were as follows:

(millions)	2018	2017	2016
Translation (loss) gain	\$(31)	\$ 40	\$(30)

## Transactions with UBBP

Our U.S. Wallboard and Surfaces and U.S. Performance Materials segments sell products to UBBP. Total sales to UBBP for each of the years ended December 31, 2018, 2017 and 2016 were immaterial.

In 2014, in connection with the formation of UBBP, we contributed our ownership interest in a joint venture in China to UBBP but retained our loan receivable from this joint venture. As of December 31, 2018 and 2017, the loan receivable, including interest, totaled \$9 million and \$13 million, respectively, and is included in "Other assets" on our consolidated balance sheets.

## Summarized Financial Information

## Statements of Income

(millions)	For the year ended		
	December 31,		
	2018	2017	2016
USG Boral Building Products:			
Net sales	\$1,182	\$1,200	\$1,052
Gross profit <sup>(a)</sup>	317	369	337
Operating profit	117	160	133
Net income from continuing operations before taxes	131	174	142
Net income	86	121	95
Net income attributable to USG Boral Building Products	84	117	99
USG share of income from investment accounted for using the equity method <sup>(b)</sup>	42	59	49

<sup>(a)</sup> Year ended December 31, 2016 includes long-lived asset impairment charges of \$8 million for China and of \$14 million for Oman.

<sup>(b)</sup> Year ended December 31, 2016 includes long-lived asset impairment charges of \$4 million for China and of \$4 million for Oman.

## Balance Sheets

(millions)	December 31, 2018	December 31, 2017
USG Boral Building Products:		
Current assets	\$ 392	\$ 438
Non-current assets	964	981
Current liabilities <sup>(a)</sup>	232	255
Long-term debt	10	10
Other non-current liabilities	22	12
Shareholders' equity <sup>(b)</sup>	1,092	1,142

<sup>(a)</sup> Includes the current portion of long-term debt of \$15 million and \$16 million as of December 31, 2018 and 2017, respectively.

<sup>(b)</sup> Shareholders' equity includes \$64 million and \$66 million related to non-controlling interests as of December 31, 2018 and 2017, respectively.

## Investment in South Africa Joint Venture

During the second quarter of 2018, we completed the sale of our 33% interest in a joint venture in South Africa for approximately \$3 million. We recorded a loss on the sale of \$8 million in "Other income, net" on our accompanying consolidated income statements. The loss, which totaled \$5 million net of tax, was driven primarily by foreign

currency losses included in equity that were recognized upon the disposition of the joint venture and was recorded within Other, as it does not relate to a reportable segment.

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## 5. Marketable Securities

Our investments in marketable securities as of December 31, 2018 and 2017 consisted of the following:

(millions)	2018		2017	
	Amortized		Amortized	
	Cost	Value	Cost	Value
Corporate debt securities	\$ 73	\$ 73	\$ 68	\$ 68
U.S. government and agency debt securities	5	5	6	6
Asset-backed debt securities	15	15	11	11
Certificates of deposit	5	5	13	13
Municipal debt securities	—	—	1	1
Total marketable securities	\$ 98	\$ 98	\$ 99	\$ 99

The realized and unrealized gains and losses as of and for the years ended December 31, 2018, 2017 and 2016 were immaterial.

Contractual maturities of marketable securities as of December 31, 2018 were as follows:

(millions)	Amortized Fair	
	Cost	Value
Due in 1 year or less	\$ 55	\$ 55
Due in 1-5 years	43	43
Total marketable securities	\$ 98	\$ 98

Actual maturities may differ from the contractual maturities because issuers of the securities may have the right to prepay them.

## 6. Debt

Total debt as of December 31 consisted of the following:

(millions)	2018	2017
4.875% senior notes due 2027	\$500	\$500
5.5% senior notes due 2025	350	350
Industrial revenue bonds (due 2028 through 2034)	239	239
Total	\$1,089	\$1,089
Less: Unamortized debt issuance costs	10	11
Total	\$1,079	\$1,078

## Issuance of Senior Notes

During 2017, we issued \$500 million of 4.875% senior notes due 2027, referred to as our 4.875% Notes. The net proceeds from the issuance of these notes and cash on hand were used to fund the repurchase of our 7.75% senior notes due 2018, referred to as our 7.75% Notes, and all related costs and expenses. We deferred \$7 million of debt issuance costs that are being amortized to interest expense over the term of the 4.875% Notes.

## Repurchases and Redemptions of Senior Notes

During 2017, we repurchased \$500 million of our 7.75% Notes through a cash tender offer and subsequent redemption for aggregate consideration of \$536 million, including premiums of \$20 million and accrued interest of \$16 million. For the year ended December 31, 2017, we recorded a pre-tax loss on the early extinguishment of debt of \$21 million. During 2016, we repaid \$500 million of our 6.3% senior notes due 2016, referred to as the 6.3% Notes, \$250 million of our 7.875% senior notes due 2020, referred to as the 7.875% Notes, and \$350 million of our 5.875% senior notes due 2021, referred to as the 5.875% Notes. The retirement of the 6.3% Notes, the 7.875% Notes and the 5.875% Notes included premiums of \$30 million and accrued interest of \$9 million. As a result of these transactions, we recorded a loss on the early extinguishment of debt, before tax, of \$37 million including premiums, write-off of deferred financing fees, debt discount and broker fees.

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## Senior Notes

Our senior notes are senior unsecured obligations, rank equally with all of our other existing and future unsecured senior indebtedness and are guaranteed by certain of our domestic subsidiaries. The indentures governing the notes contain events of default, covenants and restrictions that are customary for similar securities, including a limitation on our ability and the ability of certain of our subsidiaries to create or incur secured indebtedness.

Interest rate	5.5%	4.875%
Principal net of discount (in millions) <sup>(a)</sup>	\$350	\$500
Maturity	March 1, 2025	June 1, 2027
Call date <sup>(b)</sup>	March 1, 2020	June 1, 2022
Mandatory redemption offer	at 101% plus accrued and unpaid interest in the event of a change in control	at 101% plus accrued and unpaid interest in the event of a change in control

(a) Principal amounts exclude unamortized debt issuance costs.

Callable at any time, in whole or in part, prior to the call date at a redemption price equal to 100% of the principal plus a premium (as outlined in the respective indentures), plus any accrued and unpaid interest on the principal amount being called. Callable after the call date at stated redemption prices (as outlined in the applicable indenture), plus any accrued and unpaid interest on the principal amount being called.

## Credit Facility

In 2017, we amended and restated our credit facility agreement to, among other things, increase the maximum borrowing limit from \$180 million to \$220 million. As a result, we recorded a pre-tax loss on extinguishment of debt of \$1 million for the year ended December 31, 2017 and incurred \$1 million of debt issuance costs. Our credit facility requires us to maintain a minimum fixed charge coverage ratio in the event excess availability falls below a minimum threshold. Because our excess borrowing availability as of December 31, 2018 of \$171 million exceeds this threshold, the requirement to maintain the minimum fixed charge coverage ratio is not applicable. As of December 31, 2018, we were in compliance with the covenants contained in our credit facility.

As of December 31, 2018 and during the year then ended, there were no borrowings under the credit facility.

Outstanding letters of credit as of December 31, 2018 totaled \$19 million.

## Industrial Revenue Bonds

Our \$239 million of industrial revenue bonds have fixed interest rates ranging from 5.5% to 6.4%. The weighted average rate of interest on our industrial revenue bonds is 5.875%. These bonds mature during the years 2028 through 2034.

## OTHER INFORMATION

(millions)	December 31, December 31,	
	2018	2017
Fair value of debt	\$ 1,099	\$ 1,134
Accrued interest	12	12

The fair value of our debt was determined using the fair value hierarchy of inputs described in Note 1. The fair values were determined utilizing prices from independent pricing services. The vendors' methodologies utilize various forms of market data, including but not limited to, trade data, yield, spreads, bids and offers. We review the values provided by the independent pricing service for reasonableness. We have not adjusted the prices obtained from the independent pricing service. As a result, the fair values are classified as Level 2. See Note 8, Fair Value Measurements, for further discussion on fair value measurements.

As of December 31, 2018, the amounts of total debt outstanding maturing in each of the next five years and beyond were as follows:

(millions)	2019 through 2023	After 2023
Debt maturities (principal amounts)	\$	—\$1,089



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## 7. Derivative Instruments

We use derivative instruments to manage selected commodity price and foreign currency exposures as described below.

Derivative Instruments	Type	Hedged Item	Aggregate Notional Amount	Contracts Maturing Through
Commodity	Natural gas swaps	Purchases of natural gas	41 million mmBTUs*	December 31, 2022
Foreign Exchange	Forward contracts	Purchases of products and services denominated in a foreign currency	\$98 million	December 31, 2019

\* - millions of British Thermal Units

**COUNTERPARTY RISK, MASTER NETTING ARRANGEMENTS AND BALANCE SHEET OFFSETTING**

We are exposed to credit losses in the event of nonperformance by the counterparties to our derivative instruments. As of December 31, 2018, our derivatives were in a \$6 million net liability position. All of our counterparties have investment grade credit ratings; accordingly, we anticipate that they will be able to fully satisfy their obligations under the contracts.

All of our derivative contracts are governed by master netting agreements negotiated between us and the counterparties that reduce our counterparty credit exposure. The agreements outline the conditions (such as credit ratings and net derivative fair values) upon which we, or the counterparties, are required to post collateral. As required by certain of our agreements, we had \$7 million of collateral posted with our counterparties related to our derivatives as of December 31, 2018. Amounts paid as cash collateral are included in "Receivables" on our consolidated balance sheets.

We have not adopted an accounting policy to offset fair value amounts related to derivative contracts under our master netting arrangements; therefore, individual derivative contracts are reflected on a gross basis, as either assets or liabilities, on our consolidated balance sheets, based on their fair value as of the balance sheet date.

**FINANCIAL STATEMENT INFORMATION**

The following are the pre-tax effects of derivative instruments on our consolidated statements of income and our consolidated statements of comprehensive income for the years ended December 31, 2018, 2017 and 2016:

(millions)	Amount of Gain or (Loss) Recognized in Other Comprehensive Income (Loss) on Derivatives (Effective Portion)			Location of Gain or (Loss) Reclassified from AOCI into Income (Effective Portion)	Amount of Gain or (Loss) Reclassified from AOCI into Income (Effective Portion)		
	2018	2017	2016		2018	2017	2016
Derivatives in Cash Flow Hedging Relationships							
Commodity contracts	\$ (1 )	\$ (19 )	\$ 6	Cost of products sold	\$ (2 )	\$ (4 )	\$ (15 )
Foreign exchange contracts	8	(5 )	(3 )	Cost of products sold	—	(2 )	5
Total	\$ 7	\$ (24 )	\$ 3		\$ (2 )	\$ (6 )	\$ (10 )
		Location of Gain or (Loss)		Amount of Gain or (Loss) Recognized in Income on Derivatives			

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(millions)	Recognized in Income on Derivatives	2018	2017	2016
Derivatives Not Designated as Hedging Instruments				
Commodity contracts	Cost of products sold	\$ 1	\$ (1 )	\$ 1
Total		\$ 1	\$ (1 )	\$ 1

For both commodity contracts and foreign exchange contracts, no ineffectiveness was recorded in 2018, 2017 or 2016.

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The fair values of derivative instruments on the consolidated balance sheets are as follows:

(millions)	Balance Sheet		Fair Value		Balance Sheet		Fair Value	
	Location		12/31/18		12/31/17		12/31/18	
<b>Derivatives in Cash Flow Hedging Relationships</b>								
Commodity contracts	Other current assets		\$ 2	\$ 1	Accrued expenses		\$ 6	\$ 6
Commodity contracts	Other assets		2	1	Other liabilities		10	8
Foreign exchange contracts	Other current assets		6	—	Accrued expenses		—	3
Total derivatives in hedging relationships			\$ 10	\$ 2			\$ 16	\$ 17
<b>Derivatives Not Designated as Hedging Instruments</b>								
Commodity contracts	Other current assets		\$ —	\$ —	Accrued expenses		\$ —	\$ —
Commodity contracts	Other assets		—	—	Other liabilities		—	—
Total derivatives not designated as hedging instruments			\$ —	\$ —			\$ —	\$ —
Total derivatives	Total assets		\$ 10	\$ 2	Total liabilities		\$ 16	\$ 17

As of December 31, 2018 and 2017, we had no derivatives designated as net investment or fair value hedges.

**8. Fair Value Measurements**

Certain assets and liabilities are required to be recorded at fair value. The fair values of our cash equivalents, equity mutual funds, marketable securities and derivatives were determined using the fair value hierarchy of inputs described in Note 1, Significant Accounting Policies.

**USG Valuation Method**

**Level 1** Cash equivalents and equity mutual funds consist of money market funds that are valued based on quoted prices in active markets.

Marketable securities, including certain cash equivalents, are valued using a "market value" approach. Values are based on quoted prices and other observable market inputs received from data providers.

**Level 2** Derivatives are valued using the "income" approach such as discounted-cash-flow models and readily observable market data. The inputs for the valuation models are obtained from data providers and include end-of-period spot and forward natural gas prices, foreign currency exchange rates, natural gas price volatility and LIBOR and swap rates for discounting the cash flows implied from the derivative contracts.

**Level 3** No level 3 investments.

Our assets and liabilities measured at fair value on a recurring basis were as follows:

(millions)	Quoted Prices		Significant		Significant		Total	
	in Active		Other		Unobservable			
	Markets for		Observable		Inputs			
	Identical		Inputs		(Level 3)			
	Assets		(Level 2)					
	(Level 1)							
	12/31/18	12/31/17	12/31/18	12/31/17	12/31/18	12/31/17	12/31/18	12/31/17
Cash equivalents	\$ 121	\$ 124	\$ 36	\$ 24	\$ —	\$ —	\$ 157	\$ 148
Equity mutual funds	5	6	—	—	—	—	5	6
<b>Marketable securities:</b>								
Corporate debt securities	—	—	73	68	—	—	73	68
U.S. government and agency debt securities	—	—	5	6	—	—	5	6
Asset-backed debt securities	—	—	15	11	—	—	15	11
Certificates of deposit	—	—	5	13	—	—	5	13
Municipal debt securities	—	—	—	1	—	—	—	1
Derivative assets	—	—	10	2	—	—	10	2
Derivative liabilities	—	—	(16)	(17)	—	—	(16)	(17)





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## 9. Employee Retirement Plans

We maintain defined benefit pension plans for most of our employees. Most of these plans require employee contributions in order to accrue benefits. Benefits payable under the plans are based on employees' years of service and compensation during specified years of employment. Effective December 31, 2010, we amended the USG Corporation defined benefit pension plan to replace the final average pay formula with a cash balance formula for employees hired after that date. In November 2016, we amended the U.S. pension plan to allow retirees and all terminated vested employees to take a lump-sum at all times without restriction.

We also maintain plans that provide postretirement benefits (retiree health care and life insurance) for eligible employees. Employees hired before January 1, 2002 generally become eligible for the postretirement benefit plans when they meet minimum retirement age and service requirements. The cost of providing most postretirement benefits is shared with retirees.

Upon the sale of L&W, we retained responsibility for the benefits payable to employees of L&W for the benefits accrued while employed by USG under the USG pension and postretirement plans. All L&W employees had the option to receive a lump sum benefit payment from the USG Corporation pension plan upon termination of their employment from USG. The total of the lump sum distributions made by the USG Corporation pension plan to both L&W employees and USG retirees or terminated vested employees during both 2017 and 2016 exceeded the settlement threshold and, as a result, we incurred settlement expense of \$25 million and \$26 million, respectively. The benefits payable to employees of L&W who did not take lump sum distributions in connection with their termination or retirement from USG are included in our benefit obligation as of December 31, 2018.

The location of the pre-tax settlement expense within our consolidated statements of income and the group of employees for which it is related is presented in the following chart. There was no settlement expense in 2018.

(millions)		2017	2016
Other income, net	USG retirees or terminated vested employees	\$ 12	\$ 11
Income (loss) from discontinued operations	Terminated employees of L&W	13	—
Gain on sale of discontinued operations	Terminated employees of L&W	—	15
Total		\$ 25	\$ 26

Additionally, as a result of the sale of L&W, we recorded a curtailment gain of \$20 million for the year ended December 31, 2016 for our postretirement plan to "Gain on sale of discontinued operations" in our consolidated statement of income, for those benefits no longer accruable to the employees of L&W who were not retirement eligible or did not elect retirement upon employment termination from USG.

We previously amended our U.S. postretirement benefit plan to require retiree medical plan participants to begin purchasing individual coverage in the Affordable Insurance Exchanges or individual Medicare marketplace beginning January 1, 2016 using a company-funded subsidy. The subsidy is determined based upon years of service at retirement and Medicare eligibility. As a result of the amendments, the measurement of the accumulated postretirement benefit obligation, or APBO, was reduced and a credit to unrecognized prior service cost is being amortized into the statement of income over the average remaining service of active plan participants to retirement eligibility. This is reflected in net amortization of postretirement benefits in the table below and included in "Other income, net" in the consolidated statements of income. The subsidy provided to retirees eligible for Medicare will end December 31, 2019 at which time there will be no remaining credit to be amortized to the income statement for the unrecognized prior service cost.

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The components of the pre-tax total recognized in net pension and postretirement costs and other comprehensive income are summarized in the following table:

(millions)	Pension			Postretirement		
	2018	2017	2016	2018	2017	2016
Service cost of benefits earned	\$50	\$44	\$45	\$2	\$2	\$2
Interest cost on projected benefit obligation	62	61	66	5	5	6
Expected return on plan assets	(97 )	(93 )	(89 )	—	—	—
Settlement <sup>(a)</sup>	—	25	35	—	—	—
Curtailement	—	—	—	—	—	(20 )
Net amortization	31	22	22	(23 )	(23 )	(27 )
Net pension & postretirement cost <sup>(b)</sup>	\$46	\$59	\$79	\$(16)	\$(16)	\$(39)
Net actuarial (loss) gain	\$(14)	\$77	\$58	\$(15)	\$10	\$(6 )
Net amortization	(31 )	(22 )	(22 )	23	23	27
Settlement	—	(25 )	(35 )	—	—	—
Curtailement	—	—	—	—	—	20
Deferred currency exchange	(7 )	4	2	(1 )	1	(7 )
Total recognized in other comprehensive income	\$(52)	\$34	\$3	\$7	\$34	\$34
Total recognized in net pension & postretirement cost and other comprehensive income	\$(6 )	\$93	\$82	\$(9 )	\$18	\$(5 )

(a) In 2016, \$26 million of the settlement charge reflects the increase in lump sum benefits paid largely driven by the sale of L&W and \$9 million reflected payments from our supplemental plan.

(b) Net pension costs, excluding settlement costs, includes amounts allocated to income (loss) from discontinued operations for L&W totaling a benefit of \$1 million for 2018, a benefit of \$1 million for 2017, and an expense of \$7 million for 2016. Net postretirement benefit, excluding curtailement gain, includes a net benefit allocated to income (loss) from discontinued operations for L&W of \$3 million for 2018, \$1 million for 2017 and \$3 million for 2016. We use a December 31 measurement date for our plans. The accumulated benefit obligation, or ABO, for the defined benefit pension plans was \$1.374 billion as of December 31, 2018 and \$1.506 billion as of December 31, 2017.

(millions)	As of December 31,	
	2018	2017
Selected information for pension plans with accumulated benefit obligations in excess of plan assets:		
Accumulated benefit obligation	\$(35 )	\$(35 )
Fair value of plan assets	3	3
Selected information for pension plans with benefit obligations in excess of plan assets:		
Benefit obligation	\$(1,568)	\$(1,769)
Fair value of plan assets	1,431	1,576
Selected information for postretirement plans with benefit obligations in excess of plan assets:		
Benefit obligation	\$(132 )	\$(150 )
Fair value of plan assets	—	—

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The following table summarizes projected benefit obligations, plan assets and funded status as of December 31:

(millions)	Pension		Postretirement	
	2018	2017	2018	2017
<b>Change in Benefit Obligation:</b>				
Benefit obligation as of January 1	\$1,770	\$1,610	\$150	\$135
Service cost	50	44	2	2
Interest cost	62	61	5	5
Settlements	—	(121 )	—	—
Participant contributions	10	9	—	—
Benefits paid	(110 )	(51 )	(6 )	(6 )
Actuarial (gain) loss	(192 )	202	(15 )	10
Foreign currency translation	(21 )	16	(4 )	4
Benefit obligation as of December 31	\$1,569	\$1,770	\$132	\$150
<b>Change in Plan Assets:</b>				
Fair value as of January 1	\$1,577	\$1,435	\$—	\$—
Actual return on plan assets	(81 )	217	—	—
Employer contributions	56	71	6	6
Participant contributions	10	9	—	—
Benefits paid	(110 )	(51 )	(6 )	(6 )
Settlements	—	(121 )	—	—
Foreign currency translation	(20 )	17	—	—
Fair value as of December 31	\$1,432	\$1,577	\$—	\$—
Funded status	\$(137 )	\$(193 )	\$(132)	\$(150)
<b>Components on the Consolidated Balance Sheets:</b>				
Noncurrent assets	\$1	\$—	\$—	\$—
Current liabilities	(7 )	(8 )	(9 )	(9 )
Noncurrent liabilities	(131 )	(185 )	(123 )	(141 )
Net liability as of December 31	\$(137 )	\$(193 )	\$(132)	\$(150)
<b>Pretax Components in AOCI:</b>				
Net actuarial loss (gain)	\$369	\$421	\$(5 )	\$11
Prior service credit	—	—	(19 )	(42 )
Total as of December 31	\$369	\$421	\$(24 )	\$(31 )

For our defined benefit pension and postretirement plans, the 2018 actuarial gain of \$192 million and \$15 million, respectively, was primarily due to an increase in the discount rates.

**ASSUMPTIONS**

The following tables reflect the assumptions used in the accounting for our plans:

	Pension		Postretirement	
	2018	2017	2018	2017
Weighted average assumptions used to determine benefit obligations as of December 31:				
Discount rate	4.21 %	3.55 %	4.09 %	3.42 %
Compensation increase rate	3.55 %	3.54 %	N/A	N/A
Interest crediting rate	4.00 %	4.00 %	N/A	N/A
Weighted average assumptions used to determine net cost for years ended December 31:				
Discount rate	3.55 %	4.02 %	3.42 %	3.90 %
Expected return on plan assets	6.55 %	6.54 %	N/A	N/A
Compensation increase rate	3.54 %	3.55 %	N/A	N/A



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We no longer have significant exposure to health care cost trend rates due to the modifications we made to our U.S. postretirement health care plan to limit the increase in the annual amount we pay for retiree health care coverage for certain current and future retirees to 3% and to require retiree medical plan participants to begin purchasing individual coverage in the Affordable Insurance Exchanges or individual Medicare marketplace beginning January 1, 2016 using a company-funded subsidy based upon years of service at retirement.

For the measurement of the APBO at December 31, 2018 for our Canadian postretirement health care plan, the assumed health care cost trend rates start with a 5.92% increase in 2019, followed by a gradual decline in increases to 4% for 2046 and beyond. For the measurement of the APBO at December 31, 2017, the assumed health care cost trend rates started with a 5.95% increase in 2018, followed by a gradual decline in increases to 4% for 2046 and beyond.

**RETIREMENT PLAN ASSETS**

**Investment Policies and Strategies:** We have established investment policies and strategies for the defined benefit pension plans' assets with a long-term objective of maintaining the plans' assets at a level equal to or greater than that of their liabilities (as measured by a funded ratio of 100% or more of the PBO) and maximizing returns on the plans' assets consistent with our moderate tolerance for risk. Contributions are made to the plans periodically as needed to meet funding targets or requirements. Factors influencing our determination to accept a moderate degree of risk include the timing of plan participants' retirements and the resulting disbursement of retirement benefits, the liquidity requirements of the plans and our financial condition.

Our overall long-term objective is to achieve a 6.6% rate of return on plan assets with a moderate level of risk as indicated by the volatility of investment returns. This rate of return target was established using a "building block" approach. In this approach, ranges of long-term expected returns for the various asset classes in which the plans invest are estimated. The estimated ranges are primarily based on observations of historical asset returns and their historical volatility. In determining the expected returns, we also consider consensus forecasts of certain market and economic factors that influence returns, such as inflation, gross domestic product trends and dividend yields. We then calculate an overall range of likely expected rates of return by applying the expected asset returns to the plans' target asset allocation. The most likely rate of return is then determined and is adjusted to account for investment management fees.

Our investment strategy is to invest in a diversified mix of asset classes in accordance with an asset allocation that we believe is likely to achieve our long-term target return while prudently considering risk. In order to manage risk, the plans' pension and investment committees periodically rebalance the asset allocations as outlined by our investment policy statements. Our investment policy statements include glide paths which outline how our asset allocation would increase the portion of liability-hedging assets, such as fixed income, as our funded status improves in the future. This liability-driven investing approach is carried out by professional investment managers who help the committees in this process. The committees also monitor the investment performance of the individual investment managers compared to their benchmark returns and investment guidelines on an ongoing basis, in part through the use of quarterly investment portfolio reviews and compliance reporting by investment managers. The pension and investment committees also evaluate risk by periodically conducting asset/liability studies to assess the correlation of the plans' assets and liabilities and the degree of risk in the target asset allocations. The plans limit the use of leverage to select investment strategies where leverage is typically employed, such as private equity and real estate. Certain investment managers may utilize derivatives, such as swaps, bond futures, and options, as part of their investment strategies. This is done primarily to gain a desired market exposure or manage factors such as interest rate risk or duration of a bond portfolio.

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The following table shows the aggregate target asset allocation on a weighted average basis for all the plans and the acceptable ranges around the targets as of December 31, 2018.

Asset Categories	Asset Category Description	Investment Policy	Target Range
Equity	Institutional commingled/pooled equity funds, equity mutual funds and direct holdings of the common stock of U.S. and non-U.S. companies; equity funds and direct holdings are invested in companies with a range of market capitalizations	35%	32%-39%
Fixed income	U.S. Treasury securities, non-U.S. government debt securities such as Canadian federal bonds, corporate bonds of companies from diversified industries and mortgage-backed securities	55%	43%-66%
Limited partnerships	Investments in funds that follow any of several different strategies, including investing in distressed debt, energy development, infrastructure, and hedge funds. These investments use strategies with returns normally expected to have a reduced correlation to the return of equities as compared to other asset classes and often provide a current income component that is a meaningful portion of the investment's total return.	5%	2%-8%
Other real assets	Primarily investments in large core, private real estate funds that directly own a diverse portfolio of properties located in the United States. It also includes an allocation to funds investing in equities of real estate and infrastructure companies	5%	2%-9%
Cash equivalents and short-term investments	Primarily short-term investment funds or registered money market funds with daily liquidity	—%	0%-5%
Total		100%	

Fair Values of Plan Assets: Pension assets are classified based on the valuation methodologies and inputs used to determine the fair value as described in Note 1.

Level 1 investments include direct investments in common stocks of U.S. and non-U.S. companies that trade on liquid exchanges. These investments are valued based on the closing price on these exchanges.

Level 2 investments include primarily fixed income securities such as corporate, or government debentures, mortgage- and asset-backed securities. They are valued primarily using income and market approaches, such as pricing based on recent market transactions, and values are based on quoted prices or other observable market inputs received from data providers. Commingled funds not traded on an exchange, even though their underlying investments are common stocks traded on liquid exchanges, are also included in the Level 2 category. The net asset value of commingled funds investing in either stocks or fixed income securities is calculated by subtracting the value of any liabilities from the market value of all securities owned by a fund.

Level 3 investments include real estate, infrastructure, or direct energy investments as well as distressed securities or hedge funds. These are valued using income approach methodologies such as discounted cash flows, or market approach methodologies such as relative value (specific to equity securities), direct capitalization and comparable sales (specific to real estate investments). Some of the key inputs used to value these securities include discount rate, EBITDA multiple, yield-to-worst, yield-to-maturity, and cap rate (specific to real estate investments).

