

Technology with impact

2019 Annual Report

Financial Highlights

		Year Ended December 31,						
(\$ in thousands, except per share amounts)	2019	2018	2017	2016				
Revenue	\$ 1,131,251	\$ 1,218,156	\$ 1,010,466	\$ 751,337				
Net income (loss) attributable to Apergy	52,164	92,737	109,589	(13,466)				
Pre-tax adjustments:								
Separation and supplemental benefit costs ⁽¹⁾	6,377	14,649	—	—				
Royalty expense ⁽²⁾	—	2,277	9,765	7,366				
Restructuring and other related charges ⁽³⁾	11,053	4,347	6,921	15,162				
Environmental cost	1,988	—	—	-				
Aquisition transaction cost ⁽⁴⁾	10,145	—	—	—				
Intellectual property defense	400	—	—	_				
Extended filing cost ⁽⁵⁾	2,780	—	—	—				
Tax impact of adjustments ⁽⁶⁾	(7,777)	(3,308)	(5,067)	(9,565)				
Tax impact of U.S. tax reform	—	—	(49,307)	—				
Adjusted net income (loss) attributable to Apergy	77,130	110,702	71,901	(503)				
Tax impact of adjustments ⁽⁶⁾	7,777	3,308	54,374	9,565				
Net income attributable to noncontrolling interest	796	454	930	1,851				
Depreciation and amortization	119,938	124,461	112,862	112,112				
Provision for (benefit from) income taxes	6,226	28,162	(22,164)	(8,459)				
Interest expense, net	39,301	27,648	863	528				
Adjusted EBITDA	\$ 251,168	\$ 294,735	\$ 218,766	\$ 115,094				
Adjusted EBITDA margin	22.2%	24.2%	21.7%	15.3%				
Cash provided by operating activities	\$ 155,899	\$ 163,900						
Less: Capital expenditures	\$ (39,780)	(57,918)						
Free cash flow								
Free Cash how	\$ 116,119	\$ 105,982						
Diluted earnings (loss) per share attributable to Apergy:								
Reported	\$ 0.67	\$ 1.19	\$ 1.41	\$ (0.17)				
Adjusted	\$ 0.99	\$ 1.42	\$ 0.92	\$ (0.01)				

(1) Separation and supplemental benefit costs primarily relates to separation costs, and to a lesser extent, enhanced or supplemental benefits provided to employees no longer participating in Dover Corporation ("Dover") benefit and compensation plans. Supplemental benefit costs are expected to be incurred through the end of 2020. Includes \$3.4 million of tax indemnification expense during the three months ended September 30, 2019 and year ended December 31, 2019 pursuant to the provisions of the tax matters agreement with Dover.

(2) Patents and other intangible assets related to our business were conveyed by Dover to Apergy on April 1, 2018. No royalty charges were incurred after March 31, 2018.

(3) Includes losses of \$0.2 million and \$2.7 million loss during the three months ended and year ended December 31, 2019, respectively, related to the disposal of our pressure vessel manufacturing business in our Production & Automation Technologies segment. Includes a \$1.7 million impairment charge during the year ended December 31, 2019 related to our pressure vessel manufacturing business.

(4) Acquisition transaction costs include \$9.3 million related to the planned merger with ChampionX incurred during the three months ended and year ended December 31, 2019. Additionally, includes compensation for post business combination services, related to an acquisition that closed during the third quarter of 2019, which are expected to be incurred through the end of January 2021.

(5) Includes professional fees of \$2.8 million incurred during the three months ended and year ended December 31, 2019 related to the extended filing of our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019.

(6) We generally tax effect adjustments using a combined federal and state statutory income tax rate of approximately 24 percent. Includes tax expense of \$1.7 million during the year ended December 31, 2018, associated with capital gains related to certain reorganizations of our subsidiaries as part of the our separation from Dover.

To Our Shareholders



66 Our portfolio was constructed with the intent to deliver strong performance through the oil and gas industry cycle, including outperformance during periods of market expansion, while remaining resilient during periods of market volatility.

Sivasankaran "Soma" Somasundaram President and Chief Executive Officer This past year was an exciting and transformative year for Apergy as we continued to advance our purpose of improving lives. We executed well during a period of changing market conditions, while continuing to invest in delivering superior products and services to our customers. We also announced a strategically important merger with ChampionX, which will help propel our growth into the next decade. We expect our planned merger with ChampionX to solidify our position as a focused, scale leader in the production segment by delivering our customers a full suite of production-optimization solutions.

During 2019, the Apergy team achieved record improvements in safety for our employees, we excelled at advocating for our customers, which is demonstrated by the results of two independent customer surveys, introduced our value creation algorithm to drive through-cycle returns for our shareholders, and improved the lives of thousands of our neighbors through our community engagement efforts.

Delivering On Our Purpose

Delivering on our purpose is directly linked to our talented employees who make everything we do possible. In 2019, we completed our first global employee engagement survey. The survey responses were overwhelmingly positive, which confirms that our team clearly values our culture and embraces our purpose.

The vast majority of team members also said they understand and support our belief that a sustainable state of zero incidents is achievable. The tangible outcome of that support is reflected in the key safety measurements we track. Since we became Apergy in May 2018, we have seen 45% fewer injuries, 146 fewer days with restricted work and 44% fewer lost time injuries. While these improvements are something we are proud of, we have more to do. Apergy will continue to focus on a safe work environment and we are united in ensuring everyone is "safe today and home tonight." Apergy also is committed to improving the lives of our neighbors and the communities where we live and work. By our estimate, we enriched the lives of more than 100,000 people globally. From partnerships with local libraries in Colombia, to support for cancer research in Canada, and donations to shelters and food banks in Tennessee, Apergy team members gave their time, talent, and resources to make life better for others. Our community outreach efforts are exactly what it means to be purpose driven.

Creating Value for Shareholders

Since Apergy's launch as a publicly traded Company in May 2018, we have set ourselves apart from other oilfield products and services providers through our alignment with customers, our culture of continuous improvement, and by delivering technology with impact. Today these characteristics continue to differentiate Apergy's performance in the marketplace.

At our Investor Day in March 2019, we introduced our algorithm for creating long-term shareholder value in oilfield products and services, including the definition of a 'Top Box' performer within our industry. A 'Top Box' performer demonstrates certain qualities including strong free cash flow, relative revenue stability through the oil and gas cycle, high EBITDA margin performance due to differentiated products, modest use of leverage, and balanced capital allocation.

In 2019, we delivered \$251 million of adjusted EBITDA with an adjusted EBITDA margin of 22%. We made good progress on our international growth initiatives, with revenue increasing 12%. Additionally, during 2019, we generated \$116 million of free cash flow and paid down \$105 million of debt. We believe an important attribute of our Company is that we continue to be profitable and generate cash in challenging market environments.

We ranked first in a number of customer satisfaction surveys conducted by leading industry research firms. For the second year in a row, we were recognized as the leader in total customer satisfaction in the oilfield products segment, as well as first in eight additional categories, in a survey conducted by EnergyPoint. For the fourth consecutive year, we received the highest net promoter score among artificial lift providers in a survey conducted by Kimberlite. Net promoter score is a measure of customer loyalty. We believe these results are a proof point of our customer-centric business model and our culture of advocating for our customers.

Combination with ChampionX

During 2019, we announced a transformative merger with Ecolab's Upstream energy business, renamed ChampionX, which is expected to deliver substantial value to our customers and shareholders. This transaction brings together two well-respected companies with strong operating platforms, differentiated technologies, highly complementary product lines, and very similar cultures.

This combination will solidify Apergy as a 'Top Box' performer, allowing us to deliver even greater value to our shareholders and customers. After completion of the transaction, the combined Company will be the second-largest provider of oilfield production solutions in the world, with a strong through-cycle financial profile, high recurring revenue, low leverage, and substantial free cash flow generation.

The combined Company will have deeper relationships with a broad set of global customers including international and national oil companies and presence in over 55 countries. We also will have broad exposure to a variety of oil and gas production types, including global onshore conventional and unconventional, as well as offshore, oil sands, and enhanced oil recovery. The transaction also provides additional value to shareholders through \$75 million of cost synergies, plus accelerated revenue growth opportunities. Finally, the combined Company will be a technological leader with a differentiated portfolio of over 2,400 global patents.

Drilling Technologies

During 2019, the market was challenging for our Drilling Technologies segment with revenue declining 14% for the year. The year-over-year decline in revenue was due to the average U.S. and worldwide rig counts declining 24% and 11%, respectively, from the fourth quarter of 2018 to the fourth quarter of 2019.

The sharp decrease in the rig count caused our oil field service customers to destock their polycrystalline diamond cutter inventories, as well as push out diamond bearings orders. We view the destocking phenomenon as transitory, and saw a meaningful increase in orders beginning in December of 2019 and continuing into 2020.

In spite of the challenging environment, we continued to develop new products with our diamond sciences technology. To that end, 78 patents were issued to our Drilling Technologies segment in 2019, bringing the total issued since 2008 to 807 global patents. As one of our sell-side analysts put it, our Drilling Technologies business has the "GOAT of the moats" (Greatest of All Time moat) in oilfield products.

We are highly focused on developing and commercializing products with our diamond sciences expertise in non-oil and gas applications. We are working hard to bring these new products to market and we look forward to reporting our progress as we move forward.

Production & Automation Technologies

In 2019, due to lower E&P customer spending in North America, our Production & Automation Technologies segment full-year revenue declined 5% year-over-year. North American E&P capital expenditures are estimated to have declined 9% in 2019.

Apergy's Production & Automation Technologies segment modestly outperformed the industry with revenue from North America declining 8% for full-year 2019, while international revenue improved 8% for the full year as we continue to build out our international capabilities to drive further growth.

We completed the qualification process and generated our first revenue from one of the IOCs within our Electrical Submersible Pump (ESP) product line, and we continue to focus on qualifying with additional IOCs. Additionally, we introduced our new AFFIRMED[™] PowerFit motor, which improve customer efficiency through longer run life in small diameter wells. Our rod lift product line continues to be resilient and achieved single digit growth in 2019 in North America. We also introduced new innovations in our gas lift technologies that will drive growth in 2020.

We continue to believe Apergy's full suite of artificial lift capabilities is a competitive advantage and enables us to generate revenues throughout the life cycle of the well.

Pioneering the Digital Oilfield

Within our Production & Automation Technologies segment, we have continued to see strong interest in our digital solutions, with our digital product revenues growing 13% for full-year 2019, and 27% CAGR (Compounded Annual Growth Rate) since 2016.

We believe customers will continue to increase adoption of digital technologies to improve productivity and we are pleased to be on the leading edge of digital technology development in the oilfield. We are investing in developing and deploying 'fit for purpose' digital solutions that include our proprietary hardware and software that are based on physics-based models, artificial intelligence models, and cloud-based tools.

As an example, we recently launched XSPOC 3.0 production optimization software, which allows customers to better optimize their production assets with less time and resources. In addition, as a demonstration of our commitment to digital solutions, in 2019 we closed on a digital technology acquisition, which is strategic to our artificial lift portfolio.

During 2020, we will continue to develop and commercialize new digital products, as well as build on our competencies of excellent field service, remote monitoring centers, system design prowess, and optimization expertise to drive customer productivity.

Our View of 2020 and Beyond

During the first part of 2020, we expect business activity levels to improve sequentially, driven by reloaded E&P capital budgets, as well as increased orders by our drill bit customers. We expect the near term market to remain volatile driven by global macro uncertainties. Longer term, we believe the trends of E&P capital discipline and a maturing North American market are here to stay.

Because of these dynamics, executing our merger with ChampionX is an important step in driving our long-term growth and value creation. As we make progress on our integration planning, we are even more excited about our future as a combined Company, and we have increased confidence in achieving our target of \$75 million in annual cost synergies.

As a combined Company, we will have a global presence with a balanced portfolio across regions, customers, and production types. We will be well positioned to deliver attractive through-cycle performance with high recurring revenues, strong returns and substantial free cash flow generation. With ChampionX, we will be more geographically diverse with opportunities to bring together artificial lift, production chemical solutions, and digital technologies to increase customer productivity. We are confident the actions we have taken have positioned us well to drive strong through cycle performance and to capitalize on opportunities as they emerge.

Closing Remarks

I want to thank our Board of Directors for their ongoing guidance and support. I also want to thank all of our employees for their continued efforts and passion in improving the lives of our customers, our employees, our shareholders, and our communities. I am proud of their accomplishments and it is a privilege for me to lead such a great team!

We appreciate your ongoing support as shareholders of Apergy.

Sincerely,

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Sivasankaran "Soma" Somasundaram President and Chief Executive Officer

Our Progress in 2019

With our launch as a public company in 2018, we committed to being a differentiated company and clearly aligning our activities to our purpose of improving lives. We have made great strides in achieving that purpose, while also enhancing our competitive position, delivering sustainable efficiency improvements for our customers and driving productivity improvements in our processes. As we enter a new decade, our purpose remains unchanged. We will continue to improve the lives of our customers, employees, shareholders and the communities where we live and work.

A Culture of Safety

Apergy is committed to Health, Safety and the Environment (HSE) excellence, driven by the belief that all incidents are preventable. Our Journey to Zero initiative reinforces Apergy's commitment to our employees, customers and communities to operate safely every day. We invest in training and technology to drive behavior-based improvements, conduct periodic HSE assessments of our locations, and relentlessly strive to be an incident-free organization.

In 2019 we experienced strong success in this area, with significant improvements in safety across the Company – with several operations experiencing zero incidents.

Apergy's global Stop Work program plays a key role in preventing incidents. Our team members and contractors have the authority – and the obligation – to stop a task if they observe an unsafe action or condition at a work site, or have a concern regarding the control of a health, safety or environmental risk. As such, Apergy team members have the full support of their team and managers to shut down their own work or the work of others anytime they observe an unsafe condition. At Apergy, safety is paramount in every job, every day!

Measuring Customer Success

For the second straight year, we earned the top overall ranking for total customer satisfaction and we ranked first in eight additional categories in the 2020 EnergyPoint Research oilfield products and



services customer satisfaction survey. This independent annual survey is the industry benchmark for measuring customer satisfaction across the global oil field and is comprised of thousands of in-depth evaluations. Apergy also ranked first in a key measure of customer loyalty in the artificial lift industry. The Kimberlite Oilfield Research worldwide survey, which was published in August 2019, noted that Apergy had the highest Net Promoter Score among the major integrated artificial lift providers based on over 330 global customer responses.

We believe these awards validate our strong cultural foundation, our differentiated technology portfolio and our operating philosophy, which is centered on advocating for our customers, delivering technology with impact and driving continuous improvement across our organization.

Delivering Innovative Solutions

Apergy is committed to creating innovative products and processes that help customers, suppliers and consumers improve their energy efficiency, reduce emissions and protect health and safety.

For example, Apergy's Windrock group, part of our Digital offering, specializes in monitoring and optimizing reciprocating assets. Windrock recently launched its Spotlight Monitoring System, an automated, real-time solution that leverages IIoT principles to deliver insights into the health and performance of critical assets. To date, Windrock systems have successfully delivered more than a million hours of monitoring data and analytics.

Specifically designed to deliver all the horsepower required to produce unconventional wells, our new AFFIRMED[™] PowerFit slimhole motor eliminates the reliability concerns of traditional 4.56-in. and 3.75-in. submersible motors in 5½-in. wells and, unlike slimhole permanent magnet motors, requires no changes to standard operating procedures. The motor has garnered substantial interest from customers and the first commercial installations occurred in early 2020 in the Permian Basin.

Apergy's Sustainability Strategy

Apergy believes that how we perform as a corporate citizen is important to our success and also intrinsic as a purposedriven company. We continuously strive to enhance our communication with stakeholders regarding the important topics that comprise corporate citizenship – including environmental, social and governance matters. The core areas of focus for our team include:

A Safe, Healthy, and Diverse Workplace

We recognize that building for the future also requires that we maintain our talent advantage. In that regard, diversity and inclusion is a critical component of Apergy's ongoing talent agenda. By creating a welcoming environment that brings together people with different backgrounds and perspectives, we enable new ideas, cultivate innovation and sustain a culture in which employees feel safe, valued, respected, supported and empowered.

Operational Excellence and Continuous Improvement

Apergy is committed to promoting sustainability throughout our operations, products and services in the belief this approach benefits our customers and the environment.

Responsible Resource Management

Apergy works toward being an active steward of our environment, whether it is minimizing our own footprint through the impact of our operations, or innovating leading solutions that drive supportable growth by more efficiently using the world's resources.

Ethical Leadership

We hold ourselves to the highest standards of ethics and operating with integrity, which keep us accountable to our employees, investors, and communities.

Community-Focused Giving and Volunteerism

As part of our commitment to improving lives, Apergy and our team members support our neighborhoods through charitable giving and volunteerism – actions that are central to our role as a good corporate citizen.

Our recently released XSPOC 3.0 production optimization software provides a number of powerful updates to the industry-leading XSPOC platform, enabling optimization of rod lift wells and Artificial Intelligence (AI)-driven classifications for ESP wells that allow users to better optimize their production assets with less resources and time. The next-generation software release also includes enhancements to physics-based diagnostics for ESP and gas lift wells including additional flow models and equipment specifications. XSPOC 3.0 software continues our journey to autonomous artificial lift optimization and associated environmental, safety and sustainability benefits.

Supporting our Communities

With strong team member support, Apergy continues to live our purpose of improving the lives of our neighbors in the communities where we live and work. In 2019, we enriched the lives of thousands of people globally. From our unique partnership with The Woodlands Children's Museum that provided field trips for more than 1,000 children from Title 1 schools in Texas to our employees in Argentina assisting a local school with much-needed improvements – Apergy team members gave of their time, talent and resources to make life better for many.

Our community outreach efforts are not only a good thing to do - but also exactly what it means to be purpose driven. We are lending a helping hand to those that need a little extra help through our volunteer, community giving, and outreach initiatives.

An important part of our improving lives commitment is to identify a compelling need. For example, studies show that millions of women and girls in remote areas lose five or more days of education every month, simply because they lack access to basic hygiene options. During a Continuous Improvement conference in 2019, 140 Apergy team members partnered with the global non-profit program 'Days for Girls,' which provides sustainable feminine hygiene kits that last for 2-4 years. Imagine how a single kit can transform a girl's life by giving her more time for invaluable education, freedom and opportunity. The Apergy team sewed hygiene bags and filled them with supplies to be sent to young girls in the developing world. In just a few hours we made nearly 1,000 kits. Subsequent engagements with Days for Girls in Houston and in the Middle East provided kits for hundreds of others in need.

Apergy team members have worked at food banks, hosted STEM classes, cleaned stream banks, cooked meals and served their neighbors in dozens of other ways. In 2019, we collaborated with more than 30 service organizations worldwide. In short, we did more than imagine how we could improve lives – we acted. That's the Apergy Way!



Governance and Leadership

Board of Directors



Daniel W. Rabun Chairman of the Board; Director since 2018 Committees: Compensation, Governance and Nominating



Mamatha Chamarthi Director since 2018 *Committees: Compensation*



Kenneth M. Fisher Director since 2018 *Committees: Audit*



Gary P. Luquette Director since 2018 Committees: Compensation, Governance and Nominating



Stephen M. Todd Director since 2018 *Committees: Audit*



Stephen K. Wagner Director since 2018 Committees: Audit, Governance and Nominating



Sivasankaran "Soma" Somasundaram Director since 2018 *Committees: None*

Company Senior Leadership

Sivasankaran "Soma" Somasundaram

President & CEO

Syed "Ali" Raza Senior Vice President and Chief Digital Officer Jay A. Nutt Senior Vice President and Chief Financial Officer

Julia Wright Senior Vice President, General Counsel and Secretary **Paul E. Mahoney** President, Production and Automation Technologies

Saurabh Nitin Senior Vice President Strategy and Corporate Development **Rob K. Galloway** President, Drilling Technologies

Amy Thompson Broussard

Senior Vice President and Chief Human Resources Officer

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

FORM 10-K

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

For the fiscal year ended December 31, 2019

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: 001-38441

Apergy Corporation

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

2445 Technology Forest Blvd Building 4, 12th Floor The Woodlands, Texas (Address of principal executive offices)

77381

82-3066826

(I.R.S. Employer Identification No.)

(Zip Code)

(281) 403-5772

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, \$0.01 par value	APY	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 \square No \square

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 \square No \square

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

Large accelerated filer	Accelerated filer	
Non-accelerated filer	Smaller reporting company	
	Emerging growth company	

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

Indicate by check mark whether the registrant is a shell company (as defined by Rule 12b-2 of the Exchange Act). Yes 🗆 No 🜌

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant, determined by multiplying the outstanding shares on June 28, 2019, by the closing price on such day of \$33.54 as reported on the New York Stock Exchange, was \$2,575,029,140. The registrant, solely for the purpose of this required presentation, deemed its Board of Directors and executive officers to be affiliates, and deducted their stockholdings in determining the aggregate market value.

The registrant had 77,492,835 shares of common stock, \$0.01 par value, outstanding as of February 26, 2020.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement relating to its 2020 annual meeting of stockholders are incorporated by reference into Part III of this Annual Report on Form 10-K where indicated, or such information will be included in an amendment to this Form 10-K in accordance with Instruction G(3) of Form 10-K.

APERGY CORPORATION

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Cautionary Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K contains "forward-looking statements" intended to qualify for the safe harbors from liability established by the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact contained in this report are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Forward-looking statements usually relate to future events and anticipated revenues, earnings, cash flows or other aspects of our operations or operating results. Forward-looking statements are often identified by the words "believe," "expect," "anticipate," "plan," "intend," "foresee," "should," "could," "may," "estimate," "outlook," "guidance," "potential," "target," "forecast" and similar expressions, including the negative thereof. The absence of these words, however, does not mean that the statements are not forward-looking statements are based on our current expectations, beliefs and assumptions concerning future developments and business conditions and their potential effect on us. While management believes that these forward-looking statements are reasonable as and when made, there can be no assurance that future developments affecting us will be those that we anticipate.

All of our forward-looking statements involve risks and uncertainties (some of which are significant or beyond our control) and assumptions that could cause actual results to differ materially from our historical experience and our present expectations or projections. Known material factors that could cause our actual results to differ from those in the forward-looking statements are those described in Part I, Item 1A "Risk Factors" of this Annual Report on Form 10-K. We wish to caution you not to place undue reliance on any forward-looking statements, which speak only as of the date hereof. We undertake no obligation to publicly update or revise any of our forward-looking statements after the date they are made, whether as a result of new information, future events or otherwise, except to the extent required by law.

ITEM 1. BUSINESS

OVERVIEW

Apergy Corporation, a Delaware Corporation ("Apergy," "we," "us" or "our"), is a leading provider of highly engineered equipment and technologies that help companies drill for and produce oil and gas safely and efficiently around the world. Our products provide efficient functioning throughout the lifecycle of a well—from drilling to completion to production. We report our results of operations in the following reporting segments: Production & Automation Technologies and Drilling Technologies. Our Production & Automation Technologies segment offerings consist of artificial lift equipment and solutions, including rod pumping systems, electric submersible pump systems, progressive cavity pumps and drive systems and plunger lifts, as well as a full automation and digital offering consisting of equipment, software and Industrial Internet of Things solutions for downhole monitoring, wellsite productivity enhancement and asset integrity management. Our Drilling Technologies segment offering provides market leading polycrystalline diamond cutters and bearings that result in cost effective and efficient drilling.

Our products are used by a broad spectrum of customers in the global oil and gas industry, including national oil and gas companies, large integrated and independent oil and gas companies, major oilfield equipment and services providers, and pipeline companies. We compete across major oil and gas markets globally with a particular strength in the North American onshore market. Our products are particularly well suited for unconventional/shale oil and gas markets.

The quality, innovative technology and performance of our technologies drive improved cost-effectiveness, productivity, efficiency, reliability and safety for our customers. We believe our strong position in our core markets and our long-term customer relationships result from our focus on technological advancement, product reliability and our commitment to superior customer service across our organization. Our long-term customer relationships and the consumable nature of many of our products also enable us to benefit from recurring revenue throughout the lifecycle of a producing well. We believe we are differentiated from competitors through our proven business model focused on high customer intimacy, innovative technology, application engineering and a culture of continuous improvement.

We have a long history of innovation across our businesses, and our heritage in the oilfield equipment industry extends over 60 years. During this time, Apergy has expanded through a series of strategic acquisitions of well-known businesses and brands as well as internal growth initiatives. Key acquisitions that built our artificial lift platform include Harbison-Fischer, Wellmark, PCS Ferguson (f/k/a Production Controls Services, Inc.), Accelerated, and Oil Lift Technology. Our leading polycrystalline diamond cutter business was created through the acquisition of US Synthetic. Through our acquisitions, Apergy has developed experience as an effective operator and successful integrator of businesses.

Separation and Distribution

On May 9, 2018, Apergy became an independent, publicly traded company as a result of the distribution by Dover Corporation ("Dover") of 100% of the outstanding common stock of Apergy to Dover's stockholders. Dover's Board of Directors approved the distribution on April 18, 2018 and Apergy's Registration Statement on Form 10 was declared effective by the U.S. Securities and Exchange Commission ("SEC") on April 19, 2018. On May 9, 2018, Dover's stockholders of record as of the close of business on the record date of April 30, 2018 received one share of Apergy stock for every two shares of Dover stock held at the close of business on the record date (the "Separation"). Following the Separation, Dover retained no ownership interest in Apergy. Apergy's common stock began "regular-way" trading on the New York Stock Exchange ("NYSE") under the "APY" symbol on May 9, 2018.

Merger Agreement with ChampionX

On December 19, 2019, Apergy and Ecolab Inc. ("Ecolab") announced the execution of an Agreement and Plan of Merger and Reorganization in which Ecolab will separate their upstream energy business ("ChampionX") and simultaneously combine it with Apergy in a Reverse Morris Trust transaction ("the Merger"). Immediately prior to the Merger, Ecolab will transfer their upstream energy business to ChampionX and its subsidiaries ("ChampionX Separation") and, thereafter, will distribute 100% of the shares of ChampionX common stock to Ecolab stockholders ("the Distribution"). Ecolab will offer its stockholders the option to exchange all or a portion of their shares of Ecolab common stock for shares of ChampionX common stock ("Exchange Offer"). In the event the Exchange Offer is not fully subscribed, Ecolab will distribute the remaining shares of ChampionX common stock owned by Ecolab on a pro-rata basis to Ecolab stockholders whose shares of Ecolab common stock remain outstanding after the Exchange Offer. Immediately following the Distribution, Athena Merger Sub, Inc., a wholly

owned subsidiary of Apergy, will merge with and into ChampionX, with ChampionX continuing as the surviving company in the Merger and as a wholly owned subsidiary of Apergy. References to "the Transactions" refer to the transactions described as ChampionX Separation, the Distribution and the Merger.

Upon completion of the Merger, each issued and outstanding share of ChampionX common stock will be converted into the right to receive a number of shares of Apergy common stock at an exchange ratio calculated such that following the Merger, ChampionX equityholders will own, in the aggregate, approximately 62% of the issued and outstanding shares of the combined company. Apergy equityholders will own, in the aggregate, approximately 38% of the issued and outstanding shares of the combined company. The Board of Directors for the combined company will include the seven current members of Apergy and two members designated by Ecolab. The Merger is expected to close during the second quarter of 2020.

BUSINESS SEGMENTS

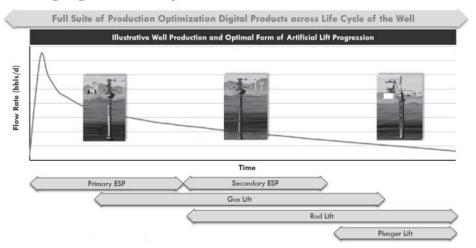
Our business is organized into two reporting segments: Production & Automation Technologies and Drilling Technologies.

Production & Automation Technologies

Production & Automation Technologies provides products, technologies and services that facilitate the safe, efficient, and cost effective extraction of oil and gas. We design, manufacture, market and service a full range of artificial lift equipment, end-toend automation and digital solutions, as well as other production equipment. A portion of Production & Automation Technologies revenue is derived from activity-based consumable products, as customers routinely replace items such as sucker rods, plunger lifts and pump parts. We believe that the combination of our artificial lift equipment and our end-to-end proprietary automation solutions helps oil and gas operators lower production costs and optimize well efficiency by enabling oil and gas operators to monitor, predict and optimize performance. Our products are sold under a collection of premier brands, which we believe are recognized by customers as leaders in their market spaces, including Harbison-Fischer, Norris, Alberta Oil Tool, Oil Lift Technology, PCS Ferguson, Pro-Rod, Upco, ESP, Norriseal-Wellmark, Quartzdyne, Spirit, Theta, Timberline and Windrock.

Artificial Lift

Artificial lift equipment is critical to oil and gas operators as a means to increase pressure within the reservoir and improve oil and gas production. Artificial lift is a key technology for increasing oil and gas production throughout the lifecycle of a producing well and is therefore directly linked to operator economics. Production & Automation Technologies offers a full suite of artificial lift solutions to meet the varying needs of operators as oil production volume levels decline over the lifecycle of a producing well, as illustrated in the figure below. Our comprehensive offering provides our customers with cost effective solutions tailored to a well's specific characteristics and production volumes. We have a strong presence within key U.S. basins where artificial lift technologies are prevalent. We believe our offerings also have significant international potential, as production rates continue to decline in existing wells in regions such as the Middle East, South America and Eastern Europe.



Managing the Life Cycle of the Well

Key artificial lift products include:

- Electric Submersible Pump ("ESP")—Our ESPs are fully integrated and customizable systems that are used during the earlier stages of production when barrels per day volume is at its highest level. Our ESP products include centrifugal pumps, gas handling devices, motors, controls and digital solutions to monitor and optimize ESP performance.
- **Gas Lift**—Gas lift is a method of artificial lift that involves injecting high pressure gas to lift oil from a well. Gas lift is a preferred artificial lift for deviated wells and wells characterized by large amounts of sand or solid materials. We have been delivering innovative and flexible gas lift solutions to our customers for more than 30 years. Our software takes into account the complexity and production characteristics of the well to deliver the best gas lift solution for each well.

- Rod Pumping Systems ("Rod Lift")—As well production extends beyond the initial years, operators typically begin to employ a Rod Lift extraction solution. Our Rod Lift solutions include standard and fit-for-purpose sucker rods and accessories as well as a full range of downhole pumps that address all rod pumping applications. Rod Lift is one of the more prevalent lift solutions employed in wells in the United States and internationally. Our Rod Lift business provides for significant recurring revenue as sucker rods, pumps and accessories are replaced with use.
- **Progressive Cavity Pumps ("PCP") Plunger, Hydraulic and Jet Lift Systems**—We offer a full range of PCP solutions including top drives, high performance pumps, drive rods and controls; a broad range of plunger lift systems including surface, downhole equipment and controllers; and a full range of hydraulic and jet lift systems including jet pumps, hydraulic reciprocating pumps, surface multiplex pumps and automation controllers. These solutions are typically used in wells that have been producing for multiple years and are essential for increasing productivity at lower production volumes.

Digital

Our proprietary digital products are aimed at creating an end-to-end production optimization platform that enables oil and gas operators to monitor, predict and optimize well performance and drive improved return on investment during the production lifecycle. We are a leading provider of productivity tools and performance management software for artificial lift and asset integrity management. Our software has modular architecture that enables specific solutions to be tailored to meet exact customer needs. Real-time data is used by our customers to drive decisions, enhance well servicing and obtain an accurate picture of a well's functioning over time, resulting in a more connected, digital wellsite that operates more efficiently and safely.

Digital solutions encompass multiple parts of the wellsite and allow an operator centralized monitoring and control capability. Smart instrumentation and hardware at the wellsite have sensing capabilities that allow for the capture of data. Once captured, the data is communicated to a cloud-based Industrial Internet of Things ("IIoT") infrastructure platform where it can be analyzed and used to drive value enhancing insights for customers. We believe the combination of our digital products and our strong artificial lift presence enables us to drive continued adoption of digital solutions by our customers. We believe digital adoption is a key secular trend in the oil and gas industry, particularly in a lower oil price environment where operators are focused on lowering the cost per barrel produced over the lifecycle of a well.

Digital solutions bring together multiple layers of equipment, sensors and software. A site may employ a full-scale solution (e.g., a fully connected wellsite using our equipment and software) or a more application specific solution (e.g., a controller used for diagnostics on an ESP lift). Technologies included in our digital products offering include:

- **Production Optimization Solutions**—Controllers and software solutions, including proprietary cloud-based software, to monitor and optimize artificial lift and production. Software is sold on a subscription based model and can be tailored to a breadth of customer requirements, resulting in a fit-for-purpose solution.
- **Downhole Monitoring Solutions**—Quartz pressure transducers and smart downhole tools for measuring, monitoring and logging downhole well conditions to improve well productivity.
- Asset Integrity Management Solutions—End-to-end digital IIoT solutions and portable analyzers to monitor, predict, and optimize health and performance of reciprocating compressors and engines used in wellsites, pipelines, refineries and chemical plants.

Other Production Equipment

We also offer other production equipment including chemical injection systems and flow control valves. These products are complementary to our artificial lift and digital technologies offerings.

Drilling Technologies

Drilling Technologies provides highly specialized products used in drilling oil and gas wells. We design, manufacture and market polycrystalline diamond cutters ("PDC") for use in drill bits under the US Synthetic brand. Our proprietary PDCs are based on years of innovation and intellectual property development in material science applications, including the production of highly stable synthetic diamonds, known as "polycrystalline diamonds." US Synthetic has historically filed new patents at a rate of over 50 patents per year as we continue to advance our diamond science process knowledge and US Synthetic has previously received the prestigious Shingo Prize for operational excellence. We believe our highly engineered PDCs are distinguished by their quality, durability, rate of penetration and longevity. PDCs are a relatively small cost to the oil and gas operator in the context of overall drilling costs, but are critical to successful drilling. As a result, we believe our customers

value the quality and performance of US Synthetic PDCs over less expensive and lower capability alternatives because a lower quality PDC can cause unnecessary and expensive drilling delays. Our PDCs are primarily custom designed to meet unique customer requirements and are finished to exact customer specification to ensure optimal performance. PDCs are utilized in both vertical and horizontal drilling and are replaced as they wear during the drilling process.

Key products of our Drilling Technologies segment include:

- PDC Drill Bit Inserts—Custom designed and manufactured drill bit inserts.
- **Diamond Bearings**—Long-lasting diamond bearings for process-fluid lubricated applications, including underwater applications, downhole drilling tools and industrial pumps.

See Note 13—Revenue to our consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for revenue by end market for each of our reportable segments.

OTHER BUSINESS INFORMATION

Competition

The businesses in which we operate are highly competitive. The competitive factors in our businesses are customer service, product quality and performance, price, breadth of product offering, market expertise and innovation. We believe we differentiate ourselves from our competitors through our model of high customer intimacy, differentiated technology, innovation, and a superior level of customer service and a culture of continuous improvement.

We face competition from other manufacturers and suppliers of oil and gas production and drilling equipment. Production & Automation Technologies' key competitors include Weatherford International plc, Baker Hughes, Halliburton, Schlumberger Ltd., BORETS, Tenaris, Novomet and Emerson. Drilling Technologies' key competitors include DeBeers (Element 6), Schlumberger Ltd. (Mega Diamond) and various suppliers in China.

Customers, Sales and Distribution

We have built our businesses through high customer intimacy and superior customer service, and we view our intense customer focus as being central to the goal of creating value for all of our stakeholders. Drawing on our industry and application engineering expertise, we strive to develop close, collaborative relationships with our customers. We work closely with our customers' engineering teams to develop technologies and applications that help improve efficiency, reliability and productivity.

We have established long-standing customer relationships with some of the largest operators in oil and gas drilling and production. Our customers include national oil and gas companies, large integrated as well as independent oil and gas companies, major oilfield equipment and service providers and pipeline companies.

We market and sell our products and technologies through a combination of sales representatives, technical seminars, trade shows and print advertising. We sell directly to customers through our direct sales force and indirectly through independent distributors and sales representatives. Our direct sales force is comprised of highly trained industry experts who can advise our customers on the advantages of our technologies and product offerings. We have developed an extensive network of sales and service locations throughout key regions and basins in North America to better serve our customers. We also host forums and training sessions, such as our Artificial Lift Academy, where our customers can share their experiences, and where we can educate and train our customers in the use of our new technologies. Nearly all of our Drilling Technologies sales, and the majority of our Production & Automation Technologies sales in 2019, were sold directly to the end-use customer.

In addition to our direct sales force, we support a global network of distributors and representatives. We provide our distributors with sales and product literature, advertising and sales promotions, and technical assistance and training with our products. Many of our distributors also stock our products.

Our customer base is diverse. No single customer accounted for 10% or more of our 2019 consolidated revenue.

Intellectual Property

We own many patents, trademarks, licenses and other forms of intellectual property, which have been acquired over many years and, to the extent relevant, expire at various times. A large portion of our intellectual property consists of patents, unpatented technology and proprietary information constituting trade secrets that we seek to protect in various ways, including confidentiality agreements with employees and suppliers where appropriate. While our intellectual property is important to our success, the loss or expiration of any of these rights, or any group of related rights, is not likely to materially affect our results of operations on a consolidated basis. We believe that our commitment to continuous engineering improvements, new product development and improved manufacturing techniques, as well as sales, marketing and service expertise, are significant to our leadership positions in the markets we serve.

Research and Development

We operate in markets that are characterized by changing technology and frequent new product introductions. As a result, our success is dependent on our ability to develop and introduce new technologies and products for our customers. We maintain an active research, development and engineering program with a focus on developing innovative products and solutions, upgrading and improving existing offerings to satisfy the changing needs of our customers, expanding revenue opportunities domestically and internationally, maintaining or extending competitive advantages, improving product reliability and reducing production costs. We believe maintaining a robust innovation and product pipeline will allow us to continue to increase our penetration in key businesses and with key customers.

Raw Materials

We use a wide variety of raw materials, primarily metals and semi-processed or finished components. We have not historically experienced material impacts to our financial results due to shortages or the loss of any single supplier. Although the required raw materials are generally available, commodity pricing for metals, such as nickel, chrome, molybdenum, vanadium, manganese and steel scrap, fluctuate with market conditions. Recently, tariffs have increased our material input costs, and any further trade restrictions, retaliatory trade measures and additional tariffs implemented could result in higher input costs to our products. Although cost increases in commodities may be recovered through increased prices to customers, our operating results are exposed to such fluctuations. We attempt to control such costs through short-duration, fixed-price contracts with suppliers and various other programs, such as our global supply chain initiatives. We source material internationally to achieve the most competitive cost structure. Our global supply chain is intended to provide us with cost-effective solutions for raw materials. Our supply chain could be exposed to logistical disruptions. We maintain domestic suppliers in most cases to provide for contingencies and back-up sources. Despite contingencies and back-up supply optionality, sustained inflation and unpredictable disruptions to supply could have an adverse impact on our business.

Seasonality

Our business is generally not impacted by high levels of seasonality, except for a small portion of our operations in Canada where the level of drilling activity during the first half of the year is influenced by weather patterns. During the spring months in Canada, wet weather and the spring thaw make the ground unstable and less capable of supporting heavy equipment and machinery. As a result, municipalities and provincial transportation departments enforce road bans that restrict the movement of heavy equipment during the spring months, which reduces our customers' activity levels. As such, there is greater demand for our products, specifically those provided by our Drilling Technologies business, in the fall and winter seasons when weather conditions allow for increased levels of drilling activities. In recent years, there have been times of budget exhaustion by our customers, which lowers customers' spending in the later part of the year, especially in the fourth quarter.

Employees

As of December 31, 2019, we had approximately 3,000 employees in ten countries. Approximately 100 of our employees in the United States are subject to a collective bargaining agreement. Outside the United States, some of our employees are represented by unions or works councils.

Regulation and Environmental and Occupational Health and Safety Matters

Our operations are subject to a variety of international, national, state and local laws and regulations, including those relating to the discharge of materials into the environment, worker health and safety, or otherwise relating to human health and environmental protection. Failure to comply with these laws or regulations may result in the assessment of administrative, civil

and criminal penalties, imposition of remedial or corrective action requirements, and the imposition of injunctions to prohibit certain activities or force future compliance.

In addition, we depend on the demand for our products and services from the oil and gas industry and, therefore, are affected by changing taxes, price controls, tariffs and trade restrictions and other laws and regulations relating to the oil and gas industry in general, including those specifically directed to hydraulic fracturing and onshore products. The adoption of laws and regulations curtailing exploration, drilling or production in the oil and gas industry, or the imposition of more stringent enforcement of existing regulations, could adversely affect our operations by limiting demand for our products and services or restricting our customers' operations. Refer to Item 1A, Risk Factors for additional information related to certain risks regarding regulations and environmental matters.

We utilize behavioral-based safety practices to promote a safe working environment for all of our employees. On a constant basis, safety is prioritized, measured and promoted throughout all levels of our organization. We continued our "Journey to Zero" program which teaches that all incidents are preventable. The core tenets of our program advocate (i) constant awareness and education of safety principles, (ii) consistent safety behaviors and practices, and (iii) preventing and learning from incidents. Additionally, our operations are subject to a number of federal and state laws and regulations relating to workplace safety and worker health, such as the Occupational Safety and Health Act and regulations promulgated thereunder.

We have incurred and will continue to incur operating and capital expenditures to comply with environmental, health and safety laws and regulations. Historically, there have been no material effects upon our earnings and competitive position resulting from our compliance with such laws or regulations; however, there can be no assurance that such costs will not be material in the future or that such future compliance will not have a material adverse effect on our business or operational costs.

Website Access to Reports

Our Internet website address is https://apergy.com. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to each of those reports, are available free of charge through our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. Alternatively, our reports may be accessed through the website maintained by the SEC at www.sec.gov. Unless expressly noted, the information on our website or any other website is not incorporated by reference in this Annual Report on Form 10-K and should not be considered part of this Annual Report on Form 10-K or any other filing we make with the SEC.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

Name	Age	Current Position and Business Experience
Sivasankaran Somasundaram	54	President and Chief Executive Officer (2018) Vice President of Dover Corporation and President and Chief Executive Officer of Dover Energy (2013)
Jay A. Nutt	56	Senior Vice President and Chief Financial Officer (2018) Senior Vice President and Chief Financial Officer—Dover Energy of Dover Corporation (2018) Senior Vice President and Controller of TechnipFMC plc (2017) Vice President, Controller and Treasurer of FMC Technologies, Inc. (2015) Vice President and Controller of FMC Technologies, Inc. (2009)
Amy Thompson Broussard	43	Senior Vice President and Chief Human Resources Officer (2018) Vice President, Human Resources—Dover Energy of Dover Corporation (2016) Vice President of Human Resources—Dover Artificial Lift of Dover Corporation (2014) Director of Human Resources—Western Hemisphere HR Service Centers of Baker Hughes Inc. (2013)
Robert K. Galloway	53	President, Drilling Technologies (2018) President—US Synthetic of Dover Corporation (2010)
Paul E. Mahoney	55	President, Production & Automation Technologies (2018) President—Dover Artificial Lift of Dover Corporation (2014) Chief Operations Officer and Senior Vice President of Global Sales and Operations—Dover Artificial Lift of Dover Corporation (2012)
Syed Raza	53	Senior Vice President and Chief Digital Officer (2018) President—Dover Energy Automation of Dover Corporation (2016) Vice President and General Manager—Advanced Solutions of Honeywell Process Solutions (2014) General Manager Advanced Solutions—Europe, Middle East & Africa of Honeywell Process Solutions (2013)
Julia Wright	44	Senior Vice President, General Counsel and Secretary (2018) Senior Vice President, General Counsel and Secretary—Dover Energy of Dover Corporation (2018) Vice President and General Counsel of Nabors Industries Ltd. (2016) Interim General Counsel of Nabors Industries Ltd. (2016) Assistant General Counsel of Nabors Industries Ltd. (2013)

No family relationships exist among any of the above-listed officers, and there are no arrangements or understandings between any of the above-listed officers and any other person pursuant to which they serve as an officer. During the past ten years, none of the above-listed officers was involved in any legal proceedings as defined in Item 401(f) of Regulation S-K. All officers are elected by the Board of Directors to hold office until their successors are elected and qualified.

ITEM 1A. RISK FACTORS

In addition to other information in this Annual Report on Form 10-K, you should carefully consider the following risk factors. Each of these risk factors could materially and adversely affect our business, results of operations and financial condition, as well as affect the value of an investment in our common stock.

We also face certain risks in connection with our proposed acquisition of ChampionX as described above in Item 1 of this Form 10-K. We encourage you to consider the risks below under the caption "Risks Related to the Proposed Acquisition of ChampionX" and the risk factors set forth in our registration statement on Form S-4 (Registration No. 333-236379), filed with the SEC on February 11, 2020, for additional risk factors relating to our proposed acquisition of ChampionX.

Risks Related to Our Business

Trends in crude oil and natural gas prices may affect the drilling and production activity, profitability and financial stability of our customers and therefore the demand for, and profitability of, our products and services, which could have a material adverse effect on our business, results of operations and financial condition.

The oil and gas industry is cyclical in nature and experiences periodic downturns of varying length and severity. The oil and gas industry experienced a significant downturn in 2015 and 2016 as a result of a sharp decline in crude oil prices. Crude oil prices slightly recovered in late 2016 and into 2017, but experienced a volatile decline again during late 2018. Price volatility continued throughout 2019 and into early 2020. Demand for our products and services is sensitive to the level of capital spending by oil and natural gas companies and the corresponding drilling and production activity. The level of drilling and production activity is directly affected by trends in crude oil and natural gas prices, which are influenced by numerous factors affecting the supply and demand for oil and gas, including:

- worldwide economic activity including disruption to global trade;
- the level of exploration and production activity;
- interest rates and the cost of capital;
- environmental regulation;
- federal, state and foreign policies and regulations regarding current and future exploration and development of oil and gas;
- the ability and/or desire of the Organization of the Petroleum Exporting Countries ("OPEC") and other major producers to set and maintain production levels and influence pricing;
- the cost of exploring and producing oil and gas;
- the pace of adoption and cost of developing alternative energy sources;
- the availability, expiration date and price of onshore and offshore leases;
- the discovery rate of new oil and gas reserves in onshore and offshore areas;
- the success of drilling for oil and gas in unconventional resource plays such as shale formations;
- the depletion rate of existing wells in productions;
- takeaway capacity within producing basins;
- alternative opportunities to invest in onshore exploration and production opportunities;
- domestic and global political and economic uncertainty, socio-political unrest and instability, terrorism or hostilities;
- the recent coronavirus outbreak or other health epidemics;
- technological advances; and
- weather conditions.

We expect continued volatility in both crude oil and natural gas prices, as well as in the level of drilling and production related activities. Our ability to regulate our operating activities in response to lower oilfield service activity levels during periodic industry downturns is important to our business, results of operations and prospects. However, a significant downturn in the industry could result in the reduction in demand for our products and services and could have a material adverse effect on our business, results of operations, financial condition and cash flows.

We might be unable to successfully compete with other companies in our industry.

The markets in which we operate are highly competitive. The principal competitive factors in our markets are customer service, product quality and performance, price, breadth of product offering, market expertise and innovation. In some of our product and service offerings, we compete with the oil and gas industry's largest oilfield service providers. These large national and multi-national companies may have longer operating histories, greater brand recognition, and a stronger presence in geographic markets than us. They may also have more robust financial and technical capabilities. In addition, we compete with many

smaller companies capable of effectively competing on a regional or local basis. Our competitors may be able to respond more quickly to new or emerging technologies and services and changes in customer requirements. Many contracts are awarded on a bid basis, which further increases competition based on price. As a result of the competitive environment in which we operate, we may lose market share, be unable to maintain or increase prices for our products and services, or be unable to acquire additional business opportunities, which could have a material adverse effect on our business, results of operations, financial condition and cash flows.

If we are unable to develop new products and technologies, our competitive position may be impaired, which could materially and adversely affect our sales and market share.

The markets in which we operate are characterized by changing technologies and the introduction of new products and services. As a result, our success is dependent upon our ability to develop or acquire new products and services on a costeffective basis, to introduce them into the marketplace in a timely manner, and to protect and maintain critical intellectual property assets related to these developments. Difficulties or delays in research, development or production of new products and technologies, or failure to gain market acceptance of new products and technologies, may significantly reduce future revenue and materially and adversely affect our competitive position. While we intend to continue to commit financial resources and effort to the development of new products and services, we may not be able to successfully differentiate our products and services from those of our competitors. Our customers may not consider our proposed products and services to be of value to them or may not view them as superior to our competitors' products and services. In addition, our competitors or customers may develop new technologies which address similar or improved solutions to our existing technologies. Further, we may not be able to adapt to evolving markets and technologies, develop new products, achieve and maintain technological advantages through intellectual property rights. If we do not successfully compete through the development and introduction of new products and technologies, our business, results of operations, financial condition and cash flows could be materially adversely affected.

We could lose customers or generate lower revenue, operating profits and cash flows if there are significant increases in the cost of raw materials or if we are unable to obtain raw materials.

We purchase raw materials, sub-assemblies and components for use in our manufacturing operations, which exposes us to volatility in prices for certain commodities. Significant price increases for these commodities could adversely affect our operating profits. While we generally attempt to mitigate the impact of increased raw material prices by endeavoring to make strategic purchasing decisions, broadening our supplier base and passing along increased costs to customers, there may be a time delay between the increased raw material prices and the ability to increase the prices of our products. Additionally, we may be unable to increase the prices of our products due to a competitor's pricing pressure or other factors. While raw materials are generally available now, the inability to obtain necessary raw materials could affect our ability to meet customer commitments and satisfy market demand for certain products. Certain of our product lines depend on a limited number of third-party suppliers and vendors. The ability of these third parties to deliver raw materials may be affected by events beyond our control. In addition, public health threats, such as the coronavirus, severe influenza and other highly communicable viruses or diseases could limit access to vendors and their facilities, as well as limited access or shutdown of our facilities, or the ability to transport raw materials from our vendors, adversely affecting our ability to obtain necessary raw materials for certain of our products. Consequently, a significant price increase in raw materials, or their unavailability, may result in a loss of customers and adversely impact our business, results of operations, financial condition and cash flows.

Federal, state and local legislative and regulatory initiatives relating to oil and gas development and the potential for related litigation could result in increased costs and additional operating restrictions or delays for our customers, which could reduce demand for our products and negatively impact our business, financial condition and results of operations.

Environmental laws and regulations could limit our customers' exploration and production activities. Although we do not directly engage in drilling or hydraulic fracturing activities, we provide products and services to operators in the oil and gas industry. There has been significant growth in opposition to oil and gas development both in the United States and globally. This opposition is focused on attempting to limit or stop hydrocarbon development in certain areas. Examples of such opposition include: (i) efforts to reduce access to public and private lands, (ii) delaying or canceling permits for drilling or pipeline construction, (iii) limiting or banning industry techniques such as hydraulic fracturing, and/or adding restrictions on the use of water and associated disposal, (iv) delaying or denying air-quality permits, and (v) advocating for increased regulations, punitive taxation, or citizen ballot initiatives or moratoriums on industry activity.

In addition, various state and local governments have implemented, or are considering, increased regulatory oversight of oil and gas development through additional permitting requirements, operational restrictions, including on the time, place and manner of drilling activities, disclosure requirements and temporary or permanent bans on hydraulic fracturing or other facets

of crude oil and natural gas exploration and development in certain areas such as environmentally sensitive watersheds. Increased regulation and opposition to oil and gas activities could increase the potential for litigation concerning these activities, and could include companies who provide products and services used in hydrocarbon development, such as ours. The adoption of new laws or regulations at the federal, state, or local levels imposing reporting obligations, or otherwise limiting or delaying hydrocarbon development, could make it more difficult to complete oil and gas wells, increase our customers' costs of compliance and doing business, and otherwise adversely affect the oil and gas activities they pursue. Such developments could negatively impact demand for our products and services. In addition, heightened political, regulatory and public scrutiny, including lawsuits, could expose us or our customers to increased legal and regulatory proceedings, which could be time-consuming, costly, or result in substantial legal liability or significant reputational harm. We could be directly affected by adverse litigation or indirectly affected if the cost of compliance or the risks of liability limit the ability or willingness of our customers to operate. Such costs and scrutiny could directly or indirectly, through reduced demand for our products and services, have a material adverse effect on our business, results of operations, financial condition and cash flows.

We and our customers are subject to extensive environmental and health and safety laws and regulations that may increase our costs, limit the demand for our products and services or restrict our operations.

Our operations and the operations of our customers are subject to numerous and complex federal, state, local and foreign laws and regulations relating to the protection of human health, safety and the environment. These laws and regulations may adversely affect our customers by limiting or curtailing their exploration, drilling and production activities, the products and services we design, market and sell and the facilities where we manufacture our products. For example, our operations and the operations of our customers are subject to numerous and complex laws and regulations that, among other things: may regulate the management and disposal of hazardous and non-hazardous wastes; may require acquisition of environmental permits related to operations; may restrict the types, quantities and concentrations of various materials that can be released into the environment; may limit or prohibit operational activities in certain ecologically sensitive and other protected areas; may regulate specific health and safety criteria addressing worker protection; may require compliance with operational and equipment standards; may impose testing, reporting and record-keeping requirements; and may require remedial measures to mitigate pollution from former and ongoing operations. Sanctions for noncompliance with such laws and regulations may include revocation of permits, corrective action orders, administrative or civil penalties, criminal prosecution and the imposition of injunctions to prohibit certain activities or force future compliance.

Some environmental laws and regulations provide for joint and several strict liability for remediation of spills and releases of hazardous substances. In addition, Apergy or its customers may be subject to claims alleging personal injury or property damage as a result of alleged exposure to hazardous substances, as well as damage to natural resources. These laws and regulations may expose Apergy or its customers to liability for the conduct of or conditions caused by others, or for our acts or for the acts of our customers that were in compliance with all applicable laws and regulations at the time such acts were performed. Any of these laws and regulations could result in claims, fines or expenditures that could be material to our business, results of operations, financial condition and cash flows.

Environmental laws and regulations, and the interpretation and enforcement thereof, frequently change, and have tended to become more stringent over time. New laws and regulations may have a material adverse effect on our customers by limiting or curtailing their exploration, drilling and production activities, which may adversely affect our operations by limiting demand for our products and services. Additionally, the implementation of new laws and regulations may have a material adverse effect on our facilities.

Numerous proposals have been made, and are likely to continue to be made, at various levels of government to monitor and limit emissions of greenhouse gases ("GHG"). Past sessions of the U.S. Congress considered, but did not enact, legislation to address climate change. The EPA and other federal agencies previously issued regulations that aim to reduce GHG emissions; however, the current administration has generally indicated an interest in scaling back or rescinding regulations addressing GHG emissions, including those affecting the U.S. oil and gas industry. It is difficult to predict the extent to which such policies will be implemented or the outcome of any related litigation. Any regulation of GHG emissions could result in increased compliance costs or additional operating restrictions for Apergy and/or its customers and limit or curtail exploration, drilling and production activities of our customers, which could directly or indirectly, through reduced demand for our products and services, adversely affect our business, results of operations, financial condition and cash flows.

Our growth and results of operations may be adversely affected if we are unable to complete third party acquisitions on acceptable terms.

Over time, we expect to acquire value creating, add-on capabilities that broaden our existing technological, geographic, and cost position, thereby complementing our existing businesses. However, there can be no assurance that we will be able to find suitable opportunities to purchase or to acquire such capabilities on acceptable terms. If we are unsuccessful in our acquisition efforts, our revenue growth could be adversely affected. In addition, we face the risk that a completed acquisition may underperform relative to expectations. We may not achieve the synergies originally anticipated, may become exposed to unexpected liabilities, or may not be able to sufficiently integrate completed acquisitions into our current business and growth model. These factors could potentially have an adverse impact on our business, results of operations, financial condition and cash flows.

Our products are used in operations that are subject to potential hazards inherent in the oil and gas industry, and as a result, we are exposed to potential liabilities that may affect our financial condition and reputation.

Our products are used in potentially hazardous drilling, completion and production applications in the oil and gas industry where an accident or a failure of a product can potentially have catastrophic consequences. Risks inherent in these applications, such as equipment malfunctions and failures, equipment misuse and defects, explosions, blowouts and uncontrollable flows of oil, natural gas or well fluids can cause personal injury, loss of life, suspension of operations, damage to formations, damage to facilities, business interruption and damage to or destruction of property, surface and drinking water resources, equipment and the environment. While we currently maintain insurance protection against some of these risks and seek to obtain indemnity agreements from our customers requiring them to hold us harmless from some of these risks, our current insurance and contractual indemnity protection may not be sufficient or effective enough to protect us under all circumstances or against all risks. The occurrence of a significant event not fully insured or indemnified against, or the failure of a customer to meet its indemnification obligations to us could adversely affect our business, results of operations, financial condition and cash flows.

Our industry is undergoing continuing consolidation that may impact our results of operations.

The oil and gas industry continues to experience consolidation, and as a result, some of our largest customers have consolidated and are using their size and purchasing power to seek economies of scale and pricing concessions. This consolidation may result in reduced capital spending by some of our customers or the acquisition of one or more of our primary customers, which may lead to decreased demand for our products and services. There is no assurance that we will be able to maintain our level of sales to a customer that has consolidated, or replace that revenue with increased business activity with other customers. As a result, the acquisition of one or more of our primary customers may have a significant adverse impact on our business, results of operations, financial condition and cash flows. We are unable to predict what effect consolidations in the industry may have on prices, capital spending by our customers, our selling strategies, our competitive position, our ability to retain customers or our ability to negotiate favorable agreements with our customers.

We are subject to information technology, cybersecurity and privacy risks.

We depend on various information technologies to store and process information and support our business activities. We also manufacture and sell hardware and software to provide monitoring, controls and optimization of customer critical assets in oil and gas production and distribution. We also provide services to maintain these systems. Additionally, our operations rely upon partners, vendors and other third-party providers of information technology software and services. If any of these information technologies, products or services are damaged, cease to properly function, are breached due to employee error, malfeasance, system errors, or other vulnerabilities, or are subject to cybersecurity attacks, such as those involving unauthorized access, malicious software and/or other intrusions, Apergy or its partners, vendors or other third parties could experience: (i) production downtimes, (ii) operational delays, (iii) the compromising of confidential, proprietary or otherwise protected information, including personal and customer data, (iv) destruction, corruption, or theft of data, (v) security breaches, (vi) other manipulation, disruption, misappropriation or improper use of its systems or networks, (vii) financial losses from remedial actions, (viii) loss of business or potential liability, (ix) adverse media coverage, and (x) legal claims or legal proceedings, including regulatory investigations and actions, and/or damage to reputation. While we attempt to mitigate these risks by employing a number of measures, including employee training, technical security controls and maintenance of backup and protective systems, Apergy's and its partners', vendors' and other third-parties' systems, networks, products and services remain potentially vulnerable to known or unknown cybersecurity attacks and other threats, any of which could have a material adverse effect on our business, results of operations, financial condition and cash flows.

We are subject to risks relating to existing international operations and expansion into new geographical markets.

We continue to focus on expanding sales globally as part of our overall growth strategy and expect sales from outside the United States to continue to represent a significant portion of our revenue. Our international operations and our global expansion strategy are subject to general risks related to such operations, including:

- political, social and economic instability and disruptions;
- government export controls, economic sanctions, embargoes or trade restrictions;
- the imposition of duties and tariffs and other trade barriers;
- limitations on ownership and on repatriation or dividend of earnings;
- transportation delays and interruptions;
- labor unrest and current and changing regulatory environments;
- increased compliance costs, including costs associated with disclosure requirements and related due diligence;
- difficulties in staffing and managing multi-national operations;
- limitations on our ability to enforce legal rights and remedies;
- access to or control of networks and confidential information due to local government controls and vulnerability of local networks to cyber risks; and
- fluctuations in foreign currency exchange rates.

If we are unable to successfully manage the risks associated with expanding our global business or adequately manage operational risks of our existing international operations, these risks could have a material adverse effect on our growth strategy into new geographical markets, our reputation, our business, results of operations, financial condition and cash flows.

Tariffs and other trade measures could adversely affect our results of operations, financial position and cash flows.

In 2019 the U.S. government continued to impose tariffs on steel and aluminum and a broad range of other products imported into the United States. In response to the tariffs imposed by the U.S. government, the European Union, Canada, Mexico, India and China have announced tariffs on U.S. goods and services. The tariffs have increased our material input costs, and any further trade restrictions, retaliatory trade measures and additional tariffs could result in higher input costs to our products. We may not be able to fully mitigate the impact of these increased costs or pass price increases on to our customers. While tariffs and other retaliatory trade measures imposed by other countries on U.S. goods have not yet had a significant impact on our business or results of operations, we cannot predict further developments, and such existing or future tariffs could have a material adverse effect on our results of operations, financial position and cash flows.

Changes in domestic and foreign governmental and public policy changes, risks associated with emerging markets, changes in statutory tax rates and laws, and unanticipated outcomes with respect to tax audits could adversely affect our business, profitability and reputation.

Our domestic and international sales and operations are subject to risks associated with changes in laws, regulations and policies (including environmental and employment regulations, export/import laws, tax policies such as export subsidy programs and research and experimentation credits, carbon emission regulations and other similar programs). Failure to comply with any of the foregoing laws, regulations and policies could result in civil and criminal, monetary and non-monetary penalties, as well as damage to our reputation. In addition, we cannot provide assurance that our costs of complying with new and evolving regulatory reporting requirements and current or future laws, including environmental protection, employment, data security, data privacy and health and safety laws, will not exceed our estimates. In addition, Apergy has made investments in certain countries, including Argentina, Australia, Bahrain, Colombia and Oman, and may in the future invest in other countries, any of which may carry high levels of currency, political, compliance, or economic risk. While these risks or the impact of these risks are difficult to predict, any one or more of them could adversely affect our business, results of operations and reputation.

We are subject to taxation in a number of jurisdictions, including foreign and domestic. Accordingly, our effective tax rate is impacted by changes in the mix among earnings in countries with differing statutory tax rates. A material change in the statutory tax rate or interpretation of local law in a jurisdiction in which we have significant operations could adversely impact our effective tax rate and impact our financial results. For example, the U.S. bill commonly referred to as the Tax Cuts and Jobs Act ("Tax Reform Act"), which was enacted on December 22, 2017, significantly changed U.S. tax law by, among other things, imposing a repatriation tax on deemed repatriated earnings of foreign subsidiaries and imposing limitations on the ability to deduct interest expense.

Our tax returns are subject to audit and taxing authorities could challenge our operating structure, taxable presence, application of treaty benefits or transfer pricing policies. If changes in statutory tax rates or laws or audits result in assessments different from amounts estimated, then our business, results of operations, financial condition and cash flows may be adversely affected. In addition, changes in tax laws could have an adverse effect on our customers, resulting in lower demand for our products and services.

Failure to attract, retain and develop personnel for key management could have an adverse effect on our results of operations, financial condition and cash flows.

Our growth, profitability and effectiveness in conducting our operations and executing our strategic plans depend in part on our ability to attract, retain and develop qualified personnel, align them with appropriate opportunities for key management positions and support for strategic initiatives. Additionally, during periods of increased investment in the oil and gas industry, competition to hire may increase and the availability of qualified personnel may be reduced. If we are unsuccessful in our efforts to attract and retain qualified personnel, our business, results of operations, financial condition, cash flows, market share and competitive position could be adversely affected. Additionally, we could miss opportunities for growth and efficiencies.

The credit risks of our customer base could result in losses.

Many of our customers are oil and gas companies that have faced or may in the future face liquidity constraints during adverse commodity price environments. These customers impact our overall exposure to credit risk as they are also affected by prolonged changes in economic and industry conditions such as the current downturn in the oil and gas industry as a result of the lower crude oil and natural gas price environment. If a significant number of our customers experience a prolonged business decline or disruptions, we may incur increased exposure to credit risk and bad debts.

The loss of one or more significant customers could have an adverse impact on our financial results.

Our customers represent a combination of some of the largest operators in the oil and gas drilling and production markets, including major integrated, large, medium and small independents, and foreign national oil and gas companies, as well as oilfield equipment and service providers. In 2019, our top 10 customers represented approximately 41% of total revenue. While Apergy is not dependent on any one customer or group of customers, the loss of one or more of our significant customers could have an adverse effect on our business, results of operations, financial condition and cash flows.

The inability to protect or obtain patent and other intellectual property rights could adversely affect our revenue, operating profits and cash flows.

We own patents, trademarks, licenses and other intellectual property related to our product and services, and continuously invest in research and development that may result in innovations and intellectual property rights. We employ various measures to develop, maintain and protect our innovations and intellectual property rights. These measures may not be effective in capturing intellectual property rights, and they may not prevent our intellectual property from being challenged, invalidated, circumvented, infringed, misappropriated or otherwise violated, particularly in countries where intellectual property rights are not highly developed or protected. Unauthorized use of our intellectual property rights and any potential litigation we may initiate or may have been initiated against us in respect of our intellectual property rights could adversely impact our competitive position and have a negative impact on our business, results of operations, financial condition and cash flows.

A deterioration in our future expected profitability or cash flows could result in an impairment of our recorded goodwill and intangible assets.

Apergy has significant goodwill and intangible assets recorded on its consolidated balance sheet. The valuation and classification of these assets and the assignment of useful lives to intangible assets involve significant judgments and the use of estimates. Impairment testing of goodwill and intangible assets requires significant use of judgment and assumptions, particularly as it relates to the determination of fair market value. A decrease in the long-term economic outlook and future cash flows of our business could significantly impact asset values and potentially result in the impairment of intangible assets, including goodwill. Although fair values currently exceed carrying values for each reporting unit, the value of our business could be unfavorably impacted by steep declines in revenue and order rates as drilling and production activity would be reduced due to sustained unfavorable crude oil prices and lower U.S. rig counts. Accordingly, sustained future economic declines could result in impairment charges that could have a material adverse effect on our results of operations.

Our reputation, ability to do business and results of operations may be impaired by improper conduct by or disputes with any of our employees, agents or business partners.

Our operations require us to comply with a number of U.S. and international laws and regulations, including those governing payments to government officials, bribery, fraud, anti-kickback and false claims, competition, export and import compliance, money laundering and data privacy, as well as the improper use of proprietary information or social media. In particular, our international operations are subject to the regulations imposed by the Foreign Corrupt Practices Act and the United Kingdom Bribery Act 2010 as well as anti-bribery and anti-corruption laws of various jurisdictions in which we operate. While we strive to maintain high standards, we cannot provide assurance that our internal controls and compliance systems will always protect us from acts committed by our employees, agents or business partners that would violate such U.S. or international laws or regulations or fail to protect our confidential information. Any such violations of law or improper actions could subject us to civil or criminal investigations in the United States or other jurisdictions, could lead to substantial civil or criminal, monetary and non-monetary penalties and related stockholder lawsuits, could lead to increased costs of compliance and could damage our reputation, business, results of operations, financial condition and cash flows.

Additionally, we conduct some operations through joint ventures in which unaffiliated third parties may control or have significant influence on the operations of the joint venture. As with any joint venture arrangement, differences in views among the joint venture participants may result in delayed decisions, the joint venture operating in a manner that is contrary to our preference or in failures to agree on major issues. These factors could have a material adverse effect on the business and results of operations of our joint ventures and, in turn, our business and consolidated results of operations.

Our exposure to exchange rate fluctuations on cross-border transactions and the translation of local currency results into U.S. dollars could negatively impact our results of operations.

A portion of our business is transacted and/or denominated in foreign currencies, and fluctuations in currency exchange rates could have a significant impact on our results of operations, financial condition and cash flows, which are presented in U.S. dollars. Cross-border transactions, both with external parties and intercompany relationships, result in increased exposure to foreign exchange effects. Although the impact of foreign currency fluctuations on our results of operations has historically not been material, significant changes in currency exchange rates, principally the Canadian Dollar, Australian Dollar, Argentinian Peso, Omani Rial, and Colombian Peso, could negatively affect our results of operations. Additionally, the strengthening of the U.S. dollar potentially exposes us to competitive threats from lower cost producers in other countries and could result in unfavorable translation effects as the results of foreign locations are translated into U.S. dollars for reporting purposes.

Natural disasters and unusual weather conditions could have an adverse impact on our business.

Our business could be materially and adversely affected by natural disasters or severe weather conditions. Hurricanes, tropical storms, flash floods, blizzards, cold weather and other natural disasters or severe weather conditions could result in evacuation of personnel, curtailment of services, damage to equipment and facilities, interruption in transportation of products and materials, and loss of productivity. For example, certain of our manufactured products and components are manufactured at a single facility, and disruptions in operations or damage to any such facilities could reduce our ability to manufacture our products and satisfy customer demand. If our customers are unable to operate or are required to reduce operations due to severe weather conditions, our business could be adversely affected as a result of curtailed deliveries of our products and services.

Our indebtedness could adversely affect our financial condition and operating flexibility.

In connection with the Separation, we incurred a significant amount of indebtedness. Subject to the limits contained in the credit agreement governing our senior secured credit facilities and the indenture that governs our senior notes, we may incur substantial additional indebtedness from time to time to finance working capital, capital expenditures, investments or acquisitions, or for other purposes. If we do so, the risks related to our level of indebtedness could intensify.

Specifically, our level of indebtedness could have important consequences, including:

- difficulty for us to satisfy our obligations with respect to our outstanding debt;
- limiting our ability to obtain additional financing to fund our business operations;
- requiring a substantial portion of our cash flows to be dedicated to debt service payments;
- increasing our vulnerability to general adverse economic and industry conditions;
- exposing us to the risk of increased interest rates as certain of our borrowings, including borrowings under our senior secured credit facilities, are at variable rates of interest;
- limiting our flexibility in planning for and reacting to changes in the industry in which we compete;

- placing us at a disadvantage compared to other, less leveraged competitors; and
- increasing our cost of borrowing.

In addition, the credit agreement governing our senior secured credit facilities and the indenture that governs our senior notes contain restrictive covenants that limit our ability to engage in activities that may be in our long-term interests. Our failure to comply with these covenants could result in an event of default which, if not cured or waived, could result in the acceleration of the repayment obligations of our debt.

Our ability to make payments on and to refinance our indebtedness, as well as any future indebtedness that we may incur, depends upon the level of cash flows generated by our operations, our ability to sell assets, availability under our revolving credit facility, and our ability to access the capital markets and/or other sources of financing. Our ability to generate cash is subject to general economic, industry, financial, competitive, legislative, regulatory and other factors that are beyond our control. If we are not able to repay or refinance our indebtedness as it becomes due, we may be forced to sell assets or take other disadvantageous actions, including (i) reducing financing in the future for working capital, capital expenditures, acquisitions and general corporate purposes or (ii) dedicating an unsustainable level of our cash flow from operations to the payment of principal and interest on our indebtedness. In addition, our ability to withstand competitive pressures and to react to changes in the oil and gas industry could be impaired.

We have identified material weaknesses in our internal control over financial reporting and, as a result, our internal control over financial reporting and our disclosure controls and procedures are not effective.

Management has identified material weaknesses in our internal control over financial reporting as a result of which management has concluded that our internal control over financial reporting and our disclosure controls and procedures were not effective as of December 31, 2019. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. These material weaknesses relate to (a) the ineffective control environment due to a lack of a sufficient complement of personnel with the appropriate level of knowledge, experience and training at our Artificial Lift business, (b) ineffective risk assessment component of internal control related to the ESP subsidiary (which is part of the Artificial Lift business) as controls were not appropriately designed to ensure that the subsidiary, which was experiencing significant growth and turnover of personnel, had the proper resources to operate a complex business model, (c) a lack of controls designed and maintained within certain of our Artificial Lift businesses over the completeness, accuracy, occurrence or cut-off of revenue and within ESP over the valuation of accounts receivable, (d) a lack of controls maintained to ensure that journal entries were properly prepared with appropriate supporting documentation or were reviewed and approved appropriately to ensure the accuracy of journal entries at ESP, (e) a lack controls designed and maintained over the completeness, accuracy, and existence or presentation and disclosure of inventory and fixed assets at ESP, and (f) a lack of controls designed and maintained over user roles within the general ledger system across the Company, which defines the actions an individual can perform within the system.

We are currently in the process of developing and implementing a remediation plan to address these material weaknesses. We expect to incur significant additional expenses in connection with implementing remedial measures. If our remedial measures are insufficient to address the material weaknesses, or if additional material weaknesses or significant deficiencies in our internal control over financial reporting are identified or subsequently arise, our consolidated financial statements may contain material misstatements, and we may be required to restate our financial results, which could have a material adverse effect on our financial condition, results of operations or cash flows, restrict our ability to access the capital markets, require significant resources to correct the material weaknesses or deficiencies, subject us to fines, penalties or judgments, harm our reputation or otherwise cause a decline in investor confidence and cause a decline in the market price of our stock.

Risks Related to the Separation

Potential indemnification liabilities between Apergy and Dover pursuant to the separation and distribution agreement could materially and adversely affect our business, financial condition, results of operations and cash flows.

The separation and distribution agreement, among other things, provides for indemnification obligations designed to make Apergy financially responsible for substantially all liabilities that may exist relating to its business activities, whether incurred prior to or after the Separation. If we are required to indemnify Dover under the circumstances set forth in the separation and distribution agreement, we may be subject to substantial liabilities.

Additionally, pursuant to the separation and distribution agreement and certain other agreements with Dover, Dover agreed to indemnify Apergy for certain liabilities. However, third parties could also seek to hold us responsible for any of the liabilities

that Dover has agreed to retain, and there can be no assurance that the indemnity from Dover will be sufficient to protect us against the full amount of such liabilities, or that Dover will be able to fully satisfy its indemnification obligations. In addition, Dover's insurers may attempt to deny coverage to Apergy for liabilities associated with certain occurrences of indemnified liabilities prior to the Separation. Moreover, even if Apergy ultimately succeeds in recovering from Dover or such insurance providers any amounts for which we are held liable, we may be temporarily required to bear these losses until recovery is achieved. Each of these risks could negatively affect our business, results of operations, financial condition and cash flows.

We are subject to continuing contingent liabilities of Dover following the Separation.

There are several significant areas where the liabilities of Dover may become Apergy's obligations. For example, under the U.S. Internal Revenue Code of 1986, as amended (the "Code") and related rules and regulations, each corporation that was a member of the Dover U.S. consolidated group during a taxable period, or portion of a taxable period ending on or before the effective time of the distribution, is jointly and severally liable for the U.S. federal income tax liability of the entire Dover U.S. consolidated group for that taxable period. Consequently, we could be required to pay the entire amount of Dover's consolidated U.S. federal income tax liability for a prior period, which could be substantial and in excess of the amount allocated to us under the tax matters agreement. Other provisions of federal law establish similar liability for other matters, including laws governing tax-qualified pension plans as well as other contingent liabilities.

If the distribution in connection with the Separation, together with certain related transactions, does not qualify as a transaction that is generally tax-free for U.S. federal income tax purposes, Dover could be subject to significant tax liability and, in certain circumstances, Apergy could be required to indemnify Dover for material taxes pursuant to indemnification obligations under the tax matters agreement.

Prior to the distribution, Dover received a private letter ruling from the IRS (the "IRS Ruling") together with an opinion of McDermott Will & Emery LLP, tax counsel to Dover, substantially to the effect that, among other things, the contribution and the distribution, taken together, would qualify as a tax-free reorganization for U.S. federal income tax purposes under Section 368(a)(1)(D) of the Code, and the distribution would qualify as a tax-free distribution to Dover's stockholders under Section 355 of the Code. The IRS Ruling relies on, and the opinion of tax counsel relies on, certain facts and assumptions, and certain representations and undertakings from Dover and Apergy, including those regarding the past and future conduct of the companies' respective businesses and other matters. If any of these facts, assumptions, representations or undertakings are incorrect or not satisfied, Dover and its stockholders at the time of the Separation may not be able to rely on the IRS Ruling or the opinion and could be subject to significant tax liabilities. Notwithstanding the IRS Ruling and the opinion of tax counsel, the IRS could determine through an audit that the distribution is taxable if it determines that any of the facts, assumptions, representations or undertakings are not correct or have been violated or if it disagrees with the conclusions in the opinion. In addition, Dover and Apergy intend for certain related transactions to qualify for tax-free treatment under U.S. federal, state and local tax law and/or foreign tax law.

If the distribution is determined to be taxable for U.S. federal income tax purposes, Dover and its stockholders that are subject to U.S. federal income tax could incur significant U.S. federal income tax liabilities. For example, if the distribution fails to qualify for tax-free treatment, Dover would for U.S. federal income tax purposes be treated as if it had sold the Apergy common stock in a taxable sale for its fair market value, and Dover's stockholders who are subject to U.S. federal income tax would be treated as receiving a taxable distribution in an amount equal to the fair market value of the Apergy common stock received in the distribution. In addition, if certain related transactions fail to qualify for tax-free treatment under U.S. federal, state and local tax law and/or foreign tax law, Dover (and, under the tax matters agreement described below, Apergy) could incur significant tax liabilities under U.S. federal, state, local and/or foreign tax law, respectively.

Under the tax matters agreement between Dover and Apergy, Apergy would generally be required to indemnify Dover for taxes incurred by Dover that arise as a result of Apergy's taking, or failing to take, as the case may be, certain actions or any breach of any representations made by Apergy that, in either case, result in the distribution failing to meet the requirements of a tax-free distribution under Section 355 of the Code or of such related transactions failing to qualify for tax-free treatment. Also, under the tax matters agreement, Apergy would generally be required to indemnify Dover for one-half of taxes and other liabilities incurred by Dover if the distribution fails to meet the requirements of a tax-free distribution under Section 355 of the Code or the part of Apergy or Dover, and therefore Apergy might be required to indemnify Dover for such taxes and liabilities due to circumstances and events not within our control. Under the tax matters agreement, Apergy is also required to indemnify Dover for one-half of the restructuring activities undertaken to effectuate the distribution, whether payable upon filing tax returns related to the restructuring and distribution or upon a subsequent audit of those returns. Our indemnification obligations to Dover under the tax matters agreement are not limited by a maximum amount. If we are required to indemnify Dover under the circumstances set forth in

the tax matters agreement, we may be subject to substantial liabilities, which could materially adversely affect our business, results of operations, financial condition and cash flows.

Under the tax matters agreement between Dover and Apergy, Dover may, in its sole discretion, make protective elections under Section 336(e) of the Code for Apergy and some or all of its domestic subsidiaries with respect to the distribution. If, notwithstanding the IRS Ruling and the opinion of tax counsel, the distribution fails to qualify as tax-free under Section 355 of the Code, the Section 336(e) elections would generally cause deemed sales of the assets of Apergy and its electing subsidiaries, causing the Dover group to recognize a gain to the extent the fair market value of the assets exceeded the basis of Apergy and its electing subsidiaries in such assets. In such case, to the extent that Dover is responsible for the resulting transaction taxes, Apergy generally would be required under the tax matters agreement to make periodic payments to Dover equal to the tax savings arising from a "step up" in the tax basis of Apergy's assets.

We may not be able to engage in certain corporate transactions as a result of the Separation.

To preserve the tax-free treatment to Dover and its stockholders at the time of the Separation of the contribution and the distribution and certain related transactions, under the tax matters agreement that Apergy entered into with Dover, Apergy is restricted from taking any action following the distribution that prevents the distribution and related transactions from being tax-free for U.S. federal income tax purposes. Under the tax matters agreement, for the two-year period following the distribution, Apergy may be prohibited, except in certain circumstances, from:

- entering into any transaction resulting, when combined with prior transactions, in the acquisition of 40% or more of its stock, or substantially all of its assets, whether by merger or otherwise;
- merging, consolidating or liquidating;
- issuing equity securities representing 40% or more of its stock, subject to certain exceptions and adjustments;
- repurchasing its capital stock in excess of specified amounts;
- ceasing to actively conduct its business or disposing of more than 25% of the assets used in its actively conducted business; and
- engaging in certain internal transactions.

These restrictions may limit our ability to pursue certain strategic transactions or other transactions that we may believe to be in the best interests of our stockholders or that might increase the value of our business. In addition, under the tax matters agreement, we may be required to indemnify Dover against all or a portion of such tax liabilities as a result of the acquisition of Apergy's stock or assets, even if it did not participate in or otherwise facilitate the acquisition.

The spin-off and related internal restructuring transactions may expose Apergy to potential liabilities arising out of state and federal fraudulent conveyance laws and legal dividend requirements.

If Dover files for bankruptcy or is otherwise determined or deemed to be insolvent under federal bankruptcy laws, a court could deem the spin-off or certain internal restructuring transactions undertaken by Dover in connection with the Separation to be a fraudulent conveyance or transfer. Fraudulent conveyances or transfers are defined to include transfers made or obligations incurred with the actual intent to hinder, delay or defraud current or future creditors or transfers made or obligations incurred for less than reasonably equivalent value when the debtor was insolvent, or that rendered the debtor insolvent, inadequately capitalized or unable to pay its debts as they become due. A court could void the transactions or impose substantial liabilities upon Apergy, which could adversely affect our financial condition and our results of operations. Among other things, the court could require Apergy's stockholders to return to Dover some or all of the shares of its common stock issued in the spin-off, or require us to fund liabilities of other companies involved in the restructuring transactions for the benefit of creditors.

The distribution of Apergy's common stock is also subject to review under state corporate distribution statutes. Under the Delaware General Corporation Law, a corporation may only pay dividends to its stockholders either (i) out of its surplus (net assets minus capital) or (ii) if there is no such surplus, out of its net profits for the fiscal year in which the dividend is declared and/or the preceding fiscal year. Although Dover made the distribution of Apergy's common stock entirely out of surplus, we cannot assure you that a court will not later determine that some or all of the distribution to Dover stockholders was unlawful.

Risks Related to the Proposed Acquisition of ChampionX

Apergy may not realize the anticipated cost synergies and growth opportunities from the Transactions.

Apergy expects that it will realize cost synergies, growth opportunities and other financial and operating benefits as a result of the Transactions. Apergy's success in realizing these benefits, and the timing of their realization, depends on the successful

integration of the business operations of the ChampionX with Apergy. Even if Apergy is able to integrate ChampionX successfully, Apergy cannot predict with certainty if or when these cost synergies, growth opportunities and benefits will occur, or the extent to which they will actually be achieved. For example, the benefits from the Transactions may be offset by costs incurred in integrating the companies or in otherwise consummating the Transactions. Realization of any benefits and synergies could be affected by the factors described in other risk factors and a number of factors beyond Apergy's control, including, without limitation, general economic conditions, further consolidation in the industry in which Apergy operates, increased operating costs and regulatory developments.

The integration of ChampionX with Apergy following the Transactions may present significant challenges.

There is a significant degree of difficulty inherent in the process of integrating ChampionX with Apergy. These difficulties include:

- the integration of the ChampionX business with Apergy's current businesses while carrying on the ongoing operations of all businesses;
- managing a significantly larger company than before the consummation of the Transactions;
- coordinating geographically separate organizations;
- integrating the business cultures of each of ChampionX and Apergy, which may prove to be incompatible;
- creating uniform standards, controls, procedures, policies and information systems and controlling the costs associated with such matters;
- ability to ensure the effectiveness of internal control over financial reporting;
- integrating certain information technology, purchasing, accounting, finance, sales, billing, human resources, payroll and regulatory compliance systems; and
- the potential difficulty in retaining key officers and personnel.

The process of integrating operations could cause an interruption of, or loss of momentum in, the activities of Apergy's business. Members of Apergy's senior management may be required to devote considerable amounts of time to this integration process, which will decrease the time they will have to manage Apergy, serve the existing Apergy business, or develop new products or strategies. If Apergy's senior management is not able to effectively manage the integration process, or if any significant business activities are interrupted as a result of the integration process, the business of Apergy could suffer.

Apergy's successful or cost-effective integration of ChampionX cannot be assured. The failure to do so could have a material adverse effect on Apergy's business, financial condition or results of operations after the Transactions.

Apergy may fail to obtain the required regulatory approvals in connection with the Merger in a timely fashion, if at all, or regulators may impose burdensome conditions.

Apergy is subject to certain antitrust and competition laws, and the proposed Merger is subject to review and approval by regulators under those laws. