FLOWERS FOODS INC
Form 10-K
February 20, 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 29, 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 1-16247

FLOWERS FOODS, INC.

(Exact name of registrant as specified in its charter)

Georgia	58-2582379
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
1919 Flowers Circle	
Thomasville, Georgia	31757
(Address of principal executive offices)	(Zip Code)

Registrant’s telephone number, including area code:

(229) 226-9110

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

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, $0.01 par value	New York 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 Section 15(d) of the Act. Yes No

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that 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 (§ 232.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant’s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 Rule 12b-2 of the Exchange Act). Yes No

Based on the closing sales price on the New York Stock Exchange on July 14, 2018 the aggregate market value of the voting and non-voting common stock held by non-affiliates of the registrant was $4,114,124,280.

On February 14, 2019, the number of shares outstanding of the registrant's Common Stock, $0.01 par value, was 210,900,500.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement for the 2019 Annual Meeting of Shareholders to be held May 23, 2019, which is expected to be filed with the Securities and Exchange Commission on or about April 9, 2019, have been incorporated by reference into Part III, Items 10, 11, 12, 13 and 14 of this Annual Report on Form 10-K.

FORM 10-K REPORT

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Forward-Looking Statements

Statements contained in this filing and certain other written or oral statements made from time to time by Flowers Foods, Inc. (the "company", "Flowers Foods", "Flowers", "us", "we", or "our") and its representatives that are not historical fa are forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. Forward-looking statements relate to current expectations regarding our future financial condition and results of operations and are often identified by the use of words and phrases such as "anticipate," "believe," "continue," "could," "estimate," "expect," "int "may," "plan," "predict," "project," "should," "will," "would," "is likely to," "is expected to" or "will continue," or the negativ terms or other comparable terminology. These forward-looking statements are based upon assumptions we believe are reasonable.

Forward-looking statements are based on current information and are subject to risks and uncertainties that could cause our actual results to differ materially from those projected. Certain factors that may cause actual results, performance, liquidity, and achievements to differ materially from those projected are discussed in this Annual Report on Form 10-K (the "Form 10-K") and may include, but are not limited to:

- unexpected changes in any of the following: (i) general economic and business conditions; (ii) the competitive setting in which we operate, including advertising or promotional strategies by us or our competitors, as well as changes in consumer demand; (iii) interest rates and other terms available to us on our borrowings; (iv) energy and raw materials costs and availability and hedging counter-party risks; (v) relationships with or increased costs related to our employees and third-party service providers; and (vi) laws and regulations (including environmental and health-related issues), accounting standards or tax rates in the markets in which we operate;
- the loss or financial instability of any significant customer(s), including as a result of product recalls or safety concerns related to our products;
- changes in consumer behavior, trends and preferences, including health and whole grain trends, and the movement toward more inexpensive store-branded products;
- the level of success we achieve in developing and introducing new products and entering new markets;
- our ability to implement new technology and customer requirements as required;
- our ability to operate existing, and any new, manufacturing lines according to schedule;
- our ability to execute our business strategies, including those strategies we have initiated under Project Centennial, which may involve, among other things, (i) the integration of acquisitions or the acquisition or disposition of assets at presently targeted values, (ii) the deployment of new systems and technology, and (iii) an enhanced organizational structure;
- consolidation within the baking industry and related industries;
- changes in pricing, customer and consumer reaction to pricing actions, and the pricing environment among competitors within the industry;
- disruptions in our direct-store-delivery distribution model, including litigation or an adverse ruling by a court or regulatory or governmental body that could affect the independent contractor classifications of the independent distributors;
- increasing legal complexity and legal proceedings that we are or may become subject to;
- increases in employee and employee-related costs, including funding of pension plans;
- the credit, business, and legal risks associated with independent distributors and customers, which operate in the highly competitive retail food and foodservice industries;
- any business disruptions due to political instability, armed hostilities, incidents of terrorism, natural disasters, labor strikes or work stoppages, technological breakdowns, product contamination, product recalls or safety concerns related to our products, or the responses to or repercussions from any of these or similar events or conditions and our ability to insure against such events;
- the failure of our information technology systems to perform adequately, including any interruptions, intrusions or security breaches of such systems; and

- regulation and legislation related to climate change that could affect our ability to procure our commodity needs or that necessitate additional unplanned capital expenditures.

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The foregoing list of important factors does not include all such factors, nor necessarily present them in order of importance. In addition, you should consult other disclosures made by the company (such as in our other filings with the Securities and Exchange Commission ("SEC") or in company press releases) for other factors that may cause actual results to differ materially from those projected by the company. Refer to Part I, Item 1A., Risk Factors, of this Form 10-K for additional information regarding factors that could affect the company's results of operations, financial condition and liquidity.

We caution you not to place undue reliance on forward-looking statements, as they speak only as of the date made and are inherently uncertain. The company undertakes no obligation to publicly revise or update such statements, except as required by law. You are advised, however, to consult any further public disclosures by the company (such as in our filings with the SEC or in company press releases) on related subjects.

We own or have rights to trademarks or trade names that we use in connection with the operation of our business, including our corporate names, logos and website names. In addition, we own or have the rights to copyrights, trade secrets and other proprietary rights that protect the content of our products and the formulations for such products. Solely for convenience, some of the trademarks, trade names and copyrights referred to in this Form 10-K are listed without the ©, ® and ™ symbols, but we will assert, to the fullest extent under applicable law, our rights to our trademarks, trade names and copyrights.

PART I

Item 1. Business
The Company

Flowers Foods, Inc. (references to "we," "our," "us," the "company," "Flowers" or "Flowers Foods") was founded in 1919 as a Georgia corporation when two brothers — William Howard and Joseph Hampton Flowers — opened Flowers Baking Company in Thomasville, Georgia. Flowers' operating strategy from the beginning was to invest in efficient and technologically advanced bakeries, offer excellent baked foods, build strong brands, provide extraordinary service to customers, offer a workplace that fosters a team spirit, develop innovations to improve the business, and grow through strategic acquisitions.

Flowers is focused on opportunities for growth within the baked foods category and seeks to have its products available wherever bakery foods are sold or consumed — whether in homes, supermarkets, convenience stores, restaurants, fast food outlets, institutions, or vending machines. The company produces a wide range of breads, buns, rolls, snack cakes, and tortillas.

Project Centennial

In June 2016, the company launched Project Centennial, an enterprise-wide business and operational review to evaluate opportunities to streamline our operations, drive efficiencies, and invest in strategic capabilities that we believe will strengthen our competitive position and drive profitable revenue growth. Based upon the results of this review, Flowers has begun executing on four primary strategic initiatives:

- reinvigorate the core business – invest in the growth and innovation of our core brands, streamline our brand and product portfolio, improve trade promotion management, and strengthen our partnership with distributors so they can grow their businesses;
- capitalize on product adjacencies – greater focus on growing segments of the bakery category, such as foodservice, in-store bakery, impulse items, and healthy snacking;
- reduce costs to fuel growth – reduce complexity and better leverage scale to lower costs; and
- develop leading capabilities – invest in capabilities to become a more centralized and analytics-focused company.

The company implemented a plan to transition to these primary strategies beginning in fiscal 2017, with the transition intended to be completed by fiscal 2021. By executing on Project Centennial, the company expects to deliver on its stated long-term goals of sales growth in the range of 2% to 4% and EBITDA margins in the range of 12% to 14%. The company defines EBITDA as earnings from continuing operations before interest, income taxes, depreciation and amortization, and other items that impact comparability.

In fiscal 2019 and beyond, Flowers expects to fully realize the benefits of a lower-cost operating model, stronger brand architecture, and increased strategic investments. These benefits are expected to drive sales growth and EBITDA margins to the upper end of our stated long-term goals discussed above.

During fiscal 2016, we completed the diagnostic phase of Project Centennial, which identified the aforementioned four strategic initiatives and outlined the timeline and financial targets described above.

During fiscal 2017, the company began the implementation phase of Project Centennial, and made significant progress on several initiatives, including streamlining our brand assortment in key retail categories, reducing spend on purchased goods and services, closing a Warehouse Segment snack cake plant, hiring a chief marketing officer, completing the VSIP and other workforce reductions, and beginning to transition to the company's new organization structure, which establishes two business units ("BUs"), Fresh Packaged Bread and Snacking/Specialty, and realigns key

leadership roles.

In fiscal 2018, we continued to execute on key strategic initiatives, including the following accomplishments during the year:

- Realized continued growth from new product introductions: Nature's Own Perfectly Crafted breads, a line of artisan-inspired, thick-sliced bakery breads, and Dave's Killer Bread bagels and English muffins.
- Acquired Canyon Bakehouse, LLC ("Canyon"), a privately held, leading producer of gluten-free bakery foods.
- Conducted a foundational consumer research study to inform and accelerate product innovation and engaged a leading consumer-focused advertising agency.

- Appointed a chief operating officer to enhance execution and accountability.
- Refined its organizational structure to better align operating functions.
- Activated a trade promotion management system to increase promotional effectiveness, enhance price realizations, and improve profitability.
- Realized total gross savings above the upper end of the $38-million to $48-million target for fiscal 2018, primarily through a more efficient organizational structure and reduced spending on purchased goods and services.
- Added a high-speed bun line to a Pennsylvania bakery and closed an inefficient bakery in Vermont.
- Implemented working capital policies that improved the cash conversion cycle and generated incremental cash flow.

During 2018, the company continued to transition to an enhanced organizational structure announced in the second quarter of 2017. The new organizational structure is designed to emphasize brand growth and innovation in line with a national branded food company, drive enhanced accountability, reduce costs, strengthen long-term strategy and provide greater focus on the strategic initiatives under Project Centennial. The company anticipates full implementation to be completed at the beginning of fiscal 2019. The company continues to manage the business and report segment information based on our current segments, the DSD Segment and the Warehouse Segment.

The new organizational structure establishes two BUs, Fresh Packaged Bread and Snacking/Specialty, and realigns key leadership roles. The new structure also provides for centralized marketing, sales, supply chain, shared-services/administrative, and corporate strategy functions. On July 2, 2018, the company announced the creation of the COO position. This role is responsible for executing the company's strategies under Project Centennial, as well as, overseeing the BUs, supply chain, sales, corporate strategy and ventures, and communications. We continue to explore additional opportunities to streamline our core operations, but as of December 29, 2018, we cannot estimate the costs to be incurred related to these initiatives.

The company previously announced in the third quarter of 2017 a voluntary employee separation incentive plan (the "VSIP") as part of its effort to restructure, streamline operations, and better position the company for profitable growth. Costs associated with the VSIP were recorded in the company's results of operations during the third quarter of fiscal 2017 and the VSIP was substantially completed as of the end of fiscal 2017. Payments of $24.2 million for the VSIP were paid during fiscal 2018.

In the third quarter of fiscal 2017, the company provided targets for gross cost savings associated with the primary cost savings programs under Project Centennial: the above-mentioned initiative to reduce spending on purchased goods and services, a supply chain optimization plan, and the new organizational structure described above. By the end of fiscal 2018, the company targeted cumulative gross cost savings under these three programs of $70 million to $80 million, of which approximately $32 million was realized in fiscal 2017 and in excess of $48 million was realized in fiscal 2018.

Segments

We currently manage our business by product delivery method. Our two operating segments reflect our two distinct methods of delivering products to the market:

Direct-Store-Delivery Segment (the "DSD Segment")

- Produces fresh breads, buns, rolls, tortillas and snack cakes sold primarily by a network of independent distributors to retail and foodservice customers in the following areas of the U.S.: East, South, Southwest, West Coast, and select markets in the Midwest, Nevada, and Colorado.
- Has a 39-bakery network with a highly developed reciprocal baking system (where bakeries can produce for its market and that of other bakeries within the direct-store-delivery ("DSD" network), which results in long and efficient production runs.

- Major DSD Segment brands include Nature’s Own, Dave’s Killer Bread, Tastykake, Wonder, and Cobblestone Bread Company.

Warehouse Delivery Segment (the "Warehouse Segment")

- Produces fresh snack cakes and frozen breads and rolls.
- Delivers its products fresh or frozen to customers' warehouses nationwide via contract carriers.
- Major brands include Mrs. Freshley's, Alpine Valley Bread, and European Bakers.

The table below presents the sales, percent of total sales, and the number of plants by each segment:

Segment	Sales	Percent of total sales	Plants
DSD Segment	$3,340,047	85 %	39
Warehouse Segment	$611,805	15 %	8
Consolidated	$3,951,852	100 %	47

See Note 25, Segment Reporting, of Notes to Consolidated Financial Statements of this Form 10-K for more detailed financial information about our segments. Our brands are among the best known in the baking industry. Many of our DSD Segment's brands have a major presence in the product categories in which they compete. They have a leading share of fresh packaged branded sales measured in both dollars and units in the major metropolitan areas we serve in Southern markets.

On May 3, 2017, the company announced, as part of Project Centennial, an enhanced organizational structure designed to provide greater focus on the company's strategic objectives, emphasize brand growth and innovation in line with a national branded food company, drive enhanced accountability, reduce costs, and strengthen long-term strategy. The new structure also provides for centralized marketing, sales, supply chain, shared-services/administrative, and corporate strategy functions, each with clearly defined roles and responsibilities. The transition to the new structure will be completed early in fiscal 2019. Management will continue to review financial information for the DSD Segment and Warehouse Segment until the new organizational structure is fully implemented. Based on the preliminary segment reporting analysis, we expect changes to the organization structure to have a significant impact on our segment reporting. We expect to complete our segment reporting analysis in the first quarter of fiscal 2019.

Operating Strategies

Flowers Foods has focused on developing and refining operating strategies to create competitive advantages in the marketplace. We believe these operating strategies help us achieve our long-term objectives and work to build value for our shareholders. Put simply, our strategies are to:

- Grow Sales. We develop new and core markets through new customers, new products, strong brands, and acquisitions. We have a three-pronged strategy for growing sales through market expansions, core markets, and acquisitions.
- Invest Wisely. We use technology and efficiencies to be the low-cost producer of delicious bakery foods. We invest to improve the effectiveness of our bakeries, distribution networks, and information systems.
- Bake Smart. We innovate to improve processes, enhance quality, reduce costs, and conserve resources.
- Give Extraordinary Service. We go beyond the expected to meet our customers' needs.
- Appreciate the Team. We respect every individual, embrace diversity, and promote the career growth of our team members.

Strengths and core competencies

- Seasoned Team – Executive management team with an average of more than 20 years of baking industry experience
- Strong Brands – More than $3.3 billion at retail in total branded retail sales, including vending
- Geographic Reach – Fresh products available to more than 85% of the U.S. population; frozen products available nationally
- Strong Financial Position – Driven by solid cash flows

We aim to achieve consistent and sustainable growth in sales and earnings by focusing on improvements in the operating results of our existing bakeries and, after detailed analysis, acquiring companies and properties that add value to the company. We believe this strategy has resulted in consistent and sustainable growth that builds value for our shareholders.

We regularly articulate our core business strategies to the investment community and internally to our team members, including long-term (five-year) goals. Compensation and bonus programs are linked to the company's short and long-term goals. The majority of our employees participate in an annual formula-driven, performance-based cash bonus program. In addition, certain employees participate in a long-term incentive program that includes grants of various types of common stock awards. We believe these incentive programs provide both a short and long-term goal for our most senior management team and aligns their interests with those of our shareholders.

Grow Sales

This strategy encompasses specific efforts for growth through acquisitions, market expansions, product innovation, and core markets. As a leading U.S. baker, our products are available to consumers through traditional supermarkets, foodservice distributors, convenience stores, mass merchandisers, club stores, wholesalers, casual dining and quick-serve restaurants, schools, hospitals, dollar stores, and vending machines. To enhance our ability to grow sales, we develop bakery foods that meet changing consumer needs and preferences using market research and the strength of our well-established brands. We maintain and strengthen our brands in both existing and new markets by focusing on consistent product quality, a broad and diverse product line, and exceptional customer service. We expand our geographic reach through strategic acquisitions and by expanding the market reach of our existing bakeries. We believe our growth strategy has been successful, as evidenced by our sales compound average annual growth rate of 1.1% over the last five years.

Acquisitions

Acquisitions have been an important component of our growth strategy. Since our initial public offering in 1968, we have made more than 100 acquisitions. Since 2003, we have completed 17 acquisitions that, in the aggregate, added approximately $2.1 billion in annual revenue. Our primary acquisition targets have historically been independent/regional baking companies in areas of the country where our fresh products have not had access to those markets. See Note 11, Acquisition, of Notes to Consolidated Financial Statements of this Form 10-K for more details of each of the acquisitions described below.

Canyon Bakehouse Acquisition (2018)

On December 14, 2018, the company completed the acquisition of Canyon. Prior to acquisition, almost 90% of Canyon's sales were distributed frozen through natural, specialty, grocery, and mass retailers around the country. The company intends to continue distributing Canyon's gluten-free products frozen through our Warehouse Segment and expand fresh distribution through our DSD Segment. This results in Canyon being included in both segments for financial reporting purposes.

Core Markets

Core markets are those served by our DSD Segment for more than five years. These are markets where our brands are established. Our primary growth strategy for core markets is to increase brand relevance. We strive to develop innovative, new products for both retail and foodservice customers that will drive excitement and consumers to our brands and products. In addition, in conjunction with the independent distributors, we focus on continually building relationships with both new and potential retail and foodservice customers, which helps grow sales.

Expansion Markets

Expansion markets are defined as new DSD Segment markets entered within the last five fiscal years. In 2011, we announced a DSD market expansion goal to serve a geographical area reaching at least 75% of the U.S. population by 2016. At the end of fiscal 2016, we had exceeded that goal and currently serve more than 85% of the U.S. population.

Our market expansion efforts are driven by our bakery subsidiaries. They accomplish this by reaching out to new and existing retail and foodservice customers in the new territory and expanding the DSD model by creating new territories and new independent distributor partnerships.

Invest Wisely and Bake Smart

Throughout our history, we have devoted significant resources to automate our bakeries and improve our distribution capabilities. We believe these investments have made us one of the most efficient, low-cost producers of packaged bakery products in the United States. We believe our capital investments yield valuable long-term benefits, such as more consistent product quality and greater production volume at a lower cost per unit.

From 2014 through 2018, we invested $450.9 million in capital projects. We believe our annual capital investments have given us a competitive edge and we are committed to maintaining that advantage by investing in new technologies and improved processes.

We have established a reciprocal baking system that allows us to shift production among our DSD Segment bakeries. Because of this system, we have the flexibility to meet changing market needs, can respond effectively to hurricanes and other wide-spread natural disasters, and be a low-cost producer and marketer of a full line of bakery products both regionally and nationally. For efficient movement of products from bakery to market, we use company-owned and leased warehouses and distribution centers.

We believe our company also invests wisely and bakes smart by:

- Engaging in research and development to increase brand relevance, improve the quality of existing products, and improve production processes and techniques.
- Developing and evaluating new processing techniques for both current and proposed product lines.
- Improving the efficiency and accuracy of our shipping logistics. We have been installing a paperless, user-directed automated shipping system at our bakeries that uses barcode labels, displays, and door scanners. The system streamlines the finished goods product flow, provides for greater accountability of finished goods received and shipped, improves order fulfillment, and minimizes shortage costs. At the end of fiscal 2018, we had installed this automated shipping system in the majority of our bakeries. We will continue to implement the system throughout the remainder of fiscal 2019 and intend to have it fully implemented by fiscal 2020.

Give Extraordinary Service

When it comes to our retail and foodservice partnerships, our strategy is simple: Go beyond the expected. Our bakery, sales, and national account teams forge strong business relationships built on providing the best quality products at the best price when and where our customers need them. Focusing on extraordinary service helps grow sales in both core and new markets. Also critical to this strategy within our DSD Segment is the professionalism and service provided by the independent distributors who provide daily customer service and build strong retail and foodservice relationships.

Appreciate the Team

We strive to treat all our team members and associates with respect and dignity and work to maintain good relationships and open communication. We are committed to equal employment opportunities and operating our facilities under all federal and state employment laws and regulations. In addition, our subsidiaries provide:

- fair and equitable compensation and a balanced program of benefits;
- working conditions that promote employees' health and safety;
- training opportunities that encourage professional development; and
- ways for team members to discuss concerns through an open door policy, peer review program, and anonymous toll-free hotline.

We employ approximately 9,200 people. Approximately 1,100 of these employees are covered by collective bargaining agreements.

Brands & Products

The company reports sales (consolidated and by segment) as branded retail, store branded retail, or non-retail and other. The non-retail and other category includes foodservice, restaurant, institutional, vending, thrift stores, and contract manufacturing. The table below presents our major brands and the geographic locations in the U.S. in which our products are available:

Brand	Availability
Nature's Own, Wonder, Cobblestone Bread Co., Dave s Killer Bread	East, South, Southwest, West Coast, and select markets in the Midwest, Nevada, and Colorado
Tastykake	Northeast, South, Southern Midwest, Southwest, and select markets in California
Whitewheat, Betsy Ross, Butterkrust, Captain John Derst's, Home Pride, Dandee, Aunt Hattie s, Bunny, Butternut, Country Kitchen, Evangeline Maid, Holsum, Merita, Sunbeam, Natural Grains, and Sara Lee (California)	Available in select regional markets across the country
Alpine Valley Breads, Canyon Bakehouse	Nationally, in select markets
Barowsky s Organics	New England
Mrs. Freshley s	Nationally, in select markets
Mi Casa	Nationally, in select markets

Brand Highlights

- Nature’s Own, including Whitewheat, is the best-selling loaf bread in the U.S., and its compound annual growth rate in retail sales since 2000 has been 8.0%. The Nature’s Own sales, at retail, surpassed $1.0 billion during fiscal 2018.
- Nature’s Own Honey Wheat is the number one selling fresh packaged bread Universal Product Code (“UPC”) in the U.S. Nature’s Own had two of the top three UPC’s in the Fresh Packaged Bread category during fiscal 2018 (source: IRI Total US MultiOutlet+C-Store L52 Weeks Ending 12/30/18).
- Dave’s Killer Bread is the #1 selling organic brand in the U.S. and the company’s #2 brand, with the top selling organic brand in four different segments (Loaf, Bagels, Breakfast Bread, and English Muffins). Dave’s Killer Bread is the fastest growing brand in the Fresh Packaged Breads category (based on dollar sales change vs PY) (source: IRI Total US MultiOutlet+C-Store L52 Weeks Ending 12/30/18).

Our Warehouse Segment markets a line of specialty and organic breads and rolls, including the Alpine Valley Bread brand, for retail and foodservice customers. It also produces proprietary breads, buns, and rolls for specific foodservice customers. This segment's snack cakes are sold under the Mrs. Freshley's and store brands. Warehouse Segment products are fresh and frozen and distributed nationally through retail, foodservice and vending customer warehouses.

The table below presents our sales by product mix for fiscal 2018 on a consolidated basis (internal sales data warehouse – "SDW", amounts may not compute due to rounding):

The table below presents our sales by channel for fiscal 2018 on a consolidated basis (internal sales data warehouse – "SDW", amounts not compute due to rounding):

Marketing

We support our key brands with an advertising and marketing effort that reaches out to consumers through electronic and in-store coupons, social media (such as Facebook and Twitter), digital media (including e-newsletters to consumers), websites (our brand sites and third-party sites), event and sports marketing, on-package promotional offers and sweepstakes, and print advertising. When appropriate, we may join other sponsors with promotional tie-ins. We often focus our marketing efforts on specific products and holidays, such as hamburger and hot dog bun sales during Memorial Day, the Fourth of July, and Labor Day, and snack cakes for specific seasons.

Customers

Our top 10 customers in fiscal 2018 accounted for 50.3% of sales. During fiscal 2018, our largest customer, Walmart/Sam's Club, represented 20.3% of the company's sales. The loss of, or a material negative change in our relationship with, Walmart/Sam's Club or any other major customer could have a material adverse effect on our business. Walmart/Sam's Club was the only customer to account for 10.0% or more of our sales during fiscal years 2018, 2017 and 2016.

Fresh baked foods' customers include mass merchandisers, supermarkets and other retailers, restaurants, quick-serve chains, food wholesalers, institutions, dollar stores, and vending companies. We also sell returned and surplus product through a system of thrift stores. The company currently operates 286 such stores, and reported sales of $71.4 million during fiscal 2018 from these outlets.

Our Warehouse Segment supplies national and regional restaurants, institutions and foodservice distributors, and retail in-store bakeries with breads and rolls. It also sells packaged bakery products to wholesale distributors for ultimate sale to a wide variety of food outlets. It sells packaged snack cakes primarily to customers who distribute the product nationwide through multiple channels of distribution, including mass merchandisers, supermarkets, vending outlets and convenience stores. In certain circumstances, we enter into co-packing arrangements with retail customers or other food companies, some of which are competitors.

Distribution

Distributing fresh bakery foods through a DSD model that involves aggregating order levels and delivering products from bakeries to independent distributors for sale and direct delivery to customer stores. The independent distributors are responsible for ordering products, stocking shelves, maintaining special displays, and developing and maintaining good customer relations to ensure adequate inventory and removing unsold goods.

The company has sold the majority of the distribution rights for these territories to independent distributors under long-term financing arrangements. Independent distributors, highly motivated by financial incentives from their distribution rights ownership, strive to increase sales by offering outstanding service and merchandising. Independent distributors have the opportunity to benefit directly from the enhanced value of their distribution rights resulting from higher branded sales volume.

Our DSD model is comprised of three types of territories. Independent distributors who own the rights to distribute certain brands of our fresh packaged bakery foods in defined geographic markets. Company-owned and operated territories with the distribution rights that are classified as available for sale and company owned and operated territories with the distribution rights that are classified as held and used. The table below presents the approximate number of territories used by the company on December 29, 2018:

Type of territory	Number of territories
Independent distributor distribution rights	5,881
Company owned classified as available for sale	140
Company owned classified as held and used	90
Total territories	6,111

The company has developed proprietary software on the hand-held computers that independent distributors use for ordering, sales transactions, and to manage their businesses. The company provides these hand-held computers to the independent distributors and charges them an administrative fee for their use and other administrative services. This fee is recognized as a reduction to the company's selling, distribution and administrative expenses. Our proprietary software permits distributors to track and communicate inventory data to bakeries and to calculate recommended order levels based on historical sales data and recent trends. These orders are electronically transmitted to the appropriate bakery on a nightly basis. We believe this system assists us in minimizing returns of unsold goods. The fees collected for each of the last three fiscal years were as follows (amounts in thousands):

Year	Fees collected
Fiscal 2018	$ 7,399
Fiscal 2017	$ 6,965
Fiscal 2016	$ 6,544

In addition to hand-held computers, we maintain an information technology (“IT”) platform that allows us to track sales, product returns, and profitability by selling location, bakery, day, and other criteria. The system provides us with daily, on-line access to sales and gross margin reports, allowing us to make prompt operational adjustments when appropriate. It also permits us to better forecast sales and improve independent distributors’ in-store product ordering by customer. This IT platform is integral to our hand-held computers.

We also use scan-based trading technology (referred to as “pay by scan” or “PBS”) to track and monitor sales and inventories more effectively. PBS allows the independent distributors to bypass the often lengthy product check-in at retail stores, which gives them more time to service customers and merchandise products. PBS also benefits retailers, who only pay suppliers for what they actually sell, or what is scanned at checkout. During the last three fiscal years, PBS sales were as follows (amounts in thousands):

Year	PBS sales
Fiscal 2018	$1,729,429
Fiscal 2017	$1,390,974
Fiscal 2016	$1,273,660

Our Warehouse Segment distributes a portion of our packaged bakery snack products from a central distribution facility located near our Crossville, Tennessee snack cake bakery. We believe this centralized distribution method allows us to achieve both production and distribution efficiencies. Products coming from different bakeries are then cross-docked and shipped directly to customers’ warehouses nationwide. Our frozen bread and roll products are shipped to various outside freezer facilities for distribution to our customers.

Intellectual Property

We own a number of trademarks, trade names, patents, and licenses. The company also sells products under franchised and licensed trademarks and trade names that we do not own (Sunbeam, Bunny, and Sara Lee – only in California – among others). We consider all of our trademarks and trade names important to our business since we use them to build strong brand awareness and consumer loyalty.

Raw Materials

Our primary baking ingredients are flour, sweeteners, shortening, yeast and water. We also use paper products, such as corrugated cardboard, films and plastics to package our bakery foods. We strive to maintain diversified sources for all of our baking ingredients and packaging products. In addition, we are dependent on natural gas or propane as fuel for firing our ovens.

Commodities, such as our baking ingredients, periodically experience price fluctuations. The cost of these inputs may fluctuate widely due to government policy and regulation, weather conditions, domestic and international demand, or other unforeseen circumstances. We enter into forward purchase agreements and other derivative financial instruments in an effort to manage the impact of such volatility in raw material prices, but some organic and specialty ingredients do not offer the same hedging opportunities to reduce the impact of price volatility. Any decrease in the supply available under these agreements and instruments could increase the effective price of these raw materials to us and significantly impact our earnings.

Regulations

As a producer and marketer of food items, our operations are subject to regulation by various federal governmental agencies, including the U.S. Food and Drug Administration, the U.S. Department of Agriculture, the U.S. Federal Trade Commission, the U.S. Environmental Protection Agency, the U.S. Department of Commerce, and the U.S. Department of Labor (the "DOL"). We also are subject to the regulations of various state agencies, with respect to production processes, product quality, packaging, labeling, storage, distribution, labor, and local regulations regarding the licensing of bakeries and the enforcement of state standards and facility inspections. Under various statutes and regulations, these federal and state agencies prescribe requirements and establish standards for quality, purity, and labeling. Failure to comply with one or more regulatory requirements could result in a variety of sanctions, including monetary fines or compulsory withdrawal of products from store shelves. In August 2016, the U.S. Department of Labor (the "Department") notified the company that it was scheduled for a compliance review under the Fair Labor Standards Act. On November 5, 2018, the company was advised by the Department that the compliance review has been closed.

Advertising of our businesses is subject to regulation by the Federal Trade Commission, and we are subject to certain health and safety regulations, including those issued under the Occupational Safety and Health Act.

The cost of compliance with such laws and regulations has not had a material adverse effect on the company's business. We believe that we are currently in material compliance with all applicable federal, state and local laws and regulations.

Our operations, like those of similar businesses, are subject to various federal, state and local laws and regulations with respect to environmental matters, including air and water quality and underground fuel storage tanks, as well as other regulations intended to protect public health and the environment. The company is not a party to any material proceedings arising under these laws and regulations. We believe compliance with existing environmental laws and regulations will not materially affect the Consolidated Financial Statements or the competitive position of the company. The company is currently in substantial compliance with all material environmental laws and regulations affecting the company and its properties.

Competitive Overview

The U.S. market for fresh and frozen bakery products is estimated at $36 billion at retail. This category is intensely competitive and has experienced significant change in the last several years. From a national standpoint, Flowers Foods is currently the second largest company in the U.S. fresh baking industry based on market share as presented in the following chart (amounts may not compute due to rounding):

The current competitive landscape for breads and rolls in the U.S. baking industry now consists of Bimbo Bakeries USA, Flowers Foods, and Campbell Soup Company (Pepperidge Farm) along with smaller independent regional bakers, local bakeries, and retailer-owned bakeries.

There are a number of smaller regional bakers in the U.S. Some of these do not enjoy the competitive advantages of larger operations, including greater brand awareness and economies of scale in purchasing, distribution, production, information technology, advertising and marketing. However, size alone is not sufficient to ensure success in our industry. The company faces significant competition from regional and independent bakeries in certain geographic areas.

Competition in the baking industry continues to be driven by a number of factors. These include the ability to serve consolidated retail and foodservice customers, generational changes in family-owned businesses, and competitors' promotional efforts on branded bread and store brands. Competition typically is based on product availability, product quality, brand loyalty, price, effective promotions, and the ability to target changing consumer preferences. Customer service, including frequent deliveries to keep store shelves well-stocked, is also a competitive factor.

The company also faces competition from store brands that are produced either by us or our competitors. Store brands (also known as "private label") have been offered by food retailers for decades. With the growth of mass merchandisers like Walmart and the ongoing consolidation of regional supermarkets into larger operations, store brands have become a significant competitor to the company in those areas where the company does not have the contract to produce the store brand. In general, the store brand share of

retail fresh packaged bread in the U.S. accounts for approximately 24% of the dollar sales and approximately 36% of unit sales and has steadily declined over the past five years.

Other Available Information

Throughout this Form 10-K, we incorporate by reference information from parts of other documents filed with the SEC. The SEC allows us to disclose important information by referring to it in this manner, and you should review this information in addition to the information contained in this report.

Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and proxy statement for the annual shareholders' meeting, as well as any amendments to those reports, are available free of charge through our website as soon as reasonably practicable after we file them with the SEC. You can learn more about us by reviewing our SEC filings in the Investor Center on our website at www.flowersfoods.com. The SEC also maintains a website at www.sec.gov that contains reports, proxy statements and other information about SEC registrants, including the company. Except as otherwise expressly set forth herein, the information contained on our website is neither included nor incorporated by reference herein.

The following corporate governance documents may be obtained free of charge through our website in the "Corporate Governance" section of the "Investor Center" tab (unless otherwise specified) or by sending a written request to Flowers Foods, Inc., 1919 Flowers Circle, Thomasville, GA 31757, Attention: Investor Relations.

- Finance Committee Charter
- Audit Committee Charter
- Nominating/Corporate Governance Committee Charter
- Compensation Committee Charter
- Flowers Foods Employee Code of Conduct
- Code of Business Conduct and Ethics
- Disclosure Policy
- Stock Ownership Guidelines
- Corporate Governance Guidelines
- Stock Ownership Guidelines for Outside Directors
- Flowers Foods Supplier Code of Conduct (This document is on our website on the path beginning with "Investors" > "Corporate Governance" > "Governance Documents" at the bottom of the page)

Item 1A. Risk Factors

You should carefully consider the risks described below, together with all of the other information included in this report, in considering our business and prospects. The risks and uncertainties described below are not the only ones facing us. These risk factors are not listed in any order of significance. Additional risks and uncertainties not presently known to us, or that we currently deem insignificant, may also impair our business operations. The occurrence of any of the following risks could harm our business, financial condition, liquidity or results of operations.

Economic conditions may negatively impact demand for our products, which could adversely impact our sales and operating profit.

The willingness of our customers and consumers to purchase our products may depend in part on economic conditions. Continuing or worsening economic challenges could have a negative impact on our business. Economic uncertainty may increase pressure to reduce the prices of some of our products, limit our ability to increase or

maintain prices, and reduce sales of higher margin products or shift our product mix to low-margin products. In addition, changes in tax or interest rates, whether due to recession, financial and credit market disruptions or other reasons, could negatively impact us. If any of these events occurs, or if economic conditions become unfavorable, our sales and profitability could be adversely affected.

Increases in costs and/or shortages of raw materials, fuels and utilities could adversely impact our profitability.

Raw materials, such as flour, sweeteners, shortening, yeast, and water, which are used in our bakery products, are subject to price fluctuations. The cost of these inputs may fluctuate widely due to foreign and domestic government policies and regulations, weather conditions, domestic and international demand, or other unforeseen circumstances. Any substantial change in the prices or availability of raw materials may have an adverse impact on our profitability. We enter into forward purchase agreements and other derivative financial instruments from time to time to manage the impact of such volatility in raw materials prices; however, these strategies may not be adequate to overcome increases in market prices or availability. Our failure to enter into hedging or fixed price arrangements or any decrease in the availability or increase in the cost of these agreements and instruments could increase the price of these raw materials and significantly affect our earnings.

In addition, we are dependent upon natural gas or propane for firing ovens. The independent distributors and third-party transportation companies are dependent upon gasoline and diesel for their vehicles. The cost of fuel may fluctuate widely due to economic and political conditions, government policy and regulation, war, or other unforeseen circumstances. Substantial future increases in prices for, or shortages of, these fuels could have a material adverse effect on our profitability, financial condition or results of operations. There can be no assurance that we can cover these potential cost increases through future pricing actions. Also, as a result of these pricing actions, consumers could purchase less or move from purchasing high-margin products to lower-margin products.

Competition could adversely impact revenues and profitability.

The United States bakery industry is highly competitive. Our principal competitors in these categories all have substantial financial, marketing, and other resources. In most product categories, we compete not only with other widely advertised branded products, but also with store branded products that are generally sold at lower prices. Competition is based on product availability, product quality, price, effective promotions, and the ability to target changing consumer preferences. We experience price pressure from time to time due to competitors' promotional activity and other pricing efforts. This pricing pressure is particularly strong during adverse economic periods. Increased competition could result in reduced sales, margins, profits and market share.

A disruption in the operation of our DSD distribution system could negatively affect our results of operations, financial condition and cash flows.

We believe that our DSD distribution system is a significant competitive advantage. A material negative change in our relationship with the independent distributors, litigation or one or more adverse rulings by courts or regulatory or governmental bodies regarding our independent distributorship model, including actions or decisions that could affect the independent contractor classifications of the independent distributors, or an adverse judgment against the company for actions taken by the independent distributors, could materially and negatively affect our financial condition, results of operations and cash flows.

The costs of maintaining and enhancing the value and awareness of our brands are increasing, which could have an adverse impact on our revenues and profitability.

We rely on the success of our well-recognized brand names and we intend to maintain our strong brand recognition by continuing to devote resources to advertising, marketing and other brand building efforts. Brand value could diminish significantly due to several factors, including consumer perception that we have acted in an irresponsible manner, adverse publicity about our products (whether or not valid), our failure to maintain the quality of our products, the failure of our products to deliver consistently positive consumer experiences, or the products becoming unavailable to consumers. Our marketing investments may not prove successful in maintaining or increasing our market share. If we

are not able to successfully maintain our brand recognition, our revenues and profitability could be adversely affected.

We rely on several large customers for a significant portion of sales and the loss of one of our large customers could adversely affect our business, financial condition or results of operations.

We have several large customers that account for a significant portion of sales, and the loss of one of our large customers could adversely affect our financial condition and results of operations. Our top ten customers accounted for 50.3% of sales during fiscal 2018. Our largest customer, Walmart/Sam’s Club, accounted for 20.3% of sales during this period. These customers do not typically enter long-term sales contracts, and instead make purchase decisions based on a combination of price, product quality, consumer demand, and customer service performance. At any time, they may use more of their shelf space, including space currently used for our products, for store branded products or for products from other suppliers. Additionally, our customers may face financial or other difficulties that may impact their operations and their purchases from us. Disputes with significant suppliers could also adversely affect our ability to supply products to our customers. If our sales to one or more of these customers are reduced, this reduction may adversely affect our business, financial condition or results of operations.

Our inability to execute our business strategy could adversely affect our business.

We employ various operating strategies to maintain our position as one of the nation's leading producers and marketers of bakery products available to customers through multiple channels of distribution. In particular, we have initiated under Project Centennial, among other things, (i) the integration of acquisitions or the acquisition or disposition of assets at presently targeted values, (ii) the deployment of new systems and technology, and (iii) an enhanced organizational structure. If we are unsuccessful in implementing or executing Project Centennial or one or more of our business strategies, our business could be adversely affected.

Inability to anticipate or respond to changes in consumer preferences may result in decreased demand for our products, which could have an adverse impact on our future growth and operating results.

Our success depends in part on our ability to respond to current market trends and to anticipate the tastes and dietary habits of consumers, including concerns of consumers regarding health and wellness, obesity, product attributes, ingredients, and packaging. Introduction of new products and product extensions requires significant development and marketing investment. If we fail to anticipate, identify, or react to changes in consumer preferences, or if we fail to introduce new and improved products on a timely basis, we could experience reduced demand for our products, which could cause our sales, profitability, and our operating results to suffer.

We may be adversely impacted by the failure to successfully execute acquisitions and divestitures and integrate acquired operations.

From time to time, the company undertakes acquisitions or divestitures. The success of any acquisition or divestiture depends on the company's ability to identify opportunities that help us meet our strategic objectives, consummate a transaction on favorable contractual terms, and achieve expected returns and other financial benefits.

Acquisitions, including future acquisitions and the recently completed acquisition of Canyon, require us to efficiently integrate the acquired business or businesses, which involves a significant degree of difficulty, including the following:

- integrating the operations and business cultures of the acquired businesses while carrying on the ongoing operations of the businesses we operated prior to the acquisitions;
- managing a significantly larger company than before consummation of the acquisitions;
- the possibility of faulty assumptions underlying our expectations regarding the prospects of the acquired businesses;
- coordinating a greater number of diverse businesses and businesses located in a greater number of geographic locations;
- attracting and retaining the necessary personnel associated with the acquisitions;
- creating uniform standards, controls, procedures, policies and information systems and controlling the costs associated with such matters; and
- expectations about the performance of acquired trademarks and brands and the fair value of such trademarks and brands.

Divestitures have operational risks that may include impairment charges. Divestitures also present unique financial and operational risks, including diverting management attention from the existing core business, separating personnel and financial data and other systems, and adversely affecting existing business relationships with suppliers and customers.

In situations where acquisitions or divestitures are not successfully implemented or completed, or the expected benefits of such acquisitions or divestitures are not otherwise realized, the company's business or financial results could be negatively impacted.

We are subject to increasing legal complexity and could be party to litigation that may adversely affect our business.

Increasing legal complexity may continue to affect our operations and results in material ways. We are or could be subject to legal proceedings that may adversely affect our business, including class actions, administrative proceedings, government investigations, securities laws, employment and personal injury claims, disputes with current or former suppliers, claims by current or former distributors, and intellectual property claims (including claims that we infringed another party's trademarks, copyrights, or patents). Inconsistent standards imposed by governmental authorities can adversely affect our business and increase our exposure to litigation. Litigation involving our independent distributor model and the independent contractor classification of the independent distributors, as well as litigation related to disclosure made by us in connection therewith, if determined adversely, could increase costs, negatively impact our business prospects and the business prospects of our distributors and subject us to incremental liability for their actions. We are also subject to the legal and compliance risks associated with privacy, data collection, protection and management, in particular as it relates to information we collect when we provide products to customers.

Future product recalls or safety concerns could adversely impact our results of operations.

We may be required to recall certain of our products should they be mislabeled, contaminated, spoiled, tampered with or damaged. We may become involved in lawsuits and legal proceedings alleging that the consumption of any of our products causes or caused injury, illness or death. A product recall or an adverse result in any such litigation could have a material adverse effect on our operating and financial results, depending on the costs of the recall, the destruction of product inventory, contractual and other claims made by customers that we supply, competitive reaction and consumer attitudes. Even if a product liability, consumer fraud or other claim is unsuccessful or without merit, the negative publicity surrounding such assertions regarding our products could adversely affect our reputation and brand image. We also could be adversely affected if our customers or consumers in our principal markets lose confidence in the safety and quality of our products.

Consolidation in the retail and foodservice industries could adversely affect our sales and profitability.

If our retail and foodservice customers continue to grow larger due to consolidation in their respective industries, they may demand lower pricing and increased promotional programs. Meeting these demands could adversely affect our sales and profitability.

Our large customers may impose requirements on us that may adversely affect our results of operations.

From time to time, our large customers may re-evaluate or refine their business practices and impose new or revised requirements on us, the distributors, and the customers' other suppliers. The growth of large mass merchandisers, supercenters and dollar stores, together with changes in consumer shopping patterns, have produced large, sophisticated customers with increased buying power and negotiating strength. Current trends among retailers and foodservice customers include fostering high levels of competition among suppliers, demanding new products or increased promotional programs, requiring suppliers to maintain or reduce product prices, reducing shelf space for our products, and requiring product delivery with shorter lead times. These business changes may involve inventory practices, logistics, or other aspects of the customer-supplier relationship. Compliance with requirements imposed by large customers may be costly and may have an adverse effect on our margins and profitability. However, if we fail to meet a large customer's demands, we could lose that customer's business, which also could adversely affect our results of operations.

Increases in employee and employee-related costs could have adverse effects on our profitability.

Pension, health care, and workers' compensation costs are increasing and will likely continue to do so. Any substantial increase in pension, health care or workers' compensation costs may have an adverse impact on our profitability. The company records pension costs and the liabilities related to its benefit plans based on actuarial valuations, which include key assumptions determined by management. Material changes in pension costs may occur in the future due to changes in these assumptions. Future annual amounts could be impacted by various factors, such as changes in the number of plan participants, changes in the discount rate, changes in the expected long-term rate of return, changes in the level of contributions to the plan, and other factors. In addition, legislation or regulations involving labor and employment and employee benefit plans (including employee health care benefits and costs) may impact our operational results.

We have risks related to our pension plans, which could impact the company's liquidity.

The company has noncontributory defined benefit pension plans covering certain employees maintained under the Employee Retirement Income Security Act of 1974 ("ERISA"). The funding obligations for our pension plans are impacted by the performance of the financial markets. During fiscal 2018, the company adopted a de-risking

investment strategy for its pension assets in Plan No. 1. The assets in Plan No. 1 are primarily invested in fixed-income assets designed to match the duration of the plan's future benefit obligations to manage better the company's pension liability and reduce funded status volatility. Plan No. 1 is on a path to terminate. The termination path for Plan No. 1 results in a short-term conservative investment outlook while Plan No. 2 is still managed as a long-term asset. Upon completion of the process of the termination of Plan No. 1, we may be required to make significant cash contributions to fund that plan's unfunded vested benefit, which could adversely affect our financial condition, liquidity or results of operations.

If the financial markets do not provide the long-term returns that are expected, the likelihood of the company's being required to make larger contributions will increase, which could impact our liquidity. The equity markets can be, and recently have been, very volatile, and therefore our estimate of future contribution requirements can change dramatically in relatively short periods of time. Similarly, changes in interest rates can impact our contribution requirements. In a low interest rate environment, the likelihood of larger required contributions increases. Adverse developments in any of these areas could adversely affect our financial condition, liquidity or results of operations.

Disruption in our supply chain or distribution capabilities from political instability, armed hostilities, incidents of terrorism, natural disasters, weather or labor strikes could have an adverse effect on our business, financial condition and results of operations.

Our ability to make, move and sell products is critical to our success. Damage or disruption to our manufacturing or distribution capabilities, or the manufacturing or distribution capabilities of our suppliers due to weather, natural disaster, fire or explosion, terrorism, pandemics, labor strikes or work stoppages, or adverse outcomes in litigation involving our independent distributor model, could impair our ability to make, move or sell our products. Moreover, terrorist activity, armed conflict, political instability or natural disasters that may occur within or outside the U.S. may disrupt manufacturing, labor, and other business operations. Failure to take adequate steps to mitigate the likelihood or potential impact of such events, or to effectively manage such events if they occur, could adversely affect our business, financial conditions and results of operations.

We may be adversely impacted if our information technology systems fail to perform adequately, including with respect to cybersecurity issues.

The efficient operation of our business depends on our information technology systems. We rely on our information technology systems to effectively manage our business data, communications, supply chain, order entry and fulfillment, and other business processes. The failure of our information technology systems (including those provided to us by third parties) to perform as we anticipate could disrupt our business and could result in billing, collecting and ordering errors, processing inefficiencies, and the loss of sales and customers, causing our business and results of operations to suffer.

In addition, our information technology systems may be vulnerable to damage or interruption from circumstances beyond our control, including fire, natural disasters, systems failures, security breaches or intrusions (including theft of customer, consumer or other confidential data), and viruses. If we are unable to prevent physical and electronic break-ins, cyber-attacks and other information security breaches, we may suffer financial and reputational damage, be subject to litigation or incur remediation costs or penalties because of the unauthorized disclosure of confidential information belonging to us or to our partners, customers, suppliers or employees.

Government regulation could adversely impact our results of operations and financial condition.

As a producer and marketer of food items, our production processes, product quality, packaging, labeling, storage, and distribution are subject to regulation by various federal, state and local government entities and agencies. In addition, the marketing and labeling of food products has come under increased scrutiny in recent years, and the food industry has been subject to an increasing number of legal proceedings and claims relating to alleged false or deceptive marketing and labeling under federal, state or local laws or regulations. Uncertainty regarding labeling standards has led to customer confusions and legal challenges.

Compliance with federal, state and local laws and regulations is costly and time consuming. Failure to comply with, or violations of, applicable laws and the regulatory requirements of one or more of these entities and agencies could subject us to civil remedies, including fines, injunctions, recalls or seizures, as well as potential criminal sanctions, any of which could result in increased operating costs and adversely affect our results of operations and financial condition. Legal proceedings or claims related to our marketing could damage our reputation and/or adversely affect our business or financial results.

Executive Offices

The address and telephone number of our principal executive offices are 1919 Flowers Circle, Thomasville, Georgia 31757, (229) 226-9110.

Executive Officers of Flowers Foods

The following table sets forth certain information regarding the persons who currently serve as the executive officers of Flowers Foods. Our Board of Directors (the "Board") elects our Executive Chairman of the Board for a one-year term. The Board of Directors has granted the Executive Chairman of the Board the authority to appoint the executive officers to hold office until they resign or are removed.

EXECUTIVE OFFICERS

Name, Age and Office	Business Experience
Allen L. Shiver Age 63 President and Chief Executive Officer	Mr. Shiver has been president and chief executive officer of Flowers Foods since May 2013. He was elected president in 2010, and previously served as executive vice president and chief marketing officer from 2008 to 2009. Mr. Shiver served as president and chief operating officer of Flowers Foods Specialty Group from 2003 until 2008 and as president and chief operating officer of Flowers Snack from 2002 to 2003. Prior to those appointments, Mr. Shiver served as a bakery president, regional vice president, and executive vice president of operations. He joined the company in 1978.
R. Steve Kinsey Age 58 Chief Financial Officer and Chief Administrative Officer	Mr. Kinsey was named chief financial officer and chief administrative officer in May 2017. Previously, Mr. Kinsey served as executive vice president and chief financial officer from 2008 until 2017, and as senior vice president and chief financial officer from 2007 to 2008. Prior to those appointments, Mr. Kinsey served as vice president and corporate controller from 2003 until 2007, and as controller from 2002 until 2003. He served as director of tax from 1998 until 2002 at Flowers Foods and Flowers Industries. At Flowers Industries, Mr. Kinsey also served as tax manager from 1994 until 1998, and as tax associate from 1989 until 1994. He joined the company in 1989.
A.Ryals McMullian Age 49 Chief Operating Officer	Mr. McMullian was named chief operating officer in July 2018. Mr. McMullian served as chief strategy officer from May 2017 to July 2018. Mr. McMullian served as vice president of mergers and acquisitions and deputy general counsel from 2015 until 2017. Mr. McMullian served as vice president and associate general counsel from 2011 until 2015 and as associate general counsel from 2003, when he joined the company, until 2011.
Bradley K. Alexander Age 60 President Fresh Packaged Bread Business Unit	Mr. Alexander was named president of the Fresh Packaged Bread Business Unit in May 2017. Mr. Alexander served previously as executive vice president and chief operating officer of Flowers Foods beginning in 2014 and as president of Flowers Bakeries from 2008 to 2014. He also served as a regional vice president of Flowers Bakeries, and in various sales, marketing and operational positions, including bakery president and senior vice president of sales and marketing, since joining the company in 1981.

Stephen R. Avera Age 62 Chief Legal Counsel	Mr. Avera was named chief legal counsel in May 2017. He previously served as executive vice president, secretary and general counsel from 2008 until 2017. From 2004 to 2008, Mr. Avera served as senior vice president, secretary and general counsel, and from 2002 until 2004, he served as secretary and general counsel. Mr. Avera also served as vice president and general counsel of Flowers Bakeries from 1998 to 2002, and as associate general counsel and assistant general counsel of Flowers Industries from 1986, when he joined the company, to 1998.
D. Keith Wheeler Age 55 Chief Sales Officer	Mr. Wheeler was named chief sales officer in May 2017. Prior to this appointment, Mr. Wheeler served as president of Flowers Bakeries from 2014 until 2017. Mr. Wheeler was senior vice president of Flowers Foods' West Coast Region from 2012 until 2014, and before that, he served in various leadership and operational positions, including bakery president and region controller. He joined the company in 1988.
Robert L. Benton, Jr. Age 61 Chief Supply Chain Officer	Mr. Benton was named chief supply chain officer in May 2017. He had been senior vice president and chief manufacturing officer since 2015. Mr. Benton served as senior vice president of manufacturing and operations support from 2011 until 2015, as vice president of manufacturing from 2001 until 2011, and as director of manufacturing at Flowers Foods and Flowers Industries from 1993 until 2001. At Flowers Industries, Mr. Benton held various manufacturing, engineering and operational management positions, from when he joined the company in 1980 through 1993.

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Name, Age and Office	Business Experience
Karyl H. Lauder Age 62 Senior Vice President and Chief Accounting Officer	Ms. Lauder has been senior vice president and chief accounting officer of Flowers Foods since 2008. Ms. Lauder served as vice president and chief accounting officer from 2007 until 2008 and as vice president and operations controller from 2003 to 2007. Prior to those appointments, Ms. Lauder served as a division controller for Flowers Bakeries Group from 1997 to 2003, as a regional controller for Flowers Bakeries, and in several other accounting and supervisory positions since 1978, when she joined the company.
Debo Mukherjee Age 51 Chief Marketing Officer	Mr. Mukherjee joined Flowers as the chief marketing officer in October 2017. Mr. Mukherjee has 25 years of experience in confection, food, health, and nutrition consumer businesses, most recently as founder and owner of Intacta Consulting Group, LLC. Prior to launching Intacta, Mr. Mukherjee served as CEO of Redco Foods, Inc., a subsidiary of Teekanne GmbH, the largest herbal and flavored tea company in Europe, from 2011 to 2015. He also held marketing roles at Mars Inc., Unilever, H.J. Heinz Co. and The Hershey Company.
David M. Roach Age 49 President, Snacking/Specialty Business Unit	Mr. Roach was named president of the Snacking/Specialty Business Unit in May 2017. Prior to this appointment, Mr. Roach served as senior vice president of organics from 2015 until 2017, and as senior vice president of the Central Region from 2010 until 2015. Mr. Roach was president of Flowers Baking Co. of Villa Rica from 2007 to 2010 and served in various sales and supervisory positions since joining the company in 1992.
Tonja Taylor Age 59 Chief Human Resources Officer	Ms. Taylor was named chief human resources officer in May 2017. Ms. Taylor served as senior vice president of human resources from 2013 until 2017 and as vice president of human resources from 2008 until 2013. Ms. Taylor joined the company in 1999 as change management coordinator for a key information technology initiative. Beginning in 2000, she served in a variety of human resources positions, including manager of organizational development, director of organizational development, and managing director of Human Resources.

Item 1B. Unresolved Staff Comments.

None

Item 2. Properties

The company currently operates 47 bakeries, of which 45 are owned and two are leased. We believe our properties are in good condition, well maintained, and sufficient for our present operations. During fiscal 2018, DSD Segment facilities, taken as a whole, operated moderately above capacity and Warehouse Segment facilities operated moderately below capacity. Our production plant locations are:

DSD Segment

State	City	State	City
Alabama	Birmingham	Louisiana	Lafayette
Alabama	Opelika	Louisiana	New Orleans
Alabama	Tuscaloosa	Maine	Lewiston (2 locations)
Arizona	Phoenix	Nevada	Henderson
Arizona	Tolleson	North Carolina	Goldsboro
Arkansas	Batesville	North Carolina	Jamestown
California	Modesto (Leased)	North Carolina	Newton
Colorado	Johnstown	Oregon	Milwaukie
Florida	Bradenton	Pennsylvania	Oxford
Florida	Jacksonville	Pennsylvania	Philadelphia (Leased)
Florida	Lakeland	Tennessee	Knoxville
Florida	Miami	Texas	Denton
Georgia	Atlanta	Texas	El Paso
Georgia	Savannah	Texas	Houston (2 locations)
Georgia	Thomasville	Texas	San Antonio
Georgia	Villa Rica	Texas	Tyler
Kansas	Lenexa	Virginia	Lynchburg
Kentucky	Bardstown	Virginia	Norfolk
Louisiana	Baton Rouge		

Warehouse Segment

State	City	State	City
Alabama	Montgomery	Georgia	Tucker
Arizona	Mesa	Kentucky	London
Arkansas	Texarkana	Tennessee	Cleveland
Georgia	Suwanee	Tennessee	Crossville

In Thomasville, Georgia, the company leases properties that house shared services functions and our information technology group and owns several properties for our corporate offices.

Item 3. Legal Proceedings

For a description of all material pending legal proceedings, See Note 24, Commitments and Contingencies, of Notes to Consolidated Financial Statements of this Form 10-K.

Item 4. Mine Safety Disclosures

Not Applicable

PART II

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

Market Information

Shares of the company's common stock are quoted on the New York Stock Exchange (the "NYSE") under the symbol "FLO."

Holders

As of February 14, 2019, there were approximately 3,438 holders of record of the company's common stock.

Dividends

The payment of dividends is subject to the discretion of the Board. The Board bases its decisions regarding dividends on, among other things, general business conditions, our financial results, contractual, legal and regulatory restrictions regarding dividend payments and any other factors the Board may consider relevant.

Securities Authorized for Issuance Under Equity Compensation Plans

The following chart sets forth the amounts of securities authorized for issuance under the company's compensation plans as of December 29, 2018 (amounts in thousands, except per share data).

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column(a)) (c)
Equity compensation plans approved by security holders	—	$ —	6,167,422
Equity compensation plans not approved by security holders	—	—	—
Total	—	$ —	6,167,422

Under the company's 2014 Omnibus Equity and Incentive Compensation Plan (the "Omnibus Plan"), the Board is authorized to grant a variety of stock-based awards, including stock options, restricted stock and deferred stock, to its directors and certain of its employees. The number of securities set forth in column (c) above reflects securities available for issuance as stock options, restricted stock and deferred stock under the company's compensation plans. The number of shares originally available under the Omnibus Plan is 8,000,000 shares. The Omnibus Plan replaced the Flowers Foods' 2001 Equity and Performance Incentive Plan, as amended and restated as of April 1, 2009 ("EPIP"), the Stock Appreciation Rights Plan, and the Annual Executive Bonus Plan. As a result, no additional shares will be issued under the EPIP. See Note 19, Stock-Based Compensation, of Notes to Consolidated Financial Statements of this Form 10-K for additional information on equity compensation plans.

Purchases of Equity Securities by the Issuer

The company did not purchase any shares of its common stock during the fourth quarter of fiscal 2018.

Stock Performance Graph

The chart below is a comparison of the cumulative total return (assuming the reinvestment of all dividends paid) of our common stock, Standard & Poor's 500 Index, Standard & Poor's 500 Packaged Foods and Meats Index, and Standard & Poor's MidCap 400 Index for the period December 28, 2013 through December 29, 2018, the last day of our 2018 fiscal year.

	December 28, 2013	January 3, 2015	January 2, 2016	December 31, 2016	December 30, 2017	December 29, 2018
FLOWERS FOODS INC	100.00	91.94	105.89	102.22	102.45	100.51
S&P 500 INDEX	100.00	114.11	115.71	129.55	157.84	149.63
S&P 500 PACKAGED FOODS & MEAT INDEX	100.00	112.20	131.68	143.71	145.65	118.05
S&P MIDCAP 400 INDEX	100.00	110.22	107.91	130.29	151.45	133.30

Companies in the S&P 500 Index, the S&P 500 Packaged Foods and Meats Index, and the S&P MidCap 400 Index are weighted by market capitalization and indexed to $100 at December 28, 2013. Flowers Foods' share price is also indexed to $100 at December 29, 2018. These prices have been adjusted for stock splits.

Item 6. Selected Financial Data

The selected consolidated historical financial data presented below as of and for the fiscal years 2018, 2017, 2016, 2015, and 2014 have been derived from the audited Consolidated Financial Statements of the company. The results of operations presented below are not necessarily indicative of results that may be expected for any future period and should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations, and our Consolidated Financial Statements and the accompanying Notes to Consolidated Financial Statements included in this Form 10-K (amounts in thousands, except per share data).

	For Fiscal Year				
	Fiscal 2018 52 Weeks	Fiscal 2017 52 Weeks	Fiscal 2016 52 Weeks	Fiscal 2015 52 Weeks	Fiscal 2014 53 Weeks
Statement of Income Data:					
Sales	$3,951,852	$3,920,733	$3,926,885	$3,778,505	$3,748,973
Net income	$157,160	$150,120	$163,776	$189,191	$175,739
Net income attributable to Flowers Foods, Inc. common shareholders per basic share	$0.74	$0.72	$0.79	$0.90	$0.84
Net income attributable to Flowers Foods, Inc. common shareholders per diluted share	$0.74	$0.71	$0.78	$0.89	$0.82
Cash dividends per common share	$0.7100	$0.6700	$0.6250	$0.5675	$0.4850
Balance Sheet Data:					
Total assets	$2,845,537	$2,659,724	$2,761,068	$2,844,051	$2,408,974
Long-term debt and capital lease obligations	$990,640	$820,141	$946,667	$930,022	$724,459

Notes to the Selected Financial Data table for additional context

1. Fiscal 2018 includes the impact of the following items which affect comparability (amounts in thousands):

Items presented separately on the Consolidated Statements of Income	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Fiscal 2018	Footnote
Loss (recovery) on inferior ingredients	$—	$3,884	$(1,891)	$ 1,219	$3,212	Note 5
Restructuring and related impairment charges	$1,259	$801	$497	$ 7,210	$9,767	Note 6
Multi-employer pension plan withdrawal costs	$2,322	$—	$—	$ —	$2,322	Note 22
Pension plan settlement loss	$4,668	$1,035	$930	$ 1,148	$7,781	Note 22
Impairment of assets	$2,483	$—	$—	$ 3,516	$5,999	Note 2,13

The company purchased Canyon on December 14, 2018. See Note 11, Acquisition, for more detailed disclosures for the acquisition. Its results of operations for the period from December 14, 2018 through December 29, 2018 has been excluded due to immateriality and will be reported in the first quarter of fiscal 2019.

2. Fiscal 2017 includes the impact of the following items which affect comparability (amounts in thousands):

Items presented separately on the Consolidated Statements of Income	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Fiscal 2017	Footnote
Gain on divestiture	$(28,875)	$ —	$—	$ —	$(28,875)	Note 7
Restructuring and related impairment charges	$—	$ —	$100,549	$ 3,581	$104,130	Note 6
Multi-employer pension plan withdrawal costs	$—	$ —	$18,268	$ —	$18,268	Note 22
Pension plan settlement loss	$—	$ —	$3,030	$ 1,619	$4,649	Note 22
Income tax benefit resulting from tax reform	$—	$ —	$—	$ (48,160)	$(48,160)	Note 23

3. Fiscal 2016 includes the impact of a $6.6 million pension settlement loss, $24.9 million of impairment charges, $10.5 million of legal settlements (including $0.3 million of related tax liabilities) which affect comparability, the issuance of our $400.0 million senior notes due 2026, and $1.9 million of debt issuance costs recognized as interest expense (for a loss on extinguishment of debt) at the time we paid off $367.5 million of outstanding indebtedness under two of our term loans.
4. Fiscal 2015 includes the results of DKB and Alpine as of and from the date of each acquisition.
5. During the fourth quarter of fiscal 2014, we revised net sales. Historically, certain immaterial discounts had been recorded as an expense to selling, distribution and administrative costs. These discounts are now recorded as contra revenue. These revisions were made for all periods presented in the fiscal 2014 Form 10-K.
6. Fiscal 2014 includes the impact of a $15.4 million pension plan settlement loss.

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

The following discussion should be read in conjunction with Item 1., Business, and the Consolidated Financial Statements and accompanying Notes to Consolidated Financial Statements included in this Form 10-K. The following information contains forward-looking statements which involve certain risks and uncertainties. See Forward-Looking Statements at the beginning of this Form 10-K.

Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is segregated into four sections, including:

- Executive overview — provides a summary of our operating performance and cash flows, industry trends, and our strategic initiatives.
- Critical accounting estimates — describes the accounting areas where management makes critical estimates to report our financial condition and results of operations.
- Results of operations — an analysis of the company's consolidated results of operations for the two comparative periods presented in the Consolidated Financial Statements.
- Liquidity, capital resources and financial position — an analysis of cash flow, contractual obligations, and certain other matters affecting the company's financial position.

MATTERS AFFECTING COMPARABILITY

Detailed below are matters affecting comparability as well as other significant events that will provide additional context while reading this discussion:

	Fiscal 2018 52 weeks	Fiscal 2017 52 weeks	Fiscal 2016 52 weeks	Footnote Disclosure
	(Amounts in thousands)			
Project Centennial consulting costs	$9,723	$37,306	$6,324	Note 6
Gain on divestiture	—	(28,875)	—	Note 7
Restructuring and related impairment charges	9,767	104,130	—	Note 6
Impairment of assets	5,999	—	24,877	Note 2, 13
Loss on inferior ingredients	3,212	—	—	Note 5
Pension plan settlement loss	7,781	4,649	6,646	Note 22
Multi-employer pension plan withdrawal costs	2,322	18,268	—	Note 22
Acquisition-related costs	4,476	—	—	Note 11
Legal settlements and related tax liabilities	21,452	5,978	10,500	Note 24
Lease termination costs	—	565	—	
Loss on extinguishment of debt	—	—	1,900	Note 15
	$64,732	$142,021	$50,247	

In fiscal 2017, we recognized an income tax benefit of $48.2 million related to the estimated benefit of the Tax Cuts and Jobs Act of 2017 (the "Act"). In fiscal 2018, we recognized an additional benefit of $5.6 million as an adjustment to the fiscal 2017 amount. These tax benefits partially offset the net expense amount of the pre-tax items in each respective fiscal year detailed above.

Project Centennial consulting costs. During the second quarter of fiscal 2016, we partnered with a globally recognized consulting firm and launched Project Centennial, an enterprise-wide business and operational review. As of the end of fiscal 2016, we had completed the diagnostic phase and entered the implementation phase of the project. Key initiatives of the project are outlined in Item 1., Business, of this Form 10-K. Consulting costs associated with the project were $9.7 million, $37.3 million and $6.3 million in fiscal 2018, 2017 and 2016, respectively. These costs are reflected in the selling, distribution and administrative expenses line item of the Consolidated Statements of Income.

Gain on divestiture of the non-core mix manufacturing business. On January 14, 2017, we completed the sale of our non-core mix manufacturing business located in Cedar Rapids, Iowa and received proceeds, net of a working capital adjustment, of $41.2 million and recognized a gain of $28.9 million in our fiscal 2017 results of operations. The mix manufacturing business was previously included in our Warehouse Segment.

Restructuring and related impairment charges associated with Project Centennial. The following table details charges recorded by segment in fiscal 2018 and 2017 (amounts in thousands):

	Fiscal 2018			
	DSD Segment	Warehouse Segment	Unallocated Corporate	Total
	(Amounts in thousands)			
Employee termination benefits and other cash charges	$3,833	$ 89	$ 252	$4,174
Impairment of assets	4,288	1,305	—	5,593
	$8,121	$ 1,394	$ 252	$9,767

	Fiscal 2017			
	DSD Segment	Warehouse Segment	Unallocated Corporate	Total
	(Amounts in thousands)			
Employee termination benefits and other cash charges	$24,914	$ 5,633	$ 3,982	$34,529
Property, plant and equipment impairments	—	3,354	—	3,354
Trademark impairments	55,112	11,135	—	66,247
	$80,026	$ 20,122	$ 3,982	$104,130

In fiscal 2018, employee termination benefits and other cash charges were primarily for severance related to the plant closure and relocation costs associated with the company reorganization which was completed in fiscal 2018, net of an adjustment of $0.6 million to the VSIP charge recognized in fiscal 2017. On November 7, 2018, the company announced the closure of a DSD Segment manufacturing facility in Brattleboro, Vermont as part of the supply chain optimization initiative under Project Centennial. The facility ceased operating at the end of fiscal 2018 and resulted in severance charges discussed above, as well as property, plant and equipment impairments of $2.7 million. Additionally, we completed a product rationalization project in fiscal 2018 which resulted in the write-off of certain ingredient, packaging and advertising displays for discontinued items, and decided to sell a closed manufacturing facility acquired as part of the Acquired Hostess Bread Assets in fiscal 2013 and to close two manufacturing lines in other facilities resulting in asset impairments.

Employee termination benefits and other cash charges recorded in fiscal 2017 included the VSIP, severance related to other reorganizational initiatives, severance related to the plant closure, and relocation costs due to the ongoing company reorganization. The VSIP was made available to certain employees who met the VSIP's age, length-of-service, and business function criteria. Approximately 325 employees elected to participate in the VSIP, and they accrued enhanced separation benefits totaling $29.7 million. We paid $4.6 million of these benefits in fiscal 2017 and $24.2 million in fiscal 2018. Other reorganizational initiatives we completed during the fourth quarter of fiscal 2017 resulted in severance charges of $2.0 million. Additionally, on August 9, 2017, the company announced the closure of a Warehouse Segment snack cake plant in Winston-Salem, North Carolina as part of its supply chain optimization initiative under Project Centennial. The facility closed in November of fiscal 2017 and a portion of the production was transitioned to other facilities. Closure costs included the recognition of impairments related to property, plant and equipment of $3.4 million and severance costs of $1.0 million. We incurred reorganization costs, primarily relocation costs, of $1.9 million during fiscal 2017. We substantially completed the brand rationalization study in the third quarter of fiscal 2017, which resulted in $66.2 million of impairment charges for certain trademarks that we either no longer intend to use or plan to use on a more limited basis.

Impairment of assets. In fiscal 2018, we impaired a $2.5 million non-IDP notes receivable because the counterparty defaulted on the note, and we recognized a $3.5 million property, plant and equipment impairment for a construction in process asset that was ultimately not placed into service. In fiscal 2016, we recorded $15.0 million of asset impairment charges for certain trademarks of our DSD Segment, primarily resulting from a brand rationalization study we began in fiscal 2016 as part of Project Centennial. This study was substantially completed in the third quarter of fiscal 2017. Also in fiscal 2016, we recorded $9.9 million of impairments on certain assets held for sale of our DSD Segment, which were subsequently sold for proceeds of $7.4 million.

Loss on inferior ingredients – During fiscal 2018, we recognized $7.4 million of currently identifiable and measurable costs associated with receiving inferior yeast and whey shipments. We received a reimbursement of $4.2 million for costs associated with receiving inferior yeast during the third quarter of fiscal 2018. The shipments of yeast were from one supplier and reduced product quality and disrupted production and distribution of foodservice and retail bread and buns at a number of the company's bakeries during the second quarter of fiscal 2018. The company also issued a voluntary recall on July 18, 2018 due to the potential of inferior whey shipments. The costs associated with inferior whey were incurred during the third quarter of fiscal 2018. To date in fiscal 2019, we have received reimbursement of $1.3 million from the supplier for costs associated with receiving inferior yeast. Although we anticipate incurring additional losses, we are not currently able to estimate the amount of such loss. We continue to seek recovery of all losses through appropriate means.

Issuance of $400.0 million of senior notes and payoff of existing term loans. On September 28, 2016, we issued $400.0 million of ten year senior notes (the "2026 notes") which bear interest at 3.50% per annum. Proceeds from the 2026 notes were used to repay debt currently outstanding under our then outstanding term loan facilities and for general corporate purposes, including repayment of a portion of our accounts receivable securitization facility ("the facility"). Debt issuance costs of $1.9 million associated with the term loan facilities were recorded as interest expense in our fiscal 2016 results of operations.

Pension plan settlement loss. At the beginning of fiscal 2016, the company began offering retired and terminated vested pension plan participants not yet receiving their benefit payments the option to elect to receive their benefit as a single lump sum payment. Settlement charges of $7.8 million, $4.6 million and $6.6 million for fiscal 2018, 2017 and 2016, respectively, were triggered as a result of lump sum distributions paid in each fiscal year. Settlement charges may be triggered in fiscal 2019 depending on the level of lump sum distributions elected by eligible plan participants. On September 28, 2018, the Board of Directors approved a resolution to terminate the Flowers Foods, Inc. Retirement Plan No. 1, effective December 31, 2018. The plan was closed to new participants on January 1, 1999 and benefit accruals were previously frozen on or before August 1, 2008. The company has commenced the plan termination process and expects to distribute a portion of the pension plan assets as lump sum payments during early 2020 with the remaining balance transferred to an insurance company in the form of an annuity. The total payments distributed will depend on the lump sum offer participation rate of eligible participants. Based on the estimated value of assets held in the plan, the company currently estimates that a cash contribution of approximately $5.0 million to $35.0 million will be required to fully fund the plan's liabilities at termination. In addition, based on current assumptions, the company estimates a final non-cash settlement charge of approximately $125.0 million.

Multi-employer pension plan withdrawal costs ("MEPP" costs). On August 18, 2017, the union participants of the MEPP Fund at our Lakeland, Florida plant voted to withdraw from the MEPP Fund in the most recent collective bargaining agreement. This resulted in the recognition of an $18.3 million pension plan withdrawal liability (including transition payments) in the DSD Segment in the third quarter of fiscal 2017. During the first quarter of fiscal 2018, this amount was revised for the final settlement and we recorded an additional $2.3 million of liability. The transition payments of $3.1 million were made on November 3, 2017. Of the remaining balance, we paid $0.2 million during the first quarter of fiscal 2018 and the balance was paid in the second quarter of fiscal 2018.

Legal settlements. In fiscal 2018, 2017, and 2016, we reached agreements to settle distributor-related litigation in the aggregate amount of $18.7 million, $6.0 million, and $10.5 million, respectively, including plaintiffs' attorney fees. These amounts were recorded in the DSD Segment in the selling, distribution and administrative expenses line item. Additionally, in fiscal 2018, we reached agreements to settle other non-IDP matters in the amount of $2.8 million, of which $1.7 million was recorded in the DSD Segment and $1.1 million was recorded in the Warehouse Segment, in the selling, distribution and administrative expenses line item.

Income tax benefit related to the impact of the Tax Cuts and Jobs Act of 2017. In the fourth quarter of fiscal 2017, we recognized an income tax benefit of $48.2 million related to the estimated benefit of the Act which was enacted on December 22, 2017. The benefit primarily resulted from the revaluation of the company's net deferred tax liability as of a result of the decrease in the corporate tax rate. In fiscal 2018, we recognized an additional benefit of $5.6 million as an adjustment to the fiscal 2017 amount.

Canyon Bakehouse LLC acquisition. On December 14, 2018, we completed the acquisition of Canyon, a privately held, gluten-free baking company in Johnstown, Colorado, for approximately $205.2 million total consideration. Canyon operates one production facility in Johnstown, Colorado and the assets are included in both our DSD and Warehouse Delivery segments for financial reporting purposes. The Canyon Bakehouse brand is the fastest-growing gluten-free bread loaf brand in the U.S. We funded the purchase price of the Canyon acquisition with cash on hand and borrowings under the facility and incurred acquisition-related expenses of $4.5 million. Canyon's

results of operations for the period from December 14, 2018 through December 29, 2018 have been excluded from our consolidated results due to immateriality and will be reported in our first quarter of fiscal 2019.

Reporting Periods. The company operates on a 52-53 week fiscal year ending the Saturday nearest December 31. Fiscal 2018, 2017 and 2016 consisted of 52 weeks. Fiscal 2019 will consist of 52 weeks.

Reclassification of certain prior year amounts – Due to the change in the presentation of pension cost (benefit) other than service cost as a result of new accounting guidance, as well as certain organizational changes we have implemented as of the beginning of fiscal 2018, we have reclassified prior year amounts for comparability. Refer to Notes to Consolidated Financial Statements of this Form 10-K for additional information. Due to the organizational changes, we have restructured our discussion of segment operations below.

EXECUTIVE OVERVIEW

We are the second largest producer and marketer of packaged bakery foods in the U.S. with fiscal 2018 sales of $4.0 billion. We operate in the highly competitive fresh bakery market and our product offerings include fresh breads, buns, rolls, snack cakes and tortillas, as well as frozen breads and rolls. Our business is currently managed based on delivery method of our products and we have

two segments: DSD Segment and Warehouse Segment. We operate 47 plants in 18 states that produce a wide range of breads, buns, rolls, snack cakes, and tortillas. See Item 1., Business, of this Form 10-K for information regarding our segments, customers and brands, business strategies, strengths and core competencies, and competition and risks.

Summary of Operating Results, Cash Flows and Financial Condition:

Sales in fiscal 2018 increased 0.8% as compared to fiscal 2017 due to continued sales growth for our branded organic products and positive price/mix, partially offset by volume declines for other branded products and in the non-retail channel and the impact of inferior ingredients. Sales decreased 0.2% in fiscal 2017 compared to the prior fiscal year primarily as a result of the divestiture of the mix manufacturing business in January 2017 and softness in the fresh bakery category, partially offset by significant sales growth for our branded organic products.

Net income increased 4.7% in fiscal 2018 as compared to fiscal 2017 primarily due to significantly lower restructuring and related impairment charges, MEPP costs and Project Centennial consulting costs as compared to the prior year, partially offset by the income tax benefit recognized from passage of the Act and the gain on divestiture, both recognized in the prior year. Increased legal settlements, higher commodity prices, and the impact of inferior ingredients also impacted current year earnings, net of the benefit of the VSIP, lower employee compensation costs and decreased tax rates. Net income decreased 8.3% in fiscal 2017 as compared to fiscal 2016 primarily due to the restructuring and related impairment charges, the MEPP costs and incremental Project Centennial consulting costs, partially offset by the income tax benefit recognized from passage of the Act, the current year gain on divestiture and the prior year asset impairment charges.

In fiscal 2018, we generated net cash flows from operations of $295.9 million, made cash payments of $200.2 million for the Canyon acquisition, and invested $99.4 million in capital expenditures. We increased our total indebtedness by $173.3 million primarily as a result of borrowings under the facility to fund the Canyon acquisition, and extended the maturity date of the facility to September 27, 2020. We paid $150.2 million in dividends to our shareholders in fiscal 2018. In fiscal 2017, we generated net cash flows from operations of $297.4 million and invested $75.2 million in capital expenditures. We reduced our total indebtedness $124.0 million and paid $141.0 million in dividends to our shareholders.

Industry Trends

The chart below details the sales change in dollars and units of the Fresh Packaged Breads category for the years 2016, 2017 and 2018:

- We hold a 16.0 dollar share of the Fresh Packaged Breads category. (Source: Flowers Custom Database – IRI Total US MultiOutlet + Convenience Store for the 52 weeks ending 12/30/18)
- We hold an 7.9 dollar share of the Commercial Cake category. (Source: Flowers Custom Database – IRI Total US MultiOutlet + Convenience Store for the 52 weeks ending 12/30/18)

- The Fresh Packaged Breads category is highly competitive.
- We anticipate our growth will be driven by our organic bread brands and the addition of gluten-free bakery items partially offset by softer demand for some of our other product offerings.

Critical Accounting Estimates

The company's discussion and analysis of its results of operations and financial condition are based upon the Consolidated Financial Statements of the company, which have been prepared in accordance with generally accepted accounting principles in the United States ("GAAP"). The preparation of these financial statements requires the company to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of the revenues, expenses, and cash flows during the reporting period. On an ongoing basis, the company evaluates its estimates, including those related to customer programs and incentives, bad debts, raw materials, inventories, long-lived assets, intangible assets, income taxes, restructuring, pensions and other post-retirement benefits, and contingencies and litigation. The company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The selection and disclosure of the company's critical accounting estimates have been discussed with the company's audit committee. Note 2, Summary of Significant Accounting Policies, of Notes to Consolidated Financial Statements of this Form 10-K includes a summary of the significant accounting policies and methods used in the preparation of the Consolidated Financial Statements. The following table lists, in no particular order of importance, areas of critical assumptions and estimates used in the preparation of the Consolidated Financial Statements. Additional detail can be found in the following notes:

Critical Accounting Estimate	Note
Revenue recognition	—
Derivative financial instruments	12
Long-lived assets	—
Goodwill and other intangible assets	10
Self-insurance reserves	24
Income tax expense (benefit) and accruals	23
Postretirement plans	22
Stock-based compensation	19
Commitments and contingencies	24

Revenue Recognition. Revenue is recognized when obligations under the terms of a contract with our customers are satisfied. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring goods or providing services. The company records both direct and estimated reductions to gross revenue for customer programs and incentive offerings at the time the incentive is offered or at the time of revenue recognition for the underlying transaction that results in progress by the customer towards earning the incentive. These allowances include price promotion discounts, coupons, customer rebates, cooperative advertising, and product returns. Consideration payable to a customer is recognized at the time control transfers and is a reduction to revenue. The recognition of costs for promotion programs involves the use of judgment related to performance and redemption estimates. Estimates are made based on historical experience and other factors. Price promotion discount expense is recorded as a reduction to gross sales when the discounted product is sold to the customer.

Derivative Financial Instruments. The company's cost of primary raw materials is highly correlated to certain commodities markets. Raw materials, such as our baking ingredients, experience price fluctuations. If actual market conditions become significantly different than those anticipated, raw material prices could increase significantly, adversely affecting our results of operations. We enter into forward purchase agreements and other derivative financial instruments qualifying for hedge accounting to manage the impact of volatility in raw material prices. The company measures the fair value of its derivative portfolio using fair value as the price that would be received to sell an asset or paid to transfer a liability in the principal market for that asset or liability. When quoted market prices for identical assets or liabilities are not available, the company bases fair value on internally developed models that use current market observable inputs, such as exchange-quoted futures prices and yield curves. See Note 3, Recent Accounting Pronouncements, of Notes to Consolidated Financial Statements of this Form 10-K for information regarding the FASB's hedge accounting guidance issued in August 2017, which the company early adopted in the first quarter of fiscal 2018.

Valuation of Long-Lived Assets, Goodwill and Other Intangible Assets. The company records an impairment charge to property, plant and equipment, goodwill and intangible assets in accordance with applicable accounting standards when, based on certain indicators of impairment, it believes such assets have experienced a decline in value that is other than temporary. Future adverse changes in market conditions or poor operating results of these underlying assets could result in losses or an inability to recover the carrying value of the asset that may not be reflected in the asset's current carrying value, thereby possibly requiring impairment charges in the future. Impairment charges recorded in fiscal 2018, 2017 and 2016 are discussed above in the "Matters Affecting Comparability" section.

The company evaluates the recoverability of the carrying value of its goodwill on an annual basis or at a time when events occur that indicate the carrying value of the goodwill may be impaired using a two-step process. We have elected not to perform the qualitative approach. The first step of this evaluation is performed by calculating the fair value of the business segment, or reporting unit, with which the goodwill is associated. Our reporting units are at the segment level. Each segment consists of several components. These components are aggregated by their respective delivery method into the Warehouse Segment and DSD Segment. These segments rely on reciprocal baking among their components, cross-selling their products/brands within the segment, and utilizing the same delivery method. Marketing, research and development and capital projects are measured at the segment level. We believe these factors support our reporting unit classifications. This fair value is compared to the carrying value of the reporting unit, and if less than the carrying value, the goodwill is evaluated for potential impairment under step two. Under step two of this calculation, goodwill is measured for potential impairment by comparing the implied fair value of the reporting unit's goodwill, determined in the same manner as a business combination, with the carrying amount of the goodwill.

Our annual evaluation of goodwill impairment requires management judgment and the use of estimates and assumptions to determine the fair value of our reporting units. Fair value is estimated using standard valuation methodologies incorporating market participant considerations and management's assumptions on revenue, revenue growth rates, operating margins, discount rates, and EBITDA (defined as earnings before interest, taxes, depreciation and amortization). Our estimates can significantly affect the outcome of the test. We perform the fair value assessment using the income and market approach. We use this data to complete a separate fair value analysis for each reporting unit. Changes in our forecasted operating results and other assumptions could materially affect these estimates. This test is performed in the fourth quarter of each fiscal year unless circumstances require this analysis to be completed sooner. The income approach is tested using a sensitivity analysis to changes in the discount rate and yield a sufficient buffer to significant variances in our estimates. The estimated fair values of our reporting units exceeded our carrying values in excess of a minimum of $422 million in each reporting unit in fiscal 2018. Based on management's evaluation, no impairment charges relating to goodwill were recorded for the fiscal years 2018, 2017 or 2016.

In connection with acquisitions, the company has acquired trademarks, customer lists, and non-compete agreements, a portion of which are amortizable. The company evaluates these assets whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. The undiscounted future cash flows of each intangible asset are compared to the carrying amount, and if less than the carrying value, the intangible asset is written down to the extent the carrying amount exceeds the fair value. The fair value is computed using the same approach described above for goodwill and includes the same risks and estimates. The fair value of the trademarks could be less than our carrying value if any of our four material assumptions in our fair value analysis: (a) weighted average cost of capital; (b) long-term sales growth rates; (c) forecasted operating margins; and (d) market multiples do not meet our expectations, thereby requiring us to record an asset impairment. We use the multi-period excess earnings and relief from royalty methods to value these intangibles. The method used for impairment testing purposes is consistent with the valuation method employed at acquisition of the intangible asset. Impairment charges recorded in fiscal 2017 related to amortizable intangible assets totaled $47.7 million and are discussed above in the "Matters Affecting Comparability" section. There were no impairment charges related to amortizable intangible assets for fiscal years 2018 or 2016.

As of December 29, 2018, the company also owns $206.6 million of trademarks acquired in acquisitions that are indefinite-lived intangible assets not subject to amortization. The company evaluates the recoverability by comparing the fair value to the carrying value of these intangible assets on an annual basis or at a time when events occur that indicate the carrying value may be impaired. In addition, the assets are evaluated to determine whether events and circumstances continue to support an indefinite life. The fair value is compared to the carrying value of the intangible asset, and if less than the carrying value, the intangible asset is written down to fair value. There are certain inherent risks included in our expectations about the performance of acquired trademarks and brands. If we are unable to implement our growth strategies for these acquired intangible assets as expected, it could adversely impact the carrying value of the brands. The fair value of the trademarks could be less than our carrying value if any of our four material assumptions in our fair value analysis: (a) weighted average cost of capital; (b) long-term sales growth rates; (c) forecasted operating margins; and (d) market multiples do not meet our expectations, thereby requiring us to record an asset impairment. As discussed above, during fiscal years 2017 and 2016, we recorded asset impairment charges of $18.5 million and $15.0 million, respectively, on certain indefinite-lived trademarks and determined these trademarks no longer are deemed to have an indefinite life.

Self-Insurance Reserves. We are self-insured for various levels of general liability, auto liability, workers' compensation, and employee medical and dental coverage. Insurance reserves are calculated on an undiscounted basis and are based on actual claim data and estimates of incurred but not reported claims developed utilizing historical claim trends. Projected settlements and incurred but not reported claims are estimated based on pending claims and historical trends and data. Though the company does not expect them to do so, actual settlements and claims could differ materially from those estimated. Material differences in actual settlements and claims could have an adverse effect on our financial condition and results of operations.

Income Tax Expense (Benefit) and Accruals. The annual tax rate is based on our income, statutory tax rates, and tax planning opportunities available to us in the various jurisdictions in which we operate. Changes in statutory rates and tax laws in jurisdictions in which we operate may have a material effect on the annual tax rate. The effect of these changes, if any, would be recognized as a discrete item upon enactment.

Deferred income taxes arise from temporary differences between the tax and financial statement recognition of revenues and expenses. Deferred tax assets and liabilities are measured based on the enacted tax rates that will apply in the years in which the temporary differences are expected to be recovered or paid. As such, in December 2017, the company revalued its deferred tax assets and liabilities as a result of passage of the Act. Additional information on the tax impacts of the Act is presented in Note 23, Income Taxes, of Notes to Consolidated Financial Statements of this Form 10-K.

Our income tax expense, deferred tax assets and liabilities, and reserve for uncertain tax benefits reflect our best assessment of future taxes to be paid in the jurisdictions in which we operate. The company records a valuation allowance to reduce its deferred tax assets if we believe it is more likely than not that some or all of the deferred assets will not be realized. While the company considers future taxable income and ongoing prudent and feasible tax strategies in assessing the need for a valuation allowance, if these estimates and assumptions change in the future, the company may be required to adjust its valuation allowance, which could result in a charge to, or an increase in, income in the period such determination is made.

Periodically, we face audits from federal and state tax authorities, which can result in challenges regarding the timing and amount of income or deductions. We provide reserves for potential exposures when we consider it more likely than not that a taxing authority may take a sustainable position on a matter contrary to our position. We evaluate these reserves on a quarterly basis to ensure that they have been appropriately adjusted for events, including audit settlements that may impact the ultimate payment of such potential exposures. While the ultimate outcome of audits cannot be predicted with certainty, we do not currently believe that current or future audits will have a material adverse effect on our consolidated financial condition or results of operations. The company is no longer subject to federal examination for years prior to fiscal 2015.

Postretirement Plans. The company records pension costs and benefit obligations related to its defined benefit plans based on actuarial valuations. These valuations reflect key assumptions determined by management, including the discount rate, expected long-term rate of return on plan assets and mortality. Material changes in pension costs and in benefit obligations may occur in the future due to experience that is different than assumed and changes in these assumptions.

Effective January 1, 2006, the company curtailed its largest defined benefit plan ("Plan No. 1") that covered the majority of its workforce. Benefits under this plan are frozen, and no future benefits will accrue under this plan. In addition to Plan No. 1, the company sponsors an ongoing defined benefit pension plan for union employees ("Plan No. 2") and a frozen nonqualified plan covering former Tasty executives.

On January 1, 2016, the company began providing retired and terminated vested pension plan participants who have not yet started their payments the option to receive their benefit as a single lump sum payment. Participants can elect this option when they retire or when they leave the company. This change supports our long-term pension risk management strategy. Lump sum payments made in 2017 and 2016 triggered settlement charges as detailed in the table below (amounts in thousands). Based on activity in 2018, primarily related to the VSIP, the company recorded settlement charges in each of the quarters of fiscal 2018. The company recorded pension income on our qualified defined benefit plans and nonqualified plan in fiscal 2018, 2017 and 2016 as detailed in the table below (amounts in thousands). We expect pension cost of approximately $3.0 million on our qualified defined benefit plans and nonqualified plan for fiscal 2019 excluding any potential settlement losses.

	Fiscal 2018 52 weeks	Fiscal 2017 52 weeks	Fiscal 2016 52 weeks
Pension cost (income)	$815	$(5,320)	$(4,451)
Pension plan settlement loss	7,781	4,649	6,646
Net pension cost (income)	$8,596	$(671)	$2,195

In 2016, we refined the method used to estimate service cost and interest cost components of net periodic benefit costs. Historically, we estimated the service cost and interest cost components using a single weighted average discount rate derived from the yield curve used to measure the benefit obligation at the beginning of the period. Currently, we use a spot rate approach to estimate these components of benefit cost by applying the specific spot rates along the yield curve to the relevant projected cash flows, as we believe this provides a better estimate of service and interest costs. We considered this a change in estimate and accordingly, accounted for it on a prospective basis beginning in 2016. This change does not affect the measurement of our total benefit obligation.

On September 28, 2018, the Board approved the termination of the Flowers Foods, Inc. Retirement Plan No. 1. Therefore, the benefit obligations as of December 31, 2018 for Plan No. 1 were valued reflecting the plan termination cost to settle the obligations. The single effective discount rate used to derive the estimated plan termination obligation was used to develop interest cost. This approach does not use the mechanics of the granular calculation that was used for measurements prior to September 30, 2018. The movement away from the granular approach for Plan No. 1 is considered a more precise estimation approach given the fact that assets are expected to be distributed within the next eighteen months.

On December 31, 2017, the company adopted a de-risking investment strategy for its pension assets. As the funded status of the plans increases, over time the targeted allocation to return seeking assets will be reduced and the targeted allocation to fixed-income assets will be increased to better manage the company's pension liability and reduce funded status volatility. After the Board approved the termination of Plan No. 1, the plan administrator separated the assets of Plan No. 1 and Plan No. 2 on December 31, 2018. Based on the funded status of the plans as of December 31, 2018, the asset allocation for each of the Flowers Foods' pension plans has been adjusted as follows:

Plan No. 1: to 90 to 100% fixed-income securities, and 0-10% short-term investments and cash.

Plan No. 2: to 0 to 80% equity securities, 20-100% fixed-income securities, and 0-10% short-term investments and cash.

For the details of our pension plan assets, see Note 22, Postretirement Plans, of Notes to Consolidated Financial Statements of this Form 10-K.

In developing the expected long-term rate of return on plan assets at each measurement date, the company considers the plan assets' historical actual returns, targeted asset allocations, and the anticipated future economic environment and long-term performance of the individual asset classes, based on the company's investment strategy. While appropriate consideration is given to recent and historical investment performance, the assumption represents management's best estimate of the long-term prospective return. Further, pension costs do not include an explicit expense assumption, and therefore the return on assets rate reflects the long-term expected return, net of expenses. Based on these factors, the long-term rate of return assumption for the plans was set at 6.4% for fiscal 2018 and 5.2% (Plan No. 1) and 7.4% (Plan No. 2) for fiscal 2019. The change in assumption from fiscal 2018 to fiscal 2019 was the result of the change in the asset allocation referenced above.

The company utilizes the Society of Actuaries' ("SOA") published mortality tables and improvement scales in developing their best estimates of mortality. In October 2014, the SOA published final reports on their "standard" mortality table ("RP-2014") and mortality improvement scale ("MP-2014"). In 2018, the SOA published a revised mortality improvement scale ("MP-2018"). Based on an evaluation of the information released in 2018, the company updated the mortality assumptions for purposes of measuring pension benefit obligations at year-end 2018. The company will continue to use the standard mortality tables and mortality improvement scale with adjustments to the base table as applicable: 30% adjustment for Plan No. 1, based on experience within the plan, blue collar adjustment for Plan No. 2 and no adjustment for the nonqualified plan.

The company determines the fair value of substantially all of its plans' assets utilizing market quotes rather than developing "smoothed" values, "market related" values, or other modeling techniques. Plan asset gains or losses in a given year are included with other actuarial gains and losses due to remeasurement of the plans' projected benefit obligations ("PBO"). If the total unrecognized gain or loss exceeds 10% of the larger of (i) the PBO or (ii) the market value of plan assets, the excess of the total unrecognized gain or loss is amortized over the expected average future lifetime of participants in the frozen pension plans. Prior service cost or credit, which represents the effect on plan liabilities due to plan amendments, is amortized over the average remaining service period of active covered employees. The total unrecognized loss and prior service cost in accumulated other comprehensive income ("AOCI") as of December 29, 2018 for the pension plans the company sponsors was $142.9 million. Amortization of this unrecognized loss and prior service cost during fiscal 2019 is expected to be approximately $7.5 million. To the extent that this unrecognized loss and prior service cost is subsequently recognized, the loss will increase the company's pension costs in the future.

A sensitivity analysis of fiscal 2018 pension costs on a pre-tax basis and year-end benefit obligations for our qualified plans is presented in the table below (amounts in thousands) to changes in the discount rate and expected long-term rate of return on plan assets ("EROA"):

	0.25%	(0.25%)	0.25%	(0.25%)
Percentage increase (decrease)	Discount Rate	Discount Rate	EROA	EROA
Estimated change in FY 2018 pension costs	$ (280)	$ 289	$ (832)	$ 832
Estimated change in FY 2018 year-end benefit obligations	$ (8,868)	$ 9,263	N/A	N/A

In fiscal 2019, the company expects to make a $2.5 million contribution to our qualified pension plans, and expects to pay $0.3 million in nonqualified pension benefits from corporate assets during fiscal 2019.

Stock-based compensation. Stock-based compensation expense for all share-based payment awards granted is determined based on the grant date fair value. The company recognizes these compensation costs net of an estimated forfeiture rate, and recognizes compensation cost only for those shares expected to vest on a straight-line basis over the requisite service period of the award, which is generally the vesting term of the share-based payment award.

We grant performance stock awards that separately have a market and performance condition. The expense computed for the total shareholder return shares ("TSR") is fixed and recognized on a straight-line basis over the vesting period. The expense computed for the return on invested capital ("ROIC") shares can change depending on the attainment of performance condition goals. The expense for the ROIC shares can be within a range of 0% to 125% of the target. There is a possibility that this expense component will change in subsequent quarters depending on how the company performs relative to the ROIC target. The payouts for the TSR and ROIC shares to be issued in fiscal 2019 (on the 2017 awards) are estimated to be 153% and 75%, respectively. See Note 19, Stock-Based Compensation, of Notes to Consolidated Financial Statements of this Form 10-K for additional information. No awards were granted to employees by our Board of Directors in fiscal 2018.

Commitments and contingencies. The company and its subsidiaries from time to time are parties to, or targets of, lawsuits, claims, investigations and proceedings, including personal injury, commercial, contract, environmental, antitrust, product liability, health and safety and employment matters, including lawsuits related to the independent distributors, which are being handled and defended in the ordinary course of business. Loss contingencies are recorded at the time it is probable an asset is impaired or a liability has been incurred and the amount can be reasonably estimated. For litigation claims, the company considers the degree of probability of an unfavorable outcome and the ability to make a reasonable estimate of the loss. Losses are recorded in selling, distribution and administrative expense in the Consolidated Statements of Income.

Results of Operations

The company's results of operations, expressed as a percentage of sales, are set forth below for fiscal 2018 and 2017 (by segment):

			Percentage of Sales		Increase (Decrease)	
	Fiscal 2018	Fiscal 2017	Fiscal 2018	Fiscal 2017	Dollars	%
	52 weeks	52 weeks	52 weeks	52 weeks		
	(Amounts in thousands, except percentages)					
Sales						
DSD Segment	$3,340,047	$3,318,563	84.5	84.6	$21,484	0.6
Warehouse Segment	611,805	602,170	15.5	15.4	9,635	1.6
Total	$3,951,852	$3,920,733	100.0	100.0	$31,119	0.8
Materials, supplies, labor and other production costs (exclusive of depreciation and amortization shown separately below)						
DSD Segment (1)	$1,622,362	$1,578,234	48.6	47.6	$44,128	2.8
Warehouse Segment (1)	444,466	431,239	72.6	71.6	13,227	3.1
Total	$2,066,828	$2,009,473	52.3	51.3	$57,355	2.9
Selling, distribution and administrative expenses						
DSD Segment (1)	$1,341,294	$1,313,311	40.2	39.6	$27,983	2.1
Warehouse Segment (1)	105,218	104,304	17.2	17.3	914	0.9
Corporate (2)	60,744	92,400	—	—	(31,656)	(34.3)
Total	$1,507,256	$1,510,015	38.1	38.5	$(2,759)	(0.2)
Gain on divestiture						
Warehouse Segment (1)	$—	$(28,875)	0.0	(4.8)	$28,875	NM
Total	$—	$(28,875)	0.0	(0.7)	$28,875	NM
Multi-employer pension plan withdrawal costs						
DSD Segment (1)	$2,322	$18,268	0.1	0.6	$(15,946)	NM
Total	$2,322	$18,268	0.1	0.5	$(15,946)	NM
Loss on inferior ingredients						
DSD Segment (1)	$1,655	$—	0.0	—	$1,655	NM
Warehouse Segment (1)	1,557	—	0.3	—	1,557	NM
Total	$3,212	$—	0.1	—	$3,212	NM
Restructuring and related impairment charges						
DSD Segment (1)	$8,121	$80,026	0.2	2.4	$(71,905)	NM
Warehouse Segment (1)	1,394	20,122	0.2	3.3	(18,728)	NM
Corporate (2)	252	3,982	—	—	(3,730)	NM
Total	$9,767	$104,130	0.2	2.7	$(94,363)	NM
Impairment of assets						
DSD Segment (1)	$2,483	$—	0.1	0.0	$2,483	NM
Corporate (2)	$3,516	$—	—	—	3,516	NM

Total	$5,999	$—	0.2	0.0	$5,999	NM
Depreciation and amortization						
DSD Segment (1)	$122,300	$126,485	3.7	3.8	$(4,185)	(3.3)
Warehouse Segment (1)	21,524	20,642	3.5	3.4	882	4.3
Corporate (2)	300	(408)	—	—	708	NM
Total	$144,124	$146,719	3.6	3.7	$(2,595)	(1.8)
Income from operations						
DSD Segment (1)	$239,510	$202,239	7.2	6.1	$37,271	18.4
Warehouse Segment (1)	37,646	54,738	6.2	9.1	(17,092)	(31.2)
Corporate (2)	(64,812)	(95,974)	—	—	31,162	32.5
Total	$212,344	$161,003	5.4	4.1	$51,341	31.9
Other components of net periodic pension and postretirement benefits credit	$(529)	$(6,558)	(0.0)	(0.2)	$6,029	NM
Pension plan settlement loss	$7,781	$4,649	0.2	0.1	$3,132	NM
Interest expense, net	$7,931	$13,619	0.2	0.3	$(5,688)	(41.8)
Income tax expense (benefit)	$40,001	$(827)	1.0	(0.0)	$40,828	NM
Net income	$157,160	$150,120	4.0	3.8	$7,040	4.7
Comprehensive income	$151,354	$148,844	3.8	3.8	$2,510	1.7

1. As a percentage of revenue within the reporting segment.
2. The corporate segment has no revenues.

NM – the computation is not meaningful

Percentages may not add due to rounding.

The company's results of operations, expressed as a percentage of sales, are set forth below for fiscal 2017 and 2016 (by segment):

	Fiscal 2017	Fiscal 2016	Percentage of Sales Fiscal 2017	Percentage of Sales Fiscal 2016	Increase (Decrease) Dollars	Increase (Decrease) %
	52 weeks	52 weeks	52 weeks	52 weeks		
	(Amounts in thousands, except percentages)					
Sales						
DSD Segment	$3,318,563	$3,284,177	84.6	83.6	$34,386	1.0
Warehouse Segment	602,170	642,708	15.4	16.4	(40,538)	(6.3)
Total	$3,920,733	$3,926,885	100.0	100.0	$(6,152)	(0.2)
Materials, supplies, labor and other production costs (exclusive of depreciation and amortization shown separately below)						
DSD Segment (1)	$1,578,234	$1,570,353	47.6	47.8	$7,881	0.5
Warehouse Segment (1)	431,239	456,506	71.6	71.0	(25,267)	(5.5)
Total	$2,009,473	$2,026,859	51.3	51.6	$(17,386)	(0.9)
Selling, distribution and administrative expenses						
DSD Segment (1)	$1,313,311	$1,308,956	39.6	39.9	$4,355	0.3
Warehouse Segment (1)	104,304	107,599	17.3	16.7	(3,295)	(3.1)
Corporate (2)	92,400	52,827	—	—	39,573	74.9
Total	$1,510,015	$1,469,382	38.5	37.4	$40,633	2.8
Gain on divestiture						
Warehouse Segment (1)	$(28,875)	$—	(4.8)	—	$(28,875)	NM
Total	$(28,875)	$—	(0.7)	—	$(28,875)	NM
Multi-employer pension plan withdrawal costs						
DSD Segment (1)	$18,268	$—	0.6	—	$18,268	NM
Total	$18,268	$—	0.5	—	$18,268	NM
Restructuring and related impairment charges						
DSD Segment (1)	$80,026	$—	2.4	—	$80,026	NM
Warehouse Segment (1)	20,122	—	3.3	—	20,122	NM
Corporate (2)	3,982	—	—	—	3,982	NM
Total	$104,130	$—	2.7	—	$104,130	NM
Impairment of assets						
DSD Segment (1)	$—	$24,877	0.0	0.8	$(24,877)	NM
Total	$—	$24,877	0.0	0.6	$(24,877)	NM

Depreciation and amortization						
DSD Segment (1)	$126,485	$120,009	3.8	3.7	$6,476	5.4
Warehouse Segment (1)	20,642	20,138	3.4	3.1	504	2.5
Corporate (2)	(408)	722	—	—	(1,130)	NM
Total	$146,719	$140,869	3.7	3.6	$5,850	4.2
Income from operations						
DSD Segment (1)	$202,239	$259,982	6.1	7.9	$(57,743)	(22.2)
Warehouse Segment (1)	54,738	58,465	9.1	9.1	(3,727)	(6.4)
Corporate (2)	(95,974)	(53,549)	—	—	(42,425)	(79.2)
Total	$161,003	$264,898	4.1	6.7	$(103,895)	(39.2)
Other components of net periodic pension and postretirement benefits credit	$(6,558)	$(5,638)	(0.2)	(0.1)	$(920)	NM
Pension plan settlement loss	$4,649	$6,646	0.1	0.2	$(1,997)	NM
Interest expense, net	$13,619	$14,353	0.3	0.4	$(734)	(5.1)
Income tax expense (benefit)	$(827)	$85,761	(0.0)	2.2	$(86,588)	(101.0)
Net income	$150,120	$163,776	3.8	4.2	$(13,656)	(8.3)
Comprehensive income	$148,844	$177,293	3.8	4.5	$(28,449)	(16.0)

1. As a percentage of revenue within the reporting segment.
2. The corporate segment has no revenues.

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NM – the computation is not meaningful

Percentages may not add due to rounding.

Consolidated and Segment Results - Fiscal 2018 compared to Fiscal 2017

Sales

Consolidated

	Fiscal 2018 52 weeks		Fiscal 2017 52 weeks		
	$ (Amounts in thousands)	%	$ (Amounts in thousands)	%	% Change
Branded retail	$2,335,831	59.1	$2,303,301	58.7	1.4
Store branded retail	597,147	15.1	582,738	14.9	2.5
Non-retail and other	1,018,874	25.8	1,034,694	26.4	(1.5)
Total	$3,951,852	100.0	$3,920,733	100.0	0.8

The change in sales was attributable to the following:

Percentage point change in sales attributed to:	Favorable (Unfavorable)
Pricing/mix	1.8
Volume	(1.0)
Total percentage change in sales	0.8

Significant sales growth for our DKB branded organic products, positive price/mix and growth in our expansion markets drove the increase in branded retail sales, partially offset by softer demand for other branded items, most significantly buns and rolls and traditional loaf breads. Sales of DKB branded products grew due to volume and price increases as well as the introduction of DKB branded breakfast items in the second quarter of fiscal 2017. Store branded retail sales increased primarily due to positive price/mix. Non-retail and other sales, which include contract manufacturing, vending and foodservice, decreased largely due to declines in price/mix and softer sales in our thrift stores, as well as the impact from inferior yeast.

DSD Segment

	Fiscal 2018 52 weeks		Fiscal 2017 52 weeks		
	$ (Amounts in thousands)	%	$ (Amounts in thousands)	%	% Change
Branded retail	$2,188,638	65.5	$2,149,451	64.8	1.8
Store branded retail	483,001	14.5	471,199	14.2	2.5
Non-retail and other	668,408	20.0	697,913	21.0	(4.2)
Total	$3,340,047	100.0	$3,318,563	100.0	0.6

The change in sales was attributable to the following:

Percentage point change in sales attributed to:	Favorable (Unfavorable)
Pricing/mix	2.4
Volume	(1.8)
Total percentage change in sales	0.6

Branded retail sales increased due to significant sales growth for our branded organic products, growth in our expansion markets, improved price/mix and the launch of Nature's Own Perfectly Crafted breads in the current year. Volume declines in other branded items, most notably buns and rolls and traditional loaf breads, partially offset the increase in branded retail sales. The increase in store branded retail sales largely resulted from improved price/mix. Non-retail and other sales declined due to volume decreases in foodservice, partly due to inferior yeast, as well as the shift of certain foodservice business from the DSD Segment to the Warehouse Segment. Decreased sales of products in our thrift stores also contributed to the decrease.

Warehouse Segment

	Fiscal 2018 52 weeks		Fiscal 2017 52 weeks		
	$ (Amounts in thousands)	%	$ (Amounts in thousands)	%	% Change
Branded retail	$147,193	24.1	$153,850	25.6	(4.3)
Store branded retail	114,146	18.6	111,539	18.5	2.3
Non-retail and other	350,466	57.3	336,781	55.9	4.1
Total	$611,805	100.0	$602,170	100.0	1.6

The change in sales was attributable to the following:

Percentage point change in sales attributed to:	Favorable (Unfavorable)
Pricing/mix	0.3
Volume	1.4
Divestiture	(0.1)
Total percentage change in sales	1.6

Branded retail sales were negatively impacted by softer volume for warehouse-delivered branded organic breads and branded retail cake. Store branded retail sales increased mainly due to the addition of a new customer in the second half of fiscal 2017. The increase in non-retail and other sales resulted from increased foodservice volume, the shift of certain foodservice business from the DSD Segment to the Warehouse Segment and increased vending sales.

Materials, Supplies, Labor, and Other Production Costs (exclusive of depreciation and amortization shown separately; as a percent of sales)

Consolidated

Line item component	Fiscal 2018 % of sales	Fiscal 2017 % of sales	Change as a % of sales
Ingredients	25.3	24.7	0.6
Workforce-related costs	14.9	15.0	(0.1)
Packaging	4.3	4.3	—
Utilities	1.4	1.4	—
Other	6.4	5.9	0.5
Total	52.3	51.3	1.0

Ingredients increased as percent of sales mainly due to a significant increase in non-organic flour prices and to a lesser extent sweetener prices, somewhat offset by increases in outside purchases of product (sales with no ingredient costs) and lower prices for certain organic ingredients. The increase in outside product purchases primarily was for DKB branded breakfast products and pita breads and is reflected in the other line item in the table above. Production disruptions related to inferior ingredients and declines in manufacturing efficiency also contributed to the rise in production costs.

Raw materials, such as our baking ingredients, periodically experience price fluctuations. The cost of these inputs may fluctuate widely due to government policy and regulation, weather conditions, domestic and international demand, or other unforeseen circumstances. We enter into forward purchase agreements and other derivative financial instruments in an effort to manage the impact of such volatility in raw material prices. Any decrease in the availability of these agreements could increase the effective price of these raw materials to us and significantly affect our earnings. We currently anticipate ingredient costs to be elevated in fiscal 2019 relative to fiscal 2018 primarily resulting from increases in flour prices.

Selling, Distribution and Administrative Expenses (as a percent of sales)

Consolidated

Line item component	Fiscal 2018 % of sales	Fiscal 2017 % of sales	Change as a % of sales
Workforce-related costs	15.4	17.3	(1.9)
Distributor distribution fees	14.9	13.5	1.4
Other	7.8	7.7	0.1
Total	38.1	38.5	(0.4)

During fiscal 2018, a larger portion of our sales were made through IDPs resulting in increased distributor distribution fees and decreased workforce-related costs. Additionally, workforce reductions from the VSIP and other restructuring initiatives, lower employee fringes and reduced stock-based compensation expense (no stock awards were granted to employees in the current year) reduced workforce-related costs. As discussed in the “Matters Affecting Comparability” section above, legal settlements increased $15.5 million over the prior year and current year acquisition costs were $4.5 million, however, consulting costs associated with Project Centennial decreased $27.6 million as compared to the prior year, all of which are reflected in the other line item in the table above. Higher transportation costs and increased investments in marketing initiatives in the current year also negatively impacted overall costs, somewhat offset by reduced legal fees.

Gain on Divestiture, MEPP Costs, Loss on Inferior Ingredients, Restructuring and Related Impairment Charges and Impairment of Assets

Refer to the discussion in the “Matters Affecting Comparability” section above regarding these items.

Depreciation and Amortization Expense

Depreciation and amortization expense was relatively consistent as a percent of sales year over year.

Income from Operations

The table below summarizes the percentage change in income from operations by segment and the change as a percent of sales for fiscal 2018 compared to fiscal 2017:

Operating income (loss)	Favorable (Unfavorable) Percentage	Change as a % of Sales
DSD Segment	18.4	1.1
Warehouse Segment	(31.2)	(2.9)
Unallocated corporate	32.5	NA
Consolidated	31.9	1.3

NA Not applicable as the corporate segment has no revenues.

The increase in the DSD Segment’s operating income as a percent of sales was primarily due to decreased restructuring and related impairment charges of $71.9 million and decreased MEPP costs of $15.9 million, partially offset by increased legal settlements of $14.4 million and significantly higher ingredient costs. The Warehouse Segment’s operating income decreased as a percent of sales primarily due to the gain on divestiture of the mix manufacturing business of $28.9 million in the prior fiscal year and increased commodity and transportation costs in the current fiscal year, partially offset by decreased restructuring and related impairment charges of $18.7 million. The favorable change in unallocated corporate expenses was primarily due to the $27.6 million decrease in consulting costs associated with Project Centennial, the $3.7 million decrease in restructuring charges, and lower employee compensation and legal costs in the current year, partially offset by $4.5 million of current year acquisition-related costs.

Other Components of Net Periodic Pension and Postretirement Benefits Credit and Pension Plan Settlement Loss

The change in other components of net periodic pension and postretirement benefits credit resulted primarily from a decrease in pension plan income as a result of the company changing its pension plan asset allocation to include a larger percentage of fixed-income assets as measured on December 31, 2018 compared to the prior fiscal year. Refer to the discussion in the "Matters Affecting Comparability" section above regarding pension plan settlement loss.

Net Interest Expense

Net interest expense decreased primarily due to a significant increase in interest income resulting from increases in distributor notes receivable outstanding year over year. We anticipate net interest expense will be higher in fiscal 2019 as compared to fiscal 2018 due to the increase in borrowings at the end of fiscal 2019 to fund the Canyon acquisition.

Income Tax Expense (Benefit)

The effective tax rate for fiscal 2018 and fiscal 2017 was 20.3% and -0.6%, respectively. The rates reflect federal tax reform effective for the company starting in the fourth quarter of 2017. The Act reduced our current year corporate rate from 35% to 21%. The increase in the rate from the prior year is primarily due to provisional tax benefits recorded in the fourth quarter of 2017 to revalue our U.S. deferred tax liabilities to the lower rate under the Act. Fluctuations in the tax rate compared to the prior year are also significantly impacted by improved earnings before tax.

The company's prior year financial results included the income tax effects of the Act for which the accounting was complete, and provisional amounts for effects of the Act for which the accounting was incomplete, but a reasonable estimate could be determined. The effective tax rate for fiscal 2017 included an estimated tax benefit of $48.2 million due to the Act. The provisional amount was adjusted in the second quarter of fiscal 2018 to reflect the actual timing differences reported on the federal tax 2017 return. The adjustment resulted in a discrete tax benefit of $5.6 million, a reduction to federal income tax payable of $16.4 million and an increase to federal deferred tax liabilities of $10.8 million. The adjustment primarily relates to pension contributions and bonus depreciation on certain assets placed in service during fiscal 2017. Our accounting for the income tax effects of the Act is complete as of December 29, 2018.

In the current year, the most significant differences in the effective rate and the statutory rate were for adjustments to provisional taxes related to tax reform and state income taxes. In 2017, other than the substantial benefit associated with the enactment of the tax reform, the most significant differences in the effective rate and the statutory rate were the benefit from Section 199 qualifying domestic production activities deduction and state income tax expense.

Comprehensive Income

The increase in comprehensive income year over year resulted primarily from the increase in net income and changes in the fair value of derivatives, net of changes in the pension plan as a result of the remeasurement.

Consolidated and Segment Results - Fiscal 2017 compared to Fiscal 2016

Sales

Consolidated

	Fiscal 2017 52 weeks		Fiscal 2016 52 weeks		
	$ (Amounts in thousands)	%	$ (Amounts in thousands)	%	% Change
Branded retail	$2,303,301	58.7	$2,283,526	58.2	0.9
Store branded retail	582,738	14.9	582,280	14.8	0.1
Non-retail and other	1,034,694	26.4	1,061,079	27.0	(2.5)
Total	$3,920,733	100.0	$3,926,885	100.0	(0.2)

The change in sales was attributable to the following:

Percentage point change in sales attributed to:	Favorable (Unfavorable)
Pricing/mix	0.6
Volume	(0.2)
Divestiture	(0.6)
Total percentage change in sales	(0.2)

The divestiture of the mix manufacturing business combined with softness in the fresh bakery category and a competitive marketplace resulted in the overall sales decline, mostly offset by significant sales growth for our DKB branded organic products. Sales of DKB branded products grew due to volume and price increases as well as the introduction of DKB branded breakfast items in the second quarter of fiscal 2017. Branded retail sales increased mainly due to significant growth in branded organic products, partially offset by volume declines in other branded retail products, most significantly branded cake, branded buns and rolls, and branded soft variety bread. Non-retail and other sales, which include contract manufacturing, vending and foodservice, decreased largely due to the impact of the mix manufacturing business divestiture as well as decreased sales for contract manufacturing and thrift stores, partially offset by increases in vending sales.

DSD Segment

	Fiscal 2017 52 weeks		Fiscal 2016 52 weeks		
	$ (Amounts in thousands)	%	$ (Amounts in thousands)	%	% Change
Branded retail	$2,149,451	64.8	$2,114,142	64.4	1.7
Store branded retail	471,199	14.2	464,456	14.1	1.5
Non-retail and other	697,913	21.0	705,579	21.5	(1.1)
Total	$3,318,563	100.0	$3,284,177	100.0	1.0

The change in sales was attributable to the following:

Percentage point change in sales attributed to:	Favorable (Unfavorable)
Pricing/mix	1.3

Volume	(0.3)
Total percentage change in sales	1.0

Branded retail sales increased due to significant sales growth of the DKB brand since its national rollout in our DSD markets at the beginning of the second quarter of fiscal 2016 and, to a lesser extent, the introduction of DKB branded breakfast items in the second half of fiscal 2017. Declines in other branded items, most notably buns and rolls, soft variety bread and cake, partially offset the increase in branded retail sales. Increased sales of store branded buns and rolls mostly resulted in the increase in store branded retail sales. Lower foodservice and thrift store sales primarily resulted in the decrease in non-retail and other sales.

Warehouse Segment

	Fiscal 2017 52 weeks		Fiscal 2016 52 weeks		
	$ (Amounts in thousands)	%	$ (Amounts in thousands)	%	% Change
Branded retail	$153,850	25.6	$169,384	26.4	(9.2)
Store branded retail	111,539	18.5	117,824	18.3	(5.3)
Non-retail and other	336,781	55.9	355,500	55.3	(5.3)
Total	$602,170	100.0	$642,708	100.0	(6.3)

The change in sales was attributable to the following:

Percentage point change in sales attributed to:	Favorable (Unfavorable)
Pricing/mix	(3.3)
Volume	—
Divestiture	(3.0)
Total percentage change in sales	(6.3)

The impact of our mix manufacturing business divestiture, sales declines for warehouse-delivered branded organic breads, and lower snack cake sales resulted in the sales decrease. The sales related to the mix manufacturing business were included in the non-retail and other category. The significant decline in branded retail sales was mostly due to volume declines for warehouse-delivered branded organic bread and, to a lesser extent, branded cake. The Warehouse Segment’s Mesa, Arizona plant significantly increased production of DKB organic breads for the DSD Segment during the second quarter of fiscal 2016 and this trend has continued. These intercompany sales are not included in the Warehouse Segment’s sales above. Volume declines mostly resulted in the decrease in branded retail cake. Store branded retail sales decreased mainly due to volume decreases in store branded cake. The decrease in non-retail and other sales was largely due to the mix manufacturing business divestiture and to a much lesser extent lost contract manufacturing business, partially offset by volume gains in foodservice and vending sales.

Materials, Supplies, Labor, and Other Production Costs (exclusive of depreciation and amortization shown separately; as a percent of sales)

Consolidated

Line item component	Fiscal 2017 % of sales	Fiscal 2016 % of sales	Change as a % of sales
Ingredients	24.7	24.5	0.2
Workforce-related costs	15.0	14.8	0.2
Packaging	4.3	4.4	(0.1)
Utilities	1.4	1.5	(0.1)
Other	5.9	6.4	(0.5)
Total	51.3	51.6	(0.3)

Overall, costs were lower as percent of sales mainly due to a reduction in outside purchases of products and improvements in manufacturing efficiency. As of the beginning of fiscal 2017, we had completed the transition from purchasing certain DKB bread products from co-manufacturers to producing these items ourselves due to the added production capacity provided by our Tuscaloosa, Alabama and Mesa, Arizona plants. Also, in the prior year, we incurred $2.2 million of start-up costs related to converting the Tuscaloosa plant to an all-organic plant. This decrease

in outside product purchases is reflected in the other line item in the table above.

Raw materials, such as our baking ingredients, periodically experience price fluctuations. The cost of these inputs may fluctuate widely due to government policy and regulation, weather conditions, domestic and international demand, or other unforeseen circumstances. We enter into forward purchase agreements and other derivative financial instruments in an effort to manage the impact of such volatility in raw material prices. Any decrease in the availability of these agreements could increase the effective price of these raw materials to us and significantly affect our earnings.

Selling, Distribution and Administrative Expenses (as a percent of sales)

Consolidated

Line item component	Fiscal 2017 % of sales	Fiscal 2016 % of sales	Change as a % of sales
Workforce-related costs	17.3	17.6	(0.3)
Distributor distribution fees	13.5	12.7	0.8
Other	7.7	7.1	0.6
Total	38.5	37.4	1.1

The increase in distributor distribution fees as a percent of sales mostly resulted from converting territories from company-operated to independent distributors, and the national rollout of the DKB brand in our DSD markets at the beginning of the second quarter of fiscal 2016. The DKB products were sold primarily by warehouse delivery prior to the national rollout. Workforce-related costs were lower due to transitioning to independent distributors, somewhat offset by higher employee incentive costs. As discussed in the "Matters Affecting Comparability" section above, consulting costs associated with Project Centennial were $31.0 million higher in the current year as compared to the prior year and are reflected in the other line item in the table above. Cost savings programs that we have implemented and the benefit recognized related to the early lease terminations, as discussed in the DSD Segment below, partially offset the overall increase in selling, distribution and administrative expenses.

Gain on Divestiture, MEPP Costs, Restructuring and Related Impairment Charges and Impairment of Assets

Refer to the discussion in the "Matters Affecting Comparability" section above regarding these items.

Depreciation and Amortization Expense

Depreciation expense increased primarily due to the accelerated depreciation of certain leasehold improvements in conjunction with the early lease terminations as well as the retirement of certain right to use assets, all in the DSD Segment. Amortization expense was higher due to commencing amortization of certain trademarks of the DSD Segment in the current fiscal year which had previously been deemed indefinite-lived intangible assets.

Income from Operations

Operating income (loss)	Favorable (Unfavorable) Percentage	Change as a % of Sales
DSD Segment	(22.2)	(1.8)
Warehouse Segment	(6.4)	—
Unallocated corporate	(79.2)	NA
Consolidated	(39.2)	(2.6)

NA Not applicable as the corporate segment has no revenues.

The significant decrease in the DSD Segment's operating income as a percent of sales was primarily driven by $80.0 million of restructuring and related impairment charges and $18.3 million of MEPP costs, partially offset by sales growth from positive pricing/mix, a reduction in outside purchases of product and legal costs and settlements, and the prior year asset impairment charge of $24.9 million. The Warehouse Segment's operating income as a percent of sales was relatively unchanged year over year; the gain on divestiture of the mix manufacturing business of $28.9 million in the current fiscal year was offset by $20.1 million of restructuring and related impairment charges and sales declines in the current year. The unfavorable change in unallocated corporate expenses was primarily due to consulting costs associated with Project Centennial increasing $31.0 million compared to the prior year, restructuring charges incurred in the current year of $4.0 million and higher employee incentive and legal costs in the current year, partially offset by a $2.0 million decrease in pension plan settlement losses in the current year.

Other Components of Net Periodic Pension and Postretirement Benefits Credit and Pension Plan Settlement Loss

The change in other components of net periodic pension and postretirement benefits credit resulted primarily from a decrease in pension plan income as a result of the company changing its pension plan asset allocation to include a larger percentage of fixed-income assets as measured on December 31, 2017 compared to the prior fiscal year. Refer to the discussion in the “Matters Affecting Comparability” section above regarding pension plan settlement loss.

Net Interest Expense

Net interest expense was relatively unchanged compared to the same period in the prior year. Higher average interest rates on debt outstanding due to converting certain variable rate debt to longer-term, fixed rate debt with the issuance of the 2026 notes in the third quarter of fiscal 2016 were mostly offset by lower average amounts outstanding under the company’s debt arrangements in the current fiscal year compared to the prior year and the $1.9 million loss on early extinguishment recorded in the prior year.

Income Taxes

The effective tax rate for fiscal 2017 and fiscal 2016 was -0.6% and 34.4%, respectively. The effective tax rate for fiscal 2017 included an estimated tax benefit of $48.2 million due to the Act, which was enacted on December 22, 2017. The revaluation of the company's net deferred tax liability from 35% to the newly enacted U.S. corporate income tax rate of 21% primarily resulted in the decrease in the effective rate. Other favorable discrete items, including a net windfall on stock compensation of $1.0 million, also contributed to the lower rate. Other than tax reform, the most significant differences in the effective rate and the statutory rate were the benefit from Section 199 qualifying domestic production activities deduction and state income tax expense.

The company recognized a provisional reduction to current tax expense of approximately $8.3 million attributable to pension contributions and bonus depreciation on certain assets placed into service during 2017. A provisional income tax expense of $0.7 million for the corresponding impact on the 2017 domestic manufacturing deduction was also recognized. These provisional adjustments resulted in a decrease in income taxes payable of $7.6 million.

Comprehensive Income

The decrease in comprehensive income year over year resulted primarily from the decline in net income and net changes in the fair value of derivatives of $14.6 million.

LIQUIDITY, CAPITAL RESOURCES AND FINANCIAL POSITION

Strategy

We believe our ability to consistently generate cash flows from operating activities to meet our liquidity needs is one of our key financial strengths and we do not anticipate significant risks to these cash flows in the foreseeable future. Additionally, we strive to maintain a conservative financial position aiming to achieve this through prudent debt reduction and share repurchase programs. We believe having a conservative financial position allows us flexibility to make investments and acquisitions and is a strategic competitive advantage. Currently, our liquidity needs arise primarily from working capital requirements, capital expenditures, pension contributions and obligated debt repayments. We believe we currently have access to available funds and financing sources to meet our short and long-term capital requirements. The company's strategy for use of its excess cash flows includes:

- implementing our strategies under Project Centennial;
- paying dividends to our shareholders;
- maintaining a conservative financial position;
- making strategic acquisitions;
- repurchasing shares of our common stock; and
- making discretionary contributions to our qualified pension plans.

The company leases certain property and equipment under various operating and capital lease arrangements. Most of the operating leases provide the company with the option, after the initial lease term, either to purchase the property at the then fair value or renew the lease at the then fair value. The capital leases provide the company with the option to purchase the property at a fixed price at the end of the lease term. The company believes the use of leases as a financing alternative places the company in a more favorable position to fulfill its long-term strategy for the use of its cash flow. See Note 15, Debt, Lease and Other Commitments, of Notes to Consolidated Financial Statements of this Form 10-K for detailed financial information regarding the company's lease arrangements.

Key items impacting our liquidity, capital resources and financial position in fiscal 2018 and 2017:

Fiscal 2018:

- We generated $295.9 million of net cash from operating activities.
- We acquired Canyon, a gluten-free bakery, for cash payments of $200.2 million.
- We incurred Project Centennial implementation costs, including restructuring cash charges of $4.2 million and non-restructuring consulting costs of $9.7 million.
- We increased our total debt outstanding $173.3 million primarily as a result of borrowings under the facility to fund the Canyon acquisition.

- We invested in our plants through capital expenditures of $99.4 million (DSD Segment of $82.8 million and Warehouse Segment of $14.9 million).
- We paid dividends to our shareholders of $150.2 million.
- We continued our pension de-risking strategy by offering pension plan participants who have not yet started receiving their payments, the option to receive their benefits as a single lump sum payment.

Fiscal 2017:

- We generated $297.4 million of net cash from operating activities.
- Divested the non-core mix manufacturing business and received proceeds of $41.2 million.
- We incurred Project Centennial implementation costs, including restructuring cash charges of $34.5 million and non-restructuring consulting costs of $37.3 million.
- We reduced our total debt outstanding $124.0 million.
- We invested in our plants through capital expenditures of $75.2 million (DSD Segment of $64.3 million and Warehouse Segment of $6.9 million).
- We paid dividends to our shareholders of $141.0 million.
- We continued our pension de-risking strategy by offering pension plan participants who have not yet started receiving their payments, the option to receive their benefits as a single lump sum payment.

Liquidity Discussion

Flowers Foods’ cash and cash equivalents were $25.3 million at December 29, 2018, $5.1 million at December 30, 2017 and $6.4 million at December 31, 2016. The cash and cash equivalents were derived from the activities presented in the table below (amounts in thousands):

Cash flow component	Fiscal 2018	Fiscal 2017	Fiscal 2016
Cash flows provided by operating activities	$295,893	$297,389	$356,562
Cash disbursed for investing activities	(301,805)	(35,395)	(76,714)
Cash provided by (disbursed for) financing activities	26,089	(263,275)	(287,816)
Total change in cash	$20,177	$(1,281)	$(7,968)

Cash Flows Provided by Operating Activities. Net cash provided by operating activities included the following items for non-cash adjustments to net income (amounts in thousands):

	Fiscal 2018	Fiscal 2017	Fiscal 2016
Depreciation and amortization	$144,124	$146,719	$140,869
Gain on divestiture	—	(28,875)	—
Restructuring and related impairment charges	5,593	69,601	—
Stock-based compensation	8,148	16,093	18,761
Impairment of assets	5,999	—	24,877
Deferred income taxes	21,657	(61,306)	(14,457)
Pension and postretirement plans (benefit) expense (including settlement losses)	8,474	(897)	2,238

Other non-cash	4,165	1,776	9,890
Net non-cash adjustment to net income	$198,160	$143,111	$182,178

- The change in depreciation and amortization from fiscal 2016 to fiscal 2017 was primarily due to accelerated depreciation of certain leasehold improvements and right to use assets, and amortization of certain trademarks that had previously been indefinite-lived intangible assets.
- Refer to the Restructuring and related impairment charges associated with Project Centennial and the Impairment of assets discussions in the "Matters Affecting Comparability" section above regarding these items.

- The change in stock-based compensation from fiscal 2017 to fiscal 2018 was due to no stock awards being granted to employees in fiscal 2018.
- For fiscal 2017, deferred income taxes changed due to revaluing the net deferred tax liability due to tax reform and changes in temporary differences year over year. For fiscal 2018 and fiscal 2016, the changes resulted from changes in temporary differences year over year.
- Changes in pension and postretirement plan (benefit) expense were primarily due to settlement losses of $7.8 million, $4.6 million and $6.6 million in fiscal 2018, 2017 and 2016, respectively, and changes to the pension plan asset allocations as part of the de-risking strategy.
- Other non-cash items include non-cash interest expense for the amortization of debt discounts and deferred financing costs and gains or losses on the sale of assets.

Net cash for working capital requirements and pension contributions included the following items (amounts in thousands):

	Fiscal 2018	Fiscal 2017	Fiscal 2016
Changes in accounts receivable, net	$(8,278)	$(11,762)	$(7,888)
Changes in inventories, net	(8,424)	(7,801)	(1,526)
Changes in hedging activities, net	2,725	(15,727)	13,592
Changes in other assets	5,120	(12,557)	(3,441)
Changes in accounts payable	60,863	10,840	(519)
Changes in other accrued liabilities	(70,733)	42,770	11,390
Qualified pension plan contributions	(40,700)	(1,605)	(1,000)
Net changes in working capital and pension contributions	$(59,427)	$4,158	$10,608

- Hedging activities change from market movements that affect the fair value and required collateral of positions and the timing and recognition of deferred gains or losses. These changes will occur as part of our hedging program.
- The change in other assets for fiscal 2018 and 2017 was primarily due to changes in income tax receivables and deferred gains on sales of distribution rights to IDPs.
- The significant change in accounts payable in fiscal 2018 resulted from extending our payment terms with certain of our suppliers as well as increases in ingredient costs.
- During fiscal 2018 and 2017, we made voluntary contributions to our defined benefit pension plans of $40.7 million and $1.6 million, respectively. In fiscal 2019, we expect to make a $2.5 million contribution to these plans and expect to pay $0.3 million in nonqualified pension benefits from corporate assets. The company believes its cash flow and balance sheet will allow it to fund future pension needs without adversely affecting the business strategy of the company.
- Changes in employee compensation accruals (including restructuring-related employee termination benefits), accrued MEPP costs, and legal accruals resulted in the change in other accrued liabilities. In fiscal 2018 and 2017, we paid $29.3 million and $9.0 million, respectively, of restructuring-related cash charges. Additionally, we anticipate making payments of approximately $7.7 million, including our share of employment taxes, in performance-based cash awards under our bonus plan in the first quarter of fiscal 2019. During fiscal 2018 and 2017, the company paid $28.1 million and $17.3 million, respectively, including our share of employment taxes, in performance-based cash awards under the company's bonus plan. An additional $0.4 million was paid during fiscal 2018 and 2017, respectively, for our share of employment taxes on the vesting of the performance-contingent restricted stock awards in each respective year.

Cash Flows Disbursed for Investing Activities. The table below presents net cash disbursed for investing activities for fiscal 2018, 2017 and 2016 (amounts in thousands):

	Fiscal 2018	Fiscal 2017	Fiscal 2016
Purchase of property, plant, and equipment	$(99,422)	$(75,232)	$(101,727)
Repurchase of independent distributor territories	(3,128)	(6,460)	(8,871)
Principal payments from notes receivable	26,883	24,875	22,272
Cash issued for notes receivable	(28,454)	(25,566)	(8,577)
Acquisition of businesses, net of cash acquired	(200,174)	—	—
Proceeds from divestiture	—	41,230	—
Proceeds from sale of property, plant and equipment	1,913	3,935	17,667
Other	577	1,823	2,522
Net cash disbursed for investing activities	$(301,805)	$(35,395)	$(76,714)

- Capital expenditures by segment were as follows:

Segment	Fiscal 2018	Fiscal 2017	Fiscal 2016
DSD Segment	$82,789	$64,317	$61,669
Warehouse Segment	$14,929	$6,933	$16,792

The company currently estimates capital expenditures of approximately $110.0 million to $120.0 million on a consolidated basis during fiscal 2019.

- Cash payments for the Canyon acquisition of $200.2 million in the fourth quarter of fiscal 2018 were funded from cash on hand and borrowings under the facility.
- We received proceeds, net of a working capital adjustment, of $41.2 million from the divestiture of our Cedar Rapids, Iowa mix manufacturing business in the first quarter of fiscal 2017.
- Proceeds from the sale of property, plant and equipment in fiscal 2016 were primarily related to the sale of certain idle plants, depots and equipment acquired in the Hostess liquidation as well as other closed plants.

Cash Flows Provided by (Disbursed for) Financing Activities. The table below presents net cash provided by (disbursed for) financing activities for fiscal 2018, 2017 and 2016 (amounts in thousands):

	Fiscal 2018	Fiscal 2017	Fiscal 2016
Dividends paid, including dividends on share-based payment awards	$(150,214)	$(140,982)	$(131,073)
Exercise of stock options	791	19,313	27,631
Payments for financing fees	(100)	(729)	(4,380)
Stock repurchases, including accelerated stock	(2,489)	(2,671)	(126,300)

repurchases			
Change in bank overdrafts	4,851	(14,206)	1,914
Net debt and capital lease obligation changes	173,250	(124,000)	(55,608)
Net cash provided by (disbursed for) financing activities	$26,089	$(263,275)	$(287,816)

- Our dividend payout rate increased 6.0% from fiscal 2017 to fiscal 2018 and 7.2% from fiscal 2016 to fiscal 2017. While there are no requirements to increase the dividend payout we have shown a recent historical trend to do so. Should this continue in the future, we will have additional cash needs to meet these expected dividend payouts.
- Stock option exercises decreased due to fewer exercises in the current year compared to the prior year. As of December 29, 2018, there were no nonqualified stock options outstanding.
- Stock repurchase decisions are made based on our stock price, our belief of relative value, and our cash projections at any given time. In fiscal 2016, we repurchased 6.9 million shares of our common stock, of which 6.5 million were repurchased under the ASR program. See Note 18, Stockholders' Equity, of Notes to Consolidated Financial Statements of this Form 10-K for additional information.
- Net debt obligations increased in fiscal 2018 primarily due to funding the Canyon acquisition, net of repayments we made during the year.

Capital Structure

Long-term debt and capital lease obligations were as follows at December 29, 2018 and December 30, 2017. For a detailed description of our debt and capital lease obligations and information regarding our credit ratings, distributor arrangements, deferred compensation, and guarantees and indemnification obligations, see Note 15, Debt, Lease and Other Commitments, of Notes to Consolidated Financial Statements of this Form 10-K:

	Interest Rate at December 29, 2018	Final Maturity	Balance at December 29, 2018	December 30, 2017	Fixed or Variable Rate
			(Amounts in thousands)		
2026 senior notes	3.50%	2026	$395,550	$394,978	Fixed Rate
2022 senior notes	4.38%	2022	398,423	397,941	Fixed Rate
Unsecured credit facility	5.60%	2022	—	—	Variable Rate
Accounts receivable securitization	3.43%	2020	177,000	—	Variable Rate
Capital lease obligations	3.92%	2026	21,942	27,150	
Other notes payable	2.10%	2020	8,621	12,167	
			1,001,536	832,236	
Current maturities of long-term debt and capital lease obligations			10,896	12,095	
Long-term debt and capital lease obligations			$990,640	$820,141	

The facility and credit facility are generally used for short term liquidity needs. The company has historically entered into amendments and extensions approximately one year prior to the maturity of the facility and the credit facility. The following table details the amounts available under the facility and credit facility and the highest and lowest balances outstanding under these arrangements during fiscal 2018:

Facility	Amount Available for Withdrawal at December 29, 2018	Highest Balance in Fiscal 2018	Lowest Balance in Fiscal 2018
	(Amounts in thousands)		
Facility	$1,300	$177,000	$ —
Credit facility (1)	491,600	$4,900	$ —
	$492,900		

(1) Amount excludes a provision in the agreement which allows the company to request an additional $200.0 million in additional revolving commitments.

Amounts outstanding under the credit facility can vary daily. Changes in the gross borrowings and repayments can be caused by cash flow activity from operations, capital expenditures, acquisitions, dividends, share repurchases, and tax payments, as well as derivative transactions which are part of the company's overall risk management strategy as discussed in Note 12, Derivative Financial Instruments, of Notes to Consolidated Financial Statements of this Form 10-K. During fiscal 2018, the company borrowed $5.9 million in revolving borrowings under the credit facility and repaid $5.9 million in revolving borrowings. The amount available under the credit facility is reduced by $8.4 million for letters of credit.

The facility and the credit facility are variable rate debt. In periods of rising interest rates, the cost of using the facility and the credit facility will become more expensive and increase our interest expense. Therefore, borrowings under these facilities provide us the greatest direct exposure to rising rates. In addition, if interest rates do increase it will make the cost of funds more expensive.

Restrictive financial covenants for our borrowings include such ratios as a minimum interest coverage ratio and a maximum leverage ratio. Our debt may also contain certain customary representations and warranties, affirmative and negative covenants, and events of default. The company believes that, given its current cash position, its cash flow from operating activities and its available credit capacity, it can comply with the current terms of the debt agreements and can meet its presently foreseeable financial requirements. As of December 29, 2018 and December 30, 2017, the company was in compliance with all restrictive covenants under our debt agreements.

Special Purpose Entities. At December 29, 2018 and December 30, 2017, the company did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which are established to facilitate off-balance sheet arrangements or other contractually narrow or limited purposes.

Aggregate Maturities of Debt.

Assets recorded under capital lease agreements included in property, plant and equipment consist of machinery and equipment and transportation equipment.

Aggregate maturities of debt outstanding, including capital leases, as of December 29, 2018, are as follows (excluding unamortized debt discount and issuance costs) (amounts in thousands):

2019	$10,896
2020	183,874
2021	3,886
2022	402,395
2023	2,108
2024 and thereafter	404,533
Total	$1,007,692

Contractual Obligations and Commitments. The following table summarizes the company's contractual obligations and commitments at December 29, 2018 and the effect such obligations are expected to have on its liquidity and cash flow in the indicated future periods:

	Payments Due by Fiscal Year (Amounts in thousands)				
	Total	2019	2020-2021	2022-2023	2024 and Beyond
Contractual Obligations:					
Long-term debt	$808,750	$6,250	$2,500	$400,000	$400,000
Interest payments(1)	197,750	31,500	63,000	54,250	49,000
Capital leases	21,942	5,896	7,010	4,503	4,533
Interest on capital leases	1,666	496	692	380	98
Non-cancelable operating lease obligations(2)	489,722	65,071	111,122	81,106	232,423
Pension and postretirement contributions and payments(3)	8,607	1,891	1,679	1,429	3,608
Deferred compensation plan obligations(4)	15,996	959	1,640	2,250	11,147
Purchase obligations(5)	342,910	342,910	—	—	—
Total contractual cash obligations	$1,887,343	$454,973	$187,643	$543,918	$700,809

Amounts Expiring by Fiscal Year (Amounts in thousands)				
Total	Less than	1-3 Years	4-5 Years	More than

		1 Year			5 Years
Commitments:					
Standby letters of credit(6)	$17,034	$17,034	$—	$—	$ —
Truck lease guarantees	5,317	241	2,235	2,104	737
Total commitments	$22,351	$17,275	$2,235	$2,104	$ 737

(1) There were no amounts outstanding under our credit facility at December 29, 2018, however, if there had been amounts outstanding, they would not be included since payments into and out of the credit facility change daily. The facility interest rate is based on the actual rate at December 29, 2018. Interest on the senior notes and other notes payable is based on the stated rate and excludes the amortization of debt discount and debt issuance costs.

(2) Does not include lease payments expected to be incurred in fiscal 2019 related to distributor vehicles and other short-term operating leases. These are not recorded on the Consolidated Balance Sheets but will be recorded as lease payments obligations as incurred in the Consolidated Statements of Income.

(3) Includes the expected benefit payments for postretirement plans from fiscal 2019 through fiscal 2028. These future postretirement plan payments are not recorded on the Consolidated Balance Sheets but will be recorded as these payments are incurred in the Consolidated Statements of Income. The company expects to contribute $2.5 million to our qualified pension plans in fiscal 2019.

(4) These are unsecured general obligations to pay the deferred compensation of, and our contributions to, participants in the executive deferred compensation plan. This liability is recorded on the Consolidated Balance Sheets as either a current or long-term liability.
(5) Represents the company's various ingredient and packaging purchasing commitments. This item is not recorded on the Consolidated Balance Sheets.
(6) These letters of credit are for the benefit of certain insurance companies related to workers' compensation liabilities recorded by the company as of December 29, 2018 and certain lessors and energy vendors. Such amounts are not recorded on the Consolidated Balance Sheets, but $8.4 million of this total reduces the availability of funds under the credit facility.

Because we are uncertain as to if or when settlements may occur, these tables do not reflect the company's net liability of $0.6 million related to uncertain tax positions as of December 29, 2018. Details regarding this liability are presented in Note 23, Income Taxes, of Notes to Consolidated Financial Statements of this Form 10-K.

In the event the company ceases to utilize the independent distribution form of doing business or exits a geographic market, the company is contractually required to purchase the distribution rights from the independent distributor. These potential commitments are excluded from the table above because they cannot be known at this time.

Total stockholders' equity was as follows at December 29, 2018 and December 30, 2017:

	Balance at December 29, 2018	December 30, 2017
	(Amounts in thousands)	
Total stockholders' equity	$1,258,267	$1,250,677

Stock Repurchase Plan. The Board has approved a plan that currently authorizes share repurchases of up to 74.6 million shares of the company's common stock. At the close of the company's fourth quarter on December 29, 2018, 6.5 million shares remained under the existing authorization. Under the plan, the company may repurchase its common stock in open market or privately negotiated transactions or under an accelerated repurchase program at such times and at such prices as determined to be in the company's best interest. These purchases may be commenced or suspended without prior notice depending on then-existing business or market conditions and other factors. During fiscal 2018, 0.1 million shares of the company's common stock were repurchased under the plan at a cost of $2.5 million and during fiscal 2017, 0.1 million shares were repurchased under the plan at a cost of $2.7 million. From the inception of the plan through December 29, 2018, 68.0 million shares, at a cost of $635.6 million, have been repurchased. There were no repurchases of the company's common stock during the fourth quarter of fiscal 2018.

New Accounting Pronouncements Not Yet Adopted

See Note 3, Recent Accounting Pronouncements, of Notes to Consolidated Financial Statements of this Form 10-K regarding this information.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

The company uses derivative financial instruments as part of an overall strategy to manage market risk. The company uses forwards, futures, swaps, and option contracts to hedge existing or future exposure to changes in interest rates

and commodity prices. The company does not enter into these derivative financial instruments for trading or speculative purposes. If actual market conditions are less favorable than those anticipated, interest rates and commodity prices could increase significantly, adversely affecting our interest costs and the margins from the sale of our products.

Commodity Price Risk

The company enters into commodity forward, futures, option, and swap contracts for wheat and, to a lesser extent, other commodities in an effort to provide a predictable and consistent commodity price and thereby reduce the impact of market volatility in its raw material and packaging prices. As of December 29, 2018, the company's hedge portfolio contained commodity derivatives with a fair value of $(8.4) million and is based on quoted market prices. Approximately $(7.2) million relates to instruments that will be utilized in fiscal 2019, $(1.0) million will be utilized in fiscal 2020 and the remaining $(0.2) million will be primarily utilized in fiscal 2021.

A sensitivity analysis has been prepared to quantify the company's potential exposure to commodity price risk with respect to its derivative portfolio. Based on the company's derivative portfolio as of December 29, 2018, a hypothetical ten percent change in commodity prices would increase or decrease the fair value of the derivative portfolio by $16.2 million. The analysis disregards

changes in the exposures inherent in the underlying hedged items; however, the company expects that any increase or decrease in the fair value of the portfolio would be substantially offset by increases or decreases in raw material and packaging prices.

Item 8. Financial Statements and Supplementary Data
Refer to the Index to Consolidated Financial Statements and the Financial Statement Schedule for the required information.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure
None.

Item 9A. Controls and Procedures
Management's Evaluation of Disclosure Controls and Procedures:

We have established and maintain a system of disclosure controls and procedures that are designed to ensure that material information relating to the company, which is required to be timely disclosed by us in reports that we file or submit under the Securities Exchange Act of 1934 ("Exchange Act"), is accumulated and communicated to management in a timely fashion and is recorded, processed, summarized and reported within the time periods specified by the SEC's rules and forms. An evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) was performed as of the end of the period covered by this annual report. This evaluation was performed under the supervision and with the participation of management, including our CEO, Chief Financial Officer ("CFO"), and Chief Accounting Officer ("CAO").

Based upon that evaluation, our CEO, CFO, and CAO have concluded that these disclosure controls and procedures were effective as of the end of the period covered by this annual report.

Management's Report on Internal Control Over Financial Reporting:

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Exchange Act. Under the supervision and with the participation of our management, including our CEO, CFO, and CAO, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in "Internal Control — Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation our management concluded that our internal control over financial reporting was effective as of December 29, 2018.

Management has excluded Canyon from its assessment of internal control over financial reporting as of December 29, 2018 because it was acquired by the company in a purchase business combination during fiscal 2018. Canyon is a wholly-owned subsidiary whose total assets excluded from management's assessment and our audit of internal control over financial reporting represent 1.8% of the related consolidated financial statement amounts as of and for the year ended December 29, 2018.

The effectiveness of our internal control over financial reporting as of December 29, 2018 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in its report which is included herein.

Changes in Internal Control Over Financial Reporting:

There were no changes in our internal control over financial reporting that occurred during our last fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item with respect to directors of the company is incorporated herein by reference to the information set forth under the captions “Proposal I — Election of Directors”, “Directors and Corporate Governance”, “Corporate Governance — The Board of Directors and Committees of the Board of Directors”, “Corporate Governance — Relationships Among Certain Directors”, “Audit Committee Report” and “Section 16(a) Beneficial Ownership Reporting Compliance” in the company’s definitive proxy statement for the 2019 Annual Meeting of Shareholders expected to be filed with the SEC in April (the “proxy”). The information required by this item with respect to executive officers of the company is set forth in Part I of this Form 10-K.

We have adopted the Flowers Foods, Inc. Code of Business Conduct and Ethics for Officers and Members of the Board of Directors (the “Code of Business Conduct and Ethics”), which applies to all of our directors and executive officers. The Code of Business Conduct and Ethics is publicly available on our website at www.flowersfoods.com in the “Corporate Governance” section of the “Investor Center” tab. If we make any substantive amendments to our Code of Business Conduct and Ethics or we grant any waiver, including any implicit waiver, from a provision of the Code of Business Conduct and Ethics, that applies to any of our directors or executive officers, including our principal executive officer, principal financial officer or principal accounting officer, we intend to disclose the nature of the amendment or waiver on our website at the same location. Alternatively, we may elect to disclose the amendment or waiver in a current report on Form 8-K filed with the SEC.

Our President and CEO certified to the NYSE on June 25, 2018 pursuant to Section 303A.12 of the NYSE’s listing standards, that he was not aware of any violation by Flowers Foods of the NYSE’s corporate governance listing standards as of that date.

Item 11. Executive Compensation

The information required by this item is incorporated herein by reference to the information set forth under the caption “Executive Compensation” in the proxy.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

See Item 5 of this Form 10-K for information regarding Securities Authorized for Issuance under Equity Compensation Plans. The remaining information required by this item is incorporated herein by reference to the information set forth under the caption “Security Ownership of Certain Beneficial Owners and Management” in the proxy.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item is incorporated herein by reference to the information set forth under the caption “Corporate Governance — Determination of Independence” and “Transactions with Management and Others” in the proxy.

Item 14. Principal Accounting Fees and Services

The information required by this item is incorporated herein by reference to the information set forth under the caption “Fiscal 2018 and Fiscal 2017 Audit Firm Fee Summary” in the proxy.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) List of documents filed as part of this report.

1. Financial Statements of the Registrant

Report of Independent Registered Public Accounting Firm.

Consolidated Balance Sheets at December 29, 2018 and December 30, 2017.

Consolidated Statements of Income for Fiscal 2018, Fiscal 2017, and Fiscal 2016.

Consolidated Statements of Comprehensive Income for Fiscal 2018, Fiscal 2017, and Fiscal 2016.

Consolidated Statements of Changes in Stockholders' Equity for Fiscal 2018, Fiscal 2017, and Fiscal 2016.

Consolidated Statements of Cash Flows for Fiscal 2018, Fiscal 2017, and Fiscal 2016.

Notes to Consolidated Financial Statements.

2. Exhibits. The following documents are filed as exhibits hereto:

EXHIBIT INDEX

Exhibit No		Name of Exhibit
2.1	—	Distribution Agreement, dated as of October 26, 2000, by and between Flowers Industries, Inc. and Flowers Foods, Inc. (Incorporated by reference to Exhibit 2.1 to Flowers Foods' Registration Statement on Form 10, dated December 1, 2000, File No. 1-16247).
2.2	—	Amendment No. 1 to Distribution Agreement, dated as of March 12, 2001, by and between Flowers Industries, Inc. and Flowers Foods, Inc. (Incorporated by reference to Exhibit 2.2 to Flowers Foods' Annual Report on Form 10-K, dated March 30, 2001, File No. 1-16247).
2.3	—	Acquisition Agreement, dated as of May 31, 2012, by and among Flowers Foods, Inc., Lobsterco I, LLC, Lepage Bakeries, Inc., RAL, Inc., Bakeast Company, Bakeast Holdings, Inc., and the equityholders named therein (Incorporated by reference to Exhibit 2.1 to Flowers Foods' Current Report on Form 8-K, dated June 1, 2012, File No. 1-16247).
2.4	—	Agreement and Plan of Merger, dated as of May 31, 2012, by and among Flowers Foods, Inc., Lobsterco II, LLC, Aarow Leasing, Inc., The Everest Company, Incorporated and the shareholders named therein (Incorporated by reference to Exhibit 2.2 to Flowers Foods' Current Report on Form 8-K, dated June 1, 2012, File No. 1-16247).
2.5	—	Asset Purchase Agreement, dated as of January 11, 2013, by and among Hostess Brands, Inc., Interstate Brands Corporation, IBC Sales Corporation, Flowers Foods, Inc. and FBC Georgia, LLC (Incorporated by reference to Exhibit 2.1 to Flowers Foods' Current Report on Form 8-K, dated January 14, 2013, File No. 1-16247).
2.6	**	Stock Purchase Agreement, dated as of August 12, 2015, by and among AVB, Inc., Goode Seed Holdings, LLC, Goode Seed Co-Invest, LLC, Glenn Dahl, trustee of the Glenn Dahl Family Trust, U/A/D November 28, 2012, David J. Dahl, trustee of the David Dahl Family Trust, U/A/D May 1, 2012, Shobi L. Dahl, trustee of the Shobi Dahl Family Trust, U/A/D, December 16, 2011, Flowers Bakeries, LLC, Flowers Foods, Inc., and Goode Seed Holdings, LLC, as shareholders' representative (Incorporated by reference to Exhibit 2.6 to Flowers Foods' Quarterly Report on Form 10-Q, dated November 12, 2015, File No. 1-16247).
3.1	—	Restated Articles of Incorporation of Flowers Foods, Inc., as amended through June 5, 2015 (Incorporated by reference to Exhibit 3.1 to Flowers Foods' Current Report on Form 8-K, dated June 10, 2015, File No. 1-16247).
3.2	—	Amended and Restated Bylaws of Flowers Foods, Inc., as amended through June 5, 2015 (Incorporated by reference to Exhibit 3.2 to Flowers Foods' Current Report on Form 8-K, dated June 10, 2015, File No. 1-16247).
4.1	—	Form of Share Certificate of Common Stock of Flowers Foods, Inc. (Incorporated by reference to Exhibit 4.1 to Flowers Foods' Annual Report on Form 10-K, dated February 29, 2012, File No. 1-16247).
4.2	—	Indenture, dated as of April 3, 2012, by and between Flowers Foods, Inc. and Wells Fargo Bank, National Association, as trustee (Incorporated by reference to Exhibit 4.1 to Flowers Foods' Current Report on Form 8-K, dated April 3, 2012, File No. 1-16247).
4.3	—	Officer's Certificate pursuant to Section 2.02 of the Indenture (Incorporated by reference to Exhibit 4.2 to Flowers Foods' Current Report on Form 8-K, dated April 3, 2012, File No. 1-16247).
4.4	—	Form of 4.375% Senior Notes due 2022 (Incorporated by reference to Exhibit 4.3 to Flowers Foods' Current Report on Form 8-K, dated April 3, 2012, File No. 1-16247).
4.5	—	Flowers Foods, Inc. 401(k) Retirement Savings Plan, as amended through December 17, 2013 (Incorporated by reference to Exhibit 4.1 to Flowers Foods' Registration Statement on Form S-8, dated May 21, 2014, File No. 333-196125).

4.6	—	Officer’s Certificate pursuant to Section 2.02 of the Indenture (Incorporated by reference to Exhibit 4.2 to Flowers Foods’ Current Report on Form 8-K, dated September 28, 2016, File No. 1-16247).
4.7	—	Form of 3.500% Senior Notes due 2026 (Incorporated by reference to Exhibit 4.3 to Flowers Foods’ Current Report on Form 8-K, dated September 28, 2016, File No. 1-16247).
10.1	—	Amended and Restated Credit Agreement, dated as of May 20, 2011, by and among, Flowers Foods, Inc., the Lenders party thereto from time to time, Cooperative Centrale Raiffeisen-Boerenleenbank B.A., “Rabobank Nederland”, New York Branch, Branch Banking and Trust Company, and Regions Bank, as co-documentation agents, Bank of America, N.A., as syndication agent, and Deutsche Bank AG New York Branch, as administrative agent (Incorporated by reference to Exhibit 10.1 to Flowers Foods’ Current Report on Form 8-K, dated May 26, 2011, File No. 1-16247).
10.2	—	First Amendment to Amended and Restated Credit Agreement, dated as of November 16, 2012, by and among Flowers Foods, Inc., the Lenders party thereto and Deutsche Bank AG, New York Branch, as administrative agent, swingline lender and issuing lender (Incorporated by reference to Exhibit 10.1 to Flowers Foods’ Current Report on Form 8-K, dated November 21, 2012, File No. 1-16247).
10.3	—	Second Amendment to Amended and Restated Credit Agreement, dated as of April 5, 2013, by and among Flowers Foods, Inc., the Lenders party thereto and Deutsche Bank AG New York Branch, as administrative agent, swingline lender and issuing lender (Incorporated by reference to Exhibit 10.3 to Flowers Foods’ Current Report on Form 8-K, dated April 10, 2013, File No. 1-16247).

Exhibit No		Name of Exhibit
10.4	—	Third Amendment to Amended and Restated Credit Agreement, dated as of February 14, 2014, by and among Flowers Foods, Inc., the Lenders party thereto and Deutsche Bank AG New York Branch, as administrative agent, swingline lender and issuing lender (Incorporated by reference to Exhibit 10.2 to Flowers Foods' Current Report on Form 8-K, dated February 18, 2014, File No. 1-16247).
10.5	—	Fourth Amendment to Amended and Restated Credit Agreement, dated as of April 21, 2015, by and among Flowers Foods, Inc., the Lenders party thereto and Deutsche Bank AG New York Branch, as administrative agent, the swingline lender and issuing lender (Incorporated by reference to Exhibit 10.5 to Flowers Foods' Quarterly Report on Form 10-Q, dated May 28, 2015, File No. 1-16247).
10.6	—	Fifth Amendment to Amended and Restated Credit Agreement, dated as of April 19, 2016, among Flowers Foods, Inc., the Lenders party thereto and Deutsche Bank AG New York Branch, as administrative agent, the swingline lender and issuing lender (Incorporated by reference to Exhibit 10.3 to Flowers Foods' Current Report on Form 8-K, dated April 22, 2016, File No. 1-16247).
10.7	—	Sixth Amendment to Amended and Restated Credit Agreement, dated as of November 29, 2017, among Flowers Foods, Inc., the Lenders party thereto and Deutsche Bank AG New York Branch, as administrative agent, the swingline lender and issuing lender (Incorporated by reference to Exhibit 10.1 to Flowers Foods' Current Report on Form 8-K, dated November 30, 2017, File No. 1-16247).
10.08	—	Receivables Loan, Security and Servicing Agreement, dated as of July 17, 2013, by and among Flowers Finance II, LLC, Flowers Foods, Inc., Nieuw Amsterdam Receivables Corporation, Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A., "Rabobank Nederland," New York Branch, as facility agent and as a committed lender, certain financial institutions party thereto from time to time, and Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A., "Rabobank Nederland", New York Branch, as administrative agent (Incorporated by reference to Exhibit 10.1 to Flowers Foods' Current Report on Form 8-K, dated July 22, 2013, File No. 1-16247).
10.09	—	First Amendment to Receivables Loan, Security and Servicing Agreement, dated as of August 7, 2014, by and among Flowers Finance II, LLC, Flowers Foods, Inc., Nieuw Amsterdam Receivables Corporation, Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A., "Rabobank Nederland," New York Branch, as facility agent and as a committed lender, and Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A., "Rabobank Nederland", New York Branch, as administrative agent (Incorporated by reference to Exhibit 10.1 to Flowers Foods' Current Report on Form 8-K, dated August 12, 2014, File No. 1-16247).
10.10	—	Second Amendment to Receivables Loan, Security and Servicing Agreement, dated as of December 17, 2014, by and among Flowers Finance II, LLC, Flowers Foods, Inc., Nieuw Amsterdam Receivables Corporation, Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A., "Rabobank," New York Branch, as facility agent and as a committed lender, and Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A., "Rabobank", New York Branch, as administrative agent (Incorporated by reference to Exhibit 10.9 to Flowers Foods' Annual Report on Form 10-K, dated February 25, 2015, File No. 1-16247).
10.11	—	Third Amendment and Waiver to Receivables Loan, Security and Servicing Agreement, dated as of August 20, 2015, by and among Flowers Finance II, LLC, Flowers Foods, Inc., Nieuw Amsterdam Receivables Corporation B.V., Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A., "Rabobank", New York Branch, as facility agent and as a committed lender, PNC Bank, National Association, as facility agent and as a committed lender, and Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A., "Rabobank," New York Branch, as administrative agent (Incorporated by reference to Exhibit 10.11 to Flowers Foods' Quarterly Report on Form 10-Q, dated November 12, 2015, File No. 1-16247).
10.12	—	Fourth Amendment to Receivables Loan, Security and Servicing Agreement, dated as of September 30, 2016, by and among Flowers Finance II, LLC, Flowers Foods, Inc., Nieuw Amsterdam Receivables Corporation B.V., Coöperatieve Rabobank U.A., as facility agent and as a committed lender, PNC Bank, National Association, as facility agent and as a committed lender, and Coöperatieve Rabobank U.A., New York Branch, as administrative agent (Incorporated by reference to Exhibit 10.1 to Flowers Foods' Current

		Report on Form 8-K, dated October 3, 2016, File No. 1-16247).
10.13	—	Fifth Amendment to Receivables Loan, Security and Servicing Agreement, dated as of September 28, 2017, among Flowers Finance II, LLC, Flowers Foods, Inc., Nieuw Amsterdam Receivables Corporation B.V., Coöperatieve Rabobank U.A., as facility agent and as a committed lender, PNC Bank, National Association, as facility agent and as a committed lender, and Coöperatieve Rabobank U.A., New York Branch, as administrative agent (Incorporated by reference to Exhibit 10.1 to Flowers Foods' Quarterly Report on Form 10-Q, dated November 8, 2017, File No. 1-16247).
10.14	—	Sixth Amendment to Receivables Loan, Security and Servicing Agreement, dated as of September 27, 2018, among Flowers Finance II, LLC, Flowers Foods, Inc., Nieuw Amsterdam Receivables Corporation B.U., Coöperatieve Rabobank U.A. (f/k/a Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A.), as facility agent and committed lender, PNC Bank National Association, as facility agent and committed lender, and Coöperatieve Rabobank U.A., New York Branch (f/k/a Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A. New York Branch), as administrative agent (Incoporated by reference to Exhibit 10.1 to Flowers Foods' Quarterly Report on Form 10-Q, dated November 7, 2018, File No. 1-16247).
10.15	+—	Flowers Foods, Inc. Retirement Plan No. 1, as amended and restated effective as of March 26, 2001 (Incorporated by reference to Exhibit 10.3 to Flowers Foods' Annual Report on Form 10-K, dated March 30, 2001, File No. 1-16247).

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Exhibit No		Name of Exhibit
10.16	+	— Flowers Foods, Inc. 2001 Equity and Performance Incentive Plan, as amended and restated effective as of April 1, 2009 (Incorporated by reference to Annex A to Flowers Foods' Proxy Statement on Schedule 14A, dated April 24, 2009, File No. 1-16247).
10.17	+	— Flowers Foods, Inc. Stock Appreciation Rights Plan (Incorporated by reference to Exhibit 10.8 to Flowers Foods' Annual Report on Form 10-K, dated March 29, 2002, File No. 1-16247).
10.18	+	— Flowers Foods, Inc. Annual Executive Bonus Plan (Incorporated by reference to Annex B to Flowers Foods' Proxy Statement on Schedule 14A, dated April 24, 2009, File No. 1-16247).
10.19	+	— Flowers Foods, Inc. 2014 Omnibus Equity and Incentive Compensation Plan (Incorporated by reference to Exhibit 10.1 to Flowers Foods' Current Report on Form 8-K, dated May 27, 2014, File No. 1-16247).
10.20	+	— Flowers Foods, Inc. Supplemental Executive Retirement Plan (Incorporated by reference to Exhibit 10.10 to Flowers Foods' Annual Report on Form 10-K, dated March 29, 2002, File No. 1-16247).
10.21	+	— Form of Indemnification Agreement, by and between Flowers Foods, Inc., certain executive officers and the directors of Flowers Foods, Inc. (Incorporated by reference to Exhibit 10.14 to Flowers Foods' Annual Report on Form 10-K, dated March 28, 2003, File No. 1-16247).
10.22	+	— Flowers Foods, Inc. 2005 Executive Deferred Compensation Plan, effective as of January 1, 2005 (Incorporated by reference to Exhibit 4.7 of Flowers Foods' Registration Statement on Form S-8, dated December 29, 2008, File No. 333-156471).
10.23	+	— Ninth Amendment to the Flowers Foods, Inc. Retirement Plan No. 1, dated as of November 7, 2005 (Incorporated by reference to Exhibit 10.15 to Flowers Foods' Quarterly Report on Form 10-Q, dated November 17, 2005, File No. 1-16247).
10.24	+	— Flowers Foods, Inc. Change of Control Plan, effective as of February 23, 2012 (Incorporated by reference to Exhibit 10.1 to Flowers Foods' Current Report on Form 8-K, dated February 29, 2012, File No. 1-16247).
10.25	+	— Form of 2013 Performance Shares Agreement, by and between Flowers Foods, Inc. and a certain executive officer of Flowers Foods, Inc. (Incorporated by reference to Exhibit 10.17 to Flowers Foods' Annual Report on Form 10-K, dated February 20, 2013, File No. 1-16247).
10.26	+	— Form of 2017 Performance Stock Agreement, by and between Flowers Foods, Inc. and certain executive officers of Flowers Foods, Inc. (Incorporated by reference to Exhibit 10.28 to Flowers Foods' Annual Report on Form 10-K, dated February 23, 2017, File No. 1-16247).
10.27	+*	— Form of 2019 Performance Stock Agreement, by and between Flowers Foods, Inc. and certain executive officers of Flowers Foods, Inc.
10.28	+*	— Form of 2019 Time Based Restricted Stock Agreement, by and between Flowers Foods, Inc. and certain executive officers of Flowers Foods, Inc.
21	*	— Subsidiaries of Flowers Foods, Inc.
23	*	— Consent of Independent Registered Public Accounting Firm, PricewaterhouseCoopers LLP
31.1	*	— Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	*	— Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.3	*	— Certification of Chief Accounting Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32	*	— Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, by Allen L. Shiver, Chief Executive Officer, R. Steve Kinsey, Chief Financial Officer and Karyl H. Lauder, Chief Accounting Officer for the Quarter Ended December 29, 2018.
101.INS	*	— XBRL Instance Document.
101.SCH	*	— XBRL Taxonomy Extension Schema Linkbase.
101.CAL	*	— XBRL Taxonomy Extension Calculation Linkbase.
101.DEF	*	— XBRL Taxonomy Extension Definition Linkbase.

101.LAB * —XBRL Taxonomy Extension Label Linkbase.
101.PRE * —XBRL Taxonomy Extension Presentation Linkbase.

* Filed herewith
** Portions of this exhibit have been omitted and filed separately with the Securities and Exchange Commission as part of an application for confidential treatment pursuant to Rule 24b-2 promulgated under the Securities Exchange Act of 1934, which application has been granted. Schedules to this exhibit have been omitted pursuant to Item 601(b)(2) of Regulation S-K and will be furnished supplementally to the Securities and Exchange Commission upon request.
+ Management contract or compensatory plan or arrangement

Item 16. Form 10-K Summary

The company has elected not to provide summary information.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, Flowers Foods, Inc. has duly caused this Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized on this 20th day of February, 2019.

FLOWERS FOODS, INC.

/s/ ALLEN L. SHIVER
Allen L. Shiver
President and
Chief Executive Officer

/s/ R. STEVE KINSEY
R. Steve Kinsey

Chief Financial Officer and

Chief Administrative Officer

/s/ KARYL H. LAUDER
Karyl H. Lauder
Senior Vice President and Chief Accounting Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this Form 10-K has been signed below by the following persons on behalf of Flowers Foods, Inc. and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ ALLEN L. SHIVER Allen L. Shiver	President and Chief Executive Officer and Director	February 20, 2019
/s/ R. STEVE KINSEY R. Steve Kinsey	Chief Financial Officer and Chief Administrative Officer	February 20, 2019
/s/ KARYL H. LAUDER Karyl H. Lauder	Senior Vice President and Chief Accounting Officer	February 20, 2019
/s/ GEORGE E. DEESE George E. Deese	Chairman	February 20, 2019
/s/ RHONDA O. GASS Rhonda O. Gass	Director	February 20, 2019
/s/ BENJAMIN H. GRISWOLD, IV Benjamin H. Griswold, IV	Director	February 20, 2019
/s/ MARGARET G. LEWIS Margaret G. Lewis	Director	February 20, 2019
/s/ AMOS R. MCMULLIAN Amos R. McMullian	Director	February 20, 2019
/s/ DAVID V. SINGER David V. Singer	Director	February 20, 2019
/s/ JAMES T. SPEAR James T. Spear	Director	February 20, 2019
/s/ MELVIN T. STITH, PH.D. Melvin T. Stith, Ph.D.	Director	February 20, 2019
/s/ C. MARTIN WOOD III C. Martin Wood III	Director	February 20, 2019

FLOWERS FOODS, INC. AND SUBSIDIARIES

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Report of Independent Registered Public Accounting Firm

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Flowers Foods, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Flowers Foods, Inc. and its subsidiaries (the "Company") as of December 29, 2018 and December 30, 2017, and the related consolidated statements of income, comprehensive income, changes in stockholders' equity and cash flows for each of the three years in the period ended December 29, 2018, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 29, 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 29, 2018 and December 30, 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 29, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 29, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management's Report on Internal Control over Financial Reporting appearing under Item 9A, management has excluded Canyon Bakehouse, LLC from its assessment of internal control over financial reporting as of December 29, 2018 because it was acquired by the Company in a purchase business combination during 2018. We have also excluded Canyon Bakehouse, LLC from our audit of internal control over financial reporting. Canyon Bakehouse, LLC is a wholly-owned subsidiary whose total assets excluded from management's assessment and our audit of internal control over financial reporting represent 1.8% of the related consolidated financial statement amounts as of and for the year ended December 29, 2018.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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/PricewaterhouseCoopers LLP

Atlanta, Georgia

February 20, 2019

We have served as the Company's auditor since at least 1969. We have not been able to determine the specific year we began serving as auditor of the Company.

FLOWERS FOODS, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

	December 29, 2018	December 30, 2017
	(Amounts in thousands, except share data)	
ASSETS		
Current Assets:		
Cash and cash equivalents	$25,306	$5,129
Accounts and notes receivable, net of allowances of $5,751 and $3,154, respectively	287,482	280,050
Inventories:		
Raw materials	44,502	41,710
Packaging materials	21,868	19,638
Finished goods	56,253	49,697
	122,623	111,045
Spare parts and supplies	65,076	61,330
Other	43,237	49,637
Total current assets	543,724	507,191
Property, Plant and Equipment:		
Land	94,031	90,303
Buildings	483,859	462,657
Machinery and equipment	1,186,636	1,155,485
Furniture, fixtures and transportation equipment	172,993	176,515
Construction in progress	44,204	22,019
	1,981,723	1,906,979
Less: accumulated depreciation	(1,237,876)	(1,174,953)
	743,847	732,026
Notes Receivable from Independent Distributor Partners	204,125	187,737
Assets Held for Sale	6,606	15,323
Other Assets	6,927	10,228
Goodwill	545,379	464,777
Other Intangible Assets, net	794,929	742,442
Total Assets	$2,845,537	$2,659,724
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Current maturities of long-term debt and capital lease obligations	$10,896	$12,095
Accounts payable	242,084	181,388
Other accrued liabilities	147,359	200,468
Total current liabilities	400,339	393,951
Long-Term Debt:		
Total long-term debt and capital lease obligations	990,640	820,141
Other Liabilities:		
Post-retirement/post-employment obligations	39,149	60,107
Deferred taxes	102,658	82,976

Other long-term liabilities	54,484	51,872
Total other long-term liabilities	196,291	194,955
Commitments and Contingencies		
Stockholders' Equity:		
Preferred stock — $100 stated par value, 200,000 authorized and none issued	—	—
Preferred stock — $.01 stated par value, 800,000 authorized and none issued	—	—
Common stock — $.01 stated par value and $.001 current par value; 500,000,000 authorized shares; 228,729,585 issued shares	199	199
Treasury stock — 17,834,378 and 18,203,381 shares, respectively	(231,648)	(235,493)
Capital in excess of par value	653,477	650,872
Retained earnings	945,410	919,658
Accumulated other comprehensive loss	(109,171)	(84,559)
Total stockholders' equity	1,258,267	1,250,677
Total Liabilities and Stockholders' Equity	$2,845,537	$2,659,724

See Accompanying Notes to Consolidated Financial Statements

FLOWERS FOODS, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF INCOME

	Fiscal 2018 52 weeks	Fiscal 2017 52 weeks	Fiscal 2016 52 weeks
	(Amounts in thousands, except per share data)		
Sales	$3,951,852	$3,920,733	$3,926,885
Materials, supplies, labor and other production costs (exclusive of depreciation and amortization shown separately below)	2,066,828	2,009,473	2,026,859
Selling, distribution and administrative expenses	1,507,256	1,510,015	1,469,382
Depreciation and amortization	144,124	146,719	140,869
Restructuring and related impairment charges	9,767	104,130	—
Gain on divestiture	—	(28,875)	—
Loss on inferior ingredients	3,212	—	—
Multi-employer pension plan withdrawal costs	2,322	18,268	—
Impairment of assets	5,999	—	24,877
Income from operations	212,344	161,003	264,898
Interest expense	35,686	36,557	34,905
Interest income	(27,755)	(22,938)	(20,552)
Pension plan settlement loss	7,781	4,649	6,646
Other components of net periodic pension and postretirement benefits credit	(529)	(6,558)	(5,638)
Income before income taxes	197,161	149,293	249,537
Income tax expense (benefit)	40,001	(827)	85,761
Net income	$157,160	$150,120	$163,776
Net Income Per Common Share:			
Basic:			
Net income per common share	$0.74	$0.72	$0.79
Weighted average shares outstanding	211,016	209,573	208,511
Diluted:			
Net income per common share	$0.74	$0.71	$0.78
Weighted average shares outstanding	211,632	210,435	210,354
Cash dividends paid per common share	$0.7100	$0.6700	$0.6250

See Accompanying Notes to Consolidated Financial Statements

FLOWERS FOODS, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Fiscal 2018 52 weeks	Fiscal 2017 52 weeks	Fiscal 2016 52 weeks
	(Amounts in thousands, except per share data)		
Net income	$157,160	$150,120	$163,776
Other comprehensive income, net of tax:			
Pension and postretirement plans:			
Settlement loss	5,816	3,072	4,087
Net loss for the period	(19,831)	(2,637)	(4,013)
Amortization of prior service credit included in net income	130	108	108
Amortization of actuarial loss included in net income	4,022	3,603	4,206
Pension and postretirement plans, net of tax	(9,863)	4,146	4,388
Derivative instruments:			
Net change in fair value of derivatives	2,978	(6,789)	5,730
Loss reclassified to net income	1,079	1,367	3,399
Derivative instruments, net of tax	4,057	(5,422)	9,129
Other comprehensive income (loss), net of tax	(5,806)	(1,276)	13,517
Comprehensive income	$151,354	$148,844	$177,293

See Accompanying Notes to Consolidated Financial Statements

FLOWERS FOODS, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

	Common Stock Number of Shares Issued	Par Value	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock Number of Shares	Cost	Total
	(Amounts in thousands, except share data)							
Balances at January 2, 2016	228,729,585	$199	$636,501	$877,817	$(96,800)	(16,463,137)	$(174,635)	$1,243,082
Net income				163,776				163,776
Derivative instruments, net of tax					9,129			9,129
Pension and postretirement plans, net of tax					4,388			4,388
Stock repurchases			(1,125)			(6,892,322)	(125,175)	(126,300)
Exercise of stock options			(4,323)			2,506,255	31,954	27,631
Issuance of deferred stock awards			(1,411)			111,868	1,411	—
Amortization of share-based compensation awards			18,772					18,772
Income tax benefits related to share-based payments			675					675
Performance-contingent restricted stock awards issued (Note 19)			(4,519)			424,787	4,519	—
Issuance of deferred compensation			(114)			5,765	114	—
Dividends paid on vested performance-contingent restricted stock and deferred share awards				(583)				(583)
Dividends paid — $0.6250 per common share				(130,490)				(130,490)
Balances at December 31, 2016	228,729,585	$199	$644,456	$910,520	$(83,283)	$(20,306,784)	$(261,812)	$1,210,080
Net income				150,120				150,120

Derivative instruments, net of tax					(5,422)			(5,422)
Pension and postretirement plans, net of tax					4,146			4,146
Stock repurchases						(140,135)	(2,671)	(2,671)
Exercise of stock options			(3,610)			1,773,336	22,923	19,313
Issuance of deferred stock awards			(1,789)			138,354	1,789	—
Amortization of share-based compensation awards			16,093					16,093
Performance-contingent restricted stock awards issued (Note 19)			(4,240)			328,947	4,240	—
Issuance of deferred compensation			(38)			2,901	38	—
Dividends paid on vested performance-contingent restricted stock and deferred share awards				(553)				(553)
Dividends paid — $0.6700 per common share				(140,429)				(140,429)
Balances at December 30, 2017	228,729,585	$199	$650,872	$919,658	$(84,559)	(18,203,381)	$(235,493)	$1,250,677
Net income				157,160				157,160
Derivative instruments, net of tax					4,057			4,057
Pension and postretirement plans, net of tax					(9,863)			(9,863)
Stock repurchases						(120,147)	(2,489)	(2,489)
Exercise of stock options			(151)			72,785	942	791
Issuance of deferred stock awards			(1,206)			92,935	1,206	—
Amortization of share-based compensation awards			8,148					8,148
Performance-contingent restricted stock awards issued (Note 19)			(4,062)			313,906	4,062	—
Issuance of deferred compensation			(124)			9,524	124	—
Reclassification of stranded income tax effects to retained				18,806	(18,806)			—

earnings (Note 2)								
Dividends paid on vested performance-contingent restricted stock and deferred share awards				(498)				(498)
Dividends paid — $.7100 per common share				(149,716)				(149,716)
Balances at December 29, 2018	228,729,585	$199	$653,477	$945,410	$(109,171)	(17,834,378)	$(231,648)	$1,258,267

See Accompanying Notes to Consolidated Financial Statements

FLOWERS FOODS, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Fiscal 2018 52 weeks	Fiscal 2017 52 weeks	Fiscal 2016 52 weeks
	(Amounts in thousands)		
Cash flows provided by (disbursed for) operating activities:			
Net income	$157,160	$150,120	$163,776
Adjustments to reconcile net income to net cash provided by operating activities:			
Restructuring and related impairment charges	5,593	69,601	—
Gain on divestiture	—	(28,875)	—
Depreciation and amortization	144,124	146,719	140,869
Impairment of assets	5,999	—	24,877
Stock-based compensation	8,148	16,093	18,761
Loss reclassified from accumulated other comprehensive income to net income	1,301	2,080	5,307
Deferred income taxes	21,657	(61,306)	(14,457)
Provision for inventory obsolescence	740	1,684	1,324
Allowances for accounts receivable	6,963	4,215	3,365
Pension and postretirement plans (benefit) expense	8,474	(897)	2,238
Other	(4,839)	(6,203)	(106)
Qualified pension plan contributions	(40,700)	(1,605)	(1,000)
Changes in operating assets and liabilities, net of acquisitions and disposals:			
Accounts receivable, net	(8,278)	(11,762)	(7,888)
Inventories, net	(8,424)	(7,801)	(1,526)
Hedging activities, net	2,725	(15,727)	13,592
Other assets	5,120	(12,557)	(3,441)
Accounts payable	60,863	10,840	(519)
Other accrued liabilities	(70,733)	42,770	11,390
Net cash provided by operating activities	295,893	297,389	356,562
Cash flows provided by (disbursed for) investing activities:			
Purchases of property, plant and equipment	(99,422)	(75,232)	(101,727)
Repurchase of independent distributor territories	(3,128)	(6,460)	(8,871)
Cash paid at issuance of notes receivable	(28,454)	(25,566)	(8,577)
Principal payments from notes receivable	26,883	24,875	22,272
Acquisition of businesses, net of cash acquired	(200,174)	—	—
Proceeds from sale of mix plant	—	41,230	—
Proceeds from sales of property, plant and equipment	1,913	3,935	17,667
Other investing activities	577	1,823	2,522
Net cash disbursed for investing activities	(301,805)	(35,395)	(76,714)
Cash flows provided by (disbursed for) financing activities:			
Dividends paid, including dividends on share-based payment awards	(150,214)	(140,982)	(131,073)
Exercise of stock options	791	19,313	27,631
Payments for debt issuance costs	(100)	(729)	(4,380)
Stock repurchases	(2,489)	(2,671)	(126,300)

Change in bank overdrafts	4,851	(14,206)	1,914
Proceeds from debt borrowings	200,900	611,900	2,090,492
Debt and capital lease obligation payments	(27,650)	(735,900)	(2,146,100)
Net cash provided by (disbursed for) financing activities	26,089	(263,275)	(287,816)
Net increase (decrease) in cash and cash equivalents	20,177	(1,281)	(7,968)
Cash and cash equivalents at beginning of period	5,129	6,410	14,378
Cash and cash equivalents at end of period	$25,306	$5,129	$6,410
Schedule of non cash investing and financing activities:			
Issuance of executive deferred compensation plan common stock	$124	$38	$114
Capital and right-to-use lease obligations	$1,977	$3,337	$15,622
Issuance of notes receivable on new distribution territories, net	$45,528	$60,594	$23,352
Distributor routes sold with deferred gains, net	$8,770	$9,707	$5,213
Increase in property, plant and equipment from financing	$—	$—	$4,855
Purchase of property, plant and equipment included in accounts payable	$901	$2,991	$5,203
Supplemental disclosures of cash flow information:			
Cash paid during the period for:			
Interest	$32,747	$34,196	$26,897
Income taxes paid, net of refunds of $40, $236 and $12,212, respectively	$13,697	$71,996	$84,108

See Accompanying Notes to Consolidated Financial Statements

FLOWERS FOODS, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Basis of Presentation

General. The accompanying Consolidated Financial Statements of Flowers Foods, Inc. (the "company", "Flowers Foods", "Flowers", "us", "we", or "our") have been prepared by the company's management in accordance with generally accepted accounting principles in the United States of America ("GAAP").

Flowers Foods is one of the largest producers and marketers of bakery products in the United States. The company currently consists of two business segments: direct-store-delivery ("DSD Segment") and warehouse delivery ("Warehouse Segment"). The DSD Segment focuses on the production and marketing of bakery products throughout the East, South, Southwest, West Coast, and select markets in the Midwest, Nevada, and Colorado. The Warehouse Segment produces snack cakes, breads and rolls that are shipped both fresh and frozen to national retail, foodservice, vending, and co-pack customers through their warehouse channels.

On August 10, 2016, we announced the launch of Project Centennial, a comprehensive business and operational review. We are evaluating opportunities to enhance revenue growth, streamline operations, improve efficiencies, and make investments that strengthen our competitive position and improve margins over the long term. We began Project Centennial with an evaluation of our brands, product mix, and organizational structure. We then developed strategic priorities to help us capitalize on retail and consumer changes. On May 3, 2017, the company announced an enhanced organizational structure designed to provide greater focus on the company's strategic objectives, emphasize brand growth and innovation in line with a national branded food company, drive enhanced accountability, reduce costs, and strengthen long-term strategy. The new organizational structure establishes two business units ("BUs"), Fresh Bakery and Snacking/Specialty, and realigns key leadership roles. The new structure also provides for centralized marketing, sales, supply chain, shared-services/administrative, and corporate strategy functions, each with clearly defined roles and responsibilities. The transition to the new structure will be completed early in fiscal 2019. Management will continue to review financial information for the DSD Segment and Warehouse Segment until the new organizational structure is fully implemented. Based on the preliminary segment reporting analysis, we expect changes to the organization structure to have a significant impact on our segment reporting. We expect to complete our segment reporting analysis in the first quarter of fiscal 2019. See Note 6, Restructuring Activities, for additional details about Project Centennial.

Note 2. Summary of Significant Accounting Policies

Basis of Consolidation. The Consolidated Financial Statements include the accounts of the company and its wholly-owned subsidiaries. Intercompany transactions and balances are eliminated in consolidation.

Use of Estimates. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Fiscal Year End. The company operates on a 52-53 week fiscal year ending the Saturday nearest December 31. Fiscal 2018, Fiscal 2017, and Fiscal 2016 consisted of 52 weeks. Fiscal 2019 will consist of 52 weeks.

Revenue Recognition. Revenue is recognized when obligations under the terms of a contract with our customers are satisfied. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring goods or providing services. The company records both direct and estimated reductions to gross revenue for customer programs and incentive offerings at the time the incentive is offered or at the time of revenue recognition for the underlying transaction that results in progress by the customer towards earning the incentive. These allowances include price promotion discounts, coupons, customer rebates, cooperative advertising, and product returns. Consideration payable to a customer is recognized at the time control transfers and is a reduction to revenue. The recognition of costs for promotion programs involves the use of judgment related to performance and redemption estimates. Estimates are made based on historical experience and other factors. Price promotion discount expense is recorded as a reduction to gross sales when the discounted product is sold to the customer.

Shipping and handling costs associated with outbound freight after control over a product has transferred to a customer are accounted for as a fulfillment cost and are included in our selling, distribution, and administration expenses line item on the Consolidated Statements of Income.

The company's production facilities deliver products to independent distributor partners ("IDP" or "IDPs"), who sell and deliver those products to outlets of retail accounts that are within the IDPs' defined geographic territory. The IDPs sell products using either scan-based trading ("SBT") technology, authorized charge tickets, or cash sales.

SBT technology allows the retailer to take ownership of our products when the consumer purchases the products rather than at the time they are delivered to the retailer. Control of the inventory does not transfer upon delivery to the retailer because the company controls the risks and rights until the product is scanned at the reseller's register. Each of the company's products is considered distinct because the resellers expect each item to be a performance obligation. The company's performance obligations are satisfied at the point in time when the end consumer purchases the product because each product is considered a separate performance obligation. Consequently, revenue is recognized at a point in time for each scanned item. The company has concluded that we are the principal.

In fiscal years 2018, 2017, and 2016, the company recorded $1.7 billion, $1.4 billion, and $1.3 billion, respectively, in sales through SBT.

SBT is utilized primarily in certain national and regional retail accounts ("SBT Outlet"). Generally, revenue is not recognized by the company upon delivery of our products by the company to the IDP or upon delivery of our products by the IDP to a SBT Outlet, but when our products are purchased by the end consumer. Product inventory in the SBT Outlet is reflected as inventory on the Consolidated Balance Sheets.

The IDP performs a physical inventory of products at each SBT Outlet weekly and reports the results to the company. The inventory data submitted by the IDP for each SBT Outlet is compared with the product delivery data. Product delivered to a SBT Outlet that is not recorded in the product delivery data has been purchased by the consumer/customer of the SBT Outlet and is recorded as sales revenue by the company.

Non-SBT sales are classified as either authorized charged sales or cash sales. The company provides marketing support to the IDP for authorized charged sales, but does not provide marketing support to the IDP for cash sales. Marketing support includes providing a dedicated account representative, resolving complaints, and accepting responsibility for product quality which collectively define how to manage the relationship. Revenue is recognized at a point in time for non-SBT sales.

The company retains inventory risk, establishes negotiated special pricing, and fulfills the contractual obligations for authorized charged sales. The company is the principal, the IDP is the agent, and the reseller is the customer. Revenue is recognized for authorized charge sales when the product is delivered to the customer because the company has satisfied its performance obligations.

Cash sales occur when the IDP is the end customer. The IDP maintains accounts receivable, inventory and fulfillment risk for cash sales. The IDP also controls pricing for the resale of cash sale products. The company is the principal and the IDP is the customer, and an agent relationship does not exist. The discount paid to the IDP for cash sales is recorded as a reduction to revenue. Revenue is recognized for cash sales when the company's products are delivered to the IDP because the company has satisfied its performance obligations.

Sales in the Warehouse Segment are under contracts and include a formal ordering system. Orders are placed primarily using purchase orders ("PO") or electronic data interchange information. Each PO, together with the applicable master supply agreement, is determined to be a separate contract. Product is delivered via contract carriers engaged by either the company or the customer with shipping terms provided in the PO.

Each unit sold, for all product categories, is a separate performance obligation. Each unit is considered distinct because the customer can benefit from each unit by selling each one separately to the end consumer. Additionally,

each unit is separately identifiable in the PO. Products are delivered either freight-on-board ("FOB") shipping or destination. The company's right to payment is at the time our products are obtained from our warehouse for FOB shipping deliveries. The right to payment for FOB destination deliveries occurs after the products are delivered to the customer. Revenue is recognized at a point in time when control transfers. The company pays commissions to brokers who obtain contracts with customers. Commissions are paid on the total value of the contract, which is determined at contract inception and is based on expected future activity. Broker commissions will not extend beyond a one-year term because each product is considered a separate order in the PO.

The company recognizes the incremental costs of obtaining contracts as an expense when incurred if the amortization period of the assets that the company otherwise would have recognized is one year or less. These costs are included in our selling, distribution, and administrative expenses line item on the Consolidated Statements of Income.

The company disaggregates revenue by sales channel for each reportable segment. Our sales channels are branded retail, store branded retail, and non-retail and other. The non-retail and other channel includes foodservice, restaurants, institutional, vending, thrift stores, and contract manufacturing. The company does not disaggregate revenue by geographic region, customer type, or contract type. All revenues are recognized at a point in time. Sales by sales channel category in each reportable segment are as follows for fiscal years 2018, 2017, and 2016 (amounts in thousands):

	Fiscal 2018			Fiscal 2017			Fiscal 2016		
	Total	DSD Segment	Warehouse Segment	Total	DSD Segment	Warehouse Segment	Total	DSD Segment	Warehouse Segment
Branded retail	$2,335,831	$2,188,638	$147,193	$2,303,301	$2,149,451	$153,850	$2,283,526	$2,114,142	$169,384
Store branded retail	597,147	483,001	114,146	582,738	471,199	111,539	582,280	464,456	117,824
Non-retail and other	1,018,874	668,408	350,466	1,034,694	697,913	336,781	1,061,079	705,579	355,500
Total	$3,951,852	$3,340,047	$611,805	$3,920,733	$3,318,563	$602,170	$3,926,885	$3,284,177	$642,708

Cash and Cash Equivalents. The company considers deposits in banks, certificates of deposits, and short-term investments with original maturities of three months or less to be cash and cash equivalents.

Accounts and Notes Receivable. Accounts and notes receivable consists of trade receivables, current portions of distributor notes receivable, and miscellaneous receivables. The company maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers to make required payments for trade receivables, IDP notes receivable, and miscellaneous receivables. Bad debts are charged to this reserve after all attempts to collect the balance are exhausted. If the financial condition of the company's customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required. In determining the past due or delinquent status of a customer, the aged trial balance is reviewed on a weekly basis by sales management and generally any accounts older than seven weeks are considered delinquent. Activity in the allowance for doubtful accounts is as follows (amounts in thousands):

	Beginning Balance	Charged to Expense	Write-Offs and Other	Ending Balance
Fiscal 2018	$ 3,154	$ 6,963	$ 4,366	$ 5,751
Fiscal 2017	$ 1,703	$ 4,215	$ 2,764	$ 3,154
Fiscal 2016	$ 1,341	$ 3,365	$ 3,003	$ 1,703

The amounts charged to expense for bad debts in the table above are reported as adjustments to reconcile net income to net cash provided by operating activities in the Consolidated Statements of Cash Flows. The write-offs and other

column represents the amounts that are used to reduce the gross accounts and notes receivable at the time the balance due from the customer is written-off. Walmart/Sam's Club is our only customer with a balance greater than 10% of outstanding trade receivables. Their percentage of trade receivables was 17.8% and 17.5%, on a consolidated basis, as of December 29, 2018 and December 30, 2017, respectively. No other customer accounted for greater than 10% of the company's outstanding receivables.

Concentration of Credit Risk. The company performs periodic credit evaluations and grants credit to customers, who are primarily in the grocery and foodservice markets, and generally does not require collateral. Our top 10 customers in fiscal years 2018, 2017 and 2016 accounted for 50.3%, 48.5% and 46.8% of sales, respectively. Our largest customer, Walmart/Sam's Club, weighted percent of sales for fiscal years 2018, 2017 and 2016 was as follows:

	Percent of Sales		
	DSD Segment	Warehouse Segment	Total
Fiscal 2018	17.9%	2.4%	20.3%
Fiscal 2017	17.6%	2.4%	20.0%
Fiscal 2016	17.0%	2.6%	19.6%

Walmart/Sam's Club is the only customer to account for greater than 10% of the company's sales.

Inventories. Inventories at December 29, 2018 and December 30, 2017 are valued at net realizable value. Costs for raw materials and packaging are recorded at moving average cost. Finished goods inventories are valued at average costs.

The company will write down inventory to net realizable value for estimated unmarketable inventory equal to the difference between the cost of the inventory and the estimated net realizable value for situations when the inventory is impaired by damage, deterioration, or obsolescence.

Activity in the inventory reserve allowance is as follows (amounts in thousands):

	Beginning Balance	Charged to Expense	Write-Offs and Other	Ending Balance
Fiscal 2018	$ 673	$ 740	$ 1,270	$ 143
Fiscal 2017	$ 1,090	$ 1,684	$ 2,101	$ 673
Fiscal 2016	$ 238	$ 1,324	$ 472	$ 1,090

The amounts charged to expense for inventory loss in the table above are reported as adjustments to reconcile net income to net cash provided by operating activities in the Consolidated Statements of Cash Flows. The write-offs and other column represents the amounts that are used to reduce gross inventories.

Shipping Costs.   Shipping costs are included in the selling, distribution and administrative line item of the Consolidated Statements of Income. For fiscal years 2018, 2017, and 2016, shipping costs were $975.1 million, $888.1 million, and $855.1 million, respectively, including the costs paid to IDPs.

Spare Parts and Supplies.   The company maintains inventories of spare parts and supplies, which are used for repairs and maintenance of its machinery and equipment. These spare parts and supplies allow the company to react quickly in the event of a mechanical breakdown. These parts are valued using the moving average method and are expensed as the part is used. Periodic physical inventories of the parts are performed, and the value of the parts is adjusted for any obsolescence or difference from the physical inventory count.

Assets Held for Sale. Assets to be sold are classified as held for sale in the period all the required criteria are met. The company generally has three types of assets classified as held for sale. These include distribution rights, plants and depots/warehouses, and other equipment. See Note 9, Assets Held for Sale, for these amounts by classification.

Though under no obligation to do so, the company repurchases distribution rights from and sells distribution rights to IDPs from time to time. At the time the company purchases distribution rights from an IDP, the fair value purchase price of the distribution right is recorded as “Assets Held for Sale”. Upon the sale of the distribution rights to a new IDP, the new distributor franchisee/owner may choose how he/she desires to finance the purchase of the business. If the new distributor chooses to use optional financing via a company-related entity, a note receivable of up to ten years is recorded for the financed amount with a corresponding credit to assets held for sale to relieve the carrying amount of the territory. Any difference between the selling price of the business and the distribution rights’ carrying value, if any, is recorded as a gain or a loss in selling, distribution and administrative expenses because the company considers the IDP activity a cost of distribution. This gain is recognized over the term of the outstanding notes receivable as payments are received from the IDP. In instances where a distribution right is sold for less than its carrying value, a loss is recorded at the date of sale and any impairment of a distribution right held for sale is recorded at such time when the impairment occurs. The deferred gains were $35.7 million and $34.7 million at December 29, 2018 and December 30, 2017, respectively, and are recorded in other short and long-term liabilities on the Consolidated Balance Sheet. The company recorded net gains of $4.4 million during fiscal 2018, $3.3 million during fiscal 2017, and $3.1 million during fiscal 2016 related to the sale of distribution rights as a component of selling, distribution and administrative expenses.

Property, Plant and Equipment and Depreciation. Property, plant and equipment is stated at cost. Depreciation expense is computed using the straight-line method over the estimated useful lives of the depreciable assets. Certain equipment held under capital leases of $35.4 million and $42.8 million at December 29, 2018 and December 30, 2017, respectively, is classified as property, plant and equipment and the related obligations are recorded as liabilities. Depreciation of assets held under capital leases is included in depreciation and amortization expense. Total accumulated depreciation for assets held under capital leases was $13.4 million and $15.7 million at December 29, 2018 and December 30, 2017, respectively.

The table below presents the range of estimated useful lives by property, plant and equipment class.

	Useful life term (years)	
Asset Class	Low	High
Buildings	10	40
Machinery and equipment	3	25
Furniture, fixtures and transportation equipment	3	15

Property under capital leases and leasehold improvements are amortized over the shorter of the lease term or the estimated useful life of the leased property.

Depreciation expense for fiscal years 2018, 2017, and 2016 was as follows (amounts in thousands):

	Depreciation expense
Fiscal 2018	$ 118,232
Fiscal 2017	$ 119,445
Fiscal 2016	$ 116,367

The company had no capitalized interest during fiscal 2018, 2017, and 2016. The cost of maintenance and repairs is charged to expense as incurred. Upon disposal or retirement, the cost and accumulated depreciation of assets are eliminated from the respective accounts. Any gain or loss is reflected in the company's income from operations and is included in adjustments to reconcile net income to net cash provided by operating activities in the Consolidated Statements of Cash Flows.

Segments. The company's segments are currently separated primarily by the different delivery methods each segment uses for their respective product deliveries. The DSD Segment's products are delivered fresh to customers through a network of IDPs who are incentivized to grow sales and to build equity in their distributorships. The Warehouse Segment ships fresh and frozen products to customers' warehouses nationwide. Our bakeries fall into either the DSD Segment or Warehouse Segment depending on the primary method of delivery used to sell that bakery's products. The bakeries within each segment produce products that are sold externally and internally. Internal sales are to bakeries within the producing bakery's segment or to the other segment. Sales between bakeries are transferred at standard cost.

Impairment of Long-Lived Held and Used Assets. The company determines whether there has been an impairment of long-lived held and used assets when indicators of potential impairment are present. We consider historical performance and future estimated results in our evaluation of impairment. If facts and circumstances indicate that the cost of any long-lived held and used assets may be impaired, an evaluation of recoverability would be performed. If an evaluation is required, the estimated future gross, undiscounted cash flows associated with the asset would be compared to the asset's carrying amount to determine if a write-down to market value is required.

In fiscal 2018, we recorded asset impairment charges for long-lived held and used assets of $7.3 million. Total impairments, and the line item to which each item is recorded in our Consolidated Statements of Income, are presented below (amounts in thousands):

Impairment of assets line item	Unallocated corporate costs	DSD Segment	Warehouse Segment	Total
Property, plant and equipment	$ 3,516	$ —	$ —	$3,516
Impairment of assets	$ 3,516	$ —	$ —	$3,516
Restructuring and related impairment charges line item	Unallocated	DSD Segment	Warehouse	Total

	corporate costs		Segment	
Plant closings	$ —	$ 2,952	$ 204	$3,156
Line closings	—	—	661	661
Impairment of assets	$ —	$ 2,952	$ 865	$3,817

A property, plant and equipment impairment was recognized in the fourth quarter of fiscal 2018 when a construction in process asset was not ultimately placed into service. On November 6, 2018, the company announced the closure of a bakery in Brattleboro, Vermont. The bakery was closed during the fourth quarter of fiscal 2018 and consisted of a $2.5 million charge to the DSD Segment for property, plant, and equipment. An additional $0.5 million impairment charge to the DSD Segment was related to an idle plant that has been classified as held for sale. The remaining $0.2 million of plant closings relates to final charges for the Winston-Salem plant, discussed below, in the Warehouse Segment. During the fourth quarter of fiscal 2018, the company recognized $0.7 million for closing various lines at certain Warehouse Segment plants as a result of the supply chain analysis.

In fiscal 2017, we recorded asset impairment charges of $3.4 million for the closure of a Warehouse Segment snack cake plant in Winston-Salem, North Carolina. The closure was related to Project Centennial and is recorded in the restructuring and related impairment charges line item in our Consolidated Statements of Income. See Note 6, Restructuring Activities, for details.

In fiscal 2016, we recorded asset impairment charges totaling $9.9 million at the time certain idle assets were reclassified as held for sale. See Note 9, Assets Held for Sale, for impairments related to assets classified as held for sale. These impairments are recorded in the impairment of assets line item in our Consolidated Statements of Income.

Impairment of Other Intangible Assets. The company accounts for other intangible assets recognized in a purchase business combination at fair value. These intangible assets can be either finite or indefinite-lived depending on the facts and circumstances at acquisition.

Finite-lived intangible assets are reviewed for impairment when facts and circumstances indicate that the cost of any finite-lived intangible asset may be impaired. This recoverability test is based on an undiscounted cash flows expected to result from the company's use and eventual disposition of the asset. If these cash flows are sufficient to recover the carrying value over the useful life there is no impairment. Amortization of finite-lived intangible assets occurs over their estimated useful lives. The amortization periods, at origination, range from two years to forty years for these assets. The attribution methods we primarily use are the sum-of-the-year digits for customer relationships and straight-line for other intangible assets. These finite-lived intangible assets generally include trademarks, customer relationships, non-compete agreements, distributor relationships, and supply agreements.

Identifiable intangible assets that are determined to have an indefinite useful economic life are not amortized. Indefinite-lived intangible assets are tested for impairment, at least annually, using a one-step fair value based approach or when certain indicators of potential impairment are present. We have elected not to perform the qualitative approach. We also reassess the indefinite-lived classification to determine if it is appropriate to reclassify these assets as finite-lived assets that will require amortization. We consider historical performance and future estimated results in our evaluation of impairment. If facts and circumstances indicate that the cost of any indefinite-lived intangible assets may be impaired, an evaluation of the fair value of the asset is compared to its carrying amount. If the carrying amount exceeds the fair value, an impairment charge is recorded for the difference.

We use the multi-period excess earnings and relief from royalty methods to value these indefinite-lived intangible assets. Fair value is estimated using the future gross, discounted cash flows associated with the asset using the following four material assumptions: (a) discount rate; (b) long-term sales growth rates; (c) forecasted operating margins (not applicable to the relief from royalty method); and (d) market multiples. The method used for impairment testing purposes is consistent with the valuation method employed at acquisition of the intangible asset. These indefinite-lived intangible assets are trademarks acquired in a purchase business combination.

During fiscal 2017, the company recorded impairment charges of $66.2 million for certain trademarks impacted by the brand rationalization study that was performed in conjunction with Project Centennial. See Note 6, Restructuring Activities, for details on these impairments. Impairments relating to restructuring charges are recorded in the restructuring and related impairment charges line item in our Consolidated Statements of Income.

During fiscal 2016, the company recorded an impairment charge of $15.0 million on certain trademarks the company no longer intends to grow nationally. These brands will continue to be produced and sold in their respective markets. This impairment was recorded in the impairment of assets line item of our Consolidated Statements of Income.

The company evaluates useful lives for finite-lived intangible assets to determine if facts or circumstances arise that may impact the estimates of useful lives assigned and the remaining amortization duration. Indefinite-lived intangible assets that are determined to have a finite useful life are tested for impairment as an indefinite-lived intangible asset prior to commencing amortization. We determined the impaired assets should be reclassified from indefinite-lived to finite-lived with an attribution period covering our estimate of the assets' useful life. These intangible assets were assigned a useful life ranging from thirty years to forty years.

Future adverse changes in market conditions or poor operating results of underlying intangible assets could result in losses or an inability to recover the carrying value of the intangible assets that may not be reflected in the assets' current carrying values, thereby possibly requiring an impairment charge in the future. See Note 10, Goodwill and

Other Intangible Assets, for additional disclosure.

Goodwill. The company accounts for goodwill in a purchase business combination as the excess of the cost over the fair value of net assets acquired. Goodwill is assigned to specific reporting units for purposes of the annual impairment test. The company operates in two segments. Our bakeries are the components within our operating segments. The bakeries are aggregated into the two operating segments because of reciprocal baking arrangements for plants within each operating segment (i.e., these are aggregated because of similar economic characteristics). Our reportable segments (DSD Segment and Warehouse Segment) are the same as our operating segments. The reporting unit was determined by the acquisition's primary delivery method. The company tests goodwill for impairment on an annual basis (or an interim basis if a triggering event occurs that indicates the fair value of a reporting unit may be below its carrying value) using a two-step method. This analysis is performed for both of our segments. We have elected not to perform the qualitative approach. The company conducts this review during the fourth quarter of each fiscal year absent any triggering events. We use the following four material assumptions in our fair value analysis: (a) weighted average cost of capital; (b) long-term sales growth rates; (c) forecasted operating margins; and (d) market multiples. No impairment resulted from the annual review performed in fiscal years 2018, 2017, or 2016. See Note 10, Goodwill and Other Intangible Assets, for additional disclosure.

Derivative Financial Instruments. The disclosure requirements for derivatives and hedging provide investors with an enhanced understanding of: (a) how and why an entity uses derivative instruments and related hedged items, (b) how the entity accounts for derivative instruments and related hedged items, and (c) how derivative instruments and related hedged items affect an entity's financial position, financial performance, and cash flows. Further, qualitative disclosures are required that explain the company's objectives and strategies for using derivative instruments and related hedged items, as well as quantitative disclosures about the fair value of and gains and losses on derivative instruments and related hedged items, and disclosures about credit-risk-related contingent features in derivative instruments and related hedged items.

The company's objectives in using commodity derivatives are to add stability to materials, supplies, labor, and other production costs and to manage its exposure to certain commodity price movements. To accomplish this objective, the company uses commodity futures as part of its commodity risk management strategy. The company's commodity risk management programs include hedging price risk for wheat, soybean oil, corn, and natural gas primarily using futures contacts. Commodity futures designated as cash flow hedges involve fixing the price on a fixed volume of a commodity on a specified date. The commodity futures are given up to third parties near maturity to price the physical goods (e.g. flour, sweetener, corn, etc.) required as part of the company's production.

As required, the company records all derivatives on the Consolidated Balance Sheets at fair value. The accounting for changes in the fair value of derivatives depends on the intended use of the derivative, whether the company has elected to designate a derivative in a hedging relationship and apply hedge accounting and whether the hedging relationship has satisfied the criteria necessary to apply hedge accounting. Derivatives designated and qualifying as a hedge of the exposure to variability in expected future cash flows, or other types of forecasted transactions, are considered cash flow hedges. Hedge accounting generally provides for the matching of the timing of gain or loss recognition on the hedged item with the earnings effect of the hedged forecasted transactions in a cash flow hedge. The company may enter into derivative contracts that are intended to economically hedge certain of its risks, even though hedge accounting does not apply or the company elects not to apply hedge accounting.

For derivatives designated and that qualify as cash flow hedges of commodity price risk, the gain or loss on the derivative is recorded in accumulated other comprehensive income (loss) ("AOCI") and subsequently reclassified in the period during which the hedged transaction affects earnings within the same income statement line item as the earnings effect of the hedged transaction. All our commodity derivatives at December 29, 2018 qualified for hedge accounting. Before the company adopted new guidance beginning with fiscal 2018, during fiscal years 2017, and 2016 there was no material income or expense recorded due to ineffectiveness in current earnings due to changes in the fair value of our commodity hedges. The company recognized $0.1 million of ineffectiveness in the selling, distribution and administrative expenses line item of our Consolidated Statements of Income during fiscal year 2016 at the settlement of a treasury lock for an interest rate hedge. See Note 12, Derivative Financial Instruments, for additional disclosure.

The company routinely transfers amounts from AOCI to earnings as transactions for which cash flow hedges were held occur and impact earnings. Significant situations which do not routinely occur that could cause transfers from AOCI to earnings are the cancellation of a forecasted transaction for which a derivative was held as a hedge or a significant and material reduction in volume used of a hedged ingredient such that the company is overhedged and must discontinue hedge accounting. During fiscal 2018, 2017, and 2016 there were no discontinued hedge positions.

The impact to earnings is included in our materials, supplies, labor and other production costs (exclusive of depreciation and amortization shown separately) line item. Changes in the fair value of the asset or liability are recorded as either a current or long-term asset or liability depending on the underlying fair value. Amounts reclassified to earnings for the commodity cash flow hedges are presented as an adjustment to reconcile net income to net cash provided by operating activities on the Consolidated Statements of Cash Flows. See Note 12, Derivative

Financial Instruments, for additional disclosure.

Treasury Stock. The company records acquisitions of its common stock for treasury at cost. Differences between the proceeds for reissuances of treasury stock and average cost are credited or charged to capital in excess of par value to the extent of prior credits and thereafter to retained earnings. See Note 18, Stockholders' Equity, for additional disclosure.

Advertising and Marketing Costs. Advertising and marketing costs are expensed the first time the advertising takes place. Advertising and marketing costs were $40.5 million, $33.8 million, and $33.9 million for fiscal years 2018, 2017, and 2016, respectively. Advertising and marketing costs are recorded in the selling, distribution and administrative expense line item in our Consolidated Statements of Income.

Stock-Based Compensation. Stock-based compensation expense for all share-based payment awards granted is determined based on the grant date fair value. The company recognizes compensation costs only for those shares expected to vest on a straight-line basis over the requisite service period of the award, which is generally the vesting term of the share-based payment award. The shares issued for exercises and at vesting of the awards are issued from treasury stock. Forfeitures are recognized as they occur. See Note 19, Stock-Based Compensation, for additional disclosure. Stock-based compensation expense is primarily included in selling, distribution and administrative expense in the Consolidated Statements of Income.

Software Development Costs. The company expenses internal and external software development costs incurred in the preliminary project stage, and, thereafter, capitalizes costs incurred in developing or obtaining internally used software. Certain costs, such as maintenance and training, are expensed as incurred. Capitalized costs are amortized over a period of three to eight years and are subject to impairment evaluation. An impairment could be triggered if the company determines that the underlying software under review will no longer be used. The net balance of capitalized software development costs included in plant, property and equipment was $23.5 million and $30.5 million at December 29, 2018 and December 30, 2017, respectively. Amortization expense of capitalized software development costs, which is included in depreciation and amortization expense in the Consolidated Statements of Income, was $8.0 million, $4.1 million, and $3.3 million in fiscal years 2018, 2017, and 2016, respectively.

Income Taxes. The company accounts for income taxes using the asset and liability method and recognizes deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined based on the temporary differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income as a discrete item in the period that includes the enactment date.

On December 22, 2017, the President of the United States signed into law the Tax Cuts and Jobs Act (the “Act”). The legislation significantly changed the U.S. tax law including a reduction to the corporate income tax rate from a maximum of 35% to a flat 21% rate, effective January 1, 2018. In conjunction with tax reform, the SEC provided guidance which allows recording provisional amounts related to tax reform and subsequent adjustments during and up to a one-year measurement period, with the requirement that the accounting be completed in a period not to exceed one year from the date of enactment. As such, our accounting for the income tax effects of the Act is complete as of December 29, 2018. The company’s prior year financial results included the income tax effects of the Act for which the accounting was complete, and provisional amounts for those specific income tax effects of the Act for which the accounting was incomplete, but a reasonable estimate could be determined. The Act is discussed further in Note 23, Income Taxes.

The company records a valuation allowance to reduce its deferred tax assets to the amount that is more likely than not to be realized. The company has considered carryback, future taxable income, and prudent and feasible tax planning strategies in assessing the need for the valuation allowance. In the event the company was to determine that it would be more likely than not able to realize its deferred tax assets in the future in excess of its net recorded amount, an adjustment to the valuation allowance would increase income in the period such a determination was made. Likewise, should the company determine that it would not more likely than not be able to realize all or part of its net deferred tax assets in the future, an adjustment to the valuation allowance would decrease income in the period such determination was made.

The company releases the income tax effect from AOCI in the period that the underlying transaction impacts earnings. We adopted new accounting requirements that provide the option to reclassify stranded income tax effects resulting from the Act from AOCI to retained earnings. We elected to reclassify the stranded income tax effects resulting from the Act of $18.8 million from AOCI to retained earnings. This reclassification consists of deferred

taxes originally recorded in AOCI that exceed the newly enacted federal corporate tax rate.

The company recognizes a tax benefit from an uncertain tax position when it is more likely than not that the position will be sustained upon examination, including resolution of any related appeals or litigation process. Interest related to unrecognized tax benefits is recorded within the interest expense line in the accompanying Consolidated Statements of Income. See Note 23, Income Taxes, for additional disclosure.

The deductions column in the table below presents the amounts reduced in the deferred tax asset valuation allowance that were recorded to, and included as part of, deferred tax expense. The additions column represents amounts that increased the allowance.

Activity in the deferred tax asset valuation allowance is as follows (amounts in thousands):

	Beginning Balance	Deductions	Additions	Ending Balance
Fiscal 2018	$ 111	$ —	$ 253	$ 364
Fiscal 2017	$ 18	$ —	$ 93	$ 111
Fiscal 2016	$ 18	$ —	$ —	$ 18

Self-Insurance Reserves. The company is self-insured for various levels of general liability, auto liability, workers' compensation, and employee medical and dental coverage. Insurance reserves are calculated on an undiscounted basis based on actual claim data and estimates of incurred but not reported claims developed utilizing historical claim trends. Projected settlements of incurred but not reported claims are estimated based on pending claims and historical trends and data.

Loss Contingencies. Loss contingencies are recorded at the time it is probable an asset is impaired or a liability has been incurred and the amount can be reasonably estimated. For litigation claims the company considers the degree of probability of an unfavorable outcome and the ability to make a reasonable estimate of the loss. Losses are recorded in selling, distribution, and administrative expense in our Consolidated Statements of Income.

Net Income Per Common Share. Basic net income per share is computed by dividing net income by the weighted average common shares outstanding for the period. Diluted net income per share is computed by dividing net income by the weighted average common and common equivalent shares outstanding for the period. Common stock equivalents consist of the incremental shares associated with the company's stock compensation plans, as determined under the treasury stock method. The performance contingent restricted stock awards do not contain a non-forfeitable right to dividend equivalents and are included in the computation for diluted net income per share. Fully vested shares which have a deferral period extending beyond the vesting date are included in the computation for basic net income per share. See Note 21, Earnings Per Share, for additional disclosure.

Variable Interest Entities. The incorporated IDPs in the DSD Segment are not voting interest entities since the company has no direct interest in each entity; however, they qualify as variable interest entities ("VIEs"). The IDPs who are formed as sole proprietorships are excluded from the VIE accounting analysis because sole proprietorships are not within scope for determination of VIE status. The company typically finances the incorporated IDP and also enters into a contract with the incorporated IDP to supply product at a discount for distribution in the IDPs' territory. The combination of the company's loans to the incorporated IDP and the ongoing supply arrangements with the incorporated IDP provides a level of protection to the equity owners of the various distributorships that would not otherwise be available. However, the company is not considered to be the primary beneficiary of the VIEs. See Note 16, Variable Interest Entities, for additional disclosure of these VIEs.

The company also maintains a transportation agreement with an entity that transports a significant portion of the company's fresh bakery products from the company's production facilities to outlying distribution centers. The company represents a significant portion of the entity's revenue. This entity qualifies as a VIE, but the company has determined it is not the primary beneficiary of the VIE. See Note 16, Variable Interest Entities, for additional disclosure of these VIEs.

Pension/OPEB Obligations. The company records net periodic benefit costs and obligations related to its three defined benefit pension and two other post-employment benefit ("OPEB") plans based on actuarial valuations. These

valuations reflect key assumptions determined by management, including the discount rate and expected long-term rate of return on plan assets. The expected long-term rate of return assumption considers the asset mix of the plans' portfolios, past performance of these assets, the anticipated future economic environment, long-term performance of individual asset classes, and other factors. Material changes in benefit costs and obligations may occur in the future due to experience different than assumed and changes in these assumptions. Future benefit obligations and annual benefit costs could be impacted by changes in the discount rate, changes in the expected long-term rate of return, changes in the level of contributions to the plans', and other factors. The company has elected to measure plan assets and obligations using the month-end that is closest to our fiscal year end. The measurement date will be December 31st each year. Effective January 1, 2006, the company curtailed its largest defined benefit pension plan that covered the majority of its workforce. Benefits under this plan were frozen, and no future benefits will accrue under this plan. The company still maintains a smaller unfrozen pension plan for certain eligible unionized employees.

The company determines the fair value of substantially all its plans' assets utilizing market quotes rather than developing "smoothed" values, "market related" values, or other modeling techniques. Plan asset gains or losses in a given year are included with other actuarial gains and losses due to re-measurement of the plans' projected benefit obligations ("PBO"). If the total unrecognized gain or loss exceeds 10% of the larger of (i) the PBO or (ii) the market value of plan assets, the excess of the total unrecognized gain, or loss is amortized over the expected average future lifetime of participants in the frozen pension plans. The company uses a calendar year end for the measurement date since the plans are based on a calendar year and because it approximates the company's fiscal year end. See Note 22, Postretirement Plans, for additional disclosure.

Pension Plan Assets. Effective January 1, 2014, the Finance Committee ("committee") of the Board of Directors delegated its fiduciary and other responsibilities with respect to the plans to the newly established Investment Committee. The Investment Committee, which consists of certain members of management, establishes investment guidelines and strategies and regularly monitors the performance of the plans' assets. The Investment Committee is responsible for executing these strategies and investing the pension assets in accordance with ERISA and fiduciary standards. The investment objective of the pension plans is to preserve the plans' capital and maximize investment earnings within acceptable levels of risk and volatility. The Investment Committee meets on a regular basis with its investment advisors to review the performance of the plans' assets. Based upon performance and other measures and recommendations from its investment advisors, the Investment Committee rebalances the plans' assets to the targeted allocation when considered appropriate.

Fair Value of Financial Instruments. On September 28, 2016, the company issued $400.0 million of senior notes (the "2026 notes"). On April 3, 2012, the company issued $400.0 million of senior notes (the "2022 notes"). These notes are recorded in our financial statements at carrying value, net of debt discount and issuance costs. The debt discount and issuance costs are being amortized over the ten year term of the note to interest expense. In addition and for disclosure purposes, the fair value of the notes is estimated using yields obtained from independent pricing sources for similar types of borrowing arrangements and is considered a Level 2 valuation. Additional details are included in Note 17, Fair Value of Financial Instruments.

Research and Development Costs. The company recorded research and development costs of $4.9 million, $2.4 million, and $3.0 million for fiscal years 2018, 2017, and 2016, respectively. These costs are recorded as selling, distribution and administrative expenses in our Consolidated Statements of Income.

Other Comprehensive Income. The company reports comprehensive income in two separate but consecutive financial statements. See Note 20, Accumulated Other Comprehensive Income (Loss), for additional required disclosures.

Note 3. Recent Accounting Pronouncements

Pronouncements adopted during fiscal 2018

In May 2014, the FASB issued guidance for recognizing revenue in contracts with customers. This guidance 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. There are five steps outlined in the guidance to achieve this core principle. This guidance was adopted on December 31, 2017, the first day of our fiscal 2018. The company applied the guidance at adoption on the modified retrospective transition method. This guidance was applied to all contracts not completed at the adoption date. The adoption of this guidance did not impact our financial statements; however, updated disclosures are included in Note 1, Basis of Presentation. Changes were made to our internal control over financial reporting processes to ensure all contracts are reviewed for each of the five revenue recognition steps. Additionally, the company's revenue disclosures changed beginning in fiscal 2018. The new disclosures require more granularity into our sources of revenue, as well as the assumptions about recognition timing, and include our selection of certain practical expedients and policy elections.

In August 2016, the FASB issued guidance on the classification of certain cash receipts and payments in the statements of cash flows. This guidance was adopted on December 31, 2017, the first day of our fiscal 2018, and it did not impact the prior or current period presentation.

In January 2017, the FASB issued guidance to clarify the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. This guidance was adopted on December 31, 2017, the first day of our fiscal 2018. This guidance will impact the company's assessment of future transactions beginning in our fiscal 2018.

In March 2017, the FASB issued guidance that requires all employers to separately present the service cost component from the other pension and postretirement benefit cost components in the income statements. Service cost will now be presented with other employee compensation costs in operating income or capitalized in assets, as appropriate. The other components reported in the income statements will be reported separate from the service cost and outside of income from operations. This guidance was adopted on December 31, 2017, the first day of our fiscal 2018. The guidance is required to be applied on a retrospective basis for the presentation of the service cost component and the other components of net benefit cost, and on a prospective basis for the capitalization of only the service cost component of net benefit cost. The company has elected to use the practical expedient option and presented the amounts disclosed in our prior pension and postretirement footnote for the comparative prior period for the retrospective presentation requirement. The company did not capitalize pension cost. The impact (including defined benefit and postretirement plans) for fiscal 2017 and fiscal 2016 is presented in the table below (amounts in thousands):

	Fiscal 2017 As reported	Post-adoption*
Materials, supplies, labor and other production costs (exclusive of depreciation and amortization shown separately)	$2,009,063	$ 2,009,473
Selling, distribution and administrative expenses	$1,503,867	$ 1,510,015
Income from operations	$162,912	$ 161,003
Other components of net periodic pension and postretirement benefits credit	$—	$ (6,558)

	Fiscal 2016 As reported	Post-adoption*
Materials, supplies, labor and other production costs (exclusive of depreciation and amortization shown separately)	$2,026,367	$ 2,026,859
Selling, distribution and administrative expenses	$1,464,236	$ 1,469,382
Income from operations	$263,890	$ 264,898
Other components of net periodic pension and postretirement benefits credit	$—	$ (5,638)

In May 2017, the FASB issued guidance to provide clarity and reduce diversity in practice for changes to the terms and conditions of a share-based payment award. This guidance clarifies which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting. This guidance was adopted on December 31, 2017, the first day of our fiscal 2018. This guidance will impact any modified share-based payment awards beginning in our fiscal 2018.

In August 2017, the FASB amended the guidance for hedge accounting. This guidance makes more financial and nonfinancial hedging strategies eligible for hedge accounting. It also amends the presentation and disclosure requirements and changes the requirements for companies to separately measure ineffectiveness. It is intended to more closely align hedge accounting with companies' risk management strategies, simplify the application of hedge accounting, and increase transparency as to the scope and results of hedging activities. We elected to early adopt this guidance as of December 31, 2017, the first day of our fiscal 2018. All transition requirements and elections were applied to hedging relationships existing on the date of adoption. The amended presentation and disclosure

requirements must be applied prospectively. The guidance requires a modified retrospective transition method in which companies recognize the cumulative effect of the change on the opening balance of each affected component of equity on the balance sheet as of the date of adoption. There was no cumulative effect change to the company at adoption of this amended guidance.

In February 2018, the FASB issued guidance to allow a reclassification from AOCI to retained earnings for stranded tax effects resulting from the Act. We elected to early adopt this guidance as of December 31, 2017, the first day of our fiscal 2018. The table below presents the impact of this reclassification on December 31, 2017 (amounts in thousands):

	Impacted Line Item (Dr (Cr))	
	Retained Earnings	AOCI
Pension and postretirement plans	$(17,097)	$17,097
Hedged financial instruments	(1,709)	1,709
Total reclassifications of stranded income tax effects to retained earnings from AOCI	$(18,806)	$18,806

Accounting pronouncements not yet adopted

In February 2016, the FASB issued guidance that requires an entity to recognize lease liabilities and a right-of-use asset for virtually all leases (other than those that meet the definition of a short-term lease) on the balance sheet and to disclose key information about the entity's leasing arrangements. This guidance is effective for annual reporting periods beginning after December 15, 2018, including interim periods within those periods, with earlier adoption permitted. This guidance must be adopted using a modified retrospective approach for all leases existing at, or entered after, the date of initial adoption, with an option to elect transition relief.

The company has chosen to elect the modified retrospective approach provided by the guidance and will adopt the updated standard in fiscal 2019. We have chosen the option to not adjust prior comparative periods. The company will recognize a cumulative-effect adjustment to the opening balance of retained earnings at the adoption date under this option. As a result, the comparative periods presented in the financial statements in the period of adoption will be in accordance with current GAAP.

The new guidance provides several optional practical expedients in transition. We have chosen to elect the 'package of practical expedients', which allows us not to reassess under the new guidance our prior conclusions about lease identification, lease classification and initial direct costs. We did not elect the use-of-hindsight practical expedient. We have chosen to elect the short-term lease recognition exemption for all leases that qualify, which means we will not recognize right-of-use assets or lease liabilities for leases with original terms less than one year.

The company has a cross-functional project team focused on implementation of this new guidance. Our analysis includes a review of our current accounting policies and procedures and how these will be impacted upon adoption. We acquired a lease accounting software to facilitate implementation, and are currently installing, configuring and testing the software. The lease data abstraction is substantially complete. We are currently designing new processes and controls and evaluating our population of leased assets to assess the effect of the new guidance on our financial statements.

We estimate the expected increase in the right-of-use ("ROU") assets and liabilities on our Consolidated Balance Sheets upon adoption to be between $405.0 million and $430.0 million, respectively. We are finalizing our review of the lease portfolio and changes resulting from this review could impact the ROU assets and liabilities estimated within this range. The most significant impact will be the recognition of ROU assets and lease liabilities for operating leases, while our accounting for finance leases will remain substantially unchanged. We do not expect the impact of the standard to have a material effect on our Consolidated Statements of Income and Consolidated Statements of Cash Flows. The company currently has significant operating leases with our fiscal 2018 lease expense totaling $90.7 million.

In June 2016, the FASB issued guidance that effects loans, debt securities, trade receivables, net investments in leases, off-balance sheet credit exposures, reinsurance receivables, and any other financial assets not excluded from the scope that have the contractual right to receive cash. The company is determining what the impact, if any, will be on the trade and notes receivables recorded in our Consolidated Financial Statements. The guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019 (the company's fiscal 2020). Early adoption is permitted for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018 (the company's fiscal 2019). The company is evaluating when this guidance will be adopted and the impact on our Consolidated Financial Statements.

In January 2017, the FASB issued guidance to simplify the accounting for goodwill impairment. The guidance removed Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the

carrying amount of goodwill. Companies will still have the option to perform a qualitative assessment to determine if a quantitative impairment test is necessary. This guidance will be applied prospectively. Companies are required to disclose the nature of and reason for the change in accounting principle upon transition. That disclosure shall be provided in the first annual reporting period and in the interim period within the first annual reporting period when the company adopts this guidance. This change to the guidance is effective for fiscal years beginning after December 15, 2019 (the company's fiscal 2020) and is applicable in the company's fiscal 2020 Consolidated Financial Statements. Early adoption is permitted after January 1, 2017. The company is currently evaluating when this guidance will be adopted and the impact on our Consolidated Financial Statements.

In August 2018, the FASB issued guidance to modify the disclosure requirements on fair value measurements. The guidance removes, modifies, and adds certain disclosures related to Level 1, Level 2, and Level 3 assets. The guidance is effective for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019 (the company's fiscal 2020) and is applicable in the company's fiscal 2020 Consolidated Financial Statements. The company is currently evaluating when this guidance will be adopted and the impact on our Consolidated Financial Statements.

In August 2018, the FASB issued guidance to modify the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. The guidance is effective for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020 (the company's fiscal 2021). Disclosures will be removed for the amounts in AOCI expected to be recognized as components of net periodic benefit cost over the next fiscal year, the amount and timing of assets expected to be returned to the employer, certain related party disclosures, and the effects of a one-percentage-point change in the assumed health care cost trend rates. Additional disclosures include the weighted average interest crediting rate for plan with promised crediting interest rates and an explanation of the reasons for significant gains and losses related to the benefit obligation for the period. This guidance shall be applied on a retrospective basis. The company is currently evaluating when this guidance will be adopted and the impact to the disclosures in our Consolidated Financial Statements.

We have reviewed other recently issued accounting pronouncements and concluded that they are either not applicable to our business or that no material effect is expected upon future adoption.

Note 4. Financial Statement Revisions

During 2017, the company identified an error in reporting the cash flow impacts of certain repurchases and sales of territories. Cash receipts and payments for the repurchase and sale of territories and cash paid at the issuance of notes receivable were previously reported net when these transactions should have been disaggregated. The company has evaluated the impact of this error and determined it is not material to previously issued annual and interim financial statements. These corrections did not impact our previously reported Consolidated Balance Sheets, Consolidated Statements of Income, Consolidated Statements of Comprehensive Income, and Consolidated Statements of Changes in Stockholders' Equity.

The tables below present the revisions to the applicable Consolidated Statements of Cash Flows line item to correct the errors for all periods presented (amounts in thousands):

Impacted Consolidated Cash Flow Statement line item	Fiscal 2016 As Previously Reported	Revisions	New Guidance(1)	As Revised
Other reconciling items to net income	$(3,957)	$—	$ 3,851	$(106)
Other assets	$(11,107)	$ 7,666	$ —	$(3,441)
Other accrued liabilities	$12,389	$ (999)	$ —	$11,390
Net cash provided by operating activities	$346,044	$ 6,667	$ 3,851	$356,562
Repurchase of independent distributor territories	$(10,350)	$ 1,479	$ —	$(8,871)
Cash paid at issuance of notes receivable	$—	$ (8,577)	$ —	$(8,577)
Other investing activities	$2,091	$ 431	$ —	$2,522
Net cash disbursed for investing activities	$(70,047)	$ (6,667)	$ —	$(76,714)

(1) The table above includes the impact of adopting new share-based payment guidance discussed in Note 3, Recent Accounting Pronouncements.

Note 5. Loss on inferior ingredients

In June 2018, the company received from a supplier several shipments of inferior yeast, which reduced product quality and disrupted production and distribution of foodservice and retail bread and buns at several of the company's bakeries

during the second quarter. While the supplier confirmed that the inferior yeast used in the baking process was safe for consumption, customers and consumers reported instances of unsatisfactory product attributes, primarily involving smell and taste. Costs associated with inferior yeast were reclassified from material, supplies, labor and other production costs and selling, distribution and administrative expenses to the ‘Loss on inferior ingredients’ line item in our Consolidated Statements of Income.

In addition, the company incurred costs associated with inferior whey during the third quarter of fiscal 2018. A voluntary recall was issued on July 18, 2018 due to the potential of tainted whey. Costs associated with inferior whey were reclassified from material, supplies, labor and other production costs to the ‘Loss on inferior ingredients’ line item in our Consolidated Statements of Income. These costs primarily impacted the Warehouse Segment. Although we anticipate incurring additional costs associated with inferior whey, we are not currently able to estimate the amount of such costs.

The company recovered $4.2 million in cash from the supplier of inferior yeast that has offset the direct costs in the third quarter of fiscal 2018. During fiscal 2019, the company received an additional $1.3 million for the reimbursement of costs associated with receiving inferior yeast. We intend to seek additional recovery of all losses through appropriate means. The table below presents the total costs and recoveries during fiscal 2018 (amounts in thousands):

	DSD Segment	Warehouse Segment	Total
Expense recognized during fiscal 2018	$ 5,811	$ 1,557	$ 7,368
Recoveries recognized during fiscal 2018	(4,156)	—	(4,156)
Total loss on ingredients	$ 1,655	$ 1,557	$ 3,212

The currently identifiable and measurable costs reclassified during fiscal 2018 in our Consolidated Statements of Income by segment related to these production and distribution disruptions were as follows (amounts in thousands):

	Fiscal 2018
Materials, supplies, labor and other production costs (exclusive of depreciation and amortization shown separately):	
DSD Segment	$ 951
Warehouse Segment	$ 1,557
Total materials, supplies, labor and other production costs (exclusive of depreciation and amortization shown separately)	$ 2,508
Selling, distribution and administrative expenses:	
DSD Segment	$ 704
Warehouse Segment	$ —
Total selling, distribution and administrative expenses	$ 704

Note 6. Restructuring Activities

On August 10, 2016, we announced the launch of Project Centennial, a comprehensive business and operational review. We identified opportunities to enhance revenue growth, streamline operations, improve efficiencies, and make investments that strengthen our competitive position and improve margins over the long term. We began Project Centennial with an evaluation of our brands, product mix, and organizational structure. We then developed strategic priorities to help us capitalize on retail and consumer changes. The primary objective is to improve margins and profitably grow the revenue over time. These priorities are as follows:

Reduce costs to fuel growth. The company is focusing on reducing costs in our purchased goods and services initiative and our supply chain optimization plan. Purchased goods and services operations will be centralized to create standardization and continuously improve and to develop consistent policies and specifications. Supply chain optimization intends to reduce operational complexity and capitalize on scale. This initiative includes, and will

continue to include, consulting and other third-party costs as we finalize the organizational structure. We incurred $9.7 million during fiscal 2018, $37.3 million during fiscal 2017, and $6.3 million during fiscal 2016 of these non-restructuring consulting costs.

Develop leading capabilities. As of December 29, 2018, we report our financial results in either the DSD Segment or the Warehouse Segment. On May 3, 2017, the company announced an enhanced organizational structure designed to provide greater focus on the company's strategic objectives, emphasize brand growth and innovation in line with a national branded food company, drive enhanced accountability, reduce costs, and strengthen our long-term strategy. The new organizational structure established two BUs, Fresh Bakery and Snacking/Specialty, and realign key leadership roles. The new structure also provided for centralized marketing, sales, supply chain, shared-services/administrative, and corporate strategy functions, each with more clearly defined roles and responsibilities. On July 2, 2018, the company announced the creation of the Chief Operating Officer (COO) position, which continued refinements to the organizational structure. This role will be responsible for executing the company's strategies under Project Centennial, as well as overseeing the BUs, supply chain, sales, corporate strategy and ventures, and communications. The company intends to transition to the new structure over the next several months with full implementation expected to be completed in the beginning of fiscal 2019. We began relocating certain employees during the third quarter of fiscal 2017 as we transition to the enhanced organizational structure. Reorganization costs of $4.2 million and $1.9 million for fiscal 2018 and fiscal 2017, respectively, for relocating employees were incurred and are recorded in the restructuring and related impairment charges line item on the Consolidated Statements of Income. The current DSD and warehouse segmentation will remain until the new structure is fully implemented.

On July 17, 2017, the company commenced the VSIP. The VSIP was implemented as part of our effort to restructure, streamline operations, and better position the company for profitable growth. The VSIP election period closed on September 25, 2017 and resulted in approximately 325 employees accepting the offer. The separations began on September 7, 2017, and were substantially complete by the end of fiscal 2017. We recorded an aggregate charge of $29.7 million in fiscal 2017 for the VSIP and a credit of $0.6 million during fiscal 2018. We paid $4.6 million during fiscal 2017 and $24.2 million during fiscal 2018 related to the VSIP. These charges consist primarily of employee severance and benefits-related costs and are recorded in the restructuring and related impairment charges line item on our Consolidated Statements of Income.

Reinvigorate core business. This objective is to invest in our brands to align brands to consumers to maximize our return on investment. We expect to incur significant incremental marketing costs annually for brand development. These costs will not be restructuring and will be recognized as incurred. Project Centennial also included a brand rationalization study to identify high-potential and established brands to focus on innovation and cash flow, respectively. The study, which concluded in our third quarter of fiscal 2017, changed the outlook for several brands and resulted in the recognition of an impairment on certain of these finite-lived and indefinite-lived intangible trademark assets in our third quarter of fiscal 2017. A second product rationalization study to identify specific products that would be discontinued within certain brands was completed in the fourth quarter of fiscal 2018. The total intangible asset impairment charges, which are recorded in the restructuring and related impairment charges line item in our Consolidated Statements of Income, were $66.2 million. During fiscal 2018 we recorded a packaging impairment charge of $1.5 million as a result of the product rationalization study. See Note 10, Goodwill and Other Intangible Assets, for more information on these charges. Project Centennial is expected to be completed by our fiscal 2021.

The following restructuring impairments (inclusive of property, plant and equipment, packaging, and spare parts) were recognized, by segment, during fiscal 2018 (amounts in thousands):

	DSD Segment	Warehouse Segment	Total
Plant closure costs	$ 3,133	$ 204	$3,337
Line closure costs	—	718	718
Product rationalization costs	1,155	383	1,538
Total impairment of assets	$ 4,288	$ 1,305	$5,593

On November 6, 2018, the company announced the closure of a bakery in Brattleboro, Vermont. The bakery was closed during the fourth quarter of fiscal 2018 and consisted of a $2.5 million charge for property, plant, and equipment and a charge of $0.2 million for spare parts. An additional $0.5 million was related to a decision to sell a plant that is classified as held for sale. During the fourth quarter of fiscal 2018, the company recognized $0.7 million for closing various equipment lines at certain plants as a result of the supply chain analysis.

On August 9, 2017, the company announced the closure of a Warehouse Segment snack cake plant in Winston-Salem, North Carolina. The bakery closed in November 2017. The closure costs were $4.4 million and consisted of $3.4 million for property, plant and equipment impairments and $1.0 million for employee termination benefits during fiscal 2017. An additional $0.2 million was recognized during fiscal 2018 for equipment impairments. These amounts are recorded in the restructuring and related impairment charges line item on our Consolidated Statements of Income.

The company recognized $2.0 million in severance costs related to other reorganization initiatives during fiscal 2017. These costs are not related to the VSIP and were made pursuant to the company's normal severance policies.

Capitalize on product adjacencies. This initiative will focus on growing share in underdeveloped markets. Adjacencies are geographic and product categories that will allow us to leverage our competitive advantages. This can be done either organically with our high-potential brands or through strategic acquisitions. As of December 29, 2018, we cannot estimate how much this initiative will cost for restructuring.

See Note 25, Segment Reporting, for the allocation of restructuring charges to each of our segments. The table below presents the components of costs associated with Project Centennial (amounts in thousands):

	Fiscal 2018	Fiscal 2017
Restructuring and related impairment charges:		
Reorganization costs	$4,209	$1,925
VSIP	(606)	29,665
Impairment of assets	5,593	69,601
Employee termination benefits	571	2,939
Restructuring and related impairment charges (1)	9,767	104,130
Project Centennial implementation costs (2)	9,723	37,306
Total Project Centennial restructuring and implementation costs	$19,490	$141,436

(1) Presented on our Consolidated Statements of Income.
(2) Costs are recorded in the selling, distribution, and administrative expenses line item of our Consolidated Statements of Income.

The table below presents the components of, and changes in, our restructuring accruals (amounts in thousands):

	VSIP	Employee termination benefits[1]	Reorganization costs[2]	Total
Liability balance at December 31, 2016	$—	$ —	$ —	$—
Charges	29,665	2,939	1,925	34,529
Cash payments	(4,643)	(2,471)	(1,925)	(9,039)
Liability balance (3) at December 30, 2017	$25,022	$ 468	$ —	$25,490
Charges	(606)	571	4,209	4,174
Cash payments	(24,242)	(812)	(4,209)	(29,263)
Liability balance (3) at December 29, 2018	$174	$ 227	$ —	$401

(1) Employee termination benefits not related to the VSIP.
(2) Reorganization costs include employee relocation expenses.
(3) Recorded in the other accrued current liabilities line item of our Consolidated Balance Sheets.

Note 7. Divestiture

On January 14, 2017, the company completed the sale of a non-core mix manufacturing business located in Cedar Rapids, Iowa for $44.0 million, an amount reduced by a working capital adjustment of $2.8 million, resulting in net proceeds of $41.2 million. This resulted in a gain on sale of $28.9 million, which was recognized in the first quarter of fiscal 2017. The gain on the sale is presented on the Consolidated Statements of Income on the ‘Gain on divestiture’ line item. The mix manufacturing business was a small component of our Warehouse Segment and the disposal of this business does not represent a strategic shift in the segment’s operations or financial results. The table below presents a computation of the gain on divestiture (amounts in thousands):

Cash consideration received	$41,230
Recognized amounts of identifiable assets acquired and liabilities assumed by buyer:	
Property, plant, and equipment recorded as assets held for sale	3,824
Goodwill	801
Financial assets	7,730
Net derecognized amounts of identifiable assets sold	12,355
Gain on divestiture	$28,875

Note 8. Notes Receivable from IDPs

The company provides direct financing to certain IDPs for the purchase of the IDPs' distribution rights and records the notes receivable on the Consolidated Balance Sheets. The distribution rights are financed for up to ten years. During fiscal years 2018, 2017, and 2016 the following amounts were recorded as interest income, the majority of which relates to these notes receivable (amounts in thousands):

	Interest income
Fiscal 2018	$27,755
Fiscal 2017	$22,938
Fiscal 2016	$20,552

The notes receivable are collateralized by the IDPs' distribution rights. Additional details are included in Note 17, Fair Value of Financial Instruments.

Note 9. Assets Held for Sale

The company repurchases distribution rights from IDPs in circumstances when the company decides to exit a territory or, in some cases, when the IDP elects to terminate its relationship with the company. In most distributor agreements, if the company decides to exit a territory or stop using the independent distribution model in a territory, the company is contractually required to purchase the distribution rights from the IDP. In the event an IDP terminates its relationship with the company, the company, although not legally obligated, may repurchase and operate those distribution rights as a company-owned territory. The IDPs may also sell their distribution rights to another person or entity. Distribution rights purchased from IDPs and operated as company-owned territories are recorded on the Consolidated Balance Sheets in the line item "Assets Held for Sale" while the company actively seeks another IDP to purchase the distribution rights for the territory. Distribution rights held for sale and operated by the company are sold to IDPs at fair market value pursuant to the terms of a distributor agreement. There are multiple versions of the distributor agreement in place at any given time and the terms of such distributor agreements vary.

The company sold certain plants and depots that it acquired in July 2013 from Hostess Brands, Inc., which initially included 20 closed plants and 36 depots (the "Acquired Hostess Bread Assets"). The Acquired Hostess Bread Assets were originally recorded as held and used in the purchase price allocation. Subsequent to the acquisition of the Acquired Hostess Bread Assets, we determined that some of the acquired plants and depots did not meet our long-term operating strategy and were sold. There are certain other properties not associated with the Acquired Hostess Bread Assets that are also in the process of being sold. These assets are recorded on the Consolidated Balance Sheets in the line item "Assets Held for Sale" and are included in the "Other" line item in the summary table below.

During fiscal 2018, the company decided to sell its Tulsa, Oklahoma plant, which was a part of the Acquired Hostess Bread Assets and never placed in service. As a result, we recorded an impairment of $0.5 million.

During fiscal 2016, the company decided to sell additional Acquired Hostess Bread Assets not specifically reserved for future use. As a result, we recorded an impairment of $5.3 million for these plants, depots, and equipment and completed the sale in the fourth quarter of fiscal 2016.

The table below presents the proceeds from the sale of the Acquired Hostess Bread Assets for fiscal years 2018, 2017, and 2016 (amounts in thousands):

	Proceeds from sale of Acquired Hostess Bread Assets
Fiscal 2018	$ 667
Fiscal 2017	$ 6,848
Fiscal 2016	$ 9,079

In addition to the impairments for the Acquired Hostess Bread Assets above, during the fourth quarter of our fiscal 2016, we recognized an impairment loss of $4.6 million for the difference between the carrying value and fair value of other assets classified as held for sale.

Additional assets recorded in assets held for sale are for property, plant and equipment exclusive of the amounts disclosed as part of the Acquired Hostess Bread Assets and the disposal group discussed above. Also included in assets held for sale are property, plant and equipment of the Winston-Salem, North Carolina plant. The carrying values of assets held for sale are not amortized and are evaluated for impairment as required. The table below presents the assets held for sale as of December 29, 2018 and December 30, 2017, respectively (amounts in thousands):

	December 29, 2018	December 30, 2017
Distribution rights	$ 3,188	$ 13,584
Acquired Hostess Bread Assets plants and depots	2,360	479
Other	1,058	1,260
Total assets held for sale	$ 6,606	$ 15,323

Note 10. Goodwill and Other Intangible Assets

The table below summarizes our goodwill and other intangible assets at December 29, 2018 and December 30, 2017, respectively, each of which is explained in additional detail below (amounts in thousands):

	December 29, 2018	December 30, 2017
Goodwill	$545,379	$464,777
Amortizable intangible assets, net of amortization	588,329	535,842
Indefinite-lived intangible assets	206,600	206,600
Total goodwill and other intangible assets	$1,340,308	$1,207,219

The changes in the carrying amount of goodwill, by segment, during fiscal 2017 and fiscal 2018, are as follows (amounts in thousands):

	DSD Segment	Warehouse Segment	Total
Balance as of December 31, 2016	$424,563	$ 41,015	$465,578
Change in goodwill related to divestiture	—	(801)	(801)
Balance as of December 30, 2017	$424,563	$ 40,214	$464,777
Change in goodwill related to acquisition	57,056	23,546	80,602
Balance as of December 29, 2018	$481,619	$ 63,760	$545,379

Changes in goodwill during fiscal 2018 relate to the Canyon Bakehouse, LLC (“Canyon”) acquisition in both segments as discussed in Note 11, Acquisition. The changes in goodwill during fiscal 2017 were a result of the divestiture

discussed in Note 7, Divestiture. Goodwill was not impaired in fiscal years 2018, 2017, or 2016.

As of December 29, 2018 and December 30, 2017, the company had the following amounts related to amortizable intangible assets (amounts in thousands):

	December 29, 2018			December 30, 2017		
Asset	Cost	Accumulated Amortization	Net Value	Cost	Accumulated Amortization	Net Value
Trademarks	$413,092	$ 44,711	$368,381	$371,392	$ 34,716	$336,676
Customer relationships	318,021	99,904	218,117	281,621	84,280	197,341
Non-compete agreements	5,154	4,874	280	4,874	4,874	—
Distributor relationships	4,123	2,572	1,551	4,123	2,298	1,825
Total	$740,390	$ 152,061	$588,329	$662,010	$ 126,168	$535,842

As of December 29, 2018 and December 30, 2017, there was $206.6 million of indefinite-lived intangible trademark assets separately identified from goodwill. These trademarks are classified as indefinite-lived because there is no foreseeable limit to the period over which the asset is expected to contribute to our cash flows. They are well established brands with a long history and well defined markets. In addition, we are continuing to use these brands both in their original markets and throughout our expansion territories. We believe these factors support an indefinite-life assignment with an annual impairment analysis to determine if the trademarks are realizing their expected economic benefits.

Fiscal 2017 restructuring and related impairment charges

During fiscal 2017, the company recognized intangible asset impairments of $66.2 million that are recorded in the restructuring and related impairment charges line item of our Consolidated Statements of Income. The company is currently undergoing an enterprise-wide business and operational review as discussed in Note 6, Restructuring Activities. The review included a brand rationalization study that impacted certain trademarks' future use. The study was substantially completed in the third quarter of fiscal 2017. The study concluded that our brands should be classified as either national or regional and brands that did not fit into those categories were to be discontinued. National brands would have more marketing support than the de-emphasized remaining regional brands and in many cases would shift sales from regional brands as certain regional brand bread products are discontinued. As a result of these actions, a triggering event occurred and we examined several trademarks for potential impairment. One of the trademarks was an indefinite-lived trademark asset and was tested by comparing the fair value of the brand to its carrying value. Three finite-lived trademark assets were tested using an undiscounted cash flow test. As a result of this test, the projected cash flows for these brands did not exceed the carrying value. The second step of the test determined the fair value of the asset and the difference between the fair value and the carrying value was recorded as an impairment. The impairment charge also consisted of six brands that either are being discontinued or will have limited future benefits to the company. These brands were fully impaired. All of these impairments were attributed to regional brands. Following the impairments, we evaluated the classification of the impaired indefinite-lived asset and determined that it should be reassigned as finite-lived with an estimated useful life of 30 years. The table below presents the restructuring impairment charges by segment for fiscal 2017 (amounts in thousands):

	DSD Segment	Warehouse Segment	Total
Indefinite-lived intangible assets	$ 18,500	$ —	$ 18,500
Finite-lived intangible assets	36,612	11,135	47,747
Restructuring impairment charges	$ 55,112	$ 11,135	$ 66,247

Fiscal 2016 impairment charges

The company's core markets were flat in fiscal 2016. As a result, we noticed that several of our brands were performing below expectations in the back half of the year. This was caused primarily from our regional brands that were negatively impacted by our national brands and the flat market in general. The diagnostic phase of the study was completed in our fourth quarter of fiscal 2016 and, at the time, impacted certain trademarks' future revenue projections. We included the potential impact of this study (for brands known to be impacted at the time of the test) in our expected results while performing our annual impairment test for all of our indefinite-lived intangible trademark assets. This led to a $15.0 million impairment charge of three indefinite-lived trademarks. Following this impairment, the company evaluated the indefinite-lived classification and determined that the three trademarks which were impaired should be reassigned as finite-lived assets with an estimated useful life of forty years each. We do not intend to discontinue using these trademarks; however, our expectation of limiting them to each of their respective core markets impacts their growth potential. The carrying value of these three trademarks, before impairment, was $171.0 million. The fair value of these three trademarks was $156.0 million during our test. The difference between the carrying value and the fair value resulted in a $15.0 million impairment. The remaining indefinite-lived intangible trademark assets all had fair values in excess of their respective carrying values so no impairment was recognized.

Amortization expense

Amortization expense for fiscal years 2018, 2017, and 2016 was as follows (amounts in thousands):

	Amortization expense
Fiscal 2018	$ 25,892
Fiscal 2017	$ 27,274
Fiscal 2016	$ 24,502

Estimated amortization of intangibles for fiscal 2019 and the next four years thereafter is as follows (amounts in thousands):

Fiscal year	Amortization of Intangibles
2019	$ 29,210
2020	$ 28,606
2021	$ 27,893
2022	$ 27,189
2023	$ 26,309

Note 11. Acquisition
On December 14, 2018, the company completed the acquisition of 100% of the outstanding membership interests of Canyon, a leading gluten-free bread baker, from its members for total consideration of $205.2 million, including a $5.0 million earn-out recorded as contingent consideration. We believe the acquisition of Canyon strengthens our position as the second-largest baker in the U.S. by giving us access to the fast-growing gluten-free bread category. The acquisition has been accounted for as a business combination and the assets have been assigned to our DSD Segment and Warehouse Segment. Canyon's sales and results of operations were immaterial for fiscal 2018. The total goodwill recorded for this acquisition was $80.6 million and it is deductible for tax purposes.

During fiscal 2018, the company incurred $4.5 million of acquisition-related costs for Canyon. This table is based on preliminary valuations for the assets acquired, liabilities assumed, and the allocated intangible assets and goodwill. The acquisition-related costs were recorded in the selling, distribution and administrative expense line item in our Consolidated Statements of Income. The following table summarizes the consideration paid for Canyon based on the fair value at the acquisition date (amounts in thousands):

Fair Value of consideration transferred:	
Cash consideration paid	$200,208
Working capital adjustments	299
Contingent consideration	4,700
Total consideration	$205,207
Recognized amounts of identifiable assets acquired and liabilities assumed:	
Property, plant, and equipment	$42,128
Identifiable intangible assets	78,380
Financial assets	4,097
Net recognized amounts of identifiable assets acquired	124,605
Goodwill	$80,602

Property, plant and equipment in the table above includes real property and machinery and equipment

The following table presents the acquired intangible assets subject to amortization (amounts in thousands, except amortization periods):

	Total	Weighted average amortization	Attribution Method

		years	
Trademarks	$41,700	40.0	Straight-line
Customer relationships	36,400	25.0	Sum of year digits
Noncompete agreements	280	1.7	Straight-line
	$78,380	32.9	

The customer relationships are reported in the Warehouse Segment while the trademarks and noncompete assets are reported in the DSD Segment. Goodwill was allocated to the two segments using the acquisition method approach. Goodwill of $57.1 million and $23.5 million was allocated to the DSD Segment and Warehouse Segment, respectively.

The fair value of trade receivables was $3.6 million. The gross amount of the receivables were $3.7 million with $0.1 million determined to be uncollectible. We did not acquire any other class of receivables as a result of the Canyon acquisition.

Acquisition pro formas

We determined that the consolidated results of operations for Canyon were immaterial in the aggregate and the pro forma financial statements are not required for fiscal 2018. The purchase price allocation attributable to Canyon is preliminary. When all relevant information is obtained, resulting changes, if any, to our provisional purchase price allocation will be adjusted to reflect new information obtained about the facts and circumstances that existed as of the respective acquisition dates that, if known, would have affected the measurement of the amounts recognized as of those dates.

Note 12. Derivative Financial Instruments

The company measures the fair value of its derivative portfolio by using the price that would be received to sell an asset or paid to transfer a liability in the principal market for that asset or liability. These measurements are classified into a hierarchy by the inputs used to perform the fair value calculation as follows:

Level 1: Fair value based on unadjusted quoted prices for identical assets or liabilities at the measurement date

Level 2: Modeled fair value with model inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly

Level 3: Modeled fair value with unobservable model inputs that are used to estimate the fair value of the asset or liability

Commodity Price Risk

The company enters into commodity derivatives, designated as cash-flow hedges of existing or future exposure to changes in commodity prices. The company's primary raw materials are flour, sweeteners, yeast, and shortening, along with pulp, paper, and petroleum-based packaging products. Natural gas, which is used as oven fuel, is also an important commodity used for production.

As of December 29, 2018, the company's commodity hedge portfolio contained derivatives which are recorded in the following accounts with fair values measured as indicated (amounts in thousands):

	Level 1	Level 2	Level 3	Total
Assets:				
Other current assets	$501	$ —	$ —	$501
Other long-term assets	—	—	—	—
Total	$501	$ —	$ —	$501
Liabilities:				
Other current liabilities	$(7,732)	$ —	$ —	$(7,732)
Other long-term liabilities	(1,203)	—	—	(1,203)
Total	$(8,935)	$ —	$ —	$(8,935)
Net Fair Value	$(8,434)	$ —	$ —	$(8,434)

As of December 30, 2017, the company's commodity hedge portfolio contained derivatives which are recorded in the following accounts with fair values measured as indicated (amounts in thousands):

	Level 1	Level 2	Level 3	Total

Assets:				
Other current assets	$259	$ —	$ —	$259
Other long-term assets	32	—	—	32
Total	$291	$ —	$ —	$291
Liabilities:				
Other current liabilities	$(10,247)	$ —	$ —	$(10,247)
Other long-term liabilities	(639)	—	—	(639)
Total	(10,886)	—	—	(10,886)
Net Fair Value	$(10,595)	$ —	$ —	$(10,595)

The positions held in the portfolio are used to hedge economic exposure to changes in various raw materials and production input prices and effectively fixes the price, or limits increases in prices, for a period of time extending into fiscal 2018. These instruments are designated as cash-flow hedges. See Note 2, Summary of Significant Accounting Policies, for the accounting treatment of these hedged transactions.

Interest Rate Risk

The company entered into treasury rate locks on August 5, 2016 and August 8, 2016 to fix the interest rate for the 2026 notes issued on September 28, 2016. The derivative positions were closed when the debt was priced on September 23, 2016 with a cash settlement net receipt of $1.0 million that offset changes in the benchmark treasury rate between execution of the treasury rate locks and the debt pricing date. These rate locks were designated as a cash flow hedge. During fiscal 2016, the company recognized $0.1 million of ineffectiveness

due to issuing the debt earlier than the settlement date of the treasury locks. The ineffectiveness amount is reported as a selling, distribution, and administrative expense in our Consolidated Statements of Income.

The company entered into a treasury rate lock on March 28, 2012 to fix the interest rate for the 2022 notes issued on April 3, 2012. The derivative position was closed when the debt was priced on March 29, 2012 with a cash settlement that offset changes in the benchmark treasury rate between the execution of the treasury rate lock and the debt pricing date. This treasury rate lock was designated as a cash flow hedge.

The following table outlines the company's derivatives which were hedging the risk of changes in forecasted interest payments on forecasted issuance of long-term debt (amounts in thousands, before tax, and an asset is a positive value and a liability is a negative value):

Terminated	Description	Aggregate Notional Amount	Fair Value When Terminated	Fair Value Deferred in AOCI (1)	Ineffective Portion at Termination
April/2012	Treasury lock	$ 500,000	$ (3,137)	$ 2,510	$ 627
September/2016	Treasury lock	$ 200,000	$ 1,298	$ (1,298)	$ —
September/2016	Treasury lock	$ 150,000	$ (323)	$ 215	$ 108

(1) The amount reported in AOCI will be reclassified to interest expense as interest payments are made on the related notes.

Derivative Assets and Liabilities

The company had the following derivative instruments recorded on the Consolidated Balance Sheets, all of which are utilized for the risk management purposes detailed above (amounts in thousands):

	Derivative Assets			
	December 29, 2018		December 30, 2017	
Derivatives Designated as Hedging Instruments	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Commodity contracts	Other current assets	$ 501	Other current assets	$ 259
Commodity contracts	Other long-term assets	—	Other long-term assets	32
Total		$ 501		$ 291

	Derivative Liabilities			
	December 29, 2018		December 30, 2017	
Derivatives Designated as Hedging Instruments	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Commodity contracts	Other current liabilities	$ 7,732	Other current liabilities	$ 10,247
Commodity contracts		1,203		639

	Other long-term liabilities		Other long-term liabilities	
Total		$8,935		$10,886

Derivative AOCI transactions

The company had the following derivative instruments for deferred gains and (losses) on closed contracts and the effective portion for changes in fair value recorded in AOCI (no amounts were excluded from the effectiveness test), all of which are utilized for the risk management purposes detailed above (amounts in thousands and net of tax):

Derivatives in Cash Flow Hedging Relationships	Amount of Gain or (Loss) Recognized in OCI on Derivatives (Effective Portion) (Net of tax) Fiscal 2018	Fiscal 2017	Fiscal 2016
Interest rate contracts	$—	$—	$666
Commodity contracts	2,978	(6,789)	5,064
Total	$2,978	$(6,789)	$5,730

Derivatives in Cash Flow Hedging Relationships	Amount of (Gain) or Loss Reclassified from Accumulated OCI into Income (Effective Portion)(Net of tax) Fiscal 2018	Fiscal 2017	Fiscal 2016	Location of (Gain) or Loss Reclassified from AOCI into Income (Effective Portion)
Interest rate contracts	$107	$88	$135	Interest expense (income)
Commodity contracts	972	1,279	3,264	Production costs (1)
Total	$1,079	$1,367	$3,399	

1. Included in Materials, supplies, labor and other production costs (exclusive of depreciation and amortization shown separately).

The balance in accumulated other comprehensive loss (income) related to commodity price risk and interest rate risk derivative transactions that are closed or will expire over the next three years are as follows (amounts in thousands and net of tax) at December 29, 2018:

	Commodity Price Risk Derivatives	Interest Rate Risk Derivatives	Totals
Closed contracts	$ (2,153)	$ (15)	$(2,168)
Expiring in 2019	5,405	—	5,405

Expiring in 2020	782	—	782
Expiring in 2021	112	—	112
Expiring in 2022	6	—	6
Total	$ 4,152	$ (15)	$4,137

See Note 2, Summary of Significant Accounting Policies, for the accounting treatment of other comprehensive income for these hedged transactions.

Derivative transactions notional amounts

As of December 29, 2018, the company had entered into the following financial contracts to hedge commodity risks (amounts in thousands):

Derivatives in Cash Flow Hedging Relationships	Notional amount
Wheat contracts	$ 122,946
Soybean oil contracts	20,372
Corn contracts	10,570
Natural gas contracts	16,996
Total	$ 170,884

The company's derivative instruments contained no credit-risk-related contingent features at December 29, 2018. As of December 29, 2018, the company had $15.4 million recorded in other current assets, and on December 30, 2017, the company had $16.3 million recorded in other current assets representing collateral from or with counterparties for hedged positions.

Note 13. Other Current and Non-Current Assets

Other current assets consist of (amounts in thousands):

	December 29, 2018	December 30, 2017
Prepaid assets	$ 22,286	$ 22,154
Fair value of derivative instruments	501	259
Collateral to counterparties for derivative positions	15,408	16,324
Income taxes receivable	3,917	10,133
Other	1,125	767
Total	$ 43,237	$ 49,637

Other non-current assets consist of (amounts in thousands):

	December 29, 2018	December 30, 2017
Unamortized financing fees	$ 1,391	$ 1,787
Investments	3,125	3,434
Notes receivable	—	2,464
Deposits	2,257	2,342
Other	154	201
Total	$ 6,927	$ 10,228

The company impaired the notes receivable (not related to IDPs) because the counterparty defaulted on the note during the first quarter of fiscal 2018.

Note 14. Other Accrued Liabilities

Other accrued liabilities consist of (amounts in thousands):

	December 29, 2018	December 30, 2017
Employee compensation	$ 19,469	$ 15,276
VSIP liabilities	174	25,022
Employee vacation	23,345	22,638
Employee bonus	7,931	29,369
Fair value of derivative instruments	7,732	10,247
Insurance	29,353	30,052
Bank overdraft	10,550	5,699
Accrued interest	8,152	7,711
Accrued taxes	5,661	10,943
Accrued legal costs	3,874	7,877

Accrued advertising	3,145	1,477
Accrued legal settlements	9,053	6,928
Multi-employer pension plan withdrawal costs	—	15,223
Accrued short term deferred income	5,525	4,940
Contingent acquisition consideration	4,700	—
Other	8,695	7,066
Total	$ 147,359	$ 200,468

Note 15. Debt, Lease and Other Commitments

Long-term debt, including capital lease obligations, consisted of the following at December 29, 2018 and December 30, 2017:

	Interest Rate at December 29, 2018	Final Maturity	December 29, 2018	December 30, 2017
			(Amounts in thousands)	
Unsecured credit facility	5.60%	2022	$—	$—
2026 notes	3.50%	2026	395,550	394,978
2022 notes	4.38%	2022	398,423	397,941
Accounts receivable securitization facility	3.43%	2020	177,000	—
Capital lease obligations	3.92%	2026	21,942	27,150
Other notes payable	2.10%	2020	8,621	12,167
			1,001,536	832,236
Current maturities of long-term debt and capital lease obligations			10,896	12,095
Long-term debt and capital lease obligations			$990,640	$820,141

Bank overdrafts occur when checks have been issued but have not been presented to the bank for payment. Certain of our banks allow us to delay funding of issued checks until the checks are presented for payment. The delay in funding results in a temporary source of financing from the bank. The activity related to bank overdrafts is shown as a financing activity in our Consolidated Statements of Cash Flows. Bank overdrafts are included in other current liabilities on our Consolidated Balance Sheets. As of December 29, 2018 and December 30, 2017, the bank overdraft balance was $10.6 million and $5.7 million, respectively.

The company also had standby letters of credit ("LOCs") outstanding of $8.4 million and $8.7 million at December 29, 2018 and December 30, 2017, respectively, which reduce the availability of funds under the credit facility. The outstanding LOCs are for the benefit of certain insurance companies and lessors. None of the LOCs are recorded as a liability on the Consolidated Balance Sheets.

2026 Notes, Accounts Receivable Securitization Facility, 2022 Notes, and Credit Facility

2026 Notes. On September 28, 2016, the company issued $400.0 million of senior notes (the "2026 notes"). The company will pay semiannual interest on the 2026 notes on each April 1 and October 1, beginning on April 1, 2017, and the 2026 notes will mature on October 1, 2026. The notes bear interest at 3.500% per annum. The 2026 notes are subject to interest rate adjustments if either Moody's or S&P downgrades (or downgrades and subsequently upgrades) the credit rating assigned to the 2026 notes. On any date prior to July 1, 2026, the company may redeem some or all of the notes at a price equal to the greater of (1) 100% of the principal amount of the notes redeemed and (2) a "make-whole" amount plus, in each case, accrued and unpaid interest. The make-whole amount is equal to the sum of the present values of the remaining scheduled payments of principal and interest on the 2026 notes to be redeemed that would be due if such notes matured July 1, 2026 (exclusive of interest accrued to, but not including, the date of redemption), discounted to the date of redemption on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the treasury rate (as defined in the indenture governing the notes), plus 30 basis points, plus in each case accrued and unpaid interest. At any time on or after July 1, 2026, the company may redeem some or all of

the 2026 notes at a price equal to 100% of the principal amount of the notes redeemed plus accrued and unpaid interest. If the company experiences a "change of control triggering event" (which involves a change of control of the company and related rating of the notes below investment grade), it is required to offer to purchase the notes at a purchase price equal to 101% of the principal amount, plus accrued and unpaid interest thereon unless the company exercised its option to redeem the notes in whole. The 2026 notes are also subject to customary restrictive covenants, including certain limitations on liens and sale and leaseback transactions.

The face value of the 2026 notes is $400.0 million. There was a debt discount representing the difference between the net proceeds, after expenses, received upon issuance of debt and the amount repayable at its maturity. The company also paid issuance costs (including underwriting fees and legal fees) on the 2026 notes. Debt issuance costs and the debt discount are being amortized to interest expense over the term of the 2026 notes. As of December 29, 2018, the company was in compliance with all restrictive covenants under the indenture governing the 2026 notes. The table below presents the debt discount, underwriting fees and the legal and other fees for issuing the 2026 notes (amounts in thousands):

Total fees for 2026 notes	Amount at Issuance
Debt discount	$ 2,108
Underwriting, legal, and other fees	3,634
Total fees	$ 5,742

Accounts Receivable Securitization Facility. On July 17, 2013, the company entered into an accounts receivable securitization facility (the "facility"). The company has amended the facility six times since execution, most recently on September 27, 2018. These amendments include provisions which (i) increased the revolving commitments under the facility to $200.0 million from $150.0 million, (ii) added a leverage pricing grid, (iii) added an additional bank to the lending group, (iv) made certain other conforming changes, and (v) extended the term, most recently one additional year to September 27, 2020. The amendment that added the additional bank was accounted for as an extinguishment of the debt. The remaining amendments were accounted for as modifications.

Under the facility, a wholly-owned, bankruptcy-remote subsidiary purchases, on an ongoing basis, substantially all trade receivables. As borrowings are made under the facility, the subsidiary pledges the receivables as collateral. In the event of liquidation of the subsidiary, its creditors would be entitled to satisfy their claims from the subsidiary's pledged receivables prior to distributions of collections to the company. We include the subsidiary in our Consolidated Financial Statements. The facility contains certain customary representations and warranties, affirmative and negative covenants, and events of default. There were no amounts outstanding under the facility on December 30, 2017. As of December 29, 2018 and December 30, 2017, respectively, the company was in compliance with all restrictive covenants under the facility. The company currently has $1.3 million available under its facility for working capital and general corporate purposes. Amounts available for withdrawal under the facility are determined as the lesser of the total commitments and a formula derived amount based on qualifying trade receivables.

Optional principal repayments may be made at any time without premium or penalty. Interest is due two days after our reporting periods end in arrears on the outstanding borrowings and is computed as the cost of funds rate plus an applicable margin of 85 basis points. An unused fee of 30 basis points is applicable on the unused commitment at each reporting period. Financing costs paid at inception of the facility and at the time amendments are executed are being amortized over the life of the facility. The balance of unamortized financing costs was $0.2 million on December 29, 2018 and December 30, 2017 and are recorded in other assets on the Consolidated Balance Sheets.

2022 Notes. On April 3, 2012, the company issued $400.0 million of senior notes (the "2022 notes"). The company pays semiannual interest on the notes on each April 1 and October 1, beginning on October 1, 2012, and the notes will mature on April 1, 2022. The notes bear interest at 4.375% per annum. On any date prior to January 1, 2022, the company may redeem some or all of the notes at a price equal to the greater of (1) 100% of the principal amount of the notes redeemed and (2) a "make-whole" amount plus, in each case, accrued and unpaid interest. The make-whole amount is equal to the sum of the present values of the remaining scheduled payments of principal thereof (not including any interest accrued thereon to, but not including, the date of redemption), discounted to the date of redemption on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the treasury rate (as defined in the indenture governing the notes), plus 35 basis points, plus in each case, unpaid interest accrued thereon to, but not including, the date of redemption. At any time on or after January 1, 2022, the company may redeem some or all of the notes at a price equal to 100% of the principal amount of the notes redeemed plus accrued and unpaid interest. If the company experiences a "change of control triggering event" (which involves a change of control of the company and related rating of the notes below investment grade), it is required to offer to purchase the notes at a purchase price equal to 101% of the principal amount, plus accrued and unpaid interest thereon unless the company exercised its option to redeem the notes in whole. The notes are also subject to customary restrictive covenants, including certain limitations on liens and sale and leaseback transactions.

The face value of the notes is $400.0 million and the current discount on the notes is $0.3 million. The company paid issuance costs (including underwriting fees and legal fees) for issuing the notes of $3.9 million. The issuance costs and the debt discount are being amortized to interest expense over the term of the notes. As of December 29, 2018 and December 30, 2017, the company was in compliance with all restrictive covenants under the indenture governing the notes.

Credit Facility. On November 29, 2017 the company entered into the sixth amendment to its amended and restated credit agreement, dated as of October 24, 2003, with the lenders party thereto and Deutsche Bank AG New York Branch, as administrative agent, the swingline lender and issuing lender. The amendment, among other things (i) extends the maturity date of the existing credit agreement to November 29, 2022; (ii) amends the applicable margin for revolving loans maintained as (1) base rate loans and swingline loans to a range of 0.00% to 0.575% (from a range of 0.00% to 0.75% in the existing credit agreement) and (2) Eurodollar loans to a range of 0.575% to 1.575% (from a range of 0.70% to 1.75% in the existing credit agreement), in each case, based on the leverage ratio of the company and its subsidiaries; (iii) amends the applicable facility fee to a range of 0.05% to 0.30% (from a range of 0.05% to 0.50% in the existing credit agreement), due quarterly on all commitments under the amended credit agreement, based on the leverage ratio of the company and its subsidiaries; and (iv) amends the maximum leverage ratio covenant to permit the company, at its option, in connection with certain acquisitions and investments and subject to the terms and conditions provided in the amended credit agreement, to increase the maximum ratio permitted thereunder on one or more occasions to 4.00 to 1.00 for a period of four consecutive fiscal quarters, including and/or immediately following the fiscal quarter in which such acquisitions or investments were completed (the "covenant holiday"), provided that each additional covenant holiday will not be available to the company until it has achieved and maintained a leverage ratio of at least 3.75 to 1.00 and has been complied with for at least two fiscal quarters.

The credit facility is a five-year, $500.0 million senior unsecured revolving loan facility. The credit facility contains a provision that permits Flowers to request up to $200.0 million in additional revolving commitments, for a total of up to $700.0 million, subject to the satisfaction of certain conditions. Proceeds from the credit facility may be used for working capital and general corporate purposes, including capital expenditures, acquisition financing, refinancing of indebtedness, dividends and share repurchases. The credit facility includes certain customary restrictions, which, among other things, require maintenance of financial covenants and limit encumbrance of assets and creation of indebtedness. Restrictive financial covenants include such ratios as a minimum interest coverage ratio and a maximum leverage ratio. The company believes that, given its current cash position, its cash flow from operating activities and its available credit capacity, it can comply with the current terms of the amended credit facility and can meet its presently foreseeable financial requirements. As of December 29, 2018 and December 30, 2017, the company was in compliance with all restrictive covenants under the credit facility.

The company paid additional financing costs of $0.6 million in connection with the sixth amendment of the credit facility, which, in addition to the remaining balance in financing costs, is being amortized over the life of the credit facility. The company recognized an immaterial amount as interest expense for the modification at the time of the sixth amendment.

Amounts outstanding under the credit facility vary daily. Changes in the gross borrowings and repayments can be caused by cash flow activity from operations, capital expenditures, acquisitions, dividends, share repurchases, and tax payments, as well as derivative transactions which are part of the company's overall risk management strategy as discussed in Note 12, Derivative Financial Instruments. The table below presents the borrowings and repayments under the credit facility during fiscal 2018:

	Amount (thousands)
Balance as of December 30, 2017	$ —
Borrowings	5,900
Payments	(5,900)
Balance as of December 29, 2018	$ —

The table below presents the net amount available under the credit facility as of December 29, 2018:

	Amount (thousands)
Gross amount available	$ 500,000
Outstanding	—
Letters of credit	(8,400)
Available for withdrawal	$ 491,600

The table below presents the highest and lowest outstanding balance under the credit facility during fiscal 2018:

	Amount (thousands)
High balance	$ 4,900
Low balance	$ —

Aggregate debt maturities. Aggregate maturities of debt outstanding, including capital leases, as of December 29, 2018, are as follows (excluding unamortized debt discount and issuance costs) (amounts in thousands):

2019	$ 10,896
2020	183,874
2021	3,886
2022	402,395
2023	2,108
Thereafter	404,533
Total	$ 1,007,692

Debt issuance costs and debt discount. The table below reconciles the debt issuance costs and debt discounts to the net carrying value of each of our debt obligations (excluding line-of-credit arrangements) at December 29, 2018 (amounts in thousands):

	Face Value	Debt issuance costs and debt discount	Net carrying value
2026 notes	$400,000	$ 4,450	$395,550
2022 notes	400,000	1,577	398,423
Other notes payable	8,750	129	8,621
Total	$808,750	$ 6,156	$802,594

The table below reconciles the debt issuance costs and debt discounts to the net carrying value of each of our debt obligations (excluding line-of-credit arrangements) at December 30, 2017 (amounts in thousands):

	Face Value	Debt issuance costs and debt discount	Net carrying value
2026 notes	$400,000	$ 5,022	$394,978
2022 notes	400,000	2,059	397,941
Other notes payable	12,500	333	12,167
Total	$812,500	$ 7,414	$805,086

Leases

The company leases certain property and equipment under various operating and capital lease arrangements that expire over the next 18 years. The property leases include distribution facilities, thrift store locations, and two manufacturing facilities. The equipment leases include production, sales, distribution, and office equipment. Initial lease terms range from two to 26 years. Many of the operating leases provide the company with the option, after the initial lease term, either to purchase the property at the then fair value or renew its lease at fair value rents for periods from one month to ten years. Rent escalations vary in these leases, from no escalation over the initial lease term, to escalations linked to changes in economic variables such as the Consumer Price Index. Rental expense is recognized on a straight-line basis over the terms of the leases. The capital leases are primarily used for distribution vehicle financing and are discussed in Note 16, Variable Interest Entities, below. Future minimum lease payments under scheduled capital leases that have initial or remaining non-cancelable terms in excess of one year are as follows (amounts in thousands):

	Capital Leases
2019	$6,392
2020	3,511
2021	4,191
2022	2,620
2023	2,263
Thereafter	4,631
Total minimum payments	23,608
Amount representing interest	1,666
Obligations under capital leases	21,942
Obligations due within one year	5,896
Long-term obligations under capital leases	$16,046

The table below presents the total future minimum lease payments under scheduled operating leases that have initial or remaining non-cancelable terms in excess of one year (amounts in thousands):

	Operating Leases
2019	$65,071
2020	60,378
2021	50,744
2022	44,798
2023	36,308
Thereafter	232,423
Total minimum payments	$489,722

Rent expense for all operating leases was as follows (amounts in thousands):

	Rent expense
Fiscal 2018	$90,660
Fiscal 2017	$95,014
Fiscal 2016	$97,357

Deferred Compensation

The Executive Deferred Compensation Plan ("EDCP") consists of unsecured general obligations of the company to pay the deferred compensation of, and our contributions to, participants in the EDCP. The obligations will rank equally with our other unsecured and unsubordinated indebtedness payable from the company's general assets.

The company's directors and certain key members of management are eligible to participate in the EDCP. Directors may elect to defer all or any portion of their annual retainer fee and meeting fees. Deferral elections by directors must be made prior to the beginning of each year and are thereafter irrevocable. Eligible employees may elect to defer up to 75% of their base salaries, and up to 100% of any cash bonuses and other compensation through December 31, 2015. Effective January 1, 2016, employees may elect to defer up to 75% of their base salaries, any cash bonuses, and other compensation. Deferral elections by eligible executives must be made prior to the beginning of each year and are thereafter irrevocable during that year. The portion of the participant's compensation that is deferred depends on the participant's election in effect with respect to his or her elective contributions under the EDCP.

The amounts outstanding at December 29, 2018 and December 30, 2017 were as follows (amounts in thousands):

	December 29, 2018	December 30, 2017
Deferral elections outstanding	$ 15,996	$ 15,732
Current portion of deferral elections	1,015	1,238
Long-term portion of deferral elections	$ 14,981	$ 14,494

Guarantees and Indemnification Obligations

The company has provided various representations, warranties, and other standard indemnifications in various agreements with customers, suppliers, and other parties as well as in agreements to sell business assets or lease facilities. In general, these provisions indemnify the counterparty for matters such as breaches of representations and warranties, certain environmental conditions and tax matters, and, in the context of sales of business assets, any liabilities arising prior to the closing of the transactions. Non-performance under a contract could trigger an obligation of the company. The ultimate effect on future financial results is not subject to reasonable estimation because considerable uncertainty exists as to the final outcome of any potential claims.

No material guarantees or indemnifications have been entered into by the company through December 29, 2018.

Note 16. Variable Interest Entities

Transportation agreement variable interest entity (the "VIE") analysis

The company maintains a transportation agreement with an entity that transports a significant portion of the company's fresh bakery products from the company's production facilities to outlying distribution centers. The company represents a significant portion of the entity's revenue. This entity qualifies as a VIE, but the company has determined it is not the primary beneficiary of the VIE because the company does not (i) have the ability to direct the significant activities of the VIE and (ii) provide any implicit or explicit guarantees or other financial support to the VIE for specific return or performance benchmarks. In addition, we do not provide, nor do we intend to provide, financial or other support to the entity.

The company has concluded that certain of the trucks and trailers the VIE uses for distributing our products from the manufacturing facilities to the distribution centers qualify as right to use leases. As of December 29, 2018 and December 30, 2017, there was $21.9 million and $27.2 million, respectively, in net property, plant and equipment and capital lease obligations associated with the right to use leases.

Distribution rights agreement VIE analysis

The incorporated IDPs in the DSD Segment qualify as VIEs. The IDPs who are formed as sole proprietorships are excluded from the following VIE accounting analysis and discussion.

Incorporated IDPs acquire distribution rights and enter into a contract with the company to sell the company's products in the IDPs' defined geographic territory. The incorporated IDPs have the option to finance the acquisition of their distribution rights with the company. They can also pay cash or obtain external financing at the time they acquire the distribution rights. The combination of the company's loans to the incorporated IDPs and the ongoing distributor arrangements with the incorporated IDPs provide a level of funding to the equity owners of the various incorporated IDPs that would not otherwise be available. As of December 29, 2018 and December 30, 2017, there was $154.4 million and $137.9 million, respectively, in gross distribution rights notes receivable outstanding from incorporated IDPs.

The company is not considered to be the primary beneficiary of the VIEs because the company does not (i) have the ability to direct the significant activities of the VIEs that would affect their ability to operate their respective businesses and (ii) provide any implicit or explicit guarantees or other financial support to the VIEs, other than the financing described above, for specific return or performance benchmarks. The activities controlled by the incorporated IDPs that are deemed to most significantly impact the ultimate success of the incorporated IDP entities relate to those decisions inherent in operating the distribution business in the territory, including acquiring trucks and trailers, managing fuel costs, employee matters and other strategic decisions. In addition, we do not provide, nor do we intend to provide, financial or other support to the IDP. The IDPs are responsible for the operations of their respective territories.

The company's maximum contractual exposure to loss for the incorporated IDP relates to the distributor rights note receivable for the portion of the territory the incorporated IDPs financed at the time they acquired the distribution rights. The incorporated IDPs remit payment on their distributor rights note receivable each week during the settlement process of their weekly activity. The company will operate a territory on behalf of an incorporated IDP in situations where the IDP has abandoned its distribution rights. Any remaining balance outstanding on the distribution rights notes receivable is relieved once the distribution rights have been sold on the IDPs behalf. The company's collateral from the territory distribution rights mitigates the potential losses.

Note 17. Fair Value of Financial Instruments

The carrying value of cash and cash equivalents, accounts receivable, and short-term debt approximates fair value because of the short-term maturity of the instruments. Notes receivable are entered into in connection with the purchase of distribution rights by IDPs. These notes receivable are recorded in the Consolidated Balance Sheet at carrying value, which represents the closest approximation of fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. As a result, the appropriate interest rate that should be used to estimate the fair value of the distribution rights notes is the prevailing market rate at which similar loans would be made to IDPs with similar credit ratings and for the same maturities. However, the company financed approximately 4,300 and 4,000 IDPs' distribution rights as of December 29, 2018 and December 30, 2017, respectively, all with varied financial histories and credit risks. Considering the diversity of credit risks among the IDPs, the company has no method to accurately determine a market interest rate to apply to the notes. The distribution rights are generally financed for up to ten years and the distribution rights notes are collateralized by the IDPs' distribution rights. The company maintains a wholly-owned subsidiary to assist in financing the distribution rights purchase activities if requested by new IDPs, using the distribution rights and certain associated assets as collateral. These notes receivable earn interest at a fixed rate.

At December 29, 2018 and December 30, 2017, respectively, the carrying value of the distribution rights notes receivable was as follows (amounts in thousands):

	December 29, 2018	December 30, 2017
Distribution rights notes receivable	$230,470	$211,702
Current portion recorded in accounts and notes receivable, net	26,345	23,965
Long-term portion of distribution rights notes receivable	$204,125	$187,737

At December 29, 2018 and December 30, 2017, the company has evaluated the collectability of the distribution rights notes receivable and determined that a reserve is not necessary. Payments on these notes are collected by the company weekly in conjunction with the IDP settlement process.

The fair value of the company's variable rate debt at December 29, 2018 approximates the recorded value. The fair value of the company's notes, as discussed in Note 15, Debt, Lease and Other Commitments, are estimated using yields obtained from independent pricing sources for similar types of borrowing arrangements and are considered a Level 2 valuation. The fair value of the notes are presented in the table below (amounts in thousands, except level classification):

	Carrying Value	Fair Value	Level
2026 notes	$395,550	$379,344	2
2022 notes	$398,423	$403,852	2

For fair value disclosure information about our derivative assets and liabilities see Note 12, Derivative Financial Instruments. For fair value disclosure information about our pension plan net assets see Note 22, Postretirement Plans.

Note 18. Stockholders' Equity

Flowers Foods' articles of incorporation provide that its authorized capital consist of 500,000,000 shares of common stock having a par value of $0.01 per share and 1,000,000 shares of preferred stock. The preferred stock of which (a) 200,000 shares have been designated by the Board of Directors as Series A Junior Participating Preferred Stock, having a par value per share of $100 and (b) 800,000 shares of preferred stock, having a par value per share of $0.01, have not been designated by the Board of Directors. No shares of preferred stock have been issued by Flowers Foods.

Common Stock

The holders of Flowers Foods common stock are entitled to one vote for each share held of record on all matters submitted to a vote of shareholders. Subject to preferential rights of any issued and outstanding preferred stock, including the Series A Preferred Stock, holders of common stock are entitled to receive ratably such dividends, if any, as may be declared by the Board of Directors of the company out of funds legally available. In the event of a liquidation, dissolution, or winding-up of the company, holders of common stock are entitled to share ratably in all assets of the company, if any, remaining after payment of liabilities and the liquidation preferences of any issued and outstanding preferred stock, including the Series A Preferred Stock. Holders of common stock have no preemptive rights, no cumulative voting rights, and no rights to convert their shares of common stock into any other securities of the company or any other person.

Preferred Stock

The Board of Directors has the authority to issue up to 1,000,000 shares of preferred stock in one or more series and to fix the designations, relative powers, preferences, rights, qualifications, limitations, and restrictions of all shares of each such series, including without limitation, dividend rates, conversion rights, voting rights, redemption and sinking fund provisions, liquidation preferences, and the number of shares constituting each such series, without any further vote or action by the holders of our common stock. Although the Board of Directors does not presently intend to do so, it could issue shares of preferred stock, with rights that could adversely affect the voting power and other rights of holders of our common stock without obtaining the approval of our shareholders. In addition, the issuance of preferred

shares could delay or prevent a change in control of the company without further action by our shareholders.

Stock Repurchase Plan

Our Board of Directors has approved a plan (on December 19, 2002) that currently authorizes share repurchases of up to 74.6 million shares of the company's common stock. As of December 29, 2018, 6.5 million shares remained available for repurchase under the existing authorization. Under the plan, the company may repurchase its common stock in open market or privately negotiated transactions or under an accelerated repurchase program at such times and at such prices as determined to be in the company's best interest.

The table below presents the shares repurchased under the Stock Repurchase Plan during our fiscal 2018 (amounts in thousands except shares purchased):

Fiscal 2018 Quarter	Total Number of Shares Purchased	Total Cost of Shares Purchased
For the quarter ended April 21, 2018	120,147	$ 2,489
For the quarter ended July 14, 2018	—	$ —
For the quarter ended October 6, 2018	—	$ —
For the quarter ended December 29, 2018	—	$ —
Total	120,147	$ 2,489

As of December 29, 2018, 68.0 million shares at a cost of $635.6 million have been purchased since the inception of this plan.

Accelerated Share Repurchase Program

On March 16, 2016, the company announced that we entered into an accelerated share repurchase program (“ASR”) agreement to repurchase an aggregate of $120.0 million of the company’s common stock. Under the terms of the ASR, the company paid $120.0 million in cash and received an initial delivery of 5.6 million shares immediately. The final number of shares repurchased was based on the daily volume-weighted average stock price over the life of the transaction, less a negotiated discount. During the second quarter of fiscal 2016, a total of 0.9 million shares were issued to the company at the time of final settlement. The ASR met all applicable criteria for equity classification and, therefore, was not accounted for as a derivative instrument. Shares repurchased under the ASR were added to our treasury shares. The company funded the ASR with borrowings on its credit facility and cash on hand.

Dividends

During fiscal years 2018, 2017, and 2016, the company paid the following dividends, excluding dividends on vested stock-based compensation awards discussed in Note 19, Stock-Based Compensation, below (amounts in thousands except per share data):

	Dividends paid	Dividends paid per share
Fiscal 2018	$ 149,716	$ 0.7100
Fiscal 2017	$ 140,429	$ 0.6700
Fiscal 2016	$ 130,490	$ 0.6250

Note 19. Stock-Based Compensation

On March 5, 2014, our Board of Directors approved and adopted the 2014 Omnibus Equity and Incentive Compensation Plan (“Omnibus Plan”). The Omnibus Plan was approved by our shareholders on May 21, 2014. The Omnibus Plan authorizes the compensation committee of the Board of Directors to provide equity-based compensation in the form of stock options, stock appreciation rights, restricted stock, restricted stock units, performance shares, performance units, dividend equivalents and other awards for the purpose of providing our officers, key employees, and non-employee directors’ incentives and rewards for performance. The Omnibus Plan replaced the Flowers Foods’ 2001 Equity and Performance Incentive Plan, as amended and restated as of April 1, 2009 (“EPIP”), the Stock Appreciation Rights Plan, and the Annual Executive Bonus Plan. All outstanding equity awards that were made under the EPIP will continue to be governed by the EPIP; however, all equity awards granted after May 21, 2014 are governed by the Omnibus Plan. No additional awards will be issued under the EPIP. Awards granted under the Omnibus Plan are limited to the authorized amount of 8,000,000 shares.

The EPIP authorized the compensation committee of the Board of Directors to make awards of options to purchase our common stock, restricted stock, performance stock and units and deferred stock. The company’s officers, key employees and non-employee directors (whose grants are generally approved by the full Board of Directors) were eligible to receive awards under the EPIP. Over the life of the EPIP, the company issued options, restricted stock and deferred stock.

The following is a summary of stock options, restricted stock, and deferred stock outstanding under the plans described above. Information relating to the company’s stock appreciation rights, which were issued under a separate stock appreciation right plan, is also described below. There were no share-based payment grants to employees during fiscal 2018.

Stock Options

The company issued non-qualified stock options (“NQSOs”) during fiscal years 2011 and prior that have all been fully exercised.

The stock option activity for fiscal years 2018, 2017, and 2016 pursuant to the EPIP is set forth below (amounts in thousands, except price data):

	Fiscal 2018		Fiscal 2017		Fiscal 2016	
	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price
Outstanding at beginning of year	73	$ 10.87	1,846	$ 10.89	4,353	$ 10.97
Exercised	(73)	$ 10.87	(1,773)	$ 10.89	(2,507)	$ 11.02
Outstanding at end of year	—	$ —	73	$ 10.87	1,846	$ 10.89
Exercisable at end of year	—		73		1,846	

The cash received, the windfall tax benefits, and intrinsic value from stock option exercises for fiscal years 2018, 2017, and 2016 are set forth below (amounts in thousands):

	Fiscal 2018	Fiscal 2017	Fiscal 2016
Cash received from option exercises	$ 791	$ 19,313	$ 27,631
Cash tax windfall benefit, net	$ 111	$ 4,186	$ 3,746
Intrinsic value of stock options exercised	$ 609	$ 14,994	$ 15,778

Performance-Contingent Restricted Stock Awards

Performance-Contingent Total Shareholder Return Shares (“TSR Shares”)

Since 2012, certain key employees have been granted performance-contingent restricted stock under the EPIP and the Omnibus Plan in the form of TSR Shares. The awards generally vest approximately two years from the date of grant (after the filing of the company’s Annual Report on Form 10-K), and the shares become non-forfeitable if, and to the extent that, on that date the vesting conditions are satisfied. As a result of the delay (July as opposed to January) in the grant of the 2012 awards, the 2012 awards vested during the first quarter of 2014, 18 months from the grant date. Awards granted subsequent to the 2012 award (granted during the first quarters of their respective years) vest two years from the date of grant. The total shareholder return (“TSR”) is the percent change in the company’s stock price over the measurement period plus the dividends paid to shareholders. The performance payout is calculated at the end of each of the last four quarters (averaged) in the measurement period. Once the TSR is determined for the company (“Company TSR”), it is compared to the TSR of our food company peers (“Peer Group TSR”). The Company TSR compared to the Peer Group TSR will determine the payout as set forth below (the “TSR Modifier”):

Percentile	Payout as % of Target
90th	200 %
70th	150 %
50th	100 %
30th	50 %
Below 30th	0 %

For performance between the levels described above, the degree of vesting is interpolated on a linear basis. The table below presents the payout percentage for each of the TSR awards:

Award	Fiscal year vested	Payout (%)
2014 award	Fiscal 2016	27
2015 award	Fiscal 2017	0
2016 award	Fiscal 2018	12.5

The TSR shares vest immediately if the grantee dies or becomes disabled. However, if the grantee retires at age 65 (or age 55 with at least 10 years of service with the company) or later, on the normal vesting date the grantee will receive a pro-rated number of shares based upon the retirement date and measured at the actual performance for the entire performance period. In addition, if the company undergoes a change in control, the TSR shares will immediately vest at the target level, provided that if 12 months of the performance period have been completed, vesting will be determined based on Company TSR as of the date of the change in control without application of four-quarter averaging. During the vesting period, the grantee has none of the rights of a shareholder. Dividends declared during the vesting period will accrue and will be paid at vesting on the shares that ultimately vest. The fair value estimate was determined using a Monte Carlo simulation model, which utilizes multiple input variables to estimate the probability of the company achieving the market condition discussed above. Inputs into the model included the following for the company and comparator companies: (i) TSR from the beginning of the performance cycle through the measurement date; (ii) volatility; (iii) risk-free interest rates; and (iv) the correlation of the comparator companies' TSR. The inputs are based on historical capital market data.

The following performance-contingent TSR Shares have been granted under the Omnibus Plan and have service period remaining (amounts in thousands, except price data):

Grant date	January 1, 2017
Shares granted	426
Assumed vesting date	3/1/2019
Fair value per share	$ 23.31

As of December 29, 2018, there was $0.7 million of total unrecognized compensation cost related to nonvested TSR Shares granted under the Omnibus Plan. That cost is expected to be recognized over a weighted-average period of 0.17 years. There were no TSR Shares granted by our Board of Directors in fiscal 2018.

Performance-Contingent Return on Invested Capital Shares ("ROIC Shares")

Since 2012, certain key employees have been granted performance-contingent restricted stock under the EPIP and the Omnibus Plan in the form of ROIC Shares. The awards generally vest approximately two years from the date of grant (after the filing of the company's Annual Report on Form 10-K), and the shares become non-forfeitable if, and to the extent that, on that date, the vesting conditions are satisfied. As a result of the delay (July as opposed to January) in the grant of the 2012 awards, the 2012 awards vested during the first quarter of 2014, 18 months from the grant date. Awards granted subsequent to the 2012 award (granted during the first quarters of their respective years) vest two years from the date of grant. Return on Invested Capital is calculated by dividing our profit, as defined, by the invested capital ("ROIC"). Generally, the performance condition requires the company's average ROIC to exceed its average weighted cost of capital ("WACC") by between 1.75 to 4.75 percentage points (the "ROI Target") over the two fiscal year performance period. If the lowest ROI Target is not met, the awards are forfeited. The shares can be earned based on a range from 0% to 125% of target as defined below (the "ROIC Modifier"):

- 0% payout if ROIC exceeds WACC by less than 1.75 percentage points;
- ROIC above WACC by 1.75 percentage points pays 50% of ROI Target; or
- ROIC above WACC by 3.75 percentage points pays 100% of ROI Target; or
- ROIC above WACC by 4.75 percentage points pays 125% of ROI Target.

For performance between the levels described above, the degree of vesting is interpolated on a linear basis. The table below presents the payout percentage for each of the ROIC awards:

Award	Fiscal year vested	Payout (%)
2014 award	Fiscal 2016	96
2015 award	Fiscal 2017	87
2016 award	Fiscal 2018	70

The ROIC Shares vest immediately if the grantee dies or becomes disabled. However, if the grantee retires at age 65 (or age 55 with at least 10 years of service with the company) or later, on the normal vesting date the grantee will receive a pro-rated number of shares based upon the retirement date and actual performance for the entire performance period. In addition, if the company undergoes a change in control, the ROIC Shares will immediately vest at the target level. During the vesting period, the grantee has none of the rights of a shareholder. Dividends declared during the vesting period will accrue and will be paid at vesting on the shares that ultimately vest. The fair value of this type of award is equal to the stock price on the grant date. Since these awards have a performance condition feature the expense associated with these awards may change depending on the expected ROI Target attained at each reporting period. The expected ROI Target for expense calculations at December 29, 2018 was 80% for the 2017 award. The following performance-contingent ROIC Shares have been granted under the Omnibus Plan and have service period remaining (amounts in thousands, except price data):

Grant date	January 1, 2017
Shares granted	426
Assumed vesting date	3/1/2019
Fair value per share	$ 19.97

As of December 29, 2018, there was $0.5 million of total unrecognized compensation cost related to nonvested ROIC Shares granted under the EPIP. This cost is expected to be recognized over a weighted-average period of 0.17 years. There were no ROIC Shares granted by our Board of Directors in fiscal 2018.

Performance-Contingent Restricted Stock Summary

The table below presents the TSR Modifier share adjustment, ROIC Modifier share adjustment, accumulated dividends on vested shares, and the tax windfall/shortfall at vesting of the performance-contingent restricted stock awards (amounts in thousands except for share data):

Award granted	Fiscal year vested	TSR Modifier increase/(decrease) shares	ROIC Modifier increase/(decrease) shares	Dividends at vesting (thousands)	Tax windfall/(shortfall)	Fair value at vesting
2016	2018	(333,112)	(114,190)	$ 405	$ (2,130)	$ 6,504
2015	2017	(378,219)	(49,272)	$ 392	$ (3,103)	$ 6,316
2014	2015	(248,872)	(13,637)	$ 441	$ (3,090)	$ 7,173

A summary of the status of all of the company's nonvested shares for performance-contingent restricted stock (including the TSR Shares and the ROIC Shares) for fiscal 2018, 2017 and 2016 is set forth below (amounts in thousands, except price data):

	Fiscal 2018		Fiscal 2017		Fiscal 2016	
	Number of Shares	Weighted Average Fair Value	Number of Shares	Weighted Average Fair Value	Number of Shares	Weighted Average Fair Value
Balance at beginning of year	1,575	$ 22.20	1,543	$ 21.53	1,349	$ 21.26
Initial grant	—	$ —	855	$ 21.61	801	$ 22.83
Vested	(314)	$ 21.89	(329)	$ 19.14	(312)	$ 22.02
Grant reduction for not achieving the ROIC modifier	(114)	$ 21.49	(49)	$ 19.14	(249)	$ 23.97
Grant reduction for not achieving the TSR modifier	(333)	$ 24.17	(378)	$ 21.21	(14)	$ 21.47
Forfeitures	(35)	$ 22.83	(67)	$ 21.08	(32)	$ 23.60
Balance at end of year	779	$ 21.64	1,575	$ 22.20	1,543	$ 21.53

As of December 29, 2018, there was $1.1 million of total unrecognized compensation cost related to nonvested restricted stock granted under the EPIP. This cost is expected to be recognized over a weighted-average period of 0.17 years.

Deferred and Restricted Stock

Non-employee directors may convert their annual board retainers into deferred stock equal in value to 100% of the cash payments directors would otherwise receive and the vesting period is a one-year period to match the period of time that cash would have been received if no conversion existed. Accumulated dividends are paid upon delivery of the shares. Non-employee directors received aggregate grants of 12,950 common shares for board retainer deferrals during fiscal 2018.

Non-employee directors also receive annual grants of deferred stock. This deferred stock vests over one year from the grant date. During fiscal 2018, non-employee directors were granted an aggregate of 65,000 shares of deferred stock pursuant to the Omnibus Plan. The deferred stock will be distributed to the grantee at a time designated by the grantee at the date of grant.

Compensation expense is recorded on deferred stock over the vesting period. During fiscal 2018, a total of 98,920 previously deferred shares were issued after the deferral period.

On May 31, 2013, the company's Chief Executive Officer ("CEO") received a time-based restricted stock award of approximately $1.3 million of restricted stock pursuant to the EPIP. This award vested at 100% on the fourth anniversary of the date of grant. Dividends accrued on the award and were paid to the CEO on the vesting date. There were 58,500 shares issued for this award at a fair value of $22.25 per share. This award vested at a price of $18.48 and the shares were issued in our second quarter of fiscal 2017.

The deferred and restricted stock activity for fiscal years 2018, 2017, and 2016 is set forth below (amounts in thousands, except price data):

	Fiscal 2018		Fiscal 2017		Fiscal 2016	
	Number of Shares	Weighted Average Fair Value	Number of Shares	Weighted Average Fair Value	Number of Shares	Weighted Average Fair Value
Nonvested shares at beginning of year	87	$ 18.70	149	$ 20.39	126	$ 21.89
Granted	78	$ 19.90	87	$ 18.70	95	$ 19.30
Vested	(99)	$ 18.70	(149)	$ 20.39	(72)	$ 21.59
Nonvested shares at end of year	66	$ 19.93	87	$ 18.70	149	$ 20.39
Vested and deferred shares at end of year	198		192		331	

As of December 29, 2018, there was $0.5 million of total unrecognized compensation cost related to deferred and restricted stock awards. This cost is expected to be recognized over a weighted-average period of 0.41 years. The intrinsic value of deferred stock awards that vested during fiscal 2018 was $2.0 million. There was an immaterial tax windfall on the exercise of deferred share awards during fiscal 2018.

Stock Appreciation Rights

Prior to 2007, the company allowed non-employee directors to convert their retainers and committee chair fees into rights. These rights vested after one year and were exercisable over nine years. The company recorded compensation expense for these rights at a measurement date based on changes between the grant price and an estimated fair value of the rights using the Black-Scholes option-pricing model. There are no remaining liabilities for these awards since the last award was exercised in fiscal 2016.

Share-Based Payments Compensation Expense Summary

The following table summarizes the company's stock-based compensation expense, all of which was recognized in selling, distribution, and administration expense, for fiscal years 2018, 2017 and 2016 (amounts in thousands):

	Fiscal 2018	Fiscal 2017	Fiscal 2016
Performance-contingent restricted stock awards	$6,504	$14,326	$16,611
Deferred stock awards	1,644	1,767	2,161
Stock appreciation rights income	—	—	(11)
Total stock-based compensation expense	$8,148	$16,093	$18,761

Note 20. Accumulated Other Comprehensive Income (Loss) ("AOCI")

The company's total comprehensive loss presently consists of net income, adjustments for our derivative financial instruments accounted for as cash flow hedges, and various pension and other postretirement benefit related items.

During fiscal years 2018, 2017, and 2016, reclassifications out of AOCI were as follows (amounts in thousands):

	Amount Reclassified from AOCI			Affected Line Item in the Statement
Details about AOCI Components (Note 2)	Fiscal 2018	Fiscal 2017	Fiscal 2016	Where Net Income is Presented
Derivative instruments:				
Interest rate contracts	$(142)	$(142)	$(221)	Interest expense
Commodity contracts	(1,301)	(2,080)	(5,307)	Cost of sales, Note 3, below
Total before tax	$(1,443)	$(2,222)	$(5,528)	Total before tax
Tax benefit	364	855	2,129	Tax benefit
Total net of tax	$(1,079)	$(1,367)	$(3,399)	Net of tax
Pension and postretirement plans:				
Prior-service credits	$(175)	$(175)	$(175)	Note 1, below
Settlement loss	(7,781)	(4,649)	(6,646)	Note 1, below
Actuarial losses	(5,380)	(5,858)	(6,840)	Note 1, below
Total before tax	$(13,336)	$(10,682)	$(13,661)	Total before tax
Tax benefit	3,368	3,899	5,260	Tax benefit
Total net of tax	$(9,968)	$(6,783)	$(8,401)	Net of tax benefit
Total reclassifications from AOCI	$(11,047)	$(8,150)	$(11,800)	Net of tax benefit

Note 1: These items are included in the computation of net periodic pension cost. See Note 22, Postretirement Plans, for additional information.
Note 2: Amounts in parentheses indicate debits to determine net income.
Note 3: Amounts are presented as an adjustment to reconcile net income to net cash provided by operating activities on the Consolidated Statements of Cash Flows.

During fiscal years 2018, 2017, and 2016, amounts recognized in AOCI, exclusive of reclassifications, were as follows (amounts in thousands):

	Amount of Gain (Loss) Recognized in AOCI		
AOCI component	Fiscal 2018	Fiscal 2017	Fiscal 2016
Derivative instruments:			
Interest rate contracts	$—	$—	$1,083
Commodity contracts	3,984	(9,734)	8,233

Total before tax	$3,984	$(9,734)	$9,316
Tax benefit	(1,006)	2,945	(3,586)
Total net of tax	$2,978	$(6,789)	$5,730
Pension and postretirement plans:			
Current year actuarial loss	$(26,528)	$(4,307)	$(6,525)
Total before tax	$(26,528)	$(4,307)	$(6,525)
Tax benefit	6,697	1,670	2,512
Total net of tax	$(19,831)	$(2,637)	$(4,013)
Total recognized in AOCI	$(16,853)	$(9,426)	$1,717

During fiscal 2018, changes to AOCI, net of income tax, by component were as follows (amounts in thousands):

	Cash Flow Hedge Items	Defined Benefit Pension Plan Items	Total
AOCI at December 30, 2017	$(6,483)	$ (78,076)	$(84,559)
Other comprehensive gain (loss) before reclassifications	2,978	(19,831)	(16,853)
Reclassified to earnings from AOCI	1,079	9,968	11,047
Reclassified to retained earnings from AOCI	(1,709)	(17,097)	(18,806)
AOCI at December 29, 2018	$(4,135)	$ (105,036)	$(109,171)

During fiscal 2017, changes to AOCI, net of income tax, by component were as follows (amounts in thousands):

	Cash Flow Hedge Items	Defined Benefit Pension Plan Items	Total
AOCI at December 31, 2016	$(1,061)	$ (82,222)	$(83,283)
Other comprehensive loss before reclassifications	(6,789)	(2,637)	(9,426)
Reclassified to earnings from AOCI	1,367	6,783	8,150
AOCI at December 30, 2017	$(6,483)	$ (78,076)	$(84,559)

Amounts reclassified out of AOCI to net income that relate to commodity contracts are presented as an adjustment to reconcile net income to net cash provided by operating activities on the Consolidated Statements of Cash Flows. The following table presents the net of tax amount of the loss reclassified from AOCI for our commodity contracts (amounts in thousands):

	Fiscal 2018	Fiscal 2017	Fiscal 2016
Gross loss reclassified from AOCI into income	$1,301	$2,080	$5,307
Tax benefit	(329)	(801)	(2,043)
Net of tax	$972	$1,279	$3,264

Note 21. Earnings Per Share

The following is a reconciliation of net income and weighted average shares for calculating basic and diluted earnings per common share for fiscal years 2018, 2017, and 2016 (amounts in thousands, except per share data):

	Fiscal 2018	Fiscal 2017	Fiscal 2016
Net income	$157,160	$150,120	$163,776
Basic Earnings Per Common Share:			
Basic weighted average shares outstanding per common share	211,016	209,573	208,511
Basic earnings per common share	$0.74	$0.72	$0.79
Diluted Earnings Per Common Share:			
Basic weighted average shares outstanding per common share	211,016	209,573	208,511
Add: Shares of common stock assumed issued upon exercise of stock options, vesting of performance-contingent restricted stock and deferred stock	616	862	1,843
Diluted weighted average shares outstanding per common share	211,632	210,435	210,354
Diluted earnings per common share	$0.74	$0.71	$0.78

There were 380,015 anti-dilutive shares during fiscal 2017. There were no anti-dilutive shares for fiscal years 2018 or 2016.

Note 22. Postretirement Plans

The following summarizes the company's balance sheet related pension and other postretirement benefit plan accounts at December 29, 2018 and December 30, 2017 (amounts in thousands):

	December 29, 2018	December 30, 2017
Current benefit liability	$ 1,283	$ 935
Noncurrent benefit liability	$ 39,149	$ 60,107
Accumulated other comprehensive loss, net of tax	$ 105,036	$ 78,076

On September 28, 2018, the Board of Directors approved a resolution to terminate the Flowers Foods, Inc. Retirement Plan No. 1 ("Plan No. 1"), effective December 31, 2018. The company has commenced the plan termination process and expects to distribute a portion of the pension plan assets as lump sum payments during early 2020 with the remaining balance transferred to an insurance company in the form of an annuity. The total payments distributed will depend on the lump sum offer participation rate of eligible participants. Based on the estimated value of assets held in the plan, the company currently estimates that a cash contribution of approximately $5.0 million to $35.0 million will be required to fully fund the plan's liabilities at termination. In addition, based on current assumptions, the company estimates a final non-cash settlement charge of approximately $125.0 million.

The company amended our qualified defined benefit plans in October 2015 to allow pension plan participants not yet receiving benefit payments the option to elect to receive their benefit as a single lump sum payment. This amendment was effective as of January 1, 2016. The company continues to recognize settlement accounting charges each year as a result of the ongoing lump sum payments from the plan. Settlement accounting, which accelerates recognition of a plan's unrecognized net gain or loss, is triggered if the lump sums paid during a year exceeds the sum of the plan's service and interest cost. The company determined it was probable a settlement would occur and paid lump sums that exceeded that threshold during our first quarter of fiscal 2018 and, as a result, recorded settlement charges in each quarter of fiscal 2018. The table below presents the recognized settlement charges by quarter for fiscal years 2018, 2017, and 2016 (amounts in thousands):

Settlement loss by fiscal quarter	Fiscal 2018	Fiscal 2017	Fiscal 2016
Quarter 1	$4,668	$—	$—
Quarter 2	1,035	—	4,641
Quarter 3	930	3,030	1,832
Quarter 4	1,148	1,619	173
Total	$7,781	$4,649	$6,646

The company used a measurement date of December 31, 2018 for the defined benefit and postretirement benefit plans described below. The company voluntarily contributed $10.0 million during our first quarter of fiscal 2018, $30.0 million during our second quarter of fiscal 2018, and $0.1 million during our third quarter of fiscal 2018 to Plan No. 1. A voluntary contribution of $0.6 million was made to Plan No. 2 during the third quarter of fiscal 2018.

Pension Plans

The company has trusteed, noncontributory defined benefit pension plans covering certain current and former employees. Benefits under the company's largest pension plan are frozen. The company continues to maintain an ongoing plan that covers a small number of certain union employees. The benefits in this plan are based on years of service and the employee's career earnings. The qualified plans are funded at amounts deductible for income tax purposes but not less than the minimum funding required by the Employee Retirement Income Security Act of 1974 ("ERISA") and the Pension Protection Act of 2006 ("PPA"). The company uses a calendar year end for the measurement date since the plans are based on a calendar year end and because it approximates the company's fiscal year end. As of December 31, 2018 and December 31, 2017, the assets of the qualified plans included certificates of deposit, marketable equity securities, mutual funds, corporate and government debt securities, other diversifying strategies and annuity contracts. The company expects pension cost of approximately $3.0 million for fiscal 2019.

The net periodic pension cost (income) for the company's pension plans includes the following components for fiscal years 2018, 2017 and 2016 (amounts in thousands):

	Fiscal 2018	Fiscal 2017	Fiscal 2016
Service cost	$937	$755	$830
Interest cost	12,513	12,852	13,682
Expected return on plan assets	(18,831)	(25,669)	(26,644)
Settlement loss	7,781	4,649	6,646
Amortization:			
Prior service cost	387	387	387
Actuarial loss	5,811	6,355	7,294
Net periodic pension cost (income)	8,598	(671)	2,195
Other changes in plan assets and benefit obligations recognized in other comprehensive income:			
Current year actuarial loss (gain)	25,492	4,119	8,879
Settlement loss	(7,781)	(4,649)	(6,646)
Amortization of prior service cost	(387)	(387)	(387)
Amortization of actuarial loss	(5,811)	(6,355)	(7,294)
Total recognized in other comprehensive (loss) income	11,513	(7,272)	(5,448)
Total recognized in net periodic benefit cost and other comprehensive loss	$20,111	$(7,943)	$(3,253)

Actual return on plan assets for fiscal years 2018, 2017, and 2016 was $2.4 million, $42.1 million, and $4.7 million, respectively.

Approximately $7.5 million will be amortized from accumulated other comprehensive income into net periodic benefit cost in fiscal 2019 relating to the company's pension plans. The funded status and the amounts recognized in the Consolidated Balance Sheets for the company's pension plans are as follows (amounts in thousands):

	December 29, 2018	December 30, 2017
Change in benefit obligation:		
Benefit obligation at beginning of year	$393,952	$398,595
Service cost	937	755
Interest cost	12,513	12,852
Actuarial loss	9,098	20,526
Benefits paid	(23,843)	(24,408)
Settlements	(24,879)	(14,368)
Benefit obligation at end of year	$367,778	$393,952
Change in plan assets:		
Fair value of plan assets at beginning of year	$340,854	$335,663
Actual return on plan assets	2,437	42,076
Employer contribution	40,971	1,891
Benefits paid	(23,843)	(24,408)
Settlements	(24,879)	(14,368)
Fair value of plan assets at end of year	$335,540	$340,854
Funded status, end of year:		
Fair value of plan assets	$335,540	$340,854
Benefit obligations	(367,778)	(393,952)
Unfunded status and amount recognized at end of year	$(32,238)	$(53,098)
Amounts recognized in the balance sheet:		
Current liability	(258)	(260)
Noncurrent liability	(31,980)	(52,838)
Amount recognized at end of year	$(32,238)	$(53,098)
Amounts recognized in accumulated other comprehensive income:		
Net actuarial loss before taxes	$137,903	$126,002
Prior service cost before taxes	5,039	5,426
Amount recognized at end of year	$142,942	$131,428
Accumulated benefit obligation at end of year	$366,709	$392,057

Assumptions used in accounting for the company's pension plans at each of the respective fiscal years ending are as follows:

	Fiscal 2018	Fiscal 2017	Fiscal 2016
Weighted average assumptions used to determine benefit obligations:			
Measurement date	12/31/2018	12/31/2017	12/31/2016
Discount rate	3.41 %	3.58 %	4.00 %
Rate of compensation increase	3.00 %	3.00 %	3.00 %

Weighted average assumptions used to determine net periodic benefit cost/(income):			
Measurement date	1/1/2018	1/1/2017	1/1/2016
Discount rate	3.58 %	4.00 %	4.25 %
Expected return on plan assets	5.34 %	8.00 %	8.00 %
Rate of compensation increase	3.00 %	3.00 %	3.00 %

In developing the expected long-term rate of return on plan assets at each measurement date, the company considers the plan assets’ historical actual returns, targeted asset allocations, and the anticipated future economic environment and long-term performance of individual asset classes, based on the company’s investment strategy. While appropriate consideration is given to recent and historical investment performance, the assumption represents management’s best estimate of the long-term prospective return. Further, pension costs do not include an explicit expense assumption, and therefore the return on assets rate reflects the long-term expected return, net of expenses.

The long-term expected rate of return, net of expenses, for the defined benefit plans was 5.9% at the March 31, 2018 re-measurement. When Plan No. 1 was re-measured as of June 30, 2018 and September 30, 2018, the expected return was changed from 5.9% to 5.2% due to re-balancing the plan asset allocation to a fixed income rather than an equity objective as part of our pension de-risking strategy.

The plan administrator has separated the assets of Plan No. 1 and Plan No. 2 and will manage the assets with different investment objectives. Historically, these assets were collectively managed. The termination path for Plan No. 1 results in a short term conservative investment outlook while Plan No. 2 is still managed with a long-term investment outlook.

Based on these factors the expected long-term rate of return assumption for Plan No. 1 was set at 5.2% for fiscal 2019. The expected long-term rate of return assumption for Plan No. 2 was set at 7.4% for fiscal 2019. The average annual return on the plan assets over the last 15 years (while the assets were collectively managed) was approximately 6.9% (net of expenses).

Plan Assets

Effective January 1, 2014, the Finance Committee ("committee") of the Board of Directors delegated its fiduciary and other responsibilities with respect to the plans to the newly established Investment Committee. The Investment Committee, which consists of certain members of management, establishes investment guidelines and strategies and regularly monitors the performance of the plans' assets. The Investment Committee is responsible for executing these strategies and investing the pension assets in accordance with ERISA and fiduciary standards. The investment objective of the pension plans is to preserve the plans' capital and maximize investment earnings within acceptable levels of risk and volatility. The Investment Committee meets on a regular basis with its investment advisors to review the performance of the plans' assets. Based upon performance and other measures and recommendations from its investment advisors, the Investment Committee rebalances the plans' assets to the targeted allocation when considered appropriate. The fair values of all of the company pension plan assets at December 31, 2018 and December 31, 2017, by asset class are as follows (amounts in thousands):

	Fair value of Pension Plan Assets as of December 31, 2018			
Asset Class	Quoted prices in active markets for identical assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Short term investments and cash	$—	$ 34,118	$ —	$34,118
Fixed income securities:				
U.S. government bonds	—	4,581	—	4,581
U.S. government agency bonds	—	3,561	—	3,561

U.S. corporate bonds	—	166,670	—	166,670
International corporate bonds	—	53,709	—	53,709
Other types of investments measured at contract value (^):				
Guaranteed insurance contracts(a)	—	—	—	10,853
Pending transactions(b)	—	—	—	59,452
Other assets and (liabilities)(b)	—	—	—	2,636
Accrued (expenses) income(b)	—	—	—	(40)
Total	$—	$ 262,639	$ —	$335,540

Asset Class	Fair value of Pension Plan Assets as of December 31, 2017 Quoted prices in active markets for identical assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Short term investments and cash	$—	$ 19,771	$ —	$19,771
Equity securities:				
U.S. companies	65,414	—	—	65,414
International companies	665	—	—	665
Domestic equity funds(c)	19,879	—	—	19,879
International equity funds(d)	22,178	—	—	22,178
Fixed income securities:				
U.S. government bonds	—	6,538	—	6,538
U.S. government agency bonds	—	10,531	—	10,531
U.S. mortgage backed securities	—	3,004	—	3,004
U.S. corporate bonds	—	9,993	—	9,993
Other types of investments measured at net asset value (*):				
Hedged equity funds(e)	—	—	—	35,054
Absolute return funds(f)	—	—	—	52,704
International equity funds(d)	—	—	—	22,878
Other types of investments measured at contract value (^):				
Guaranteed insurance contracts(a)	—	—	—	10,457
Pending transactions(b)	—	—	—	62,000
Other assets and (liabilities)(b)	—	—	—	(133)
Accrued (expenses) income(b)	—	—	—	(79)
Total	$108,136	$ 49,837	$ —	$340,854

(a) This class invests primarily guaranteed insurance contracts through various U.S. insurance companies.

(b) This class includes accrued interest, dividends, and amounts receivable from asset sales and amounts payable for asset purchases.

(c) This class includes funds with the principal strategy to invest primarily in long positions in domestic equity securities.

(d) This class includes funds with the principal strategy to invest primarily in long positions in international equity securities. This asset was reclassified from a Level 2 to a Level 1 type for all periods. This asset was incorrectly presented as a Level 2.

(e) This class invests primarily in hedged equity funds.

(f) This class invests primarily in absolute return strategy funds and are reported at NAV.

(*)

Certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy.

(^) Certain investments, which are fully-benefit responsive investment contracts, are measured at contract value and have not been classified in the fair value hierarchy.

The company's investment policy includes various guidelines and procedures designed to ensure the plan's assets are invested in a manner necessary to meet expected future benefits earned by participants. The investment guidelines consider a broad range of economic conditions. The plan asset allocation as of the measurement dates December 31, 2018 and December 31, 2017, and target asset allocations for fiscal year 2019 are as follows for Plan No. 1:

Asset Category	Target Allocation 2019		Percentage of Plan Assets at the Measurement Date (As percent) 2018	2017
Equity securities	0	%	2.5	38.6
Fixed income securities	90-100%		73.7	27.1
Other diversifying strategies(1)	0	%	15.0	28.8
Short term investments and cash	0-10%		8.8	5.5
Total			100.0	100.0

(1) Includes absolute return funds, hedged equity funds, and guaranteed insurance contracts.

The plan asset allocation as of the measurement dates December 31, 2018 and December 31, 2017, and target asset allocations for fiscal year 2019 are as follows for Plan No. 2:

Asset Category	Target Allocation 2019
Equity securities	0-80%
Fixed income securities	20-100%
Short term investments and cash	0-10%
Total	

(1) Includes absolute return funds, hedged equity funds, and guaranteed insurance contracts.
Equity securities at December 31, 2017 include 2,030,363 shares of the company's common stock in the amount of $39.2 million (11.5% of total plan assets). The plan sold all the company's common stock during fiscal 2018. The total proceeds were $41.0 million to the plans.

The objectives of the target allocations are to maintain investment portfolios that diversify risk through prudent asset allocation parameters, achieve asset returns that meet or exceed the plans' actuarial assumptions, and achieve asset returns that are competitive with like institutions employing similar investment strategies.

Cash Flows

Company contributions to qualified and nonqualified plans are as follows (amounts in thousands):

Year	Required	Discretionary	Total
2018	$ 271	$ 40,700	$40,971
2017	$ 286	$ 1,605	$1,891
2016	$ 341	$ 1,000	$1,341

All contributions are made in cash. The required contributions made during fiscal 2018 include $0.3 million in nonqualified pension benefits paid from corporate assets. The discretionary contributions of $40.7 million made to qualified plans during fiscal 2018 were not required to be made by the minimum funding requirements of ERISA, but the company believed, due to its strong cash flow and financial position, this was an appropriate time at which to make the contribution to reduce the impact of future contributions. During fiscal 2019, the company expects to make a $2.5 million contribution to our qualified pension plans and expects to pay $0.3 million in nonqualified pension benefits from corporate assets. These amounts represent estimates that are based on assumptions that are subject to change.

Benefit Payments

The following are benefits paid under the plans (including settlements) during fiscal years 2018, 2017 and 2016 and expected to be paid from fiscal 2019 through fiscal 2028. Estimated future payments include qualified pension benefits that will be paid from the plans' assets (including potential payments related to the termination of Plan No. 1 discussed above) and nonqualified pension benefits that will be paid from corporate assets (amounts in thousands):

Year	Pension Benefits	
2016	$40,864	*
2017	$38,776	^
2018	$48,722	+
Estimated Future Payments:		
2019	$31,431	
2020	$327,280	
2021	$2,630	
2022	$2,715	
2023	$2,585	
2024 – 2028	$11,135	

*Includes $15.7 million and $1.6 million from Plan No. 1 and Plan No. 2, respectively, paid as lump sums.

^Includes $14.4 million and $1.6 million from Plan No. 1 and Plan No. 2, respectively, paid as lump sums.
+Includes $24.9 million and $1.5 million from Plan No. 1 and Plan No. 2, respectively, paid as lump sums.
Postretirement Benefit Plans

The company sponsors postretirement benefit plans that provide health care and life insurance benefits to retirees who meet certain eligibility requirements. Generally, this includes employees with at least 10 years of service who have reached age 55 and participate in a Flowers retirement plan. Retiree medical coverage is provided for a period of three to five years, depending on the participant's age and service at retirement. Participant premiums are determined using COBRA premium levels. Retiree life insurance benefits are offered to a closed group of retirees. The company also sponsors a medical, dental, and life insurance benefits plan to a limited and closed group of participants.

The company delivers retiree medical and dental benefits for Medicare eligible retirees through a health-care reimbursement account. The company no longer sponsors a medical plan for Medicare eligible retirees and does not file for a Medicare Part D subsidy.

The net periodic benefit (income) cost for the company's postretirement benefit plans includes the following components for fiscal years 2018, 2017 and 2016 (amounts in thousands):

	Fiscal 2018	Fiscal 2017	Fiscal 2016
Service cost	$288	$256	$401
Interest cost	234	227	309
Amortization:			
Prior service credit	(212)	(212)	(212)
Actuarial gain	(431)	(497)	(454)
Total net periodic benefit income	(121)	(226)	44
Other changes in plan assets and benefit obligations recognized in other comprehensive income:			
Current year actuarial loss (gain)	1,036	188	(2,354)
Amortization of actuarial gain	431	497	454
Amortization of prior service credit	212	212	212
Total recognized in other comprehensive loss (income)	1,679	897	(1,688)
Total recognized in net periodic benefit cost and other comprehensive loss (income)	$1,558	$671	$(1,644)

Approximately $(0.3) million will be amortized from accumulated other comprehensive income into net periodic benefit cost in fiscal year 2019 relating to the company's postretirement benefit plans.

The unfunded status and the amounts recognized in the Consolidated Balance Sheets for the company's postretirement benefit plans are as follows (amounts in thousands):

	December 29, 2018	December 30, 2017
Change in benefit obligation:		
Benefit obligation at beginning of year	$ 7,943	$ 7,648
Service cost	288	256
Interest cost	234	227
Participant contributions	823	330
Actuarial loss (gain)	1,037	188
Benefits paid	(2,131)	(706)
Benefit obligation at end of year	$ 8,194	$ 7,943
Change in plan assets:		
Fair value of plan assets at beginning of year	$ —	$ —
Employer contributions	1,308	376
Participant contributions	823	330
Benefits paid	(2,131)	(706)
Fair value of plan assets at end of year	$ —	$ —
Funded status, end of year:		
Fair value of plan assets	$ —	$ —
Benefit obligations	(8,194)	(7,943)
Unfunded status and amount recognized at end of year	$ (8,194)	$ (7,943)
Amounts recognized in the balance sheet:		
Current liability	$ (1,025)	$ (674)
Noncurrent liability	(7,169)	(7,269)
Amount recognized at end of year	$ (8,194)	$ (7,943)
Amounts recognized in accumulated other comprehensive loss:		
Net actuarial gain before taxes	$ (2,379)	$ (3,846)
Prior service credit before taxes	(50)	(262)
Amounts recognized in accumulated other comprehensive loss	$ (2,429)	$ (4,108)

Assumptions used in accounting for the company's postretirement benefit plans at each of the respective fiscal years ending are as follows:

	Fiscal 2018	Fiscal 2017	Fiscal 2016
Weighted average assumptions used to determine benefit obligations:			
Measurement date	12/31/2018	12/31/2017	12/31/2016
Discount rate	4.07 %	3.36 %	3.66 %
Health care cost trend rate used to determine benefit obligations:			
Initial rate	6.50 %	6.00 %	6.50 %
Ultimate rate	5.00 %	5.00 %	5.00 %
Year trend reaches the ultimate rate	2025	2022	2023
Weighted average assumptions used to determine net periodic cost:			

Measurement date	1/1/2018	1/1/2017	1/1/2016
Discount rate	3.36 %	3.66 %	3.83 %
Health care cost trend rate used to determine net periodic cost:			
Initial rate	6.00 %	6.50 %	8.00 %
Ultimate rate	5.00 %	5.00 %	5.00 %
Year trend reaches the ultimate rate	2022	2023	2022

Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects for fiscal years 2018, 2017, and 2016 (amounts in thousands):

	One-Percentage-Point Decrease