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The fair values by hierarchy of inputs as of December 31 were as follows:

(millions)	Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)		Total	
	2018	2017	2018	2017	2018	2017	2018	2017
Asset Categories:								
Equity:								
Common and preferred stock	\$ 88	\$ 92	\$—	\$—	\$—	\$—	\$88	\$92
Commingled/pooled/mutual funds <sup>(a)</sup>	—	—	450	553	—	—	450	553
Total equity	88	92	450	553	—	—	538	645
Fixed income:								
U.S. government and agency debt securities	—	—	11	8	—	—	11	8
Non-U.S. government and agency debt securities	—	—	55	68	—	—	55	68
Investment-grade debt securities	—	—	268	334	—	—	268	334
High-yield debt securities	—	—	40	42	—	—	40	42
Commingled/pooled funds <sup>(a)</sup>	—	—	362	305	—	—	362	305
Mortgaged backed securities	—	—	5	1	—	—	5	1
Other	—	—	12	13	1	1	13	14
Total fixed income	—	—	753	771	1	1	754	772
Limited partnerships	—	—	—	—	83	91	83	91
Other real estate assets	—	—	16	18	35	39	51	57
Cash equivalents and short-term investments	—	—	10	14	—	—	10	14
Total	\$ 88	\$ 92	\$1,229	\$1,356	\$ 119	\$ 131	\$1,436	\$1,579
Cash on hand							1	—
Receivables							5	2
Accounts payable							(10 )	(4 )
Total							\$1,432	\$1,577

<sup>(a)</sup> Certain investments in commingled/pooled equity funds have been classified as Level 2 because observable quoted prices for these institutional funds are not available.

A reconciliation of the change in the fair value measurement of the defined benefit plans' consolidated assets using significant unobservable inputs (Level 3) between January 1, 2017 and December 31, 2018 is as follows:

(millions)	Fixed Income	Other		Total
		Real Estate Assets	Limited Partnerships	
Balance as of January 1, 2017	\$ 1	\$ 38	\$ 103	\$142
Realized losses	—	1	15	16
Unrealized gains	—	2	(1 )	1
Purchases, sales and settlements:				
Purchases	—	—	9	9
Sales	—	(2 )	(35 )	(37 )
Settlements	—	—	—	—
Net transfers into (out of) Level 3	—	—	—	—
Balance as of December 31, 2017	\$ 1	\$ 39	\$ 91	\$131
Realized gains	—	1	4	5
Unrealized gains (losses)	—	1	(8 )	(7 )



Purchases, sales and settlements:

Purchases	—	—	14	14
Sales	—	(6 )	(18 )	(24 )
Settlements	—	—	—	—
Net transfers into (out of) Level 3	—	—	—	—
Balance as of December 31, 2018	\$ 1	\$ 35	\$ 83	\$119

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Table of Contents**CASH FLOWS**

We are evaluating our level of funding for pension plans and currently estimate that we will contribute approximately \$62 million to our pension plans in 2019. Our cash payments for postretirement plans are estimated to be \$9 million in 2019.

Total benefit payments we expect to make to participants, which include payments funded from USG's assets as well as payments from our pension plans' assets, are as follows (in millions):

Years ended December 31	Pension Benefits	Postretirement Benefits
2019	\$ 115	\$ 9
2020	117	8
2021	114	8
2022	117	8
2023	121	8
2024 - 2028	581	40

**DEFINED CONTRIBUTION PLANS**

Total charges for our defined contribution plans amounted to approximately \$12 million, \$8 million and \$5 million for the years ended December 31, 2018, 2017 and 2016, respectively. USG's contributions are charged to cost of products sold and selling and administrative expenses.

**10. Share-Based Compensation**

We grant share-based compensation to eligible participants under our 2016 Long-Term Incentive Plan, or New LTIP, which was approved by our Board of Directors and stockholders in 2016, and prior thereto under our prior Long-Term Incentive Plan, which, together with the New LTIP, is referred to as the LTIP. As of December 31, 2018, a total of 6 million shares of common stock were reserved for future grants under the New LTIP. We may issue shares of our common stock upon option exercises and upon the vesting or grant of other awards under the LTIP from our authorized but unissued shares or from treasury shares.

Our expense in continuing operations for share-based arrangements was \$21 million in 2018, \$18 million in 2017 and \$18 million in 2016 and is included in "Selling and administrative expenses" in our consolidated statements of income. In 2018 we recognized a \$7 million net income tax benefit for share-based arrangements in the consolidated statement of income; no income tax effects were recognized in 2017 or 2016.

**MARKET SHARE UNITS**

We granted MSUs with the following weighted average grant date fair values:

	2018	2017	2016
Weighted average grant date fair values	\$34.22	\$35.79	\$19.59

MSUs generally vest after a three-year period based on our actual stock price performance during such period. The number of MSUs earned will vary from 0% to 150% of the number of MSUs awarded depending on the actual performance of our stock price. In the case of termination of employment due to death, disability or retirement during the performance period, vesting will be pro-rated based on the number of full months employed in the grant year. Awards earned will be issued at the end of the three-year period. Each MSU earned will be settled in shares of our common stock.

We estimated the fair value of each MSU granted on the date of grant using a Monte Carlo simulation that used the assumptions noted in the following table. Volatility was based on stock price history immediately prior to grant for a period commensurate with the expected term. The risk-free rate was based on zero-coupon U.S. government issues at the time of grant. The expected term represents the period from the valuation date to the end of the performance period.

Assumptions:	2018	2017	2016
Expected volatility	32.62%	32.10%	34.02%
Risk-free rate	2.37 %	1.39 %	0.86 %
Expected term (in years)	2.95	2.96	2.95
Expected dividends	—	—	—



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Nonvested MSUs outstanding as of December 31, 2018 and MSU activity during 2018 were as follows:

	Number of MSUs (000)	Weighted Average Grant Date Fair Value
Nonvested at January 1, 2018	1,097	\$ 25.01
Granted	429	34.22
Vested	(730 )	19.59
Forfeited	(8 )	35.79
Nonvested at December 31, 2018	788	\$ 34.93

With respect to the MSUs granted in 2016, for which the three-year period ended December 31, 2018, 730,145 vested for approximately 1,095,218 shares of common stock based on the actual performance of our stock price.

Total unrecognized compensation cost related to nonvested share-based compensation awards represented by MSUs granted under the LTIP was \$5 million as of December 31, 2018. We expect that cost to be recognized over a weighted average period of 1.7 years.

**PERFORMANCE SHARES**

We granted performance shares with the following weighted average grant date fair values:

	2018	2017	2016
Weighted average grant date fair values	\$34.21	\$39.42	\$21.10

The performance shares generally vest after a three-year period based on our total stockholder return relative to the performance of the Dow Jones U.S. Construction and Materials Index, with adjustments to that index in certain circumstances, for the three-year period. The number of performance shares earned will vary from 0% to 200% of the number of performance shares awarded depending on that relative performance. Vesting will be pro-rated based on the number of full months employed during the performance period in the case of death, disability or retirement, and pro-rated awards earned will be settled in common stock at the end of the three-year period.

We estimated the fair value of each performance share granted on the date of grant using a Monte Carlo simulation that uses the assumptions noted in the following table. Volatility was based on stock price history immediately prior to grant for a period commensurate with the expected term. The risk-free rate was based on zero-coupon U.S. government issues at the time of grant. The expected term represents the period from the grant date to the end of the three-year performance period.

Assumptions:	2018	2017	2016
Expected volatility	32.61 %	32.10 %	34.02 %
Risk-free rate	2.37 %	1.39 %	0.86 %
Expected term (in years)	2.95	2.96	2.95
Expected dividends	—	—	—

Nonvested performance shares outstanding as of December 31, 2018 and performance share activity during 2018 were as follows:

	Number of Performance Shares (000)	Weighted Average Grant Date Fair Value
Nonvested at January 1, 2018	256	\$ 29.14
Granted	104	34.21
Vested	(143 )	21.10
Forfeited	(2 )	33.35
Nonvested at December 31, 2018	215	\$ 36.93

With respect to the performance shares granted in 2016, for which the three-year performance period ended December 31, 2018, 143,033 of the performance awards vested for 286,066 common shares.

Total unrecognized compensation cost related to nonvested share-based compensation awards represented by performance shares granted under the LTIP was \$4 million as of December 31, 2018. We expect that cost to be recognized over a weighted average period of 1.6 years.

Table of Contents**RESTRICTED STOCK UNITS**

We granted RSUs with the following weighted average grant date fair values:

	2018	2017	2016
Weighted average grant date fair values	\$36.92	\$31.57	\$23.94

RSUs granted as special retention awards generally vest after a specified number of years from the date of grant or at a specified date and RSUs granted with performance goals vest if those goals are attained. RSUs may vest earlier in the case of death, disability, retirement or a change in control. Each RSU is settled in a share of our common stock after the vesting period. The fair value of each RSU granted is equal to the closing market price of our common stock on the date of grant.

RSUs outstanding as of December 31, 2018 and RSU activity during the year then ended were as follows:

	Number of RSUs (000)	Weighted Average Grant Date Fair Value
Nonvested at January 1, 2018	304	\$ 14.67
Granted	44	36.92
Vested	(50 )	26.64
Forfeited	(10 )	28.29
Nonvested at December 31, 2018	288	\$ 30.05

As of December 31, 2018, there was \$4 million of total unrecognized compensation cost related to nonvested share-based compensation awards represented by RSUs granted under the LTIP. We expect that cost to be recognized over a weighted average period of 1.6 years. The total fair value of RSUs that vested was \$1 million during 2018, \$2 million during 2017 and \$2 million during 2016.

**STOCK OPTIONS**

All outstanding stock options are exercisable. The stock options generally expire ten years from the date of grant, or earlier in the event of death, disability or retirement.

A summary of stock options outstanding as of December 31, 2018 and of stock option activity during the year then ended is presented below:

	Number of Options (000)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (millions)
Outstanding at January 1, 2018	1,261	\$ 15.72	2.48	\$ 28
Exercised	(677 )	16.02		
Canceled	(50 )	34.67		
Outstanding, exercisable and vested at December 31, 2018	534	\$ 13.55	1.89	\$ 16
(millions)	2018	2017	2016	
Intrinsic value of stock options exercised	\$ 17	\$ 7	\$ 4	
Cash received from stock options exercised	\$ 11	\$ 14	\$ 4	
Fair value of stock options vested	\$ —	\$ —	\$ 1	

Intrinsic value for stock options is defined as the difference between the current market value of our common stock and the exercise price of the stock options.

**NON-EMPLOYEE DIRECTOR DEFERRED STOCK UNITS**

Our non-employee directors may elect to receive a portion of their compensation as deferred stock units. In August 2017, we amended this program to remove the election to receive cash or shares of USG common stock upon termination of board service and, as a result, all deferred stock units granted after August 2017 will be paid in shares of USG common stock. Also in August 2017, four of our non-employee directors elected to receive shares of stock for previously granted deferred stock units, and as a result, in 2017, we recorded a reclassification from a liability to

equity of \$6 million for these previously deferred awards.

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Table of Contents**KNAUF TRANSACTION**

At the effective time of the Merger (as defined in Note 19, Merger Agreement), subject to certain exceptions, each MSU, performance share, and RSU that is outstanding immediately prior to the Merger will become fully vested. At the effective time of the Merger, these awards, along with each deferred stock unit, will be converted into the right to receive a cash payment equal to (i) the number of shares of our common stock earned on each underlying share, determined by substituting the closing consideration of \$43.50 for the market value or the ending stock price in determining the achievement of the performance goal as applicable, multiplied by (ii) the closing consideration of \$43.50 per share. Each stock option that is outstanding immediately prior to the Merger will be converted into the right to receive a cash payment equal to the (i) the number of shares of our common stock subject to such option at the effective time of the Merger, multiplied by (ii) the excess, if any, of the closing consideration of \$43.50 per share over the exercise price of the option. A Dividend Make-Whole Amount Plan was approved by USG in connection with the Merger. See Note 19, Merger Agreement, for further discussion.

## 11. Supplemental Balance Sheet Information

**INVENTORIES**

Inventories as of December 31 consisted of the following:

(millions)	2018	2017
Finished goods	\$168	\$140
Work in progress	42	39
Raw materials	80	73
Total	\$290	\$252

**PROPERTY, PLANT AND EQUIPMENT**

Property, plant and equipment as of December 31 consisted of the following:

(millions)	2018	2017
Land and mineral deposits	\$206	\$120
Buildings and improvements	1,022	1,100
Machinery and equipment	2,717	2,595
	3,945	3,815
Reserves for depreciation and depletion	(2,107 )	(2,053 )
Total	\$1,838	\$1,762
Annual depreciation and depletion expense	\$133	\$129

**ACCRUED EXPENSES**

Accrued expenses as of December 31 consisted of the following:

(millions)	2018	2017
Self-insurance reserves	\$13	\$12
Employee compensation	17	17
Interest	12	12
Derivatives	6	9
Pension and other postretirement benefits	16	17
Environmental	13	17
Other	52	51
Total	\$129	\$135



Table of Contents**ASSET RETIREMENT OBLIGATIONS**

Changes in our liability for asset retirement obligations consisted of the following:

(millions)	2018	2017
Balance as of January 1	\$118	\$113
Accretion expense	7	7
Liabilities incurred	—	3
Changes in estimated cash flows	(9 )	(4 )
Liabilities settled	(1 )	(3 )
Reclass to accrued expenses	(2 )	—
Foreign currency translation	(2 )	2
Balance as of December 31	\$111	\$118

**ASSET DISPOSITIONS**

In the second quarter of 2018, we recorded a gain of \$13 million, or \$9 million net of tax, on the sale of a surplus property. The pre-tax gain was recorded in "Cost of products sold" within the U.S. Wallboard and Surfaces segment.

**ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)**

Changes in the balances of each component of AOCI are summarized in the following table:

(millions)	Derivatives	Pension and Other Postretirement Benefit Plans	Foreign Currency Translation	Total AOCI
Balance as of January 1, 2016	\$ 20	\$ (221 )	\$ (113 )	\$(314)
Other comprehensive income (loss) before reclassifications, net of tax		(34 )	(53 )	(86 )
Less: Amounts reclassified from AOCI, net of tax	(6 )	(9 )	—	(15 )
Other comprehensive income (loss), net of tax	7	(25 )	(53 )	(71 )
Balance as of December 31, 2016	\$ 27	\$ (246 )	\$ (166 )	\$(385)
Other comprehensive income (loss) before reclassifications, net of tax	(14 )	(65 )	58	(21 )
Less: Amounts reclassified from AOCI, net of tax	(3 )	(14 )	—	(17 )
Other comprehensive income (loss), net of tax	(11 )	(51 )	58	(4 )
Balance as of December 31, 2017	\$ 16	\$ (297 )	\$ (108 )	\$(389)
Other comprehensive income (loss) before reclassifications, net of tax	6	28	(40 )	(6 )
Less: Amounts reclassified from AOCI, net of tax	(2 )	(6 )	(4 )	(12 )
Other comprehensive income (loss), net of tax	8	34	(36 )	6
Balance as of December 31, 2018	\$ 24	\$ (263 )	\$ (144 )	\$(383)

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Amounts reclassified from AOCI, net of tax, for the years ended December 31, 2018, 2017 and 2016 were as follows:  
(millions) 2018 2017 2016

## Derivatives

Net reclassification from AOCI for cash flow hedges included in cost of products sold	\$(2)	\$(6 )	\$(10)
Less: Income tax benefit on reclassification from AOCI included in income tax expense	—	(3 )	(4 )
Net amount reclassified from AOCI	\$(2)	\$(3 )	\$(6 )

## Defined Benefit Plans

Net reclassification from AOCI for amortization of prior service (benefit) cost included in other income, net	\$(8)	\$(13)	\$(13)
Net reclassification from AOCI for amortization of prior service benefit included in income (loss) from discontinued operations, net of tax	—	(11 )	(3 )
Less: Income tax benefit on reclassification from AOCI included in income tax expense	(2 )	(10 )	(7 )
Net amount reclassified from AOCI	\$(6)	\$(14)	\$(9 )

## Foreign Currency Translation

Net reclassification from AOCI for translation loss realized upon the sale of foreign equity method investment included in other income, net	\$(6)	\$—	\$—
Less: Income tax benefit on reclassification from AOCI included in income tax benefit	(2 )	—	—
Net amount reclassified from AOCI	\$(4)	\$—	\$—

We estimate that we will reclassify a net \$2 million after-tax gain on derivatives from AOCI to earnings within the next 12 months.

## 12. Long-Lived Asset Impairment Charges

In 2016, we indefinitely idled our mining operations in Little Narrows, Nova Scotia, Canada after completing a review of our gypsum sourcing needs. At such time, we assessed the property, plant and equipment for potential impairment. We compared the carrying values of those assets with their future undiscounted cash flows for their remaining useful lives. We measured the fair value of the machinery, equipment and buildings using measurements classified as Level 3. As a result we recorded long-lived asset impairment charges of \$10 million, which are included in our consolidated statements of income in "Long-lived asset impairment charges". We also recorded severance and other charges of \$2 million for the termination of employees at the Little Narrows location, which are included in "Costs of products sold" on our consolidated statements of income. Both the impairment and severance charges are included in Other.

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## 13. Segments

Our operations are organized into five reportable segments: U.S. Wallboard and Surfaces, U.S. Performance Materials, U.S. Ceilings, Canada, and UBBP. See Note 1, Significant Accounting Policies, for additional information regarding our reportable segments. The results of our five reportable segments are as follows:

## CONSOLIDATED SEGMENTS

(millions)	For the year ended		
	December 31,		
	2018	2017	2016
Net Sales:			
U.S. Wallboard and Surfaces	\$1,927	\$1,916	\$1,778
U.S. Performance Materials	392	373	357
U.S. Ceilings	541	477	467
Canada	448	405	389
Other	252	245	220
Eliminations	(224 )	(212 )	(194 )
Total	\$3,336	\$3,204	\$3,017
Operating Profit (Loss):			
U.S. Wallboard and Surfaces	\$248	\$306	\$328
U.S. Performance Materials	(8 )	24	40
U.S. Ceilings	78	92	98
Canada	19	13	27
Other	14	11	(4 )
Corporate	(124 )	(92 )	(93 )
Eliminations	—	(1 )	—
Total	\$227	\$353	\$396
Depreciation, Depletion, Amortization and Accretion:			
U.S. Wallboard and Surfaces	\$97	\$91	\$87
U.S. Performance Materials	10	9	9
U.S. Ceilings	24	15	15
Canada	8	6	6
Other	5	5	7
Corporate	6	6	10
Total	\$150	\$132	\$134
Capital Expenditures:			
U.S. Wallboard and Surfaces	\$131	\$104	\$60
U.S. Performance Materials	36	31	11
U.S. Ceilings	27	17	4
Canada	8	10	4
Other	10	5	3
Corporate	7	1	1
Total	\$219	\$168	\$83

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## CONSOLIDATED NET SALES DISAGGREGATED BY PRODUCT TYPE

	For the year ended December 31, 2018					
(millions)	U.S. Wallboard and Surfaces	U.S. Performance Materials	U.S. Ceilings	Canada	Other	Total
Wallboard	\$994	\$ —	\$ —	\$ 258	\$70	\$1,322
Surfaces and industrial products	580	—	—	89	28	697
Underlayment	—	303	—	10	38	351
Building envelope and structural	—	81	—	2	1	84
Ceiling tile and grid	—	—	464	44	34	542
Specialty ceilings	—	—	20	8	—	28
Other products	103	—	3	13	78	197
Total product sales	1,677	384	487	424	249	3,221
Other miscellaneous sales <sup>(a)</sup>	250	8	54	24	3	339
Total sales before eliminations	1,927	392	541	448	252	3,560
Eliminations	(124 )	(20 )	(48 )	(31 )	(1 )	(224 )
Total net sales	\$1,803	\$ 372	\$ 493	\$ 417	\$251	\$3,336

(a) Other miscellaneous sales primarily includes shipping and handling costs billed to customers.

## CONSOLIDATED GEOGRAPHIC INFORMATION

	For the year ended		
	December 31,		
(millions)	2018	2017	2016
Net Sales:			
United States	\$2,871	\$2,787	\$2,625
Canada	448	406	389
Other Foreign	211	204	189
Geographic transfers	(194 )	(193 )	(186 )
Total	\$3,336	\$3,204	\$3,017

Consolidated long-lived assets, consisting of property, plant and equipment, net, by geographic location were as follows:

	As of December 31,		
(millions)	2018	2017	2016
Long-Lived Assets:			
United States	\$1,680	\$1,604	\$1,563
Canada	84	90	80
Other Foreign	74	68	64
Total	\$1,838	\$1,762	\$1,707

	For the year ended		
	December 31,		
(millions)	2018	2017	2016
Net sales	\$1,182	\$1,200	\$1,052
Operating profit	117	160	133
Net income attributable to UBBP	84	117	99
Depreciation, depletion, and amortization	50	45	43
Capital expenditures	84	49	45



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UBBP GEOGRAPHIC INFORMATION (millions)	For the year ended December 31,		
	2018	2017	2016
Net Sales:			
Australia	\$438	\$431	\$381
South Korea	253	287	223
Thailand	161	150	141
China	131	119	103
Other	267	271	255
Geographic transfers	(68 )	(58 )	(51 )
Total	\$1,182	\$1,200	\$1,052

Long-lived assets, consisting of property, plant and equipment, net, by geographic location for UBBP were as follows:

(millions)	As of December 31,		
	2018	2017	2016
Long-Lived Assets:			
Australia	\$209	\$229	\$217
South Korea	118	123	107
China	93	101	97
Oman	83	85	86
Thailand	86	86	75
Other	102	86	71
Total	\$691	\$710	\$653

**OTHER SEGMENT INFORMATION**

Information on segment assets is not disclosed as our chief operating decision maker does not evaluate operating segments using asset information. Segment operating profit (loss) includes all costs and expenses directly related to the segment involved and an allocation of expenses that benefit more than one segment.

Revenues are attributed to geographic areas based on the location of the assets producing the revenues. Transactions between reportable segments and geographic areas are accounted for at transfer prices that are approximately equal to market value. Geographic transfers largely reflect intercompany sales from our domestic segments of U.S. Wallboard and Surfaces, U.S. Performance Materials and U.S. Ceilings to Canada and Mexico.

Sales to our significant customers were as follows:

Significant Customer	Segment with Sales to Significant Customer	2018	2017	2016
The Home Depot	U.S. Wallboard and Surfaces, U.S. Performance Materials, U.S. Ceilings, and Canada	24 %	23 %	23 %
L&W	U.S. Wallboard and Surfaces, U.S. Performance Materials and U.S. Ceilings	14 %	16 %	19 %

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## 14. Income Taxes

On December 22, 2017, the President of the United States signed into law the 2017 Tax Act. The 2017 Tax Act amended the Internal Revenue Code of 1986, as amended (the "Code"), to reduce tax rates and modify policies, credits and deductions. For businesses, the 2017 Tax Act reduced the corporate federal tax rate from a maximum of 35% to a flat 21%. The provisional effect on deferred tax assets and liabilities of the change in tax rates was recognized in earnings in the period ended December 31, 2017, which was when the change was enacted. As part of the 2017 Tax Act's change to a quasi-territorial system, a transition tax was imposed on our accumulated foreign earnings, partially offset by foreign tax credits, which was also recognized in the period ending December 31, 2017. In December 2017, the SEC staff issued Staff Accounting Bulletin 118 ("SAB 118"), which provided relief for companies to record provisional amounts in the period of enactment not to exceed one year from the 2017 Tax Act enactment date. The estimate recorded as of December 31, 2017 was updated and finalized in the fourth quarter of 2018 to reflect our decision to elect not to apply our existing net operating losses, or NOLs, against the accumulated earnings that were subject to the transition tax. As a result of that election, in the fourth quarter of 2018 we recorded a tax benefit of \$9 million for the release of a portion of the valuation allowance on our foreign tax credit carryforward. We also reversed \$2 million of anticipated sequestration of our corporate alternative minimum tax, or AMT, credits based upon guidance released by the United States Office of Management and Budget (OMB).

Ongoing guidance and accounting interpretation for the 2017 Tax Act are expected over the coming months and years and we will consider any changes in the accounting for the 2017 Tax Act in the period in which such additional guidance is issued. We do not expect the ongoing guidance and interpretations to have a material impact on our financial statements.

The 2017 Tax Act also repealed the corporate AMT for tax years beginning January 1, 2018, and provides that existing AMT credit carryovers are refundable beginning in 2018. As of December 31, 2018, we recorded a \$17 million receivable, which is included in "Income taxes receivable" on our consolidated balance sheet. We have approximately \$17 million of AMT credit carryovers that are expected to be refunded by 2022.

Income from continuing operations before income taxes consisted of the following:

(millions)	2018	2017	2016
U.S.	\$168	\$272	\$201
Foreign	59	63	73
Total	\$227	\$335	\$274

Income tax expense (benefit) on continuing operations consisted of the following:

(millions)	2018	2017	2016
Current:			
Federal	\$(3)	\$(21)	\$—
Foreign	7	2	5
State	2	2	1
Total current	\$6	\$(17)	\$6
Deferred:			
Federal	\$23	\$243	\$41
Foreign	—	—	2
State	5	12	14
Total deferred	\$28	\$255	\$57
Total	\$34	\$238	\$63

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For our continuing operations, differences between actual provisions for income taxes and provisions for income taxes at the U.S. federal statutory rate (21% in 2018 and 35% in 2017 and 2016) were as follows:

(millions)	2018	2017	2016
Taxes on income from continuing operations at U.S. federal statutory rate	\$48	\$117	\$96
Foreign earnings subject to different tax rates	4	3	(3 )
State income tax, net of federal benefit	6	9	10
Income from equity method investments	(9 )	(21 )	(17 )
Law changes <sup>(a)</sup>	(11 )	145	—
Stock compensation	(5 )	—	—
Prior year return adjustments	—	(7 )	—
Foreign tax credits	—	—	(21 )
Global Intangible Low-Taxed Income	5	—	—
Other, net	(4 )	(8 )	(2 )
Provision for income tax expense (benefit)	\$34	\$238	\$63
Effective income tax rate	15 %	71 %	23 %

In 2017, we recorded the impact of the 2017 Tax Act which included the transition tax on deferred foreign earnings, net of foreign tax credits, of \$9 million, an increase in the valuation allowance related to foreign tax credits of \$106 million, an increase in the valuation allowance of our state NOLs due to the change in federal (a)benefit related to those assets of \$18 million, anticipated sequestration of our AMT credits of \$3 million and the impact of the corporate rate change on deferred tax assets and liabilities of \$9 million. In 2018, we reversed \$2 million of anticipated sequestration of our AMT credits based upon guidance released by the OMB and had a decrease in the valuation allowance of \$9 million related to anticipated future realization of foreign tax credits. Significant components of deferred tax assets and liabilities were as follows:

	As of	
	December	
	31,	
(millions)	2018	2017
Deferred Tax Assets:		
Net operating loss and tax credit carryforwards	\$389	\$477
Pension and postretirement benefits	68	86
Reserves not deductible until paid	15	14
Self insurance	4	2
Capitalized interest	8	7
Inventories	4	4
Share-based compensation	13	14
Other	9	7
Deferred tax assets before valuation allowance	510	611
Valuation allowance	(112 )	(175 )
Total deferred tax assets	\$398	\$436
Deferred Tax Liabilities:		
Property, plant and equipment	157	153
Total deferred tax liabilities	\$157	\$153
Net deferred tax assets	\$241	\$283

During 2018, we recorded a decrease in the valuation allowance against our deferred tax assets of \$63 million. The decrease was primarily related to the impact of the 2017 Tax Act on our ability to realize foreign tax credits and the expiration of certain state NOL carryforwards. During 2017, we recorded an increase in the valuation allowance against our deferred tax assets of \$124 million. The increase was primarily related to law changes under the 2017 Tax Act, including the federal rate change, from 35% to 21%, and the ability to realize foreign tax credits. In 2016, we recorded a decrease in the valuation allowance related to the expiration of the state NOL carryforwards.



As of December 31, 2018, we had net deferred tax assets of \$241 million, which included a valuation allowance of \$112 million. The components of the valuation allowance relate to certain state NOL carryforwards and foreign tax credit carryforwards that we anticipate will not be used prior to their expiration.

As of December 31, 2018, we had federal NOL carryforwards of approximately \$559 million that are available to offset future federal taxable income and will expire in the years 2030 through 2032. In addition, as of that date, we had federal AMT

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credit carryforwards of approximately \$17 million that are available to reduce future regular federal income taxes with the full benefit being realized by 2022 as described in the 2017 Tax Act. We have foreign tax credit carryforwards of \$135 million that are available to offset future federal taxable income and expire in the years 2022 through 2027. The foreign tax credits are attributable to tax planning strategies to optimize foreign tax credit utilization and management's intention to amend its tax returns for the tax years 2012-2013 in order to claim credits for previously deducted foreign tax. In 2018, additional foreign tax credits were attributed to the transition tax as enacted by the 2017 Tax Act. In order to fully realize the U.S. federal net deferred tax assets, taxable income of approximately \$1.285 billion would need to be generated during the period before their expiration based on our current interpretation of the 2017 Tax Act. As of December 31, 2018, we had a deferred tax asset of \$152 million related to state NOLs and tax credit carryforwards. The NOLs will expire if unused in years 2019 through 2036. To the extent that we do not generate sufficient state taxable income within the statutory carryforward periods to utilize the NOL and tax credit carryforwards in these states, they will expire unused.

The Code imposes limitations on a corporation's ability to utilize NOLs if it experiences an "ownership change." See Note 15, Stockholder Rights Plan, for further explanation. If we were to experience an ownership change, utilization of our NOLs would be subject to an annual limitation that may be carried over to later years within the allowed NOL carryforward period. If an ownership change had occurred as of December 31, 2018, our annual U.S. federal NOL utilization would have been limited to approximately \$150 million per year.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

(millions)	2018	2017	2016
Balance as of January 1	\$12	\$15	\$18
Tax positions related to the current period:			
Gross increase	—	—	—
Gross decrease	—	—	—
Tax positions related to prior periods:			
Gross increase	4	—	—
Gross decrease	—	(1 )	(3 )
Settlements	(1 )	—	—
Lapse of statutes of limitations	(1 )	(2 )	—
Balance as of December 31	\$14	\$12	\$15

We classify interest expense and penalties related to unrecognized tax benefits and interest income on tax overpayments as components of income tax expense. We do not have amounts related to interest expense and penalties recognized on our consolidated balance sheets as of December 31, 2018 and 2017. We recorded no interest and penalties in our consolidated statements of income in the years ended December 31, 2018, 2017 and 2016. The total amounts of unrecognized tax benefit that, if recognized, would affect our effective tax rate were \$14 million, \$12 million and \$14 million for 2018, 2017 and 2016, respectively.

Our federal income tax returns for 2014, 2008 and prior years have been examined by the Internal Revenue Service. The U.S. federal statute of limitations remains open for 2006-2012 and 2015 to the present. We are under examination in various U.S. state and foreign jurisdictions. We do not believe our gross unrecognized tax benefits will change as a result of the conclusion of these examinations. There are statutes, however, that are expiring within the next 12 months that could result in recognition of approximately \$1 million of tax benefit. Foreign and U.S. state jurisdictions have statutes of limitations generally ranging from three to five years.

We do not provide for U.S. income taxes on the portion of undistributed earnings of foreign subsidiaries that is intended to be permanently reinvested. It is not practical to calculate the residual income tax which would result if basis differences reversed or previously-taxed earnings were distributed. This is due to the complexities of the tax law impacted by the 2017 Tax Act and the hypothetical nature of the calculations.

#### 15. Stockholder Rights Plan

##### NOL Protective Provisions of our Rights Plan

We have a stockholder rights plan that is intended to protect our NOL carryforwards and related tax benefits. See Note 14, Income Taxes, for a description of our NOL carryforwards. Under federal tax laws, we generally can use our

pre-2018 NOLs

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and certain related tax credits to reduce ordinary income tax paid in our prior two tax years or on our future taxable income for up to 20 years (10 years for tax credits), when they “expire” for such purposes.

Our ability to use our NOLs could be substantially limited if we experience an “ownership change,” as defined under Section 382 of the Code, and the rights plan has been designed to help prevent such an “ownership change.” Under Section 382 of the Code, an “ownership change” occurs if, over a rolling three-year period, there has been an aggregate increase of 50 percentage points or more in the percentage of our common stock owned by one or more of our “5-percent stockholders” (as determined under Section 382 of the Code). The Merger is expected to constitute an “ownership change.”

The rights plan provides that if any person becomes the beneficial owner (as defined in the Code) of 4.9% or more of our common stock, stockholders other than the triggering stockholder will have the right to purchase additional shares of our common stock at half the market price, thereby diluting the triggering stockholder; provided that stockholders whose beneficial ownership, as defined in Section 382 of the Code, exceeded 4.9% of our common stock outstanding on February 11, 2015 will not be deemed to have triggered the rights plan, so long as they do not thereafter acquire beneficial ownership of additional common stock other than in certain specified exempt transactions. At our 2016 annual meeting our stockholders ratified, on an advisory basis, the extension of the term of the rights plan and the NOL protective provisions to May 31, 2019. In connection with the Merger, we entered into an amendment to the rights plan on November 13, 2018, which provides that no person or entity will become a triggering stockholder under the terms of the rights plan as a result of the transactions contemplated by the Merger Agreement and the Voting Agreement, dated as of June 10, 2018, among Knauf, Merger Sub and Berkshire Hathaway Inc., a Delaware corporation, on behalf of itself and its subsidiaries listed on Exhibit A thereto, or the Voting Agreement.

The amendment also accelerates the expiration of the rights issued pursuant to the rights plan to the earliest of May 31, 2019 and the effective time of the transactions contemplated by the Merger Agreement, unless earlier redeemed or exchanged. Subject to the limitations of the Merger Agreement, our Board of Directors has the power to accelerate or extend the expiration date of the rights. The NOL protective provisions of the rights plan described above will be effective until the earliest of the close of business on (i) May 31, 2019, (ii) the date on which our Board of Directors determines that these provisions are no longer necessary for the protection of certain tax benefits because of the repeal of Section 382 of the Code, (iii) the first day of a taxable year as to which our Board of Directors determines that no tax benefits may be carried forward, or (iv) such other date as our Board of Directors determines that these provisions are no longer necessary for the preservation of tax benefits, or the Special Period. After the end of the Special Period, the triggering threshold for the rights issued pursuant to the rights plan will revert to 15% of our outstanding common stock and the definition of “beneficial owner” will revert to definitions that do not track Section 382 of the Code.

A board committee composed solely of independent directors reviews the rights plan at least once every three years to determine whether to modify the rights plan in light of all relevant factors. This review was most recently conducted in November 2018.

#### Restated Certificate of Incorporation

Our Restated Certificate of Incorporation also restricts certain transfers of our common stock and includes provisions intended to further protect the tax benefits of our NOL carryforwards. Subject to certain limited exceptions, these transfer restrictions restrict any person from transferring our common stock (or any interest in our common stock) if the transfer would result in a stockholder (or several stockholders, in the aggregate, who hold their stock as a “group” under Section 382 of the Code) owning 4.9% or more of our common stock. Any direct or indirect transfer attempted in violation of these transfer restrictions would be void as of the date of the prohibited transfer as to the purported transferee, and the purported transferee would not be recognized as the owner of the shares attempted to be owned in violation of the transfer restrictions for any purpose, including for purposes of voting and receiving dividends or other distributions in respect of that common stock, or in the case of options, receiving our common stock in respect of their exercise. These restrictions are effective until the earliest of (i) the close of business on May 31, 2019, (ii) the repeal of Section 382 of the Code if our Board of Directors determines that the restrictions are no longer necessary or desirable for the preservation of tax benefits, (iii) the close of business on the first day of a taxable year as to which our Board of Directors determines that no tax benefits may be carried forward, or (iv) such other date as determined by our Board of Directors pursuant to the provisions described above. Pursuant to our Restated Certificate of

Incorporation, our Board of Directors approved the transactions contemplated by the Merger Agreement and the Voting Agreement and determined that the transfer restrictions described above do not apply to such transactions.

#### Treatment of Berkshire Hathaway under Rights Plan and Restated Certificate of Incorporation

Pursuant to a Shareholder's Agreement reached in 2006, Berkshire Hathaway and certain of its affiliates may acquire beneficial ownership of up to 50% of our voting stock on a fully-diluted basis without triggering the ownership thresholds in our Restated Certificate of Incorporation or the rights plan, and may acquire beneficial ownership of more than 50% of our voting stock on a

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fully-diluted basis without triggering the ownership thresholds in our Restated Certificate of Incorporation or the rights plan through an offer to purchase all of our common stock that remains open for at least 60 days, in each case subject to specified exceptions.

## 16. Lease Commitments

We lease some of our offices, buildings, machinery and equipment, and automobiles under noncancelable operating leases. These leases have various escalation terms and renewal options. Lease expense amounted to \$48 million in 2018, \$37 million in 2017 and \$36 million in 2016. Future minimum lease payments required under operating leases with initial or remaining noncancelable terms in excess of one year as of December 31, 2018 were as follows:

(millions)	2019	2020	2021	2022	2023	After 2023
Future minimum lease payments	\$ 46	\$ 39	\$ 27	\$ 12	\$ 6	\$ 6

## 17. Litigation

**WALLBOARD PRICING CLASS ACTION LAWSUITS**

In 2015, USG, our subsidiary United States Gypsum Company, our former subsidiary L&W Supply Corporation, and seven other wallboard manufacturers were named as defendants in a lawsuit filed in federal court in California by twelve homebuilders alleging that since at least September 2011, U.S. wallboard manufacturers conspired to fix and raise the price of gypsum wallboard sold in the United States and to effectuate the alleged conspiracy by ending the practice of providing job quotes on wallboard. The lawsuit was transferred to the United States District Court for the Eastern District of Pennsylvania under the title In re: Domestic Drywall Antitrust Litigation, MDL No. 2437. In 2016, the Court dismissed with prejudice the portions of the homebuilders' complaint alleging a conspiracy in 2014 and 2015, ruling that there were insufficient factual allegations to allow such a claim to go forward. The homebuilders' claims alleging a conspiracy prior to 2014 have not been dismissed, and the case proceeds as to those claims. USG has agreed to defend and indemnify L&W Supply Corporation with regard to this matter.

Beginning in 2013, class action lawsuits making similar allegations with regard to Canada were filed in Quebec, Ontario and British Columbia courts on behalf of purchasers of wallboard in Canada and naming USG, our subsidiaries United States Gypsum Company and CGC Inc., and other wallboard manufacturers as defendants.

We believe that the cost, if any, of resolving the homebuilders' lawsuit and Canadian class action litigation will not have a material effect on our results of operations, financial position or cash flows.

**ENVIRONMENTAL LITIGATION**

We are involved in environmental cleanups of property that we own or have owned. In addition, we have previously been notified by state and federal environmental protection agencies of possible involvement as one of numerous "potentially responsible parties" in certain Superfund sites in the United States to pay for some part of the cleanup of hazardous waste. In most of these sites, our involvement is expected to be minimal. As of December 31, 2018 and 2017, we had a liability of \$13 million and \$17 million, respectively, for our probable and reasonably estimable liability in connection with these matters. Our liability takes into account all known or estimated undiscounted costs associated with these sites, including site investigations and feasibility costs, site cleanup and remediation, certain legal costs, and fines and penalties, if any. However, we continue to review these liabilities as additional information becomes available and revise them as appropriate. Based on the information known to us, we believe these environmental matters will not have a material effect on our results of operations, financial position or cash flows.

**OTHER LITIGATION**

We are named as defendants in other claims and lawsuits arising from our operations, including lawsuits or claims arising from commercial disputes, product performance, product liabilities and worksite or vehicular accidents. We believe that we have properly accrued for our probable liability in connection with these claims and suits, taking into account the probability of liability, whether our exposure can be reasonably estimated and, if so, our estimate of our liability or the range of our liability. We do not expect these or any other litigation matters involving USG to have a material effect on our results of operations, financial position or cash flows.

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## 18. Quarterly Financial Data (unaudited)

(millions, except per-share data)	Quarter			
	First	Second	Third	Fourth
2018				
Net sales	\$786	\$880	\$851	\$819
Gross profit	139	184	152	131
Operating profit	46	75	69	37
Income from continuing operations	36	58	58	41
Income from discontinued operations, net of tax	1	—	1	1
Net income	37	58	59	42
Income per average common share:				
Basic <sup>(a)</sup>	\$0.26	\$0.41	\$0.42	\$0.31
Diluted <sup>(a)</sup>	0.25	0.41	0.41	0.30
2017				
Net sales	\$767	\$811	\$795	\$831
Gross profit	159	168	162	167
Operating profit	84	95	91	83
Income (loss) from continuing operations <sup>(b)</sup>	55	46	66	(70 )
(Loss) income from discontinued operations, net of tax	—	(10 )	—	1
Net income (loss) <sup>(b)</sup>	55	36	66	(69 )
Income per average common share:				
Basic <sup>(a)</sup>	\$0.38	\$0.25	\$0.47	\$(0.49)
Diluted <sup>(a)</sup>	0.37	0.24	0.46	(0.49 )

(a) The sum of the four quarters is not necessarily the same as the total for the year.

Income from continuing operations and net income included a loss on extinguishment of debt of \$22 million for the (b) second quarter of 2017 and income tax expense of \$145 million related to the 2017 Tax Act for the fourth quarter of 2017. See Notes 6, Debt, and 14, Income Taxes, respectively.

## 19. Merger Agreement

On June 10, 2018, we entered into an Agreement and Plan of Merger, as it may be amended from time to time, or the Merger Agreement, with Gebr. Knauf KG, a limited partnership (Kommanditgesellschaft) organized under the laws of Germany, or Knauf, and World Cup Acquisition Corporation, a Delaware corporation and an indirect, wholly-owned subsidiary of Knauf, or Merger Sub. The Merger Agreement provides that, subject to the satisfaction of customary closing conditions, Merger Sub will be merged with and into USG, or the Merger, with USG continuing as the surviving corporation and an indirect, wholly-owned subsidiary of Knauf. Pursuant to the terms of the Merger Agreement, at the effective time of the Merger, each share of common stock, par value \$0.10, of USG issued and outstanding immediately prior to the effective time of the Merger (other than shares of common stock owned by Knauf and its subsidiaries, USG and its subsidiaries and certain excluded holders) will be converted into the right to receive \$43.50 in cash, without interest and subject to tax withholding.

In addition, as contemplated by the Merger Agreement, we announced on August 9, 2018 that USG had declared a conditional special cash dividend of \$0.50 per share, or the conditional special dividend, payable to holders of record of our common stock as of the close of business on August 21, 2018. Payment of the conditional special dividend was conditioned on adoption of the Merger Agreement by our stockholders at the special meeting held on September 26, 2018, or the special meeting. The Merger Agreement was adopted by our stockholders at the special meeting and following certification of the vote in favor of adoption, the conditional special dividend was paid on October 2, 2018. The conditional special dividend totaled \$70 million and was declared from retained earnings.

Pursuant to the Dividend Make-Whole Amount Plan approved by USG in connection with the Merger and the conditional special dividend, an additional \$2 million is expected to be paid to holders of stock options, market share units and performance shares of USG, or Incentive Equity Awards, that were outstanding as of June 10, 2018, and are or become vested and paid out in connection with completion of the Merger or are or become vested and become

payable following the record date of the special meeting, but prior to the closing of the Merger. These Incentive Equity Awards would not otherwise be

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entitled to dividend equivalent payments pursuant to their existing terms. The dividend payable is included in "Accounts payable" on our consolidated balance sheets.

The Merger, which is currently expected to close in early 2019, is subject to the satisfaction or waiver of certain customary closing conditions, including, among others, receipt of certain regulatory approvals. The Merger Agreement contains certain termination rights for both USG and Knauf. If the Merger Agreement is terminated under certain specified circumstances, we will be required to pay Knauf a termination fee of \$215 million. We have incurred \$19 million, pre-tax, of Merger-related costs for the year ended December 31, 2018 which are included in "Selling and administrative expenses" on our consolidated statements of income.

See Note 4, Equity Method Investments, for additional information regarding the default notice under the UBBP Shareholders Agreement delivered by Boral in connection with the Merger.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of USG Corporation:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of USG Corporation and subsidiaries (the "Corporation") as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows, for each of the three years in the period ended December 31, 2018, and the related notes and the schedule listed in the Index at Item 8 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Corporation as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Corporation'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 February 14, 2019, expressed an unqualified opinion on the Corporation's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Corporation's management. Our responsibility is to express an opinion on the Corporation's 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 Corporation 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 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 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ DELOITTE & TOUCHE LLP

Chicago, Illinois

February 14, 2019

We have served as the Corporation's auditor since 2002.

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SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS

(millions)	Balance at beginning of period	Additions Charged to costs and expenses	Charged to other accounts	Deductions (a)	Balance at end of period
Year ended December 31, 2018:					
Doubtful accounts	\$ 6	\$ 1	\$ —	—	\$ 7
Cash discounts	3	39	—	(39)	3
Income tax valuation allowance	175	—	—	(63)	112
Year ended December 31, 2017:					
Doubtful accounts	5	2	—	(1)	6
Cash discounts	3	34	—	(34)	3
Income tax valuation allowance	51	124	—	—	175
Year ended December 31, 2016:					
Doubtful accounts	7	1	—	(3)	5
Cash discounts	2	34	—	(33)	3
Income tax valuation allowance	70	—	—	(19)	51

(a) Reflects receivables written off as related to doubtful accounts, cash discounts allowed and reductions in the income tax valuation allowance.

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

None

Item 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our Chief Executive Officer and Chief Financial Officer, after evaluating the effectiveness of our “disclosure controls and procedures” (as defined in Rule 13a-15(e) promulgated under the Exchange Act), have concluded that, as of the end of the fiscal year covered by this report, our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Exchange Act is accumulated and communicated to the issuer’s management, including its principal executive officer or officers and principal financial officer or officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Management Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control system was designed to provide reasonable assurance to management and our Board of Directors regarding the preparation and fair presentation of published financial statements.

All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2018. In making this assessment, management used the criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on its assessment, management believes that, as of December 31, 2018, our internal control over financial reporting is effective based on those criteria.

Our independent registered public accounting firm has issued an attestation report on our internal control over financial reporting. This report appears below.

Changes in Internal Control over Financial Reporting

There were no changes in our “internal control over financial reporting” (as defined in Rule 13a-15(f) promulgated under the Exchange Act) identified in connection with the evaluation required by Rule 13a-15(d) promulgated under the Exchange Act that occurred during the fiscal quarter ended December 31, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of USG Corporation:

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of USG Corporation and subsidiaries (the "Corporation") 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 (COSO). In our opinion, the Corporation 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 COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements and financial statement schedule as of and for the year ended December 31, 2018, of the Corporation and our report dated February 14, 2019, expressed an unqualified opinion on those financial statements and financial statement schedule.

Basis for Opinion

The Corporation'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. Our responsibility is to express an opinion on the Corporation'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 Corporation 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 included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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/ DELOITTE & TOUCHE LLP

Chicago, Illinois

February 14, 2019

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Item 9B. OTHER INFORMATION

On February 13, 2019, our Board, upon the recommendation of the Compensation and Organization Committee of the Board, approved the 2019 Annual Management Incentive Program for our elected officers (the “2019 Program”). Under the 2019 Program, 50% of the target incentive award for each of our named executive officers, other than Gregory D. Salah, is based on a formula related to adjusted consolidated net earnings and 50% is based on specified operating and financial targets. For Mr. Salah, President of our Gypsum division, 25% of the target incentive award is based on a formula related to adjusted consolidated net earnings, 25% is based on adjusted operating profit for our U.S. Wallboard and Surfaces segment, and 50% is based on specified operating and financial targets. Our Board also approved the following operating and financial targets for our named executive officers under the 2019 Program: consolidated adjusted operating profit, adjusted earnings before interest and taxes of UBBP, growth initiatives revenue, Canada and Mexico combined adjusted operating profit, U.S. Wallboard gross profit and U.S. Surfaces gross profit. Each named executive officer has been assigned three to four of these targets, as applicable.

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## PART III

## Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Board of Directors of the Registrant (as of February 14, 2019):

Name	Age	Position with USG	Director Since
Steven F. Leer	66	Non-Executive Chairman of the Board	July 2005
Jennifer F. Scanlon	52	Director, President and Chief Executive Officer	September 2016
Jose Armario	59	Director	January 2007
Thomas A. Burke	61	Director	September 2013
Matthew Carter, Jr.	58	Director	September 2012
Gretchen R. Haggerty	63	Director	May 2011
William H. Hernandez	70	Director	September 2009
Brian A. Kenney	59	Director	February 2011
Richard P. Lavin	67	Director	November 2009

## Director Biographies:

Our Board currently consists of nine directors divided into three classes, with each class elected for a three-year term. As evidenced by the biographical information provided below, our directors have significant experience in chief executive or other senior level operating, financial, product development and international management positions. In addition, a majority of our directors have experience in cyclical businesses, which we believe will help the Board assist in management's development and implementation of our growth strategies throughout the cycle. The current directors also have extensive familiarity with us and our industry, which provides them with a longer-term perspective about strategic, operational and financial issues associated with our business. All of our directors currently serve as a director of other public companies, which provides them with diverse experiences that can enhance their contribution to our Board. Set forth below is information regarding our directors and their experience, qualifications, attributes and skills.

Steven F. Leer retired as Chairman of Arch Coal, Inc., a publicly-traded coal producing company, in 2014 after having served in that position since April 2006. He was also the Chief Executive Officer of Arch Coal, Inc. until April 2012. He is a director of Cenovus Energy Inc., Norfolk Southern Corporation and Parsons Corporation and previously served as a director of the Greater St. Louis Area Boy Scouts of America and the National Association of Manufacturers and as a member of the Board of Regents of Washington University in St. Louis. Mr. Leer is the Non-Executive Chairman of the Board, Chair of its Governance Committee and a member of its Compensation and Organization Committee. He provides corporate governance insights from his service as Chairman of Arch Coal, Inc. and as a director of other public companies and particular insights regarding business conditions and developments in North America from his service on the other boards on which he serves.

Jennifer F. Scanlon has served as a Director since September 2016 and as our President and Chief Executive Officer since November 2016. Prior thereto Ms. Scanlon held a variety of positions at USG, including Executive Vice President beginning in March 2016 and President, International beginning in September 2010. She also served as the chairman of the board of UBBP from its inception in February 2014 until October 2016 and President of L&W from July 2015 until its sale to ABC Supply in October 2016. She is a director of Norfolk Southern Corporation, the National Association of Manufacturers, the Chicago Council on Global Affairs and Shore Community Services, Inc. She has extensive international experience from her leadership of USG's international joint ventures and broad operational and strategic experience from her previous assignments at USG and with a management consulting firm that specialized in increasing profits through operational improvement.

Jose Armario has been Chief Executive Officer and President of Bojangles', Inc., a restaurant operator and franchisor, since January 2019. He retired as Executive Vice President of Worldwide Supply Chain, Development, and Franchising of McDonald's Corporation, a publicly-traded restaurant operator and franchisor, in October 2015, after having held that position since August 2011. He is a director of Avon Products, Inc., Golden State Foods and Bojangles', Inc., a member of the President's Council of the University of Miami and a director for Receptions for Research: The Greg Olsen Foundation. Mr. Armario is a member of the Board's Audit and Compensation and

Organization Committees and he has extensive global consumer products marketing, branding, supply chain and Latin American markets expertise.

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Thomas A. Burke has been President and Chief Executive Officer and a director of Modine Manufacturing Company, a publicly-traded manufacturer of thermal management systems and components, since April 2008. He is also a director of the National Association of Manufacturers and Chairman of the Racine County Workforce Development Board. Mr. Burke is a member of the Board's Audit and Governance Committees and he has experience managing cyclical businesses and international operations and has valuable insights regarding the manufacturing industry from his service on the board of the National Association of Manufacturers.

Matthew Carter, Jr. has been Chief Executive Officer of Aryaka Networks, Inc., a leading global provider of cloud and on-premises network applications, since September 2018. He previously served as President and Chief Executive Officer of Inteliquent, Inc., a publicly-traded provider of voice telecommunications services, from June 2015 until February 2017 when Inteliquent, Inc. was acquired. Mr. Carter served as President of the Sprint Enterprise Solutions business unit of Sprint Corporation, a publicly-traded telecommunications company, from September 2013 until January 2015 and as President, Sprint Global Wholesale & Emerging Solutions at Sprint Nextel Corporation prior thereto. He is a director of NRG Energy, Inc. and Jones Lang LaSalle Incorporated, a trustee of the Goodman Theater, the Gould Academy and the Bishop's School and previously served as a director of Apollo Education Group, Inc. and Inteliquent, Inc. Mr. Carter is a member of the Board's Compensation and Organization and Governance Committees and has significant marketing, technology and international experience, including previous management oversight for all of Inteliquent, Inc.'s operations.

Gretchen R. Haggerty retired as Executive Vice President and Chief Financial Officer of United States Steel Corporation, a publicly-traded integrated steel producer, in August 2013, after having held that position for more than ten years. She is a director of Johnson Controls International plc, Teleflex Incorporated, the Strategic Investment Fund and the United Way of Southwestern Pennsylvania. Ms. Haggerty is a member of the Board's Audit Committee and, in addition to her financial expertise, she also has substantial international and cyclical business experience.

William H. Hernandez retired as Senior Vice President, Finance and Chief Financial Officer of PPG Industries, Inc., a publicly-traded manufacturer of coatings, chemical and industrial products, specialty materials and glass products, in 2009, after having served as Chief Financial Officer for approximately 15 years. He is a director of Albemarle Corporation and Northrop Grumman Corporation as well as the Three Rivers chapter of the National Association of Corporate Directors, and previously served as a director of Eastman Kodak Company and Black Box Corporation. Mr. Hernandez is Chair of the Board's Audit Committee and has significant financial and cyclical business experience.

Brian A. Kenney is Chairman, President and Chief Executive Officer of GATX Corporation, a publicly-traded global railcar lessor, and has held this position since 2005. He is also the Chairman of the Board of Trustees of the Shedd Aquarium in Chicago. Mr. Kenney is a member of the Board's Governance Committee. During his tenure with GATX, he has obtained extensive strategic, operational, financial and international investment experience and corporate governance insights in his position as Chairman of GATX. The similarity of the cyclical nature of our business and GATX Corporation's business provides Mr. Kenney with an understanding of the challenges that volatile economic conditions present for our business.

Richard P. Lavin served as President and Chief Executive Officer of Commercial Vehicle Group, Inc., a publicly-traded supplier of cab-related products and systems for the global commercial vehicle market, from May 2013 until November 2015. He had previously served as Group President of Caterpillar Inc., a publicly-traded manufacturer of construction and mining equipment, diesel and natural gas engines, industrial gas turbines and diesel-electric locomotives, until his retirement in December 2012, after having worked for Caterpillar for nearly 29 years. Mr. Lavin is a director of ITT Inc. and Allison Transmission Holdings, Inc. and previously served as a director of Commercial Vehicle Group, Inc. He is Chair of the Board's Compensation and Organization Committee. Mr. Lavin's positions provided him with experience managing cyclical, global manufacturing businesses, and he also has a diverse legal and human resources background.

**COMMITTEES OF THE BOARD OF DIRECTORS**

The standing committees of the Board are the Audit Committee, the Compensation and Organization Committee and the Governance Committee. Each committee has a charter that requires its members to be "independent" as defined in the NYSE listing standards. The Board has determined that each member of the Audit Committee is an "audit committee financial expert" as defined by the rules of the SEC. The following table indicates the current members of

each of the Board's standing committees:

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	Audit	Compensation and Organization	Governance
Jose Armario	x	x	
Thomas A. Burke	x		x
Matthew Carter, Jr.		x	x
Gretchen R. Haggerty	x		
William H. Hernandez	x*		
Brian A. Kenney			x
Richard P. Lavin		x*	
Steven F. Leer		x	x*

\*Chairperson

Executive Officers of the Registrant (as of February 14, 2019):

Name	Age	Position
Jennifer F. Scanlon <sup>(a)</sup>	52	President and Chief Executive Officer
Matthew F. Hilzinger	55	Executive Vice President, Chief Financial Officer and Treasurer
Brian J. Cook	61	Executive Vice President and Chief Administrative Officer
Dominic A. Dannessa	62	Executive Vice President and Chief Customer and Innovation Officer
Joseph W. Holmes	57	Senior Vice President, Manufacturing, Technology and Global Operations
Christopher D. Macey	47	Senior Vice President and President, Ceilings
John M. Reale	57	Senior Vice President and President, Performance Materials
Gregory D. Salah	56	Senior Vice President and President, Gypsum
Michelle M. Warner	52	Senior Vice President, General Counsel and Corporate Secretary

(a) Ms. Scanlon's biographical information is provided above in the section identifying the Board of Directors.

Business Experience of Executive Officers During the Last Five Years:

Matthew F. Hilzinger has served as Executive Vice President since April 2012, Chief Financial Officer since May 2012 and Treasurer since January 2019. Prior to joining USG, he held various positions at Exelon Corporation, a utility services holding company engaged in the energy generation and delivery businesses, including serving as Executive Vice President and Chief Integration Officer in March 2012 and Senior Vice President and Chief Financial Officer prior thereto.

Brian J. Cook has served as Executive Vice President since March 2016 and Chief Administrative Officer since September 2015. He previously held a variety of human resources and labor relations positions at USG, including Senior Vice President, Human Resources and Communications from May 2013 to August 2015 and Senior Vice President, Human Resources prior thereto.

Dominic A. Dannessa has served as Executive Vice President and Chief Customer and Innovation Officer since November 2017. He also oversees USG's Corporate Innovation Center in Libertyville, IL. Mr. Dannessa previously served as Executive Vice President, Chief Operations and Innovation Officer from March 2016 until November 2017, Senior Vice President, Operations and Chief Technology Officer from September 2015 until February 2016 and prior thereto as Senior Vice President and Chief Technology Officer.

Joseph W. Holmes has served as Senior Vice President, Manufacturing, Technology and Global Operations and as an executive officer since November 2017. Prior thereto he served as Chief Operating Officer of UBBP from its inception in February 2014 until October 2017. He previously held various roles at USG beginning more than five years ago, including Vice President, Enterprise Technology, Vice President, L&W and General Manager, USG Zawawi until the inception of UBBP in February 2014.

Christopher D. Macey has served as Senior Vice President and President, Ceilings since October 2017 and became an executive officer in November 2017. He previously held a variety of roles with USG and CGC, USG's Canadian subsidiary, including General Manager, North American Ceilings from June 2015 to September 2017 and Vice

President and prior thereto General Manager, CGC beginning in 2007.

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John M. Reale has served as Senior Vice President and President, Performance Materials since October 2017 and became an executive officer in November 2017. Previously he served as General Manager, North American Substrates from January 2013 until September 2017 and in a variety of roles at USG prior thereto. Mr. Reale, before he was an executive officer of USG, filed a personal voluntary bankruptcy petition under Chapter 7 in the U.S. Bankruptcy Court in 2012 as a result of an unsuccessful personal business venture, which petition has since been discharged.

Gregory D. Salah has served as Senior Vice President and President, Gypsum since November 2017. Previously he served in various roles at USG, including Senior Vice President and President, North America from March 2016 to October 2017, Vice President and General Manager, North America from August 2015 to February 2016, Senior Vice President & General Manager, North American Wallboard & Surfaces, United States Gypsum Company, from December 2014 to July 2015, General Manager, US Wallboard & Surfaces from January 2013 to November 2014 and Senior Vice President, Sales and Marketing, Building Systems prior thereto.

Michelle M. Warner joined USG as Senior Vice President, General Counsel and Corporate Secretary in January 2016. Prior to joining USG, she served in various roles at Motorola Solutions, Inc., a provider of communication infrastructure, devices, accessories, software and services, including Corporate Vice President, Deputy General Counsel and Secretary from June 2013 to December 2015 and Corporate Vice President, Law, Corporate, Securities and Transactions prior thereto.

**Committee Charters and Code of Business Conduct**

We have adopted a code of ethics, our Code of Business Conduct, that applies to all of our directors, officers and employees. Our Code of Business Conduct, our Corporate Governance Guidelines and the charters of the committees of our Board of Directors, including the Audit Committee, Governance Committee and Compensation and Organization Committee, are available through the “Investor Relations” and “Corporate Governance” links in the “About USG” section of our Web site at [www.usg.com](http://www.usg.com). We will post any amendments to the Code of Business Conduct, and any waivers that are required to be disclosed by the rules of the SEC, the NYSE or the Chicago Stock Exchange, on our Web site.

**Section 16(a) Beneficial Ownership Reporting Compliance**

Section 16(a) of the Exchange Act requires that our executive officers, directors and greater than 10% owners file reports of beneficial ownership and changes in beneficial ownership of our common stock with the SEC. Based on a review of ownership reports filed with the SEC during 2018, or written representations that all such reports were timely filed, we believe that all filing requirements under Section 16(a) were met by our directors and executive officers during that year.

**Item 11. EXECUTIVE COMPENSATION**

**Compensation Discussion and Analysis**

**EXECUTIVE SUMMARY**

Our Compensation Discussion and Analysis describes our executive compensation philosophy and programs which are governed by the Compensation and Organization Committee of our Board, or the Committee. It includes 2018 compensation for our named executive officers listed below:

Named Executive Officer	Title
Jennifer F. Scanlon	President and Chief Executive Officer
Matthew F. Hilzinger	Executive Vice President, Chief Financial Officer and Treasurer
Dominic A. Dannessa	Executive Vice President and Chief Customer and Innovation Officer
Gregory D. Salah	Senior Vice President and President, Gypsum
Michelle M. Warner	Senior Vice President, General Counsel and Corporate Secretary

**Merger Agreement with Knauf**

On June 10, 2018, we entered into the Merger Agreement with Knauf and Merger Sub. The Merger Agreement contains customary covenants that restrict our ability to take certain actions prior to closing. In particular, our ability to take action with respect to the compensation of our executive officers is either limited or requires us to consult with Knauf prior to taking action. Additional information about the Merger Agreement is set forth in Note 19, Merger Agreement, to the consolidated financial statements in Part II, Item 8 of this report, and our Current Report on Form 8-K filed with the SEC on June 11, 2018.



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Compensation Philosophy and Objectives

For 2018, our executive compensation program was designed to attract, motivate, engage and retain talented executives and align their interests with those of our stockholders. Our program achieves those goals by providing a competitive total compensation package that is designed to meet the objectives described below:

Objectives	How we meet our objectives
Align management’s interests with those of our stockholders	Grant market share units, which are earned based on our stock price performance over a three-year period Grant performance shares, which are earned based on our total stockholder return over a three-year vesting period, as compared to the stockholder return for the companies in the Dow Jones U.S. Construction and Materials Index, or the Index Maintain stock ownership guidelines, described below under Stock Ownership Guidelines Restrict hedging activity
Motivate management to achieve our strategic growth and annual operating objectives through compensation programs that reward performance	Annual cash incentive compensation opportunity for our named executive officers is variable based on achievement of an adjusted net earnings target and annual operating and financial targets, or Focus Targets, designed to support our strategy Ensure that compensation opportunity is competitive in relation to similar positions in similar organizations In general, set the target compensation opportunity for an individual executive officer around the median level for a comparator group of companies, while also considering the executive officer’s performance, experience and skill Adjust compensation levels based on internal equity to appropriately reward the contributions of our executives and to facilitate succession planning
Attract and retain talented managers	
Our compensation program for executive officers, including our named executive officers, is structured to drive the achievement of financial and operating objectives while building the long-term value of our enterprise. We use a combination of base salary, annual and long-term incentive awards, retirement and other benefits and limited perquisites to link executive pay with financial and operating objectives set by the Committee. Our program places the greatest emphasis on performance-based incentives, with the 2018 target pay mix for our CEO and average target pay mix for our other NEOs including approximately 85% and 72% performance-based incentives, respectively.	
Elements of 2018 Compensation	
Base Salary	In 2018, we increased salaries for our named executive officers, as well as other salaried employees, to maintain market competitiveness, reward our named executive officers’ individual performance and promote internal equity and succession planning. Increases for our named executive officers ranged from 3% to 10%.
Annual Incentive Awards	For our named executive officers, other than Mr. Salah, 50% of the annual incentive award opportunity was based on achievement of the adjusted net earnings goal for 2018 set by the Committee. Because Mr. Salah has more direct profit and loss accountability for the performance of the business units in his division, 25% of his annual incentive award opportunity for 2018 was based on the achievement of the corporate adjusted net earnings goal set by the Committee and 25% was based on the achievement of the adjusted operating profit goal set by the Committee for his division. For all of our named executive officers, the other 50% of the annual award opportunity was based on achievement of Focus Targets. Annual incentive awards for our named executive officers in 2018 ranged from 18% to 46% of target due to the fact that our adjusted net earnings and several Focus Targets fell short of the minimums, as discussed under Annual Incentive below.

Long-Term Incentive Awards Annual equity awards granted to our named executive officers in 2018 were comprised of market share units and performance shares, which align management's interests with those of our stockholders because the vesting of the awards is contingent on our stock price and our total stockholder return, respectively, increasing over a three-year period. As an example, the market share units earned in 2018 vested at 150% of the target award because our stock price increased by more than 111% over the measurement period. Similarly, the performance shares earned in 2018 vested at 200% because our total stockholder return was at the 100th percentile compared to other companies in the Index. The design of our Long-Term Incentive Plan requires a balanced performance between absolute and relative stock performance to achieve the highest level of compensation.

Compensation Governance

Our executive compensation practices include governance features that align the program with stockholder interests and encourage management not to take excessive risks.



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- Provide a balanced mix of cash and equity awards, annual and long-term incentives and operating and financial performance metrics that promote a focus on long-term performance without undue emphasis on short-term results
- ü Significant CEO and NEO pay at risk
  - ü Limit the payout under our annual Management Incentive Program, or MIP, to a maximum of two times the target incentive award
  - ü Include corporate-wide earnings targets in our annual incentive program for business unit heads to align their interests with overall corporate performance
  - ü Provide the Committee downward discretion over annual incentive program payouts
    - Provide a long-term incentive award program in 2018 that is 100% performance-based consisting of (i) market share units that are earned based on our stock price performance over a three-year period, which may retain some value in a depressed market and (ii) performance share awards that are earned based on a comparison of our total stockholder return over a three-year period to the total stockholder return for the companies in the Index; for 2019, the long-term incentive awards remain performance-based, although they will be cash awards based on EBITDA as opposed to share-based awards due to the Merger
    - ü Grant our equity awards on an annual basis with long-term, overlapping vesting periods to motivate award holders to focus on sustained stock price appreciation
    - ü Include “clawback” provisions that allow our Board to recoup short-term and long-term incentive compensation paid to an executive officer under certain circumstances
    - ü Require long-term incentive awards granted since 2013 to have double-trigger vesting upon a change in control in most circumstances
    - ü Maintain stock ownership guidelines for our non-employee directors, executive officers and other senior managers to align the interests of the holders of those awards with the interests of our stockholders
    - ü Conduct annual advisory votes for stockholders to approve executive compensation
    - ü Maintain the Committee, which is comprised solely of independent directors
    - ü Retain Willis Towers Watson as independent compensation consultant to the Committee
    - ü Review compensation-related risk with management and Willis Towers Watson
    - ü Use compensation practices that encourage executives to take excessive risk
    - ü Backdate or retroactively grant options or restricted stock units
- What we do
  - ü Enter into Employment and Change in Control Severance Agreements that have provisions for excise tax gross-ups or additional service and age credits under our retirement plans (implemented in 2012)
  - ü Allow speculative transactions involving our securities, including participating in hedging activities or buying or selling puts or calls and short sales
  - ü Provide excessive or unusual executive perquisites
- What we don't do
  - ü Provide excessive or unusual executive perquisites

**SETTING COMPENSATION LEVELS - ANNUAL REVIEW**

The Committee sets the level of each element of compensation for our executive officers in February, and upon a hiring or promotion. As part of this process, the Committee considers market competitiveness, individual and USG performance for the prior year, internal equity and succession plans.

**Market Competitiveness**

Since 2003, management has engaged Aon to conduct an annual Executive Compensation Competitive Review to compare compensation opportunity for our executive officers to the compensation opportunity provided for similar positions by 20-25 industrial and/or Chicago-based companies. The review provides the Committee with market information that enables it to evaluate total compensation opportunity, the mix of fixed and performance-based compensation elements and how total compensation is divided between the various elements. The Committee uses that information to develop its own recommendations with respect to the compensation of the Chief Executive Officer, and to evaluate recommendations made by management with respect to compensation of our other executive officers. We select our comparator companies from among those for which data is available in Aon's Total Compensation Measurement database, based on their similarity to USG in terms of industry, annual revenue, complexity of operations, business cyclicity and geographic location. They are the types of companies with which we compete for

talent. For 2018, the impact of our new corporate structure following the divestiture of L&W and the resulting decrease of revenue was taken into consideration and the Committee determined to remove A.O. Smith Corporation, The Sherwin-Williams Company and W.W. Grainger, Inc. from the comparator group and add Briggs & Stratton Corporation, Graphic Packaging Holding Company, James Hardie, Snap-On Incorporated and Valmont Industries, Inc. Our comparator group for 2018 was therefore comprised of:

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Armstrong World Industries, Inc.	Fortune Brands Home & Security, Inc.	Owens Corning
Ball Corporation	Graphic Packaging Holding Company	Owens-Illinois, Inc.
Boise Cascade Company	James Hardie	Packaging Corporation of America
BorgWarner, Inc.	Lennox International, Inc.	Snap-On Incorporated
Briggs & Stratton Corporation	Martin Marietta Materials, Inc.	Valmont Industries, Inc.
Brunswick Corporation	Masco Corporation	The Valspar Corporation
Donaldson Company, Inc.	Mohawk Industries, Inc.	Vulcan Materials Company
Dover Corporation	Mueller Water Products, Inc.	

We have designed our executive compensation packages to be market competitive in total. Our objective is to provide executive officers with a targeted total compensation opportunity generally around the median of the comparator group for their individual positions. Median compensation data for our comparator group is derived by using regression analysis to size adjust comparator group data. For 2018, the comparator group data was size adjusted to a revenue of \$4.069 billion, which approximated what our 2017 annual revenues would have been at the time the analysis was completed if we had included 50% of UBBP revenues.

Total compensation opportunity for each executive officer is set by starting with the median of positions with similar responsibilities in the comparator group, and then adjusting based on individual performance and experience, internal equity, tenure and to further our succession planning philosophy of developing and promoting talent from within USG. If the scope of an executive's position is unique relative to the positions in the comparator group companies, we start with internal equity considerations or general industry data to set the compensation opportunity. Executives who are newer in a position or have new responsibilities may be below the median for one or more elements of compensation. To reward extraordinary accomplishments, to promote retention and succession planning objectives and/or to maintain internal equity, we may set compensation opportunity for individual elements above the median. The Committee is comfortable with setting one or more elements of an executive's compensation opportunity above the median because the Committee is primarily concerned with the competitiveness of our executive officers' total compensation opportunity as opposed to the opportunity represented by any one individual element of compensation. The value of the Chief Executive Officer's compensation opportunity has historically been significantly higher than that of our other named executive officers based on our philosophy of paying market competitive compensation and reflects her broader accountability and the greater percentage of her total compensation that is performance-based. We do not set the compensation level of our executive officers as a multiple of the compensation of any other employee or group of employees.

Total target compensation - base salary, target annual incentive opportunity and the value of annual recurring long-term incentive awards - for each of our named executive officers for 2018, as a percentage of the comparator group median, was as follows:

Named Executive Officer	Percentage of Comparator Group Median	
Ms. Scanlon	99	%
Mr. Hilzinger	116	%
Mr. Dannessa	123	%
Mr. Salah	85	%
Ms. Warner	111	%

**Performance**

The Board assesses the performance of the Chief Executive Officer, and the Chief Executive Officer assesses the performance of the other executive officers and summarizes the results for the Committee when making her compensation recommendations to the Committee.

The Committee's determination of our executive officers' compensation adjustments is based on its assessment of each executive officer's contribution to our overall financial results for the year and to the accomplishment of our annual operating and financial objectives as well as internal equity.

**CONSIDERATION OF ADVISORY VOTE ON COMPENSATION**

At our annual meeting held in May 2018, 46.6% of the votes cast on our advisory vote on executive compensation were in favor and 53.4% of the votes were against. This was a significant departure from our 2017 advisory vote on

executive

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compensation when we received over 97% stockholder support. In addition, both ISS and Glass Lewis concluded that our pay and performance were reasonably aligned and recommended a vote in favor of the advisory vote at our 2018 annual meeting. Management received feedback from many stockholders, who generally emphasized that their votes against our executive compensation program were primarily intended to encourage USG to negotiate with Knauf regarding Knauf's unsolicited bid to acquire us, rather than a general disagreement with the design of our executive compensation program. Given the lack of any express concern regarding our executive compensation program, the Committee and the Board did not place significant weight on the 2018 voting results when evaluating our executive compensation program for 2019. In addition, in light of the pending Merger and contractual restrictions on making changes to executive compensation in the Merger Agreement, the Committee and the Board determined not to make any material changes to the program's design, other than as discussed under Long-Term Incentive Compensation below.

**ELEMENTS OF TOTAL COMPENSATION**

Our compensation program consists of base salary, annual incentive, long-term incentive and benefits and perquisites.

**Base Salary**

Salaries are paid to provide a base level of competitive cash compensation for executives. The starting point for determining base salaries for our executive officers is the annual Aon Executive Compensation Competitive Review. Individual salaries for our named executive officers in 2018 ranged between approximately 87% and 118% of the median salaries for the comparator group. Factors that warrant paying above the median include: individual performance, as assessed by the Chief Executive Officer (or in the case of the Chief Executive Officer, the Committee and Board), experience, tenure in the position, skills, internal equity and retention considerations.

The Committee approved salary increases for 2018 for all salaried employees, including the following increases for our named executive officers:

Named Executive Officer	2017	2018	Percentage Increase	
	Base Salary	Base Salary		
Ms. Scanlon	\$950,000	\$978,500	3.0	%
Mr. Hilzinger	623,000	643,000	3.2	%
Mr. Dannels	463,000	477,000	3.0	%
Mr. Salah	400,000	440,000	10.0	%
Ms. Warner	470,000	484,000	3.0	%

**Annual Incentive**

Our MIP provides a variable reward opportunity based on adjusted net earnings and the achievement of Focus Targets, and is intended to motivate management to achieve profit and annual operating objectives. We pay annual incentive awards in the first quarter of the year following the year in which they are earned.

The target annual incentive opportunity for participants in the MIP is expressed as a percentage of base salary. For 2018, the target annual incentive opportunity for named executive officers ranged from 65% of base salary to 115% of base salary for Ms. Scanlon. Our Chief Executive Officer's annual incentive opportunity is higher than the opportunity for our other executive officers in recognition of the broader scope of her responsibilities and impact on corporate performance, and based on market data regarding compensation of chief executive officers of the companies in our comparator group. The amount of the target annual incentive opportunity for each of our named executive officers for 2018 is indicated under the heading "Estimated Future Payouts Under Non-Equity Incentive Plan Awards" in the 2018 Grants of Plan-Based Awards Table.

For 2018, the annual incentive award opportunity was comprised of adjusted net earnings and Focus Targets, which are designed to provide an incentive to maximize earnings and pursue operational excellence, while at the same time supporting our strategy. On an individual basis, actual 2018 MIP payouts ranged from 18% to 46% of target for our named executive officers. As provided in the MIP approved by the Committee at the beginning of the year, the Committee determined that certain adjustments to net earnings and certain Focus Targets were appropriate because the events were nonrecurring and non-operational in nature and the accounting effects of these items were not indicative of the performance of our named executive officers during 2018. All of these adjustments were consistent with the

types of adjustments allowed for under the MIP and are described below.

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## Management Incentive Plan Components

Segment	Objective	Features	Weight
Adjusted Net Earnings <sup>(a)</sup>	Motivate management to increase our profitability	Potential Payout Range	50% <sup>(b)</sup>
		2018 Target	0% to 200%
		2018 Minimum	\$310 million
		2018 Maximum	\$265 million
		2018 Performance	\$350 million
		2018 Payout Earned % of Target	\$209 million <sup>(c)</sup>
Focus Targets	Motivate management to achieve annual operating and financial objectives	Weight	0%
		Potential Payout Range	50%
		2018 Average NEO Payout Earned % of Target	0% to 200%
			47 %

(a) Straight-line interpolation is used to determine values between performance thresholds.

Because Mr. Salah has more direct profit and loss accountability for the performance of the business units in his division, 25% of his annual incentive award opportunity for 2018 was based on the achievement of the corporate adjusted net earnings goal set by the Committee and 25% was based on the achievement of the adjusted operating profit goal set by the Committee for his division, as described further below.

For 2018, GAAP net earnings were \$196 million and were adjusted to exclude expenses related to the Merger, gain and loss on disposition of assets, a charge for a legal judgment on a contract dispute from 2004, a charge for the termination of a marketing contract, the impact of accounting changes, earnings from discontinued operations, costs associated with the integration of Ceilings Plus and divisional realignment, and changes in tax law. Net earnings were also neutralized for foreign currency and incentive plan expense above or below planned amounts.

These adjustments had no impact on the payout percentage, which remained at 0% even after the adjustments.

At its regularly scheduled meeting in February 2018, the Committee approved Focus Targets for our named executive officers designed to continue to provide balance between our core and growth businesses. The Committee therefore retained consolidated adjusted operating margin, UBBP adjusted earnings before interest and taxes, or adjusted EBIT, and growth initiatives revenue as Focus Targets for our named executive officers, other than Mr. Salah, in order to continue to motivate management to increase margins and revenue, and removed the selling and administrative expense Focus Target. In setting the Focus Target amounts, the Committee took into account USG's expectation of continued rising costs in 2018 as well as higher planned selling and administrative expenses to support USG's growth strategy. Accordingly, certain target amounts, such as consolidated adjusted operating margin, were set at levels below the targets and/or actual performance from the prior year.

As a result of the changes in our organizational structure in late 2017, each of the presidents of our divisions, including Mr. Salah, now has more direct profit and loss accountability for the performance of the business units in his respective division. Accordingly, 25% of the annual incentive award opportunity for 2018 for the presidents of our divisions was based on the achievement of the corporate adjusted net earnings goal set by the Committee and 25% was based on the achievement of the adjusted operating profit goal set by the Committee for his division, while the other 50% of the annual award opportunity was based on the achievement of individual Focus Targets, including for Mr. Salah adjusted operating profit for our combined businesses in Canada and Mexico, gross margin in each of our U.S. Wallboard and U.S. Surfaces businesses and growth initiatives revenue.

While our revenue increased in 2018, higher costs, including raw materials and transportation costs, led to decreased operating profit and margins, which resulted in no payouts for the portion of the award based on adjusted net earnings and the following Focus Targets: consolidated adjusted operating margin, UBBP adjusted EBIT and U.S. Wallboard and Surfaces adjusted operating profit. The difference in the payouts for the various Focus Targets underscores that the design of the MIP requires a balanced performance for named executive officers to achieve the highest level of compensation under this plan. The chart below outlines the specific Focus Targets chosen by the Committee for our named executive officers, as well as the adjusted operating profit goal for our U.S. Wallboard and Surfaces segment.





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Measure	Minimum Target		Maximum		2018 Performance	Payout Earned % of Target	
Consolidated Adjusted Operating Margin <sup>(a)</sup>	11.3 %	12.6 %	13.9 %	8.9 %	0 %		
UBBP Adjusted EBIT (\$ in millions) <sup>(b)</sup>	\$ 139.2	\$ 174.0	\$ 208.8	\$ 127.2	0		
Growth Initiatives Revenue (\$ in millions)	\$ 149.6	\$ 187.0	\$ 224.4	\$ 179.8	90		
U.S. Wallboard and Surfaces Adjusted							
Operating Profit (\$ in millions) <sup>(c)</sup>	\$ 255.0	\$ 319.0	\$ 383.0	\$ 233.7	0		
Canada and Mexico Combined Adjusted							
Operating Profit (\$ in millions) <sup>(d)</sup>	\$ 26.4	\$ 33.0	\$ 39.6	\$ 37.4	167		
U.S. Wallboard Gross Margin	(e)				71		
U.S. Surfaces Gross Margin	(e)				64		

Consolidated operating margin (consolidated operating profit divided by consolidated net sales) was 6.8% in 2018.

To calculate adjusted operating margin, operating profit was adjusted to include equity income from UBBP and exclude expenses related to the Merger, gain on disposition of assets, a charge for a legal judgment on a contract dispute from 2004, a charge for the termination of a marketing contract, the impact of accounting changes and costs

(a) associated with the integration of Ceilings Plus and divisional realignment costs, and was neutralized for foreign currency and incentive plan expense above or below planned amounts. Net sales were adjusted to exclude the impact of accounting changes, including those associated with the integration of Ceilings Plus and were neutralized for foreign currency. These adjustments had no impact on the payout percentage, which remained at 0% even after the adjustments.

Net income attributable to UBBP was \$84 million in 2018. To calculate UBBP adjusted EBIT, net income attributable to UBBP was adjusted to exclude net interest, taxes on income, and net income attributable to

(b) non-controlling interest, and was neutralized for foreign currency and incentive plan expense above or below planned amounts. These adjustments had no impact on the payout percentage, which remained at 0% even after the adjustments.

U.S. Wallboard and Surfaces operating profit was \$248 million in 2018. To calculate adjusted operating profit, operating profit was adjusted to exclude a gain on disposition of assets and the impact of accounting changes and

(c) was neutralized for selling and administrative expenses allocation and incentive plan expense above or below planned amounts. These adjustments had no impact on the payout percentage, which remained at 0% even after the adjustments.

Canada and Mexico combined operating profit was \$36.2 million in 2018. To calculate adjusted operating profit,

(d) operating profit was adjusted to exclude the impact of accounting changes and was neutralized for foreign currency and incentive plan expense above or below planned amounts.

We do not publicly disclose U.S. Wallboard gross margin or U.S. Surfaces gross margin because that information

(e) constitutes confidential commercial and financial information, the disclosure of which would cause us competitive harm. The target levels for these Focus Targets were set at challenging, but achievable, levels.

For 2018, the named executive officers were assigned the following Focus Targets with the weightings indicated below:

	Consolidated Adjusted Operating Margin	UBBP Adjusted EBIT	Growth Initiatives Revenue	Canada and Mexico Combined Adjusted Operating Profit	U.S. Wallboard Gross Margin	U.S. Surfaces Gross Margin
Ms. Scanlon	20	% 10	% 20	% —	—	—
Mr. Hilzinger	20	% 10	% 20	% —	—	—
	20	% 10	% 20	% —	—	—

Mr. Dannessa							
Mr. Salah	—	—	10	% 10	% 20	% 10	%
Ms. Warner	20	% 10	% 20	% —	—	—	

Long-Term Incentive

At our annual meeting in 2016 our stockholders approved a new equity-based incentive-compensation plan, the USG Corporation 2016 Long-Term Incentive Plan. Prior thereto grants were made under the USG Corporation Long-Term Incentive Plan, and we refer to the two plans collectively as the LTIP. The purpose of the LTIP is to motivate management to build the value of the enterprise, to align management’s interests with those of our stockholders and to provide a competitive compensation opportunity that enables us to attract and retain talented employees.

For 2018, the annual awards consisted of market share units, or MSUs, and performance shares. These awards are performance based or “at risk,” based on both our absolute stock performance with MSUs (as measured by our stock price) and relative stock performance with performance shares (as measured by our total stockholder return compared to other companies in the Index). We believe combining elements of both absolute stock performance and relative stock performance provides the

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best incentive for management to increase stockholder value. The LTIP also provides for the use of stock options, stock appreciation rights, restricted stock units, or RSUs, restricted stock, performance units and other stock and cash awards.

At their regularly scheduled meetings in February 2018, the Committee and Board approved annual awards for 2018. For executive officers, 75% of the value of the total award was provided in the form of MSUs and the remaining 25% was provided in the form of performance shares.

Merger-Related Compensation Actions

Dividend Make-Whole Amounts

As previously disclosed, on July 18, 2018, a Dividend Make-Whole Amount Plan, which provides for a cash payment to each holder, including our named executive officers, of stock options, MSUs, and performance shares (such payment, the “Dividend Make-Whole Amount”), was approved in connection with the conditional special dividend payable to holders of our common stock as of the record date of the special meeting. The Dividend Make-Whole Amount will be earned upon the effective time of the Merger subject to the holder remaining continuously employed by USG and its subsidiaries until immediately prior to the effective time of the Merger, and will be paid promptly thereafter. See Note 19, Merger Agreement, for further discussion.

280G Acceleration of 2016 Awards

As previously disclosed, on November 8, 2018, in order to mitigate potential adverse tax consequences of Section 280G of the Code in connection with the pending Merger, the Board approved the acceleration of the vesting of 90% of the target MSUs and 90% of the target performance shares granted to certain executive officers on February 10, 2016.

The number of shares of our common stock paid to each such executive officer in settlement of his or her applicable accelerated 2016 awards was determined by measuring our performance for the performance period using the fifteen trading days immediately preceding December 3, 2018 instead of the first fifteen trading days in January of 2019 (which applied in the normal course). In the event the settlement of the accelerated 2016 awards was greater or less than what settlement would have been for those awards in the ordinary course, the settlement of the accelerated 2016 awards would have been adjusted (either through a clawback or true up) pursuant to the terms of the relevant acknowledgment between the executive officer and USG.

The remaining 10% of the target 2016 MSUs and performance shares vested in accordance with their original terms as further discussed below. Accordingly, the payouts for the 2016 MSUs and performance share awards reported below reflect the results of 100% of such awards in the ordinary course.

Market Share Units

MSUs are stock units earned based on the stock market performance of our common stock as measured over a three-year period. The actual number of shares of common stock to be issued can range from zero to 150% of the number of MSUs awarded based on the percentage change in the Market Value of our common stock, as defined below, over the three-year vesting period. If the Market Value increases by more than 10% during the vesting period, both the value and number of shares that vest increase. If the Market Value increases by less than 10%, does not change or declines, both the value and number of units that are eligible to vest will be reduced.

We believe MSUs provide a strong incentive for our participants to achieve results that increase value for our stockholders. A 10% increase in the Market Value is required to earn even a target number of MSUs. A decrease over the vesting period of more than 50% in Market Value results in the forfeiture of the MSUs.

MSUs granted in 2018 will be earned on December 31, 2020 according to the schedule below. On the Start Date, as defined below, the Market Value of the MSUs granted in 2018 was \$39.19. In general, earning the MSUs granted in 2018 requires continued employment through December 31, 2020. In the case of termination of employment due to death, disability or retirement during the performance period, vesting will be pro-rated based on the number of full months employed during 2018 in accordance with the MSU award agreements and are paid at the end of the performance period. The applicable award agreements provide for accelerated vesting upon a change in control in most circumstances only if there is also a related loss of employment or diminution of duties; however, the Merger Agreement provides that any MSUs that are outstanding immediately prior to the effective time of the Merger will become fully vested and will be converted into the right to receive a cash payment equal to the product of (a) the

number of shares of our common stock earned under such MSU, determined as of the effective time of the Merger by substituting the closing consideration for the Market Value, multiplied by (b) the closing consideration.

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Performance of Market Value on End Date compared to the Start Date	Percentage of Target Shares Earned on December 31, 2020 <sup>(a)</sup>
More than 50% decrease	0 %
50% decrease	50 %
No change	92 %
10% increase	100 %
50% or more increase	150 %

(a) Straight-line interpolation is used to determine values between performance thresholds.

Market Value of our common stock is determined on the applicable date as set forth below:

	Start Date (Grant on February 14, 2018)	End Date (Paid in February 2021)
Market Value measurement methodology on applicable dates	Average of the closing prices of our common stock over the first 15 trading days in January 2018	Average of the closing prices of our common stock over the first 15 trading days in January 2021

As an example, if an employee was granted 100 target MSUs, and the average of the closing prices of our common stock for the first 15 trading days in January 2018 (the “Start Date”) is \$25, with the average of the closing prices of our common stock for the first 15 trading days in January 2021 (the “End Date”) remaining at \$25 (a scenario where the Market Value does not change), then the employee would receive 92% of the target shares, or 92 shares of common stock worth \$2,300 on the End Date. If the Start Date stock price is \$25 and the End Date stock price increases to \$37.50 (a 50% increase in Market Value), then the employee would receive 150% of the target shares, or 150 shares of common stock worth \$5,625 on the End Date. However, if the End Date stock price decreases to \$12.50 (a 50% decrease in Market Value), then the employee would receive 50 shares of common stock worth \$625 on the End Date. An ending stock price below \$12.50 would result in no shares vesting.

The MSUs awarded on February 10, 2016 were earned as of December 31, 2018 and resulted in a payout percentage of 150%, with the Market Value comparing the average of the closing prices of our common stock for the first 15 trading days in January 2016 (resulting in a beginning Market Value of \$20.37) to the average of the closing prices of our common stock during the first 15 trading days in January 2019 (resulting in an ending Market Value of \$43.06), an increase of more than 111%. The MSUs granted in 2017 remain outstanding and will be earned on December 31, 2019 based on the average of the closing prices of our common stock for the first 15 trading days in January 2017 (resulting in a beginning Market Value of \$29.20) compared to the average of the closing prices of our common stock during the first 15 trading days in January 2020 (subject to earlier vesting in accordance with the Merger Agreement as described above). The terms of the MSUs granted in 2017 are consistent with the MSUs granted in 2018.

#### Performance Shares

Performance shares are earned based on a comparison of our total stockholder return over a three-year vesting period to the total stockholder return for the companies in the Index. The actual number of shares of common stock to be issued can range from zero to 200% of the number of performance shares awarded. The Index is adjusted to reflect changes in the companies included in the Index during the vesting period. We use this Index because it is comprised of companies that participate in similar markets as our operating businesses and, therefore, provides an appropriate public benchmark to measure the relative performance of our stock. We also use this Index in the performance graph included in Part II, Item 5 of this report.

We believe performance shares provide a strong incentive for our participants to achieve results that increase value for our stockholders. Total stockholder return at the 35th percentile relative to the Index is required to earn any performance shares. A stockholder return below the 35th percentile relative to the Index over the vesting period results in the forfeiture of the performance shares.

Performance shares granted in 2018 will be earned on December 31, 2020 according to the schedule below. In general, earning performance shares requires continued employment through December 31, 2020. In the case of termination of employment due to death, disability or retirement during the performance period, vesting will be pro-rated based on the number of full months employed during the performance period in accordance with the

performance share award agreements and are paid at the end of the performance period. The applicable award agreements provide for accelerated vesting upon a change in control in most circumstances only if there is also a related loss of employment or diminution of duties; however, the Merger Agreement provides that any performance shares that are outstanding immediately prior to the effective time of the Merger will

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become fully vested and will be converted into the right to receive a cash payment equal to the product of (a) the number of shares of our common stock earned under such performance share, determined by substituting the closing consideration for the ending stock price in determining the achievement of the performance goal measured as of the effective time of the Merger, multiplied by (b) the closing consideration.

Total USG Stockholder Return Relative to Index	Percent of Award Earned <sup>(a)</sup>	
Below 35th percentile	0	%
35th percentile	35	%
50th percentile	100	%
75th percentile	150	%
90th percentile or above	200	%

(a) Straight-line interpolation is used to determine values between vesting tiers.

The performance shares granted on February 10, 2016 were earned as of December 31, 2018 and vested at 200% of target due to USG's stockholder return relative to the Index performing at the 100th percentile during the three-year performance period ending December 31, 2018, based on the first 15 trading days in January 2019. The performance shares granted in 2017 remain outstanding and will be earned as of December 31, 2019 based on a comparison of our total stockholder return over a three-year vesting period to the total stockholder return for the companies in the Index (subject to earlier vesting in accordance with the Merger Agreement as described above). The terms of the performance shares granted in 2017 are consistent with the performance shares granted in 2018.

#### 2019 Long-Term Incentive Awards

Because we currently expect the Merger to close in early 2019, at which time each share of outstanding USG common stock will be converted into the right to receive the closing consideration, and after consultation with Knauf as required by the Merger Agreement, the Committee and Board granted long-term incentive awards to our named executive officers in February 2019 that will be payable in cash if earned, rather than grant new long-term stock-settled equity incentive awards. The 2019 long-term cash incentive awards provide the same level of compensation opportunity as the 2018 long-term equity incentive awards. The actual earned cash value of the long-term incentive awards can range from zero to 150% of the target award based on USG's consolidated annual earnings before interest, tax, depreciation and amortization, as adjusted, or EBITDA, in each year over the three-year vesting period, with one-third of the target award value allocated to each year. The EBITDA target for each annual period will be determined by the Board in February of the year in which such performance period begins. One-third of the target award will be earned based on the achievement of USG's EBITDA goal in 2019 according to the schedule below, and one-third of the target award will be earned based on the achievement of USG's EBITDA goals for each of 2020 and 2021.

Achievement of EBITDA Goal	Percentage of Target Cash Incentive Award Allocated to 2019 Earned on December 31, 2019 <sup>(a)</sup>	
Less than 80% of Target	0	%
80% of Target	50	%
100% of Target	100	%
120% of Target	150	%

(a) Straight-line interpolation is used to determine values between performance thresholds.

In general, the right to receive the earned portions of the long-term cash incentive awards granted in 2019 requires continued employment through December 31, 2021. In the case of termination of employment due to death, disability or retirement during the performance period, the individual will receive a payment based on actual performance for any annual period that has been completed and a pro-rated payment based on actual performance for the annual period in which the termination occurs and the number of full months employed during that year. In the case of a termination of employment without cause (as defined in the agreement) that occurs within 12 months following the Merger, the individual will receive a pro-rated payment of the target award based on the number of full months employed during 2019, if the termination occurs in 2019, or, a payment based on actual performance for 2019 and a pro-rated payment of the target award based on the number of full months employed during 2020, if the termination occurs in

2020. If the termination without cause occurs within one year of a change in control (as defined in the award agreement and which does not include the Merger), the

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individual will receive a payment based on actual performance for the years in the performance periods that were completed as of the termination date and a pro-rated payment of the target award based on the number of full months employed during the year in which the termination occurs.

Benefits and Perquisites

We provide a comprehensive health and welfare package to all of our full-time employees. Our executive officers are eligible to participate in these plans on the same basis as other eligible employees. The package includes the following benefits:

Medical, Dental and Vision Plans	All participants contribute a portion of the cost of the coverage for the medical, dental and vision plans. We do not provide any supplemental medical coverage or subsidy to any executive officer. Employees hired prior to January 1, 2002 are eligible for retiree medical subsidies.
USG Corporation Investment Plan (401(k) Plan)	This qualified defined contribution plan allows employees to invest up to 75% of salary and annual incentive awards (subject to the maximum levels of compensation and contribution set by the Internal Revenue Service) in twelve target date funds or ten core investment alternatives. Employees can contribute on a pre-tax basis and/or a Roth after-tax basis. We match employee contributions \$0.50 per dollar on the first 6% of employee pay contributed.
USG Corporation Retirement Plan	For employees hired before January 1, 2011, this qualified defined benefit plan provides a pension benefit based on the participant's years of credited service in the plan and the participant's final average pay. The plan requires participants to contribute 2% of pensionable earnings toward benefits. Participants can elect early retirement, with the benefit reduced 5% for each year earlier than age 65 at retirement. Participants who have a combined number of years of age and service equaling 90 can retire at age 62 without a reduction in the benefit or can retire earlier than age 62 with a 3% reduction per year. We amended the plan to replace the final average pay formula with a cash balance formula for employees hired after December 31, 2010. The cash balance pension benefit is based on the participant's years of credited service in the plan and the participant's age. Mr. Hilzinger and Ms. Warner participate in the cash balance formula.

We also provide the following plans for our more highly compensated employees, including our named executive officers, that provide benefits to supplement those provided under our Investment Plan and Retirement Plan:

Supplemental Retirement Plan	As of December 31, 2018, approximately 60 employees, including our named executive officers, participated in the USG Corporation Supplemental Retirement Plan. This plan restores the benefits which otherwise would be delivered under the USG Corporation Retirement Plan but for the limits on pensionable compensation set by the Internal Revenue Service. The provisions of this plan mirror those of the Retirement Plan, including benefit formulas, definition of final average pay (without Internal Revenue Service limits) and the requirement for the contribution of 2% of pensionable earnings. Further information regarding our retirement plans and the present value of the qualified and supplemental pension benefits for our named executive officers appears under the 2018 Pension Benefits Table below.
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Deferred Compensation Plan	As of December 31, 2018, approximately 40 employees participated in the USG Corporation Deferred Compensation Plan, including one of our named executive officers. Due to the contribution limits set by the Internal Revenue Service applicable to the USG Corporation Investment Plan, this nonqualified plan is designed to allow highly compensated employees the opportunity to defer compensation (and thus current income tax) generally until after termination of employment with USG. We do not match deferred amounts. Those amounts are invested as directed by the participant into investment options that are similar to those of the USG Corporation Investment Plan. We are obligated to pay the deferred amounts, plus or minus any accumulated earnings or losses on those amounts, to the participants following the termination of the deferral period.
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Perquisites and Other Benefits	We make certain perquisites and other benefits available to our executive officers as part of providing them a competitive total compensation package and to facilitate their attention to the demands of our business. Executive officers are offered a company automobile and office parking, partial reimbursement for financial planning services, personal liability insurance and executive death
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benefit coverage, an annual medical examination, and on a limited basis, membership in luncheon clubs. The value of these benefits is described in more detail in the Supplemental Table below.

#### EMPLOYMENT SECURITY AND POTENTIAL POST-EMPLOYMENT PAYMENTS

We provide all of our named executive officers with two employment security arrangements: an employment agreement and a change-in-control severance agreement.

##### Employment Agreements

We provide employment agreements to assist in attracting and retaining executives, to protect our assets and intellectual property and to reduce the potential for litigation related to termination of employment. By setting the terms for the involuntary termination of an executive officer in advance of the termination, these agreements facilitate the Board's and the Chief Executive Officer's ability to effectuate smooth transitions in the executive team. The employment agreements generally provide named executive officers with two years of salary and bonus and lump sum payments equal to the cost of continued medical benefits for 18 months and, for Ms. Scanlon and Mr. Dannessa, the present value of providing an additional two years of service and two years of age credit under our retirement plans. The agreements provide these benefits only upon an involuntary termination of the named executive officer's employment without "cause." These agreements renew for successive one-year terms effective January 1 of each year unless 120 days' notice of termination is provided before expiration of the current term.

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We believe that the level of benefits provided by our agreements is in line with market practice for those companies that use employment agreements. Consistent with our paying two years' compensation as severance, the agreements include a requirement that after termination of employment, the executive officer will not compete with us for two years nor solicit our employees for three years. Executive officers are required to sign a release waiving potential claims against us before any payments are made.

### Change-In-Control Severance Agreements

We provide change-in-control severance agreements to promote neutrality of our named executive officers during potential change-in-control transactions so they will make the best decision for our stockholders, to retain the executive team, to protect our intellectual property and to reduce the potential for litigation related to termination of employment. The agreements in effect for our named executive officers provide two years of salary and bonus, the greater of the executive officer's pro rata target annual incentive award for the year in which the termination of employment occurs or the year in which the change in control occurs, continued participation in our welfare benefit plans for 18 months, and lump sum payments equal to the cost of continued medical benefits for six months and the present value of providing Ms. Scanlon and Mr. Dannessa an additional two years of service and age credit under our retirement plans, as well as outplacement services for a period of at least six months for all of our named executive officers. Mr. Hilzinger's, Mr. Salah's and Ms. Warner's agreements do not provide for any payment for additional service or age credit.

The agreements provide these benefits only in the event that there is both a change in control and an involuntary termination of the named executive officer's employment by USG without "cause" or by the executive for "good reason." The definition of change in control is generally the same as the LTIP plan that was approved by our stockholders in 2016. Good reason includes, among other things, a reduction in salary or a material diminution in duties, responsibilities or total compensation. Ms. Scanlon's and Mr. Dannessa's agreements include an "excise tax gross up" provision. If the total amounts payable to the executive officer would constitute a "parachute payment" resulting in the imposition of an excise tax, the payment will be reduced to the extent necessary to avoid being a parachute payment, unless the reduction would be more than 10% of the total amounts payable. In that case, the payment will be increased to provide the executive officer a net after-tax amount equal to the value of the excise tax imposed. Mr. Hilzinger's, Mr. Salah's and Ms. Warner's agreements include an "alternative cap" provision which provides that if the total amounts payable would constitute a "parachute payment" resulting in the imposition of an excise tax, the payment will be reduced to the extent necessary to avoid being a parachute payment, unless Mr. Hilzinger, Mr. Salah or Ms. Warner, as applicable, would receive a better after-tax benefit if the payment were not reduced and he or she paid the resulting excise tax directly.

As with our employment agreements, we believe that the level of benefits provided by our change-in-control severance agreements is also in line with market practice for organizations that use change-in-control agreements. In consideration of our paying severance compensation, these agreements include a requirement that after termination of employment, the named executive officer will not compete with us for one year or solicit our employees for two years. Executive officers are required to sign a release waiving potential claims against us before any payments are made under these agreements. Further information regarding the benefits our current named executive officers could receive under these agreements is provided in the tables titled "Potential Payments Upon Termination or Change in Control" below.

## OTHER COMPENSATION PRACTICES, POLICIES AND INFORMATION

### Committee Position on Incentives and Excessive Risk

The Committee believes that the design of our compensation programs, which balances salary, short-term incentives and long-term incentives, does not encourage management to take excessive risks to maximize earnings or meet performance objectives in a single year at the expense of our long-term objectives. This balanced array of incentives encourages management to achieve both short-term operating and financial and long-term strategic objectives identified by the Committee as being important. The features of our compensation program that reduce the likelihood of excessive risk-taking are described under "Compensation Governance" above. The Committee and its consultant annually review a risk assessment of our compensation programs, and they believe that these programs do not create risks that are reasonably likely to have a material adverse effect on us.

Management's Role in Compensation

Our Human Resources Department is responsible for the administration of our executive compensation, benefits and related programs. Brian J. Cook, our Executive Vice President and Chief Administrative Officer, is accountable for making proposals

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to the Committee for changes in compensation and benefit programs at the request of either management or the Committee and is the primary management contact for the Chair of the Committee.

Ms. Scanlon and Mr. Cook usually attend meetings of the Committee to present matters for consideration by the Committee and to answer questions regarding those matters, and Ms. Warner usually attends meetings of the Committee to serve as secretary. Other executive officers and senior managers may attend meetings at the request of either management or the Committee to provide information and answer questions relevant to the Committee's consideration of matters presented to it.

The Chief Executive Officer recommends to the Committee any changes in compensation for executive officers (other than herself) based on her assessment of each individual's performance, contribution to our results and potential for future contributions to our success. The Committee meets in executive session without any members of management present to review the performance and compensation of the Chief Executive Officer, to evaluate compensation proposals made by management and to make decisions with respect to those proposals.

Once each year management provides the Committee with an overview of all compensation and benefit plans pertaining to executive officers, including the purpose and cost of the programs and the value delivered to the participants by the programs. The Committee uses this information when evaluating subsequent compensation proposals by management and in developing its own proposals for changes to executive officer compensation. Ms. Scanlon and Mr. Cook also lead an annual review for the Board of our management succession plans. This review provides the Committee and other Board members with information regarding the performance and potential of our management team that can be taken into account when executive compensation decisions are made.

**Compensation Consultants**

The Committee has retained Willis Towers Watson as a compensation consultant to provide the Committee with an independent review of our executive compensation program. Willis Towers Watson was selected by the Committee and works under the direction of the Chair of the Committee. The Committee has assessed the independence of Willis Towers Watson and did not identify any conflict of interest that would prevent Willis Towers Watson from independently representing the Committee.

Willis Towers Watson's primary role is to provide an independent analysis of competitive market data and to assist the Committee in evaluating compensation proposals made by management, including recommendations for named executive officer compensation made by our Chief Executive Officer. Willis Towers Watson also assists the Committee in developing the compensation package for our Chief Executive Officer, advises regarding potential program design changes and reviews incentive plan goals and awards earned under such plans. At the direction of the Chair of the Committee, Willis Towers Watson may meet with management and/or management's consultant to review management's proposals prior to the Committee's review. A representative of Willis Towers Watson attended all of the Committee meetings held in 2018. Willis Towers Watson's fees for its services provided to the Committee in 2018 were \$34,797. USG pays Willis Towers Watson's fees for consulting services provided to the Committee after approval of those fees by the Chair of the Committee.

Management also engaged Willis Towers Watson to provide services during 2018 to advise regarding broad-based benefit plans and to provide retiree benefits services. Its fees for those services were \$14,700. Although the Committee does not approve in advance the engagement of Willis Towers Watson by management for services other than those related to executive compensation, the Committee reviews, on an annual basis, all other services provided by Willis Towers Watson and considers whether such services compromise Willis Towers Watson's independence in providing services to the Committee.

Management also uses consultants to provide analysis and advice with respect to executive compensation programs and practices. Management's primary advisor for compensation-related matters is Exequity, LLP. Exequity assists management in analyzing competitive market practices and benchmark data and in developing proposals for review by the Committee. It does not provide any services to USG other than executive compensation consulting. Management also contracts with Aon to conduct an annual competitive review of our executive compensation pay practices compared to those of a comparator group of companies. The study assists management in comparing compensation levels for our executive officers to compensation levels of the comparator group. Aon does not assist management in formulating proposals for compensation changes for executive officers. Aon provides other services to us related to

the administration of our retirement, health and welfare benefit plans.

**Stock Ownership Guidelines**

Our Board adopted stock ownership guidelines to better align the interests of our executive officers and other senior managers with the interests of our stockholders. The guidelines were set at the levels described below to ensure our management owns

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meaningful levels of stock, taking into account competitive market practice. We expect all participants to reach at least the minimum level of ownership for their position level within five years after their appointment to that position. All of our named executive officers meet or exceed their stock ownership guidelines or are expected to meet the guidelines within the allowed timeframe.

Our executive officers and other senior managers are expected to own at a minimum a number of shares of our common stock having a value equal to the lesser of (a) their salary multiple set forth below or (b) the fixed number of shares set forth below:

Participant	Minimum Number of Shares	Multiple of Base Salary
President and Chief Executive Officer	100,000	5X
Executive Vice President	35,000	4X
Senior Vice President	15,000	3X
Vice President	10,000	2X
Director/Subsidiary VP	3,500	1X

Shares owned, shares held in the Investment Plan, performance shares and MSUs that have vested and unvested RSUs count towards satisfaction of the guidelines. If a participant fails to meet or show sustained progress toward meeting these ownership requirements, we may reduce future long-term incentive program awards to that participant.

Securities Trading Policy

Our Securities Trading Policy provides that our non-employee directors, executive officers and other senior managers are prohibited from engaging in any speculative transactions involving our securities, including (a) buying or selling puts or calls, (b) short sales or (c) margin purchases of our securities. They are also prohibited from purchasing or using financial instruments that are designed to hedge or offset any decrease in the market value of our securities.

Clawback of Awards

Our LTIP and the agreements evidencing equity awards provide that if the Committee determines that any fraud or intentional misconduct by an executive officer was a significant contributing factor to USG having to restate all or a portion of its financial statements, the executive officer must return to us any outstanding equity awards or common stock paid out pursuant to the agreement. If the executive officer disposed of any equity award or common stock, he or she must pay to us in cash the value of the equity award or common stock on the date they were paid out. In addition, our annual incentive program for our executive officers allows us to recoup excess incentive compensation paid to an executive officer if our financial statements are restated due to fraud or intentional misconduct of the executive officer.

Impact of Tax Considerations on Compensation

The Committee views the tax deductibility of executive compensation as one of the many factors to be considered in the context of its overall compensation objectives. In general, in making previous compensation decisions, management and the Committee reviewed and considered the deductibility of payments under our executive compensation program under Code Section 162(m) and the regulations promulgated thereunder, which generally limited deductibility of compensation to \$1 million for certain employees, other than certain qualified performance-based compensation. However, effective for 2018, the performance-based exception to Section 162(m) was repealed and compensation paid to our covered executive officers in excess of \$1 million is not deductible unless it qualifies for transition relief that may be applicable to certain of our arrangements in place as of November 2, 2017. To maintain flexibility in structuring appropriate compensation programs in the interest of stockholders, the Committee has approved, and going forward expects in the future to approve, payments that cannot be deducted. Despite the Committee's efforts to structure the executive compensation in a manner intended to be exempt from Section 162(m) where possible and therefore not subject to its deduction limits, because of ambiguities and uncertainties as to the application and interpretation of Section 162(m) and the regulations issued thereunder, including the uncertain scope of the transition relief under the legislation repealing Section 162(m)'s exemption from the deduction limit, no assurance can be given that compensation intended to satisfy the requirements for exemption from Section 162(m) in fact will.





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Management and the Committee reviewed all executive compensation programs and arrangements under Code Section 409A related to the deferral of compensation, and the current and future year accounting impact of the LTIP awards when it considered and approved those awards.

**COMPENSATION AND ORGANIZATION COMMITTEE REPORT**

The Committee has reviewed and discussed the Compensation Discussion and Analysis section above with our management. Based on that review and discussion, the Committee recommended to the Board that the Compensation Discussion and Analysis be included in this annual report on Form 10-K.

This report is submitted by the members of the Compensation and Organization Committee.

Richard P. Lavin, Chair Jose Armario

Matthew Carter, Jr. Steven F. Leer

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## Compensation Tables

## 2018 SUMMARY COMPENSATION TABLE

The Summary Compensation Table below reflects total compensation earned by or paid to our principal executive and financial officers and our three other most highly compensated executive officers for the last three years (collectively, our "named executive officers"). Information is provided for Mr. Salah only for the years during which he was a named executive officer.

Name and Principal Position	Year	Salary (\$)	Stock Awards (\$) <sup>(a)</sup>	Non-Equity Incentive Plan Compensation (\$) <sup>(b)</sup>	Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$) <sup>(c)</sup>	All Other Compensation (\$) <sup>(d)</sup>	Total (\$)
Jennifer F. Scanlon, President and Chief Executive Officer	2018	\$973,750	\$4,399,959	\$ 202,550	\$ 626,272	\$ 28,292	\$6,230,823
	2017	933,333	4,514,499	593,560	1,129,282	62,296	7,232,970
	2016	509,500	1,944,076	754,175	231,023	30,275	3,469,049
Matthew F. Hilzinger, Executive Vice President, Chief Financial Officer and Treasurer	2018	639,667	1,499,958	86,805	53,303	45,456	2,325,189
	2017	620,000	1,692,924	265,398	115,793	25,405	2,719,520
	2016	600,833	1,461,019	831,270	82,054	33,493	3,008,669
Dominic A. Dannessa, Executive Vice President and Chief Customer and Innovation Officer	2018	474,667	750,013	55,809	—	55,691	1,336,180
	2017	460,833	846,482	159,203	1,690,999	25,514	3,183,031
	2016	442,500	842,904	515,385	582,035	34,427	2,417,251
Gregory D. Salah, Senior Vice President and President, Gypsum	2018	433,333	799,971	142,604	284,245	37,392	1,697,545
	2017	391,667	1,007,131	138,040	1,376,100	35,186	2,948,124
Michelle M. Warner, Senior Vice President, General Counsel and Corporate Secretary	2018	481,667	750,013	60,984	35,546	46,137	1,374,347
	2017	466,667	1,082,656	186,872	71,326	50,043	1,857,564
2016	450,000	1,069,616	577,080	24,051	45,601	2,166,348	

The amounts shown in this column reflect the aggregate grant date fair values computed in accordance with FASB ASC Topic 718 for MSUs and performance shares granted under our LTIP. However, for purposes of this table, estimates of forfeitures have been removed. A Monte Carlo simulation has been chosen for both the MSU and performance share valuations. The assumptions used in valuing the MSUs and performance shares are described in (a) Note 10, Share-Based Compensation, to our consolidated financial statements in Part II, Item 8 of this report. Expense is recognized over the requisite service period (the period from the grant date to the end of the performance or vesting period). Awards under the LTIP are described further in Item 11, Executive Compensation - Compensation Discussion and Analysis - Long-Term Incentive.

(b) The amounts shown in this column include payments under our annual MIP for services performed in the year indicated.

(c) The amounts in this column reflect the aggregate change in the actuarial present value of accumulated benefits under our defined benefit pension plans from December 31, 2017 through December 31, 2018, the plan measurement dates used for financial statement reporting purposes. The named executive officers had no above-market or preferential earnings on deferred compensation. No amount is reflected in this column for Mr. Dannessa for 2018 because the aggregate change in the actuarial present value of his accumulated benefit in such year was negative \$286,049.

(d) The amounts in this column reflect all other compensation for 2018 that could not properly be reported in any other column. Details regarding all other compensation components are provided in the supplemental table below. Several of the benefits listed in the table result in imputed income to the named executive officer. In the case of

company-provided automobiles, the amounts shown reflect the portion of our cost attributed to personal use of the vehicle by the named executive officer, including the cost of lease payments, fuel, insurance, license and title, maintenance and repairs, less any gain we realized upon sale of the vehicle. All other items are valued at full actual cost. We also provide additional executive death and disability benefit coverage to our executive officers on a self-insured basis. There is a small incremental cost to us for providing this additional coverage. From time to time, executive officers may use our tickets to sporting venues for personal use. We believe there is no incremental cost associated with our executive officers using our tickets to sporting venues for personal use because the tickets are purchased in advance for the entire season with the intention that they be used for business purposes, they cannot be returned for a refund if they are unused and use for personal purposes occurs only if the tickets have not been reserved for use for a business purpose. No value is attributed in the 2018 Summary Compensation Table to personal benefits for which we incur no incremental cost. The amounts in this column do not include the Dividend-Make Whole Amounts, which have not yet been paid.

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## SUPPLEMENTAL TABLE

Item	Jennifer F. Scanlon	Matthew F. Hilzinger	Dominic A. Dannessa	Gregory D. Salah	Michelle M. Warner
Financial Planning Services	\$11,701	\$7,800	\$13,933	\$9,368	\$10,116
Personal Liability Insurance	660	660	660	660	660
Executive Death and Disability Coverage	626	481	409	393	412
Executive Health Program	—	3,195	3,195	3,195	3,195
Luncheon Club	3,267	—	2,988	—	—
Company Automobile (personal use)	— <sup>(a)</sup>	21,282	22,468	11,738	19,716
Parking	4,200	4,200	4,200	4,200	4,200
Investment Plan Matching Contributions	7,838	7,838	7,838	7,838	7,838
Total	\$28,292	\$45,456	\$55,691	\$37,392	\$46,137

(a) The gain we realized upon sale of the vehicle exceeded the cost of lease payments, fuel, insurance, license and title, maintenance and repairs.

The employment agreements entered into with each of our named executive officers are described in Item 11, Executive Compensation - Compensation Discussion and Analysis - Employment Agreements.

## 2018 GRANTS OF PLAN-BASED AWARDS TABLE

The 2018 Grants of Plan-Based Awards Table below reflects equity and non-equity incentive plan awards made to each of the named executive officers during 2018. Equity awards include market share units (MSUs) and performance shares (PS).

Name	Award Type	Grant Date <sup>(a)</sup>	Estimated Future Payouts Under Non-Equity Incentive Plan Awards <sup>(b)</sup>			Estimated Future Payouts Under Equity Incentive Plan Awards <sup>(c)(d)</sup>			Grant Date Fair Value of Stock and Stock Option Awards <sup>(e)</sup>
			Threshold	Target	Maximum	Threshold	Target	Maximum	
			(\$)	(\$)	(\$)	(#)	(#)	(#)	
Jennifer F. Scanlon	MSU	02/14/2018	—	—	—	48,215	96,429	144,644	\$3,299,800
	PS	02/14/2018	—	—	—	11,256	32,159	64,318	1,100,159
	MIP	—	—	\$1,125,275	\$2,250,550	—	—	—	—
Matthew F. Hilzinger	MSU	02/14/2018	—	—	—	16,437	32,873	49,310	1,124,914
	PS	02/14/2018	—	—	—	3,837	10,963	21,926	375,044
	MIP	—	—	482,250	964,500	—	—	—	—
Dominic A. Dannessa	MSU	02/14/2018	—	—	—	8,219	16,437	24,656	562,474
	PS	02/14/2018	—	—	—	1,919	5,482	10,964	187,539
	MIP	—	—	310,050	620,100	—	—	—	—
Gregory D. Salah	MSU	02/14/2018	—	—	—	8,766	17,532	26,298	599,945
	PS	02/14/2018	—	—	—	2,046	5,847	11,694	200,026
	MIP	—	—	308,000	616,000	—	—	—	—
Michelle M. Warner	MSU	02/14/2018	—	—	—	8,219	16,437	24,656	562,474
	PS	02/14/2018	—	—	—	1,919	5,482	10,964	187,539
	MIP	—	—	338,800	677,600	—	—	—	—

(a) The grant date is the date on which the equity awards were ratified by our Board.

The amounts in the Target column reflect the target amounts payable under the 2018 MIP. The 2018 MIP is described in Item 11, Executive Compensation - Compensation Discussion and Analysis - Annual Incentive. There was no threshold-level payout under the 2018 MIP. The maximum payout under the 2018 MIP was 200% of target. Total payments to any one individual under the 2018 MIP may not exceed \$4 million.

MSUs were granted to each named executive officer under our LTIP. The amount of common stock to be issued in respect of the MSUs can range from zero to 150% of target based on the percentage change in the price of our common stock over the applicable vesting period. The MSUs will generally be earned on December 31, 2020, with a 10% appreciation in the Market Value (as defined above in the Compensation Discussion and Analysis) of our common stock required for vesting of the target number of shares of common stock. With respect to the MSUs, the amounts in the Threshold column reflect the amount of common stock to be awarded upon a 50% decrease in Market Value, the Target column reflects the amount of common stock to be awarded upon achievement of a 10% appreciation in the Market

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Value, and the amounts in the Maximum column reflect the amount of common stock to be awarded upon a 50% or more increase in Market Value. Vesting will be pro-rated based on the number of full months employed during 2018 in the case of termination of employment due to death, disability or retirement, and pro-rated awards will be paid at the end of the three-year performance period. The Merger Agreement provides that MSUs that are outstanding immediately prior to the effective time of the Merger will become fully vested and will be converted into the right to receive a cash payment equal to the product of (i) the number of shares of our common stock earned under such MSU, determined as of the effective time of the Merger by substituting the closing consideration for the Market Value, multiplied by (ii) the closing consideration, provided that to the extent any such MSUs constitute nonqualified deferred compensation subject to Section 409A of the Code, such cash payment will be paid in accordance with the applicable award's terms and at the earliest time permitted under the terms of such award that will not result in the application of a tax or penalty under Section 409A of the Code. Any MSUs not earned as of the effective date of the Merger will be forfeited.

Performance shares were granted to each named executive officer under our LTIP. The number of performance shares earned will vary from zero to 200% of target based on our total stockholder return relative to the total stockholder return of the companies in the Dow Jones U.S. Construction and Materials Index, or the Index, for the performance period, with the Index adjusted to reflect changes in the companies included in the Index for the performance period. The performance shares will generally be earned on December 31, 2020. With respect to the performance shares, the amounts in the Target column reflect the number awarded to the named executive officers on the grant date. The amounts in the Threshold column reflect the number of performance shares that will vest if our total stockholder return is at the 35th percentile of the total stockholder return of the Index companies, and the amounts in the Maximum column reflect the number of performance shares that will vest if our total stockholder return is at or above the 90th percentile of the total stockholder return of those companies. Vesting will be

(d) pro-rated based on the number of full months employed during the performance period in the case of death, disability or retirement, and pro-rated awards will be paid at the end of the three-year-performance period. The Merger Agreement provides that performance shares that are outstanding immediately prior to the effective time of the Merger will become fully vested and will be converted into the right to receive a cash payment equal to the product of (i) the number of shares of our common stock earned under such performance share, determined by substituting the closing consideration for the ending stock price in determining the achievement of the performance goal measured as of the effective time of the Merger, multiplied by (ii) the closing consideration, provided that to the extent any such performance shares constitute nonqualified deferred compensation subject to Section 409A of the Code, such cash payment will be paid in accordance with the applicable award's terms and at the earliest time permitted under the terms of such award that will not result in the application of a tax or penalty under Section 409A of the Code. Any performance shares not earned as of the effective date of the Merger will be forfeited. The amounts in this column reflect the aggregate grant date fair value of the equity awards granted computed in accordance with FASB ASC Topic 718, and exclude the effect of estimated forfeitures. The assumptions used in

(e) valuing the MSUs and performance shares are described in Note 10, Share-Based Compensation, to our consolidated financial statements in Part II, Item 8 of this report. We did not grant any stock options in 2018.

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## 2018 OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END TABLE

The 2018 Outstanding Equity Awards At Fiscal Year-End Table below reflects equity awards held by each of the named executive officers at December 31, 2018. Equity awards include market share units (MSUs), performance shares (PS) and restricted stock units (RSUs). None of the named executive officers held any options at December 31, 2018.

Stock Awards					Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$) <sup>(d)</sup>
Name	Stock Award Type and Year of Award	Number of Shares or Units of Stock That Have Not Vested (#) <sup>(a)</sup>	Market Value of Shares or Units of Stock That Have Not Vested (\$) <sup>(b)</sup>	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#) <sup>(c)</sup>	
Jennifer F. Scanlon	RSU 2015 Special	5,058	\$215,774	—	—
	RSU 2016 Special	20,231	863,054	—	—
	MSU 2017	—	—	128,978	\$5,502,201
	PS 2017	—	—	72,912	3,110,426
	MSU 2018	—	—	96,429	4,113,661
	PS 2018	—	—	64,318	2,743,806
Matthew F. Hilzinger	MSU 2017	—	—	48,366	2,063,294
	PS 2017	—	—	27,342	1,166,410
	MSU 2018	—	—	32,873	1,402,362
Dominic A. Danna	PS 2018	—	—	21,926	935,363
	RSU 2015 Special	5,058	215,774	—	—
	MSU 2017	—	—	24,183	1,031,647
	PS 2017	—	—	13,672	583,248
	MSU 2018	—	—	16,437	701,202
	PS 2018	—	—	10,964	467,724
Gregory D. Salah	RSU 2015 Special	4,047	172,645	—	—
	MSU 2017	—	—	24,183	1,031,647
	PS 2017	—	—	13,672	583,248
	RSU 2017 Special	5,058	215,774	—	—
	MSU 2018	—	—	17,532	747,915
	PS 2018	—	—	11,694	498,866
Michelle M. Warner	RSU 2016 Special	15,173	647,280	—	—

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MSU 2017	—	—	24,183	1,031,647
PS 2017	—	—	13,672	583,248
RSU 2017	7,587	323,661	—	—
Special				
MSU 2018	—	—	16,437	701,202
PS 2018	—	—	10,964	467,724

The outstanding RSUs awarded to Ms. Scanlon in 2015 and 2016 will vest on September 1, 2019 and November 1, 2020, respectively. The outstanding RSUs awarded to Mr. Dannaessa in 2015 will vest on September 1, 2019. The (a) outstanding RSUs awarded to Mr. Salah in 2015 and 2017 vest on August 3, 2019 and October 2, 2020, respectively. The outstanding RSUs awarded to Ms. Warner in 2016 and 2017 will vest on January 4, 2020 and February 8, 2020, respectively.

(b) The amounts in this column represent the number of RSUs indicated in the “Number of Shares or Units of Stock That Have Not Vested” column multiplied by the closing price of our common stock on December 31, 2018.

With respect to the MSUs awarded in 2017 and 2018, the number of MSUs reflected in this column is the number of shares that would be earned if the maximum and target level of performance, respectively, is achieved, as performance with respect to those shares is tracking between the target and maximum levels for 2017 and between the threshold and target levels for 2018. The MSUs awarded in 2017 and 2018 will generally be earned on December 31, 2019 and December 31, 2020, respectively, with a 10% appreciation in the Market Value of our common stock required for vesting of the target number of shares. The amount

(c) of MSUs ultimately awarded may range from zero to 150% of the target. With respect to the performance shares awarded in 2017 and 2018, the number of performance shares reflected in this column is the number of shares that would be earned if the maximum level of performance (200% of target) is achieved, as performance with respect to those shares is tracking between the intermediate and maximum levels for 2017 and 2018. To the extent the performance criteria is met, the performance shares awarded in 2017 and 2018 will be earned on December 31, 2019 and December 31, 2020, respectively. The number of performance shares earned will vary from zero to 200% of target.



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The amounts in this column represent the number of MSUs or performance shares indicated in the “Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested” column multiplied by the closing price of our common stock on December 31, 2018. In addition to, and not included in, these amounts are the Dividend Make-Whole Amounts that relate to MSUs and performance shares in the following amounts, estimated assuming the effective time of the Merger was December 31, 2018: Ms. Scanlon - \$219,496, Mr. Hilzinger - \$124,636, Mr. Dannelsa - \$66,912, Mr. Salah - \$56,343, Ms. Warner - \$61,171.

**2018 OPTION EXERCISES AND STOCK VESTED TABLE**

The 2018 Option Exercises and Stock Vested Table below reflects stock options exercised by our named executive officers during 2018 and RSU and MSU awards held by our named executive officers that vested during 2018.

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$) <sup>(a)</sup>	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$) <sup>(b)</sup>
Jennifer F. Scanlon	53,220	\$ 1,574,409	112,771	\$4,627,400
Matthew F. Hilzinger	34,300	899,569	145,652	5,898,696
Dominic A. Dannelsa	79,720	2,482,961	22,272	754,575
Gregory D. Salah	6,885	182,504	49,200	2,074,741
Michelle M. Warner	—	—	51,668	2,213,974

(a) The amount in this column represents the difference between the aggregate market value of the shares of our common stock subject to the option on the exercise date and the aggregate exercise price of the option.

(b) The amounts in this column represent the aggregate market value of the shares of our common stock acquired on the dates the RSUs, performance shares and MSUs vested.

**2018 PENSION BENEFITS TABLE**

The 2018 Pension Benefits Table below reflects the actuarial present value of the accumulated benefit of each of the named executive officers under our Retirement Plan and Supplemental Retirement Plan, or Plans, calculated using (i) the same discount rates we use for calculations for financial reporting purposes (as of the December 31 measurement date) and (ii) the Plans’ normal retirement age or, if earlier, the individual’s unreduced benefit age under the Plans. The discount rates by Plan at each measurement date are as follows:

December 31, 2018 measurement date: 4.31% for the Retirement Plan and 4.08% for the Supplemental Retirement Plan; and

December 31, 2017 measurement date: 3.63% for the Retirement Plan and 3.39% for the Supplemental Retirement Plan.

Benefits payable under the Plans’ final average pay formula are based on an employee’s years of service and compensation during specified years of employment. Effective December 31, 2010, we amended our Plans to replace the final average pay formula with a cash balance formula for employees hired after that date. Benefits payable under the Plans’ cash balance formula are pay credits based on an employee’s compensation, sum of age and years of benefit service and interest.

Participants with a final average pay formula benefit can elect early retirement, with their benefit reduced 5% for each year earlier than age 65 at retirement, or 3% per year from age 62 if the participant has a combined age and years of benefit service of 90 but has not reached age 62. Participants who have a combined number of years of age and service equaling 90 can retire at age 62 without a reduction in benefit. Based on projected years of credited service, the unreduced benefit age is 62 for each of the named executive officers, except for Mr. Hilzinger and Ms. Warner for whom the unreduced benefit age does not apply because they are participants with a cash balance formula. Ms. Scanlon and Messrs. Dannelsa and Salah are eligible for early retirement under the Plans.

The present values shown in the table reflect postretirement mortality based on the 417e2019 mortality table but do not include a factor for pre-retirement termination, mortality or disability. The Internal Revenue Service requires use

of the 417e2019 projected mortality table to determine life expectancies used in the calculation of the lump sum pension benefits payable under the Plans.

Benefits are assumed to be made payable in a lump sum at the assumed retirement age. The Internal Revenue Service mandates the use of specified lump sum yield curve interest rates based on the return of investment grade corporate bonds over

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varying durations in calculating lump sum payments. The mandated lump sum yield curve interest rates are 3.22% for less than five years, 4.25% for five to 20 years and 4.67% for more than 20 years.

The final average pay formula under our Plans provides an annual pension benefit equal to the greater of 1% of “final average earnings,” multiplied by the number of years of benefit service, or 1.6% of final average earnings multiplied by years of benefit service less 50% of the social security benefit at age 65. “Final average earnings” are average pensionable compensation (generally salary and annual incentive) for the 36 consecutive months of the last 180 months of service for which pensionable compensation is the highest.

The cash balance formula under our Plans provides a lump sum pension benefit equal to an employee’s accumulated cash balance account. Pay credits from 3% to 10% of pensionable earnings each month are allocated to the cash balance account. The pay credit percentage is determined according to the employee’s age and years of benefit service as of the last day of the month as shown in the table below. Mr. Hilzinger and Ms. Warner are the only named executive officers with a cash balance formula.

Sum of Age and Years of Benefit Service	Pay Credit Percentage	
Under 30	3	%
30 to 39	4	%
40 to 49	5	%
50 to 59	6	%
60 - 69	7	%
70 - 79	8	%
80 - 89	9	%
90 and over	10	%

All participants in the Plans contribute 2% of their pensionable compensation to the Plans to fund a portion of their benefit.

Name	Plan Name	Number of Years of Credited Service (#) <sup>(a)</sup>	Present Value of Accumulated Benefit (\$) <sup>(b)</sup>	Payments During Last Fiscal Year (\$)
Jennifer F. Scanlon	USG Corporation Retirement Plan	16 years	\$ 520,973	\$ —
	USG Corporation Supplemental Retirement Plan	16 years	2,398,709	—
	Total		\$ 2,919,682	—
Matthew F. Hilzinger	USG Corporation Retirement Plan	6 years, 7 months	\$ 120,490	—
	USG Corporation Supplemental Retirement Plan	6 years, 7 months	338,080	—
	Total		\$ 458,570	—
Dominic A. Dannessa	USG Corporation Retirement Plan	40 years, 6 months	\$ 2,262,586	—
	USG Corporation Supplemental Retirement Plan	40 years, 6 months	4,562,754	—
	Total		\$ 6,825,340	—
Gregory D. Salah	USG Corporation Retirement Plan	33 years, 5 months	\$ 1,488,061	—
	USG Corporation Supplemental Retirement Plan	33 years, 5 months	2,205,231	—
	Total		\$ 3,693,292	—
Michelle M. Warner	USG Corporation Retirement Plan	2 years, 11 months	\$ 46,201	—
	USG Corporation Supplemental Retirement Plan	2 years, 11 months	84,721	—
	Total		\$ 130,922	—

Represents the number of years and months of service credited to the named executive officer under the Plans, (a) computed as of December 31, 2018, the pension plan measurement date used for financial statement reporting purposes with respect to our audited financial statements for 2018.

(b)

Computed as of December 31, 2018, the pension plan measurement date used for financial statement reporting purposes with respect to our audited financial statements for 2018.

Table of Contents**2018 NONQUALIFIED DEFERRED COMPENSATION TABLE**

The USG Corporation Deferred Compensation Plan is a nonqualified plan that allows eligible employees to defer a portion of their base salary and annual incentive compensation and is intended to be a “top-hat” plan described in Section 201(2) of ERISA. A “top-hat” plan, as described in Sections 201, 301 and 401 of ERISA, is an unfunded plan maintained primarily for the purpose of providing deferred compensation for a select group of management or highly compensated employees. The plan is exempt from the participation, vesting, funding and fiduciary requirements of ERISA and is subject to simplified reporting and disclosure requirements of ERISA. Amounts deferred under the plan are subject to the requirements of Section 409A of the Internal Revenue Code and the plan will be administered consistent with Section 409A. In general, Section 409A imposes requirements as to the timing of elections relating to deferral and payment of compensation deferred by participants under plans such as the USG Corporation Deferred Compensation Plan.

Under the USG Corporation Deferred Compensation Plan, eligible employees may defer up to 50% of their base salary and 75% of their incentive award under our annual incentive program, generally until termination of their employment. The employee is able to allocate deferred amounts into investment options which are similar to the funds offered to participants in our Investment Plan. The employee may change that allocation on a daily basis, subject to individual fund manager restrictions.

We do not match amounts deferred under this plan, and those amounts are not considered pensionable earnings for the computation of benefits under our Retirement Plan. Deferrals are considered pensionable earnings for the computation of benefits under our Supplemental Retirement Plan. The deferred amounts, plus or minus any accumulated earnings or losses on those amounts, are payable to the participants following the termination of the deferral period.

Mr. Dannels was the only named executive officer to participate in the USG Corporation Deferred Compensation Plan during 2018. The following table sets forth information regarding his participation for 2018.

Name	Executive Contributions in Last Fiscal Year (\$)	Registrant Contributions in Last Fiscal Year (\$)	Aggregate Earnings in Last Fiscal Year (\$) <sup>(a)</sup>	Aggregate Withdrawals/Distributions (\$)	Aggregate Balance at Last Fiscal Year End (\$) <sup>(b)</sup>
Dominic A. Dannels	\$ —	\$ —	\$ 1,464	\$ —	\$ 284,653

(a) This amount is not reported in the Summary Compensation Table.

(b) Of this amount, \$77,366 was previously reported as non-equity incentive plan compensation in the Summary Compensation Table.

**POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE IN CONTROL**

The tables below reflect the amount of compensation which is vested and also which would be paid to each of our named executive officers, assuming the various termination events occurred on December 31, 2018. The first column details benefits and other payments which are already vested and therefore payable in the event the named executive officer leaves for any reason, including voluntary resignation or discharge for cause. The subsequent columns show the total amount the executive would receive in each instance, including the vested benefits shown in the first column. The amounts included in the tables are estimates of the present value of the amounts that would be payable to the executive officer upon various types of termination of employment. The actual amounts to be paid upon a termination cannot be determined until the event occurs.

**Vested Benefits**

Each of the following vested benefits would be due to the named executive officers upon any termination of employment as of the end of 2018 and are included in the tables below:

• 2018 MIP awards;

• performance shares earned as of the end of 2018;

• MSUs earned as of the end of 2018;

• balances under the USG Corporation Investment Plan and USG Corporation Deferred Compensation Plan;

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vested pension benefits under the USG Corporation Retirement Plan and USG Corporation Supplemental Retirement Plan;  
retiree medical benefits; and  
death benefits under our Executive Death Benefit Plan.

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## Severance Protections

We provide employment agreements and change-in-control severance agreements to our named executive officers. In the event of a termination of employment by us without “cause,” the employment agreements generally provide for a lump sum severance payment equal to the sum of (a) two times base salary plus target annual incentive, (b) the cost of continued participation in benefit plans for 18 months and (c) for Ms. Scanlon and Mr. Dannessa, the present value of the additional retirement benefits the executive officer would have been entitled to receive if he or she had an additional two years of age and credited service under our Retirement Plan and Supplemental Retirement Plan, as well as outplacement services for a period of at least six months for all of our named executive officers. The benefits under the employment agreements are subject to the named executive officers signing a release waiving potential claims against us. The employment agreements include a requirement that after termination of employment, the executive officers will not compete with us for two years nor solicit our employees for three years. For purposes of the employment agreements, “cause” generally includes the executive’s (i) commission of a felony or fraud, (ii) engaging in conduct that brings us into substantial public disgrace, (iii) commission of gross negligence or gross misconduct with respect to USG, (iv) failure to follow the directives of the Board or Chief Executive Officer, (v) breach of any employment policy or (vi) breach of the employment agreement.

In the event of a termination of employment by us without “cause” or by the named executive officer for “Good Reason” during the two years following a change in control, the change-in-control agreements provide for a lump sum severance payment equal to the sum of (a) two times the sum of the executive officer’s base salary plus the greater of the executive officer’s target annual incentive for the year in which the termination of employment occurs or the year in which the change in control occurs, (b) an amount equal to the greater of the executive officer’s pro rata target annual incentive award for the year in which the termination of employment occurs or the year in which the change in control occurs, (c) the value of the executive officer’s continued participation in our welfare benefit plans for six months, (d) for Ms. Scanlon and Mr. Dannessa, the present value of the additional retirement benefits the executive officer would have been entitled to receive if he or she had an additional two years of age and credited service under our Retirement Plan and Supplemental Retirement Plan, and (e) continued participation in our welfare benefit plans for 18 months and outplacement services for a period of at least six months for all of our named executive officers. In the event that any payments become subject to the excise tax imposed under Internal Revenue Code Section 4999, Ms. Scanlon’s and Mr. Dannessa’s benefits will be cut back to the maximum amount payable without triggering such excise tax. However, in the event that such cut back equals 10% or more of the benefits provided the executive, we will provide a gross-up payment to the executive to cover all excise taxes and income and employment taxes triggered by such gross-up payment to put the executive in the same position as if no tax was imposed under Internal Revenue Code Section 4999. Mr. Hilzinger’s, Mr. Salah’s and Ms. Warner’s agreements include an “alternative cap” provision which provides that if the total amounts payable would constitute a “parachute payment” resulting in the imposition of an excise tax, the payment will be reduced to the extent necessary to avoid being a parachute payment, unless such named executive officer would receive a better after-tax benefit if the payment were not reduced and he or she paid the resulting excise tax directly. The benefits under the change-in-control agreements are subject to the named executive officer signing a release waiving potential claims against us. The change-in-control agreements include a requirement that after termination of employment, the executive officers will not compete with us for one year nor solicit our employees for two years. For purposes of the change-in-control agreements, key terms are generally defined as follows:

“Change in Control” generally includes (i) the acquisition of 20% of the voting power of our common stock, (ii) a change in a majority of the members of our Board, (iii) the consummation of a reorganization, merger or consolidation, or sale of all or substantially all of our assets or (iv) stockholder approval of a complete liquidation of USG;

“Cause” generally includes the executive’s (i) conviction of a crime in connection with the executive’s duties with USG, (ii) intentionally damaging our property or (iii) intentionally disclosing our confidential information; and

“Good Reason” generally includes (i) a material diminution in the executive’s duties and responsibilities, (ii) a reduction in the executive’s base salary, target incentive opportunities or benefits or (iii) a required relocation.

## Merger Agreement

See Note 10, Share-Based Compensation, to our consolidated financial statements in Part II, Item 8 of this report for additional information regarding the impact of the Merger on outstanding equity awards. We previously announced the anticipated departures of each of our named executive officers, among others, from USG following, and subject to, the closing of the Merger. Because the Merger has not yet been completed and the tables below reflect information assuming the termination occurred on December 31, 2018, the information presented in the tables does not reflect the treatment of compensation for the named executive officers in connection with the closing of the Merger.



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## Other Benefit Protections

In addition to the vested benefits and severance protections discussed above, the named executive officers have other benefit protections that would be invoked upon certain termination events. Effective with the 2013 grants of MSUs, performance shares and RSUs, our equity award agreements now provide for vesting upon a change in control in most circumstances only if there is also a related loss of employment or diminution of duties, commonly referred to as double-trigger vesting; however, see Note 10, Share-Based Compensation, to our consolidated financial statements in Part II, Item 8 of this report for additional information regarding the impact of the Merger on outstanding equity awards. Finally, the named executive officers participate in our Executive Death Benefit Plan which provides for death benefits, net of taxes, equal to three times the executive officer's base salary in the event of termination due to death. Following retirement, Ms. Scanlon and Messrs. Dannessa and Salah are entitled to ongoing death benefits equal to one times base salary.

Jennifer F. Scanlon

Benefit Type	Vested Benefits	Death	Disability	Involuntary Termination without Cause	Change in Control Only	Change in Control and Involuntary Termination without Cause or Good Reason
Cash Severance	—	—	—	\$4,207,550	—	\$5,130,275
Annual Bonus Payable for Fiscal 2018	\$202,550	\$202,550	\$202,550	202,550	\$202,550	202,550
RSUs	—	1,078,829	1,078,829	—	—	1,078,829
Performance Shares Earned December 31, 2018 <sup>(a)</sup>	1,094,144	1,094,144	1,094,144	1,094,144	1,094,144	1,094,144
Performance Shares Granted in 2017 and 2018	—	—	—	—	—	5,854,232
MSUs Earned December 31, 2018 <sup>(b)</sup>	2,236,536	2,236,536	2,236,536	2,236,536	2,236,536	2,236,536
MSUs Granted in 2017 and 2018	—	—	—	—	—	9,444,156
Investment Plan	607,229	607,229	607,229	607,229	607,229	607,229
Pension Benefit	3,003,167	2,714,469	3,003,167	3,378,563	3,003,167	3,378,563
Welfare Benefit Continuation	—	—	—	76,276	—	95,249
Death Benefits	245,212	2,935,500	245,212	245,212	245,212	245,212
Excise Tax Gross-Up/Forfeiture	—	—	—	—	—	10,983,445
<b>Total</b>	<b>\$7,388,838</b>	<b>\$10,869,257</b>	<b>\$8,467,667</b>	<b>\$12,048,060</b>	<b>\$7,388,838</b>	<b>\$40,350,420</b>

The amounts in this row include the accelerated and unaccelerated 2016 performance shares. For further information see Compensation Discussion and Analysis - Elements of Total Compensation - Long-Term Incentive - Merger-Related Compensation Actions - 280G Acceleration of 2016 Awards.

The amounts in this row include the accelerated and unaccelerated 2016 MSUs. For further information see Compensation Discussion and Analysis - Elements of Total Compensation - Long-Term Incentive - Merger-Related Compensation Actions - 280G Acceleration of 2016 Awards.

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Matthew F. Hilzinger

Benefit Type	Vested Benefits	Death	Disability	Involuntary Termination without Cause	Change in Control Only	Change in Control and Involuntary Termination without Cause or Good Reason
Cash Severance	—	—	—	\$ 2,250,500	—	\$ 2,645,945
Annual Bonus Payable for Fiscal 2018	\$ 86,805	\$ 86,805	\$ 86,805	86,805	\$ 86,805	86,805
Performance Shares Earned December 31, 2018 <sup>(a)</sup>	1,673,466	1,673,466	1,673,466	1,673,466	1,673,466	1,673,466
Performance Shares Granted in 2017 and 2018	—	—	—	—	—	2,101,773
MSUs Earned December 31, 2018 <sup>(b)</sup>	3,420,521	3,420,521	3,420,521	3,420,521	3,420,521	3,420,521
MSUs Granted in 2017 and 2018	—	—	—	—	—	3,402,434
Investment Plan	231,196	231,196	231,196	231,196	231,196	231,196
Pension Benefit	464,346	464,346	464,346	464,346	464,346	464,346
Welfare Benefit Continuation	—	—	—	51,073	—	63,800
Death Benefits	—	1,929,000	—	—	—	—
Excise Tax Gross-Up/Forfeiture	—	—	—	—	—	(1,955,215 )
Total	\$ 5,876,334	\$ 7,805,334	\$ 5,876,334	\$ 8,177,907	\$ 5,876,334	\$ 12,135,071

The amounts in this row include the accelerated and unaccelerated 2016 performance shares. For further (a) information see Compensation Discussion and Analysis - Elements of Total Compensation - Long-Term Incentive - Merger-Related Compensation Actions - 280G Acceleration of 2016 Awards.

The amounts in this row include the accelerated and unaccelerated 2016 MSUs. For further information see (b) Compensation Discussion and Analysis - Elements of Total Compensation - Long-Term Incentive - Merger-Related Compensation Actions - 280G Acceleration of 2016 Awards.

Dominic A. Dannessa

Benefit Type	Vested Benefits	Death	Disability	Involuntary Termination without Cause	Change in Control Only	Change in Control and Involuntary Termination without Cause or Good Reason
Cash Severance	—	—	—	\$ 1,574,100	—	\$ 1,828,341
Annual Bonus Payable for Fiscal 2018	\$ 55,809	\$ 55,809	\$ 55,809	55,809	\$ 55,809	55,809
RSUs	—	215,774	215,774	—	—	215,744
Performance Shares Earned December 31, 2018	965,481	965,481	965,481	965,481	965,481	965,481
Performance Shares Granted in 2017 and 2018	—	—	—	—	—	1,050,972
MSUs Earned December 31, 2018	1,973,409	1,973,409	1,973,409	1,973,409	1,973,409	1,973,409
MSUs Granted in 2017 and 2018	—	—	—	—	—	1,701,238
Investment Plan	1,573,111	1,573,111	1,573,111	1,573,111	1,573,111	1,573,111

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Deferred Compensation	284,653	284,653	284,653	284,653	284,653	284,653
Pension Benefit	6,858,946	3,788,488	6,858,946	7,197,660	6,858,946	7,197,660
Retiree Medical Benefits	24,012	24,012	24,012	24,012	24,012	46,642
Welfare Benefit Continuation	—	—	—	98,560	—	124,962
Death Benefits	194,282	1,431,000	194,282	194,282	194,282	194,282
Excise Tax Gross-Up/Forfeiture	—	—	—	—	—	2,109,414
Total	\$11,929,703	\$10,311,737	\$12,145,477	\$13,941,077	\$11,929,703	\$19,321,718

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Gregory D. Salah

Benefit Type	Vested Benefits	Death	Disability	Involuntary Termination without Cause	Change in Control Only	Change in Control and Involuntary Termination without Cause or Good Reason
Cash Severance	—	—	—	\$ 1,496,000	—	\$ 1,661,396
Annual Bonus Payable for Fiscal 2018	\$ 142,604	\$ 142,604	\$ 142,604	142,604	\$ 142,604	142,604
RSUs	—	388,419	388,419	—	—	388,419
Performance Shares Earned December 31, 2018 <sup>(a)</sup>	643,654	643,654	643,654	643,654	643,654	643,654
Performance Shares Granted in 2017 and 2018	—	—	—	—	—	1,082,114
MSUs Earned December 31, 2018 <sup>(b)</sup>	1,315,592	1,315,592	1,315,592	1,315,592	1,315,592	1,315,592
MSUs Granted in 2017 and 2018	—	—	—	—	—	1,747,524
Investment Plan	860,294	860,294	860,294	860,294	860,294	860,294
Pension Benefit	4,372,285	2,831,763	4,372,285	4,372,285	4,372,285	4,372,285
Retiree Medical Benefits	58,981	58,981	58,981	58,981	58,981	58,981
Welfare Benefit Continuation	—	—	—	75,564	—	94,300
Death Benefits	145,332	1,320,000	145,332	145,332	145,332	145,332
Total	\$ 7,538,742	\$ 7,561,307	\$ 7,927,161	\$ 9,110,306	\$ 7,538,742	\$ 12,512,495

The amounts in this row include the accelerated and unaccelerated 2016 performance shares. For further (a) information see Compensation Discussion and Analysis - Elements of Total Compensation - Long-Term Incentive - Merger-Related Compensation Actions - 280G Acceleration of 2016 Awards.

The amounts in this row include the accelerated and unaccelerated 2016 MSUs. For further information see (b) Compensation Discussion and Analysis - Elements of Total Compensation - Long-Term Incentive - Merger-Related Compensation Actions - 280G Acceleration of 2016 Awards.

Michelle M. Warner

Benefit Type	Vested Benefits	Death	Disability	Involuntary Termination without Cause	Change in Control Only	Change in Control and Involuntary Termination without Cause or Good Reason
Cash Severance	—	—	—	\$ 1,645,600	—	\$ 1,923,416
Annual Bonus Payable for Fiscal 2018	\$ 60,984	\$ 60,984	\$ 60,984	60,984	\$ 60,984	60,984
RSUs	—	970,942	970,942	—	—	970,942
Performance Shares Earned December 31, 2018 <sup>(a)</sup>	804,568	804,568	804,568	804,568	804,568	804,568
Performance Shares Granted in 2017 and 2018	—	—	—	—	—	1,050,972
MSUs Earned December 31, 2018 <sup>(b)</sup>	1,644,500	1,644,500	1,644,500	1,644,500	1,644,500	1,644,500
MSUs Granted in 2017 and 2018	—	—	—	—	—	1,701,238
Investment Plan	92,061	92,061	92,061	92,061	92,061	92,061

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Pension Benefit	42,867	42,867	42,867	42,867	42,867	42,867
Welfare Benefit Continuation	—	—	—	50,869	—	63,527
Death Benefits	—	1,452,000	—	—	—	—
Total	\$2,644,980	\$5,067,922	\$3,615,922	\$4,341,449	\$2,644,980	\$8,355,075

The amounts in this row include the accelerated and unaccelerated 2016 performance shares. For further (a) information see Compensation Discussion and Analysis - Elements of Total Compensation - Long-Term Incentive - Merger-Related Compensation Actions - 280G Acceleration of 2016 Awards.

The amounts in this row include the accelerated and unaccelerated 2016 MSUs. For further information see (b) Compensation Discussion and Analysis - Elements of Total Compensation - Long-Term Incentive - Merger-Related Compensation Actions - 280G Acceleration of 2016 Awards.

Table of Contents**CEO PAY RATIO**

Pursuant to a mandate of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the Securities and Exchange Commission adopted a rule requiring annual disclosure of the ratio of our median employee's annual total compensation to the annual total compensation of our principal executive officer, Ms. Scanlon. Ms. Scanlon had annual total compensation of \$6,230,823 in 2018, as reflected in the Summary Compensation Table above. Our median employee's annual total compensation was \$75,539 in 2018. As a result, Ms. Scanlon's 2018 annual total compensation was approximately 82 times that of our median employee.

As permitted by the SEC rules, the median employee utilized for 2018 is the same employee identified in 2017 because there have been no changes in our employee population or employee compensation arrangements that we reasonably believe would result in a significant change to this pay ratio disclosure. In 2017, we identified our median employee by utilizing the 2017 base salary or wages for all individuals, excluding our chief executive officer, who were employed by us on December 1, 2017. We included all employees, whether employed on a full-time, temporary or part-time basis, other than 32 employees in Uruguay who represented less than 5% of our total employees and were excluded under the de minimis exception permitted under the SEC rules. As of December 1, 2017, we had a total of 6,834 employees, and the employee population that we used for purposes of determining the compensation of our median employee was 5,504 U.S. employees and 1,298 non-U.S. employees after excluding the 32 employees in Uruguay pursuant to the de minimis exception, and in each case excluding Ms. Scanlon. In identifying the median employee, we annualized the compensation for our full-time and part-time permanent employees who were not employed by us for all of 2017 and we did not make any cost-of-living adjustments. After identifying the median employee based on base salary or wages, we calculated the annual total compensation for such employee using the same methodology we use for our named executive officers as required to be set forth in the Summary Compensation Table.

**Director Compensation**

The Governance Committee is charged with annually reviewing and making recommendations to the Board regarding director compensation. In making its recommendations, the Governance Committee considers the significant time committed by our directors to the performance of their duties, the high-level leadership experience and special competencies they contribute to USG, third-party data, the director compensation practices of a comparator group of companies, our performance and ways in which to further align our Board's interests with those of our stockholders. Ms. Scanlon, our President and Chief Executive Officer, does not receive compensation from us for her service as a director. Her compensation for her service as our President and Chief Executive Officer is shown in the Summary Compensation Table above.

**CASH COMPENSATION**

We pay our non-employee directors an annual cash retainer of \$80,000, payable in equal quarterly installments. In 2018, we paid additional cash retainers of \$20,000 to the Chair of our Audit Committee, \$15,000 to the Chair of our Compensation and Organization Committee, \$10,000 to the Chair of our Governance Committee and \$125,000 to Mr. Leer for his service as the Board's Non-Executive Chairman, in each case payable in equal quarterly installments. We also reimburse non-employee directors for out-of-pocket expenses they incur in connection with attending meetings and other USG activities.

**ANNUAL GRANT**

On December 31, 2018, each of our non-employee directors received an annual grant of \$120,000 payable in shares of our common stock.

**DEFERRAL OF COMPENSATION**

Directors have the option to defer all or a part of their compensation in the form of deferred stock units that will increase or decrease in value in direct proportion to the market value of our common stock. Previously, our Deferred Compensation Program for Non-Employee Directors provided that deferred stock units would be paid in shares of common stock or cash, at each director's option, following termination of Board service. However, the Board amended the program effective August 30, 2017 to provide that future deferred stock units will be paid only in shares of common stock following termination of Board service. At that time, directors who participated in the Deferred Compensation Program were able to continue the election to receive cash or shares for previously issued deferred

stock units or change such election to receive only shares. One director continued the election to receive cash or shares for previously issued deferred stock units that were earned by such director between January 1, 2008 and August 30, 2017. Deferred stock units earned prior to January 1, 2008 under a previous deferred compensation program will be paid in cash in accordance with the terms of that program. The amounts of cash compensation deferred by our directors into deferred stock units is included in the Fees Earned or Paid in Cash column of the 2018 Director Compensation table below, and the amounts of equity compensation deferred by our directors into deferred stock units is included in the Stock Awards column, in each case as described

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in footnote 1 to the table. Following the adoption of the Merger Agreement by our stockholders and the payment of the conditional special dividend, on October 2, 2018 six of our non-employee directors received an aggregate total of approximately 2,732 dividend equivalents on outstanding deferred stock units in the form of additional deferred stock units.

**2018 DIRECTOR COMPENSATION**

The table below reflects the compensation we paid to our non-employee directors for 2018.

Name	Fees			Total (\$)
	Earned or Paid in Cash (\$) <sup>(a)</sup>	Stock Awards (\$) <sup>(a)(b)</sup>	All Other Compensation (\$) <sup>(c)</sup>	
Jose Armario	\$80,000	\$120,028	\$ 500	\$200,528
Thomas A. Burke	80,000	120,000	—	\$200,000
Matthew Carter, Jr.	80,000	120,000	—	\$200,000
Gretchen R. Haggerty	80,000	120,028	—	\$200,028
William H. Hernandez	100,000	120,000	2,500	\$222,500
Brian A. Kenney	80,000	120,028	—	\$200,028
Richard P. Lavin	95,000	120,000	—	\$215,000
Steven F. Leer	215,000	120,000	1,000	\$336,000

Mr. Lavin deferred his annual cash retainer into 2,236.9728 deferred stock units, Mr. Leer deferred 5% of his annual cash retainer into 253.1311 deferred stock units, and Messrs. Burke, Carter, Hernandez, Lavin and Leer each deferred his annual stock grant into 2,807.3459 deferred stock units, in each case pursuant to the terms of our Director Compensation Program. Directors hold the number of deferred stock units shown in the Security

(a) Ownership of Directors and Executive Officers table in Item 12, Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters. A portion of the total deferred stock units held are classified as liability awards for accounting purposes because the director can elect to receive payment in shares of common stock or cash. The remainder are classified as equity awards. The balances of liability awards are adjusted over the course of the year to reflect changes in the market value of our stock. The net impact of this accounting treatment in 2018 was to increase the award balance for Mr. Hernandez by \$110,000.

(b) Each of Ms. Haggerty and Messrs. Armario and Kenney received his or her annual stock grant in shares of our common stock. They were each issued 2,808 shares based on the average of the high and low sales prices of a share of our common stock on December 31, 2018. The amounts in this column for Ms. Haggerty and Messrs. Armario and Kenney reflect the aggregate grant date fair value of the shares issued to them.

(c) Reflects matching contributions under the USG Foundation matching gift program. This program is generally available to our U.S. employees and to our directors. The USG Foundation matches up to 50% of donations made to eligible charitable organizations up to a maximum of \$2,500 in matches per year for each individual. The amounts shown include matches for gifts that were made in 2017 but, due to administrative processing time, were paid by the USG Foundation in 2018.

**Stock Ownership Guidelines**

Our Board adopted stock ownership guidelines to better align the interests of our non-employee directors with the interests of our stockholders. The guidelines were set at the levels described below to ensure our Board owns meaningful levels of stock, taking into account competitive market practice. We expect all participants to reach at least the minimum level of ownership for their position level within five years after their appointment to that position. Our non-employee directors are expected to own at minimum a number of shares of our common stock and deferred stock units having a value equal to the lesser of (a) three times the sum of the annual cash retainer (currently \$80,000) and the annual grant (currently \$120,000) or (b) an aggregate of 15,000 shares and deferred stock units. All of our non-employee directors meet or exceed their stock ownership guidelines or are expected to meet the guidelines within the allowed timeframe.





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12. RELATED STOCKHOLDER MATTERS

## Securities Authorized for Issuance Under Equity Compensation Plans

The following table sets forth information as of December 31, 2018 about equity securities that may be issued upon exercise of options under our LTIP, which was approved by our stockholders, and deferred stock units issued under our Non-Employee Director Compensation Program. The features of these plans are discussed further in Part II, Item 8, Financial Statements and Supplementary Data, Note 10, Share-Based Compensation.

Plan Category	Number of securities to be issued upon exercise of outstanding options and rights (a)	Weighted average exercise price of outstanding options and rights (b)	Number of securities remaining available for issuance under equity compensation plans (excluding securities reported in column one)
Equity compensation plans approved by stockholders	533,903	\$ 13.55	6,353,956
Equity compensation plans not approved by stockholders	253,727	—	—
Total	787,630	\$ 13.55	6,353,956

Equity compensation plans not approved by stockholders includes an aggregate of 229,779 fully vested deferred stock units granted to our non-employee directors that are payable in shares of common stock and 23,948 fully vested deferred stock units granted to our non-employee directors that are payable in cash or shares of common stock, at such director's option. The deferred stock units increase or decrease in value in direct proportion to the market value of our common stock and will be paid following termination of service as a director. Amount does not include an aggregate of 618 fully vested deferred stock units granted to our non-employee directors that must be settled in cash. See Note 10, Share-Based Compensation, to our consolidated financial statements in Part II, Item 8 of this report for additional information regarding the impact of the Merger.

Weighted-average exercise price calculation for equity compensation plans not approved by stockholders does not reflect the inclusion of fully-vested deferred stock units granted to our non-employee directors because that type of award does not have an exercise feature.

## Security Ownership of Directors and Executive Officers

The following table sets forth information as of January 31, 2019 regarding beneficial ownership of our common stock by each director, each executive officer named in the Summary Compensation Table and all current directors and executive officers as a group, including any shares held by executive officers through the Investment Plan.

Name	Common Shares		Total Beneficial Stock and Stock Unit Holdings <sup>(c)</sup>
	Beneficially Owned, Excluding Shares Subject to Restricted Stock Units <sup>(a)</sup>	Deferred Stock Units <sup>(b)</sup>	
Jose Armario <sup>(d)</sup>	9,342	79,193	88,535
Thomas A. Burke	710	19,422	20,132
Matthew Carter, Jr.	—	23,027	23,027
Dominic A. Dannessa	52,802	—	52,802
Gretchen R. Haggerty	44,521	—	44,521
William H. Hernandez	17,905	30,169	48,074
Matthew F. Hilzinger <sup>(e)</sup>	89,587	—	89,587
Brian A. Kenney	39,467	—	39,467

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Richard P. Lavin	36,657	5,064	41,721
Steven F. Leer	5,818	97,470	103,288
Gregory D. Salah <sup>(f)</sup>	53,215	—	53,215
Jennifer F. Scanlon	56,237	—	56,237
Michelle M. Warner	28,778	—	28,778
All current directors and executive officers as a group (17 persons)	508,158	254,345	762,503

(a) Unless otherwise noted, each individual or member of the group has sole voting power and investment power with respect to the shares shown in this column.

Indicates the non-voting deferred stock units credited to the account of the individual director or members of the group under current and past director compensation programs. The units increase or decrease in value in direct proportion to the market value of our common stock and are paid in shares of common stock following termination of Board service. However, as described in Item 11, Executive Compensation - 2018 Director Compensation, one director elected to continue the option to receive cash or shares of common stock for deferred stock

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units earned between January 1, 2008 and August 30, 2017. Deferred stock units earned under a previous deferred compensation program prior to January 1, 2008 will only be paid in cash in accordance with the terms of that program.

- (c) As of January 31, 2019, neither any director nor executive officer, nor our directors and executive officers as a group, beneficially owned more than 1% of our outstanding common stock.
- (d) Includes 2,619 shares held by trusts for the benefit of Mr. Armario's children.
- (e) Includes 36,175 shares held by M&S Hilzinger Family, LP, over which Mr. Hilzinger and his wife share voting and investment power.
- (f) Includes 3,000 shares held by the Sloan D. Salah Trust, over which Mr. Salah and his wife share voting and investment power.

## Security Ownership of Principal Stockholders

The following table provides information regarding the beneficial ownership of our common stock by all persons known by us to be the beneficial owner of more than 5% of our common stock on January 31, 2019. This information is based upon statements on Schedule 13D or 13G or Form 3 or 4 filed by those persons with the SEC.

Name and Address of Beneficial Owner	Amount of Beneficial Ownership	Percent of Class	
Berkshire Hathaway Inc. <sup>(a)</sup> 1440 Kiewit Plaza Omaha, Nebraska 68131	43,387,980	30.97	%
Gebr. Knauf KG <sup>(b)</sup> Am Bahnhof 7 97346 Iphofen Federal Republic of Germany	14,757,258	10.53	%
The Vanguard Group, Inc. <sup>(c)</sup> 100 Vanguard Blvd. Malvern, PA 19355	7,373,027	5.26	%

(a) The number of shares of our common stock shown as beneficially owned includes (a) 39,002,016 shares of our common stock held by National Indemnity Company, a Nebraska insurance corporation ("NICO"), which is an indirect subsidiary of Berkshire Hathaway, Inc., a Delaware corporation ("Berkshire Hathaway"), (b) 14,035,088 shares of our common stock (the "BH Nebraska Shares") held by Berkshire Hathaway Life Insurance Company of Nebraska, a Nebraska corporation ("BH Nebraska"), (c) 7,894,736 shares of our common stock (the "BH Assurance Shares," and together with the BH Nebraska Shares, the "Nebraska/Assurance Shares") held by Berkshire Hathaway Assurance Corporation, a New York corporation ("BH Assurance"), and (d) 4,385,964 shares of our common stock (the "General Re Life Shares") held by General Re Life Corporation, a Connecticut corporation ("General Re Life"). Mr. Buffett, Chairman of the Board of Directors of Berkshire Hathaway, may be deemed to control Berkshire Hathaway, which controls BH Nebraska, BH Assurance and General Re Life. Thus, both Mr. Buffett and Berkshire Hathaway may be considered to have beneficial ownership of the Nebraska/Assurance Shares and the General Re Life Shares. NICO, a direct subsidiary of Berkshire Hathaway and the direct parent company of BH Nebraska and BH Assurance, also may be considered to have beneficial ownership of the Nebraska/Assurance Shares. General Reinsurance Corporation, a Delaware corporation ("General Reinsurance"), an indirect subsidiary of Berkshire Hathaway and the direct parent company of General Re Life, also may be considered to have beneficial ownership of the General Re Life Shares. General Re Corporation, a Delaware corporation ("General Re"), a direct subsidiary of Berkshire Hathaway and the direct parent company of General Reinsurance, also may be considered to have beneficial ownership of the General Re Life Shares. BH Nebraska has voting and investment power with respect to the BH Nebraska Shares. BH Assurance has voting and investment power with respect to the BH Assurance Shares. However, Mr. Buffett, who may be deemed to control BH Nebraska and BH Assurance, directs the investment of BH Nebraska and BH Assurance. Thus, Mr. Buffett, Berkshire Hathaway, and NICO share voting and investment power with respect to the Nebraska/Assurance Shares. General Re Life has voting and investment

power with respect to General Re Life Shares. However, Mr. Buffett, who may be deemed to control General Re Life, directs the investment of General Re Life. Thus, Mr. Buffett, Berkshire Hathaway, General Reinsurance and General Re share voting and investment power with respect to the General Re Life Shares.

(b) C & G Verwaltungs GmbH, a limited liability company organized under the laws of the Federal Republic of Germany (“C&G”), is an indirect subsidiary of Knauf controlled by members of the Knauf family. Martin Stürmer and Jörg Schanow are the general managers of C&G, and Alexander Knauf and Manfred Grundke are the general partners of Knauf. C&G and Knauf both report that they have sole voting and dispositive power with respect to 14,757,258 shares of our common stock. On June 11, 2018, Knauf filed a Schedule 13D to report entry by Knauf and Merger Sub into a voting agreement, dated June 10, 2018, with Berkshire Hathaway, in which Berkshire Hathaway agreed, among other things and subject to the terms thereof, to vote (or cause to be voted) all shares of our common stock then beneficially owned by Berkshire Hathaway, directly or indirectly, for adoption of the Merger Agreement and approval of the Merger and the other transactions contemplated thereby and against any competing acquisition proposals relating to USG, which could impact the number of shares that Knauf could be deemed to beneficially own. In Knauf’s June 11, 2018 Schedule 13D, Knauf disclaims that it constitutes a “group” (within the meaning of Section 13(d)(3) of the Exchange Act) with Berkshire Hathaway and, pursuant to Rule 13d-4 under the Exchange Act, disclaims beneficial ownership of any shares of our common stock beneficially owned by Berkshire Hathaway or any of its affiliates.

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Based on information provided in a Schedule 13G filed with the SEC on February 12, 2019 by The Vanguard Group, Inc., an investment adviser (“Vanguard”). Vanguard reported that it has sole power to vote 40,054 shares, shared power to vote 11,046 shares, sole power to dispose of or to direct the disposition of 7,330,422 shares and shared power to dispose of or to direct the disposition of 42,605 shares. Each (c) of Vanguard Fiduciary Trust Company (“Vanguard Trust”) and Vanguard Investments Australia, Ltd. (“Vanguard Investments”) are wholly owned subsidiaries of Vanguard. Vanguard Trust is the beneficial owner of 31,559 shares, as a result of its serving as investment manager of collective trust accounts, and Vanguard Investments is the beneficial owner of 19,541 shares, as a result of its serving as investment manager of Australian investment offerings.

**Change in Control - Merger Agreement with Knauf**

See Note 19, Merger Agreement, to the consolidated financial statements in Part II, Item 8 of this report for information related to the Merger and the Merger Agreement.

**Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

**Related Person Transactions Policy**

Our Board believes that we must avoid “conflicts of interest” - situations where personal interests may interfere (or appear to interfere) with an employee’s or director’s objectivity in making business decisions on our behalf. Therefore our Board has established a written Related Person Transactions Policy, or the RPT Policy, to assist it in reviewing possible related person transactions involving us and Related Persons (as defined below). The RPT Policy supplements our other conflict of interest policies set forth in our Code of Business Conduct and the Corporate Governance Guidelines of our Board.

Related Persons consist of directors, nominees for election as directors, executive officers, stockholders who beneficially own more than five percent of our voting securities, referred to as Significant Stockholders, and the immediate family members of these individuals. For purposes of the RPT Policy, Related Person Transactions are transactions that are required to be disclosed under Item 404(a) of Regulation S-K promulgated under the Exchange Act. Such arrangements include transactions in which we are a participant, the amount involved exceeds \$120,000, and a Related Person has or will have a direct or an indirect material interest, subject to certain exceptions which the Board has determined do not create or involve a material interest on the part of the Related Person.

Each director, nominee for director and executive officer is responsible for providing written notice to our General Counsel of any potential Related Person Transaction involving him or her, or his or her immediate family member, including any additional information about the transaction that our General Counsel may reasonably request. In addition, each director, nominee for director and executive officer is required to complete an annual questionnaire that requests information about their immediate family members and any current, past and proposed Related Person Transactions. Our General Counsel reviews transactions with Related Persons, and working with our accounts payable and accounts receivable departments and other internal or external resources, collects information about such transactions.

At each regularly scheduled meeting of the Governance Committee, our General Counsel provides the details of each new or proposed transaction with a Related Person that is subject to the RPT Policy, and the Governance Committee determines whether to approve, reject or ratify the transaction. In doing so, the Governance Committee considers whether it is fair to us based on the facts and circumstances that it deems appropriate. In any case where the Governance Committee determines not to ratify a Related Person Transaction that has been commenced without approval, the Governance Committee may direct additional actions, including, but not limited to, immediate discontinuation or rescission of the transaction or modification of the transaction to make it acceptable for ratification. In addition, the Chair of the Governance Committee (or the Chair of the Audit Committee if the transaction involves the Chair of the Governance Committee) has the authority to review and approve or ratify a Related Person Transaction when it is not practicable or desirable to delay review of a transaction until a Governance Committee meeting, and reports to the Governance Committee any transaction so approved or ratified.

**Agreements with Berkshire Hathaway**

As of January 31, 2019, Berkshire Hathaway beneficially owned approximately 31% of our common stock. In connection with an equity commitment agreement we entered into with Berkshire Hathaway in January 2006, we

entered into a Shareholder's Agreement pursuant to which Berkshire Hathaway agreed that during the time that it owns our equity securities, it will be exempted from our stockholder rights plans, including our rights plan and the transfer restrictions in our Restated Certificate of Incorporation, except that such plans may require that Berkshire Hathaway does not acquire (although it may continue to hold) beneficial ownership

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of more than 50% of our voting securities, on a fully-diluted basis, other than pursuant to an offer to acquire all shares of our common stock that is open for at least 60 calendar days. The Shareholder's Agreement was approved by our Board.

In November 2008, we issued \$300 million aggregate principal amount of 10% Contingent Convertible Senior Notes due 2018 to affiliates of Berkshire Hathaway. The notes were called for redemption in November 2013 and March 2014 and we issued an aggregate of 26,315,790 shares of common stock to affiliates of Berkshire Hathaway.

In connection with the 2008 issuance of notes, we entered into a registration rights agreement with Berkshire Hathaway. Under the registration rights agreement, we granted Berkshire Hathaway demand and piggyback registration rights with respect to all of the shares of common stock held by it and specified affiliates from time to time. The registration rights agreement entitles Berkshire Hathaway to make three demands for registration of all or part of the common stock held by it and its affiliates, subject to certain conditions and exceptions. The registration rights agreement also provides that, subject to certain conditions and exceptions, if we propose to file a registration statement under the Securities Act of 1933, as amended, with respect to an offering of securities on a form that would permit registration of the shares of common stock that are held by Berkshire Hathaway or the specified affiliates, then we will offer Berkshire Hathaway and its specified affiliates the opportunity to register all or part of its shares of common stock on the terms and conditions set forth in the registration rights agreement. The registration rights agreement and the notices of redemption issued with respect to the notes in November 2013 and March 2014 were approved by our Board.

**Agreements with Knauf**

As of January 31, 2019, an affiliate of Knauf beneficially owned approximately 10.5% of our common stock. See Note 19, Merger Agreement, to the consolidated financial statements in Part II, Item 8 of this report for information related to the Merger and the Merger Agreement, which were approved by our Board.

In September 2015, we and our indirect wholly-owned subsidiary, USG Ventures-Europe GmbH, entered into an Interest and Share Purchase Agreement, or the ISPA, with Knauf Aquapanel GmbH, an affiliate of Knauf. Pursuant to the ISPA, USG Ventures-Europe GmbH sold to such affiliate its 50% share of its interests in Knauf/USG Verwaltungs GmbH and Knauf/USG Systems GmbH & Co. KG, collectively referred to as the Knauf-USG Joint Venture, for a total price of €48 million in cash. The Knauf-USG Joint Venture manufactured and distributed Aquapanel® brand cement panels throughout Europe (excluding Turkey) and all countries that were part of the former Soviet Union since 2001. The sale was consummated in December 2015 and we recorded a \$6 million net gain on the disposition. The sale of our interests in the Knauf-USG Joint Venture was approved by our Board. There are continuing indemnification obligations under the ISPA pursuant to which we may be obligated to pay money to, or entitled to receive money from, certain entities affiliated with Knauf.

We were named as defendants in lawsuits relating to Chinese-made wallboard installed in homes primarily in the southeastern United States in 2006 and 2007. Most of the lawsuits against us related to wallboard manufactured by Knauf Plasterboard (Tianjin) Co., an affiliate of Knauf. Those lawsuits have been resolved, and we have reached an agreement with Knauf and their affiliates that limits our responsibility for claims against us for homes to which we delivered Knauf Plasterboard (Tianjin) Co. wallboard. In accordance with the agreement, an affiliate of Knauf will fund the costs of resolving the claims, excluding legal fees.



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Director Independence

The Board has determined that each of our directors, except Ms. Scanlon, our President and Chief Executive Officer, is independent as defined by our By-laws and Corporate Governance Guidelines and the NYSE listing standards. Our Corporate Governance Guidelines provide that at least 80% of our directors should be independent in accordance with the standards of the NYSE and our By-laws. The listing standards of the NYSE also require that a majority of our directors and all members of our Audit, Compensation and Organization and Governance Committees be independent. A director is considered independent only if the Board determines that he or she has no direct or indirect material relationship with USG. Our By-laws further provide that members of legal, accounting or auditing firms providing services to us are not independent.

The Board makes this determination annually based upon information provided by each of our directors and the recommendation of the Governance Committee. In making the most recent determination, the Board considered the transactions, relationships and arrangements involving the directors noted below. These transactions were deemed not to create a material interest on the part of such director under the RPT Policy.

• Mr. Carter is a director of NRG Energy, Inc., from which we purchase electrical power and synthetic gypsum, and receive payments from in connection with an energy demand response program.

• Ms. Haggerty is a director of Johnson Controls International plc, from which we purchase building efficiency services, and her brother is a partner at a firm used by us for financial valuation services.

• Mr. Hernandez is a director of Albemarle Corporation, from which we purchase industrial batteries.

• Mr. Kenney is an executive officer and a director of GATX Corporation, from which we lease railcars.

• Mr. Lavin is a director of ITT Inc., from which we purchase equipment.

Mr. Leer is a director of Norfolk Southern Corporation, from which we purchase rail transportation services, and Ms. Scanlon also serves on the Norfolk Southern board. Mr. Leer is also a director of Parsons Corporation, from which we purchase construction contractor labor.

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## Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

## Fees Paid

The following is a summary of the fees billed to us by Deloitte & Touche LLP, the member firms of Deloitte Touche Tohmatsu and their respective affiliates, or collectively “Deloitte,” our principal accountant, for professional services rendered for the years ended December 31, 2018 and 2017:

(thousands)	2018	2017
Fee Category:		
Audit Fees	\$2,587	\$3,032
Audit-Related Fees	—	—
Tax Fees	67	155
All Other Fees	3	3
Total Fees	\$2,657	\$3,190

**Audit Fees:** Consist of fees billed for professional services rendered for the integrated audit of our consolidated financial statements and internal controls over financial reporting, review of the interim consolidated financial statements included in quarterly reports and services that are normally provided by Deloitte in connection with statutory and regulatory filings or engagements, including debt offerings.

**Audit-Related Fees:** Consist of fees billed for assurance and related services that are reasonably related to the performance of the audit or review of our consolidated financial statements and are not reported under “Audit Fees.”

**Tax Fees:** Consist of fees billed for professional services related to tax compliance and other tax services. Fees for assistance with U.S. tax services amounted to \$55,000 in 2018 and \$100,000 in 2017 and fees for assistance with international tax services amounted to \$12,000 in 2018 and \$55,000 in 2017.

**All Other Fees:** Consist of subscription fees of \$3,000 in 2018 and 2017 for Deloitte’s Accounting Research Tool.

## PRE-APPROVAL OF SERVICES

The Audit Committee has a policy for pre-approval of all audit and non-audit services provided by our independent registered public accountants. Each year, the Audit Committee reviews and approves the independent registered public accountants’ plan for the ensuing fiscal year, outlining the scope of audit services to be performed for the year and the proposed fees. If necessary, the Audit Committee will approve during the year any changes in terms, conditions and fees resulting from changes in audit scope or other matters. The Audit Committee also annually evaluates the non-audit services for which management believes the independent registered public accountants should be used and assesses whether the provision of such services is consistent with appropriate principles of independence and such other factors as the Audit Committee considers relevant. Any services not pre-approved in the annual authorization must be specifically pre-approved by the Audit Committee. The independent registered public accountants are not authorized to provide any services that are prohibited by SEC regulation or any other applicable law or regulation. Additionally, the independent registered public accountants are not allowed to provide any service to USG under a contingent fee arrangement. To ensure prompt handling of unexpected matters, the Audit Committee delegates to its Chair the authority to amend or modify the list of approved non-audit services and related fees. The Chair then reports any such approval to the full Audit Committee.

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PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) 1 and 2. See Part II, Item 8, Financial Statements and Supplementary Data, for an index of our consolidated financial statements and supplementary data schedule.

3. The information in the Exhibit Index of this annual report on Form 10-K is incorporated into this Item 15(a)3 by reference.

(b) The information in the Exhibit Index of this annual report on Form 10-K is incorporated into this Item 15(b) by reference.

Item 16. FORM 10-K SUMMARY

None

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EXHIBIT INDEX

Exhibit  
Number

- 2.1 Share Sale and Subscription Agreement, dated as of October 17, 2013, by and among USG Corporation, USG Netherlands Global Holdings B.V., Boral Limited, Boral International Pty Limited, and Boral Gypsum Asia Sdn Bhd (incorporated by reference to Exhibit 2.1 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated October 16, 2013, or the October 2013 8-K) †
- 2.2 Share Sale and Subscription Agreement, dated as of October 17, 2013, by and among USG Corporation, USG Foreign Investments, Ltd., USG Netherlands Global Holdings B.V., Boral Limited, Boral Building Materials Pty Limited, and Boral Australian Gypsum Limited (incorporated by reference to Exhibit 2.2 to the October 2013 8-K) †
- 2.3 Sale and Purchase Agreement, by and between USG Corporation and American Builders & Contractors Supply Co., Inc., dated August 27, 2016 (incorporated by reference to Exhibit 2.1 to USG Corporation's Amendment No. 1 to Current Report on Form 8-K (File No. 001-08864) dated August 29, 2016) †
- 2.4 Agreement and Plan of Merger, dated June 10, 2018, by and among USG Corporation, Gebr. Knauf KG and World Cup Acquisition Corporation (incorporated by reference to Exhibit 2.1 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated June 11, 2018) †
- 3.1 Restated Certificate of Incorporation of USG Corporation (incorporated by reference to Exhibit 3.1 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated November 14, 2017, or the November 2017 8-K)
- 3.2 Amended and Restated By-Laws of USG Corporation, dated as of November 9, 2017 (incorporated by reference to Exhibit 3.2 to the November 2017 8-K)
- 4.1 Form of Common Stock certificate (incorporated by reference to Exhibit 4.1 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated May 12, 2016)
- 4.2 Rights Agreement, dated as of December 21, 2006, by and between USG Corporation and Computershare Investor Services, LLC, as rights agent (incorporated by reference to Exhibit 4.1 to USG Corporation's Registration Statement on Form 8-A (File No. 001-08864) dated December 21, 2006)
- 4.3 Amendment No. 1 to Rights Agreement, dated as of December 5, 2008, by and between USG Corporation and Computershare Investor Services, LLC, as rights agent (incorporated by reference to Exhibit 4.1 to USG Corporation's Amendment No. 1 to Form 8-A (File No. 001-08864) dated December 5, 2008)
- 4.4 Amendment No. 2 to Rights Agreement, dated as of March 22, 2013, by and between USG Corporation and Computershare Trust Company, N.A., as rights agent (successor-in-interest to Computershare Investor Services LLC) (incorporated by reference to Exhibit 4.1 to USG Corporation's Amendment No. 2 to Form 8-A (File No. 001-08864) dated March 22, 2013)
- 4.5 Amendment No. 3 to Rights Agreement, dated as of February 11, 2015, by and between USG Corporation and Computershare Trust Company, N.A., as rights agent (successor-in-interest to Computershare Investor Services LLC) (incorporated by reference to Exhibit 4.1 to USG Corporation's Amendment No. 3 to Form 8-A (File No. 001-08864) dated February 11, 2015)

4.6 Amendment No. 4 to Rights Agreement, dated as of November 16, 2015, by and between USG Corporation and Computershare Trust Company, N.A., as rights agent (successor-in-interest to Computershare Investor Services LLC) (incorporated by reference to Exhibit 4.1 to USG Corporation's Amendment No. 4 to Form 8-A (File No. 001-08864) dated November 16, 2015)

4.7 Amendment No. 5 to Rights Agreement, dated as of November 13, 2018, by and between USG Corporation and Computershare Trust Company, N.A., as rights agent (successor-in-interest to Computershare Investor Services LLC) (incorporated by reference to Exhibit 4.1 to USG Corporation's Amendment No. 5 to Form 8-A (File No. 001-08864) dated November 13, 2018)

4.8 Indenture, dated as of November 1, 2006, by and between USG Corporation and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.01 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated November 20, 2006)

4.9 Agreement of Resignation, Appointment and Acceptance, dated as of October 18, 2011, by and among USG Corporation, U.S. Bank National Association and HSBC Bank USA, National Association (incorporated by reference to Exhibit 4.1 to USG Corporation's Quarterly Report on Form 10-Q (File No. 001-08864) dated October 31, 2011)

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4.10 Supplemental Indenture No. 6, dated as of February 24, 2015, by and among USG Corporation, each of United States Gypsum Company, L&W Supply Corporation, USG Foreign Investments, Ltd. and USG Interiors, LLC, as guarantors, and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated February 24, 2015)

4.11 Supplemental Indenture No. 7, dated as of May 15, 2017, by and among USG Corporation, each of United States Gypsum Company, USG Foreign Investments, Ltd. and USG Interiors, LLC, as guarantors, and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated May 15, 2017)

USG Corporation and certain of its consolidated subsidiaries are parties to other long-term debt instruments under which the total amount of securities authorized does not exceed 10% of the total assets of USG Corporation and its subsidiaries on a consolidated basis. Pursuant to paragraph (b)(4)(iii)(A) of Item 601 of Regulation S-K, USG Corporation agrees to furnish a copy of such instruments to the SEC upon request.

10.1 Shareholder's Agreement, dated as of January 30, 2006, by and between USG Corporation and Berkshire Hathaway Inc. (incorporated by reference to Exhibit 10.3 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated January 30, 2006)

10.2 Amended and Restated Registration Rights Agreement, dated as of November 26, 2008, by and between USG Corporation and Berkshire Hathaway Inc. (incorporated by reference to Exhibit 10.1 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated November 26, 2008)

10.3 Shareholders Agreement, dated as of February 28, 2014, by and among USG Corporation, Boral International Pty Limited, Boral Building Materials Pty Limited, USG Netherlands Global Holdings B.V., USG Boral Building Products Pte Limited, USG Boral Building Products Pty Limited, and Boral Limited (incorporated by reference to Exhibit 10.1 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated February 28, 2014) (Note: Portions of this document have been omitted pursuant to a Request for Confidential Treatment filed with the SEC)

10.4 Fifth Amendment and Restatement Agreement, dated as of May 1, 2017, among USG Corporation, certain of its wholly-owned domestic and Canadian subsidiaries, JPMorgan Chase Bank, N.A., as administrative agent and as an issuing bank, JPMorgan Chase Bank, N.A., Toronto Branch, as Canadian agent, and the lenders and issuing banks party thereto (incorporated by reference to Exhibit 10.1 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated May 1, 2017, or the May 2017 8-K)

10.5 Fifth Amended and Restated Credit Agreement, dated as of May 1, 2017, among USG Corporation, as the "U.S. Borrower," CGC Inc., a New Brunswick corporation and wholly-owned indirect subsidiary of USG Corporation, as the "Canadian Borrower," JPMorgan Chase Bank, N.A., as administrative agent, JPMorgan Chase Bank, N.A., Toronto Branch, as Canadian agent, the lenders and issuing banks party thereto and Bank of America, N.A. and Wells Fargo Bank, National Association, as co-syndication agents (incorporated by reference to Exhibit 10.2 to the May 2017 8-K)

10.6 Amended and Restated Guarantee Agreement, dated as of October 22, 2014, among USG Corporation, CGC Inc., the subsidiary guarantors party thereto and JP Morgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.20 to USG Corporation's Annual Report on Form 10-K (File No. 001-08864) dated February 12, 2015, or the 2014 10-K)

10.7 U.S. Pledge and Security Agreement, dated as of January 7, 2009, among USG Corporation, the other grantors party thereto and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit

10.21 to the 2014 10-K)

10.8 Canadian Pledge and Security Agreement, dated as of October 22, 2014, among CGC Inc., the other grantors party thereto and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.22 to the 2014 10-K)

10.9 Canadian Amendment and Reaffirmation Agreement, dated as of May 1, 2017, by and between CGC Inc. and JPMorgan Chase Bank, N.A. (incorporated by reference to Exhibit 10.3 to the May 2017 8-K)

10.10 Interest and Share Purchase Agreement, dated as of September 15, 2015, by and among USG Corporation, USG Ventures-Europe GmbH, Knauf Aquapanel GmbH, Knauf/USG Verwaltungs GmbH and Knauf/USG Systems GmbH & Co. KG (incorporated by reference to Exhibit 10.2 to USG Corporation's Quarterly Report on Form 10-Q (File No. 001-08864) dated October 22, 2015, or the third quarter 2015 10-Q)

10.11 Direct Purchaser Settlement Agreement, dated February 11, 2015 (incorporated by reference to Exhibit 10.1 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated February 13, 2015, or the February 2015 8-K)

10.12 Indirect Purchaser Settlement Agreement, dated February 11, 2015 (incorporated by reference to Exhibit 10.2 to the February 2015 8-K)

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- Supply Agreement, by and among United States Gypsum Company and USG Interiors, LLC and USG Corporation, as guarantor, and L&W Supply Corporation and American Builders & Contractors Supply Co., Inc., as guarantor, dated October 31, 2016 (incorporated by reference to Exhibit 10.1 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated November 1, 2016) (Note: Portions of this exhibit have been omitted pursuant to a Request for Confidential Treatment filed with the SEC)
- 10.13 Form of Employment Agreement (incorporated by reference to Exhibit 10.1 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated October 2, 2008, or the October 2008 8-K)\*
- Employment Agreement, effective as of April 16, 2012, between USG Corporation and Matthew Hilzinger
- 10.15 (incorporated by reference to Exhibit 10.1 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated March 26, 2012, or the March 2012 8-K)\*
- 10.16 Form of Employment Agreement (form used since January 1, 2015) (incorporated by reference to Exhibit 10.3 to USG Corporation's Quarterly Report on Form 10-Q (File No. 001-08864) dated July 23, 2015)\*
- 10.17 Form of Change in Control Severance Agreement (Tier 1 Benefits) (incorporated by reference to Exhibit 10.2 to the October 2008 8-K)\*
- 10.18 Form of Change in Control Severance Agreement (Tier 2 Benefits) (incorporated by reference to Exhibit 10.3 to the October 2008 8-K)\*
- 10.19 Change in Control Severance Agreement, dated as of April 16, 2012, by and between USG Corporation and Matthew Hilzinger (incorporated by reference to Exhibit 10.2 to the March 2012 8-K)\*
- 10.20 Form of Change in Control Severance Agreement (form used since August 1, 2015) (incorporated by reference to Exhibit 10.1 to the third quarter 2015 10-Q)\*
- 10.21 Form of Indemnification Agreement (incorporated by reference to Exhibit 10.14 to USG Corporation's Annual Report on Form 10-K (File No. 001-08864) dated February 15, 2008, or the 2007 10-K)\*
- USG Corporation Supplemental Retirement Plan (As Amended and Restated Effective as of January 1, 2007),
- 10.22 dated December 10, 2008 (incorporated by reference to Exhibit 10.1 to USG Corporation's Annual Report on Form 10-K (File No. 001-08864) dated February 20, 2009, or the 2008 10-K)\*
- USG Corporation Deferred Compensation Plan (Effective as of April 1, 2007) (incorporated by reference to
- 10.23 Exhibit 10.31 to USG Corporation's Annual Report on Form 10-K (File No. 001-08864) dated February 16, 2007)\*
- 10.24 First Amendment of USG Corporation Deferred Compensation Plan, dated December 10, 2008 (incorporated by reference to Exhibit 10.25 to the 2008 10-K)\*
- Second Amendment of USG Corporation Deferred Compensation Plan, dated September 5, 2012 (incorporated
- 10.25 by reference to Exhibit 10.1 to USG Corporation's Quarterly Report on Form 10-Q (File No. 001-08864) dated October 23, 2014)\*
- 10.26 Third Amendment of USG Corporation Deferred Compensation Plan, dated November 21, 2014 (incorporated by reference to Exhibit 10.28 to the 2014 10-K)\*



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- 10.27 USG Corporation Management Incentive Plan (as amended and restated effective May 13, 2015) (incorporated by reference to Annex B to the Proxy Statement for the Annual Meeting of Stockholders of USG Corporation held on May 13, 2015 filed with the SEC on April 2, 2015 (File No. 001-08864), or the 2015 Proxy Statement)\*
- 10.28 2018 Annual Management Incentive Program of USG Corporation (Elected Officers Only) (incorporated by reference to Exhibit 10.29 to USG Corporation's Annual Report on Form 10-K (File No. 001-08864) dated February 14, 2018)\*
- 10.29 2019 Annual Management Incentive Program of USG Corporation (Elected Officers Only)\* \*\*
- 10.30 USG Corporation Long-Term Incentive Plan (as amended effective May 13, 2015) (incorporated by reference to Annex C to the 2015 Proxy Statement)\*
- 10.31 Form of USG Corporation Nonqualified Stock Option Agreement (incorporated by reference to Exhibit 10.36 to the 2008 10-K)\*
- 10.32 Form of USG Corporation Restricted Stock Units Agreement (incorporated by reference to Exhibit 10.37 to the 2008 10-K)\*
- 10.33 Form of USG Corporation Nonqualified Stock Option Agreement (incorporated by reference to Exhibit 10.30 to USG Corporation's Annual Report on Form 10-K (File No. 001-08864) dated February 12, 2010)\*

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- 10.34 Form of USG Corporation Restricted Stock Units Agreement (incorporated by reference to Exhibit 10.1 to USG Corporation's Quarterly Report on Form 10-Q (File No. 001-08864) dated July 24, 2014)\*
- 10.35 Form of USG Corporation Market Share Units Agreement (incorporated by reference to Exhibit 10.46 to the 2014 10-K)\*
- 10.36 Form of USG Corporation Performance Shares Agreement (incorporated by reference to Exhibit 10.47 to the 2014 10-K)\*
- 10.37 USG Corporation 2016 Long-Term Incentive Plan (incorporated by reference to Annex A to the Proxy Statement for the Annual Meeting of Stockholders of USG Corporation held on May 11, 2016 filed with the SEC on March 31, 2016 (File No. 001-08864))\*
- 10.38 Form of USG Corporation Restricted Stock Units Agreement under the USG Corporation 2016 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.42 to USG Corporation's Annual Report on Form 10-K (File No. 001-08864) dated February 8, 2017, or the 2016 10-K)\*
- 10.39 Form of USG Corporation Market Share Units Agreement under the USG Corporation 2016 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.43 to the 2016 10-K)\*
- 10.40 Form of USG Corporation Performance Shares Agreement under the USG Corporation 2016 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.44 to the 2016 10-K)\*
- 10.41 Form of USG Corporation 2019 Long-Term Cash Incentive Award Agreement\* \*\*
- 10.42 USG Corporation Dividend Make-Whole Amount Plan (incorporated by reference to Exhibit 10.1 to USG Corporation's Quarterly Report on Form 10-Q (File No. 001-08864) dated July 25, 2018)\*
- 10.43 Form of Acknowledgment between USG Corporation and certain executive officers (incorporated by reference to Exhibit 10.1 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated November 13, 2018)\*
- 10.44 USG Corporation Stock Compensation Program for Non-Employee Directors (as Amended and Restated Effective as of January 1, 2005) (incorporated by reference to Exhibit 10.2 to USG Corporation's Current Report on Form 8-K (File No. 001-08864) dated November 14, 2005)\*
- 10.45 Amendment No. 1 to the USG Corporation Stock Compensation Program for Non-Employee Directors (incorporated by reference to Exhibit 10.1 to USG Corporation's Quarterly Report on Form 10-Q (File No. 001-08864) dated August 3, 2006)\*
- 10.46 Amendment No. 2 to the USG Corporation Stock Compensation Program for Non-Employee Directors (incorporated by reference to Exhibit 10.8 to USG Corporation's Quarterly Report on Form 10-Q (File No. 001-08864) dated April 30, 2007)\*
- 10.47 USG Corporation Non-Employee Director Compensation Program (Amended and Restated February 13, 2008) (incorporated by reference to Exhibit 10.18 to the 2007 10-K)\*
- 10.48 Amendment No. 1 to USG Corporation Non-Employee Director Compensation Program, dated November 12, 2010 (incorporated by reference to Exhibit 10.10 to USG Corporation's Annual Report on Form 10-K (File No.

001-08864) dated February 11, 2011)\*

10.49 Amendment No. 2 to USG Corporation Non-Employee Director Compensation Program, dated November 10, 2011 (incorporated by reference to Exhibit 10.11 to USG Corporation's Annual Report on Form 10-K (File No. 001-08864) dated February 14, 2012)\*

10.50 Amendment No. 3 to USG Corporation Non-Employee Director Compensation Program, dated November 14, 2013 (incorporated by reference to Exhibit 10.14 to USG Corporation's Annual Report on Form 10-K (File No. 001-08864) dated March 3, 2014)\*

10.51 Amendment No. 4 to USG Corporation Non-Employee Director Compensation Program, dated November 13, 2014 (incorporated by reference to Exhibit 10.16 to the 2014 10-K)\*

10.52 Amendment No. 5 to USG Corporation Non-Employee Director Compensation Program, dated November 10, 2016 (incorporated by reference to Exhibit 10.53 to the 2016 10-K)\*

10.53 USG Corporation Deferred Compensation Program for Non-Employee Directors (as Amended and Restated effective December 31, 2008) (incorporated by reference to Exhibit 10.10 to the 2008 10-K)\*

10.54 First Amendment to USG Corporation Deferred Compensation Program for Non-Employee Directors (incorporated by reference to Exhibit 10.1 to USG Corporation's Quarterly Report on Form 10-Q (File No. 001-08864) dated October 26, 2017)\*

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Other:

21 Subsidiaries \*\*

23 Consent of Independent Registered Public Accounting Firm, Deloitte & Touche LLP \*\*

24 Power of Attorney \*\*

31.1 Rule 13a - 14(a) Certifications of USG Corporation's Chief Executive Officer \*\*

31.2 Rule 13a - 14(a) Certifications of USG Corporation's Chief Financial Officer \*\*

32.1 Section 1350 Certifications of USG Corporation's Chief Executive Officer \*\*

32.2 Section 1350 Certifications of USG Corporation's Chief Financial Officer \*\*

95 Mine Safety Disclosures \*\*

101 The following financial information from USG Corporation's Annual Report on Form 10-K for the year ended December 31, 2018, formatted in XBRL (Extensible Business Reporting Language): (1) the consolidated statements of income for the years ended December 31, 2018, 2017 and 2016, (2) the consolidated statements of other comprehensive income for the years ended December 31, 2018, 2017 and 2016, (3) the consolidated balance sheets as of December 31, 2018 and 2017, (4) the consolidated statements of cash flows for the years ended December 31, 2018, 2017 and 2016, (5) the consolidated statements of stockholders' equity for the years ended December 31, 2018, 2017 and 2016 and (6) notes to the consolidated financial statements. \*\*

\*Management contract or compensatory plan or arrangement

\*\*Filed or furnished herewith

Schedules and other similar attachments have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The registrant hereby undertakes to furnish supplementally copies of any of the omitted schedules and other similar attachments upon request by the SEC, provided that the registrant may request confidential treatment for any schedule or other similar attachment so furnished.

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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.

USG CORPORATION

February 14, 2019

By: /s/ Matthew F. Hilzinger  
Matthew F. Hilzinger  
Executive Vice President,  
Chief Financial Officer and Treasurer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the date indicated.

/s/ Jennifer F. Scanlon  
JENNIFER F. SCANLON  
Director, President and Chief Executive Officer  
(Principal Executive Officer) February 14, 2019

/s/ Matthew F. Hilzinger  
MATTHEW F. HILZINGER  
Executive Vice President,  
Chief Financial Officer and Treasurer  
(Principal Financial Officer) February 14, 2019

/s/ Jeanette A. Press  
JEANETTE A. PRESS  
Vice President and Controller  
(Principal Accounting Officer) February 14, 2019

JOSE ARMARIO, THOMAS A. BURKE,  
MATTHEW CARTER, JR.,  
GRETCHEN R. HAGGERTY,  
WILLIAM H. HERNANDEZ, BRIAN A. KENNEY,  
RICHARD P. LAVIN, STEVEN F. LEER  
Directors

By: /s/ Matthew F.  
Hilzinger  
Matthew F.  
Hilzinger  
Attorney-in-fact  
February 14, 2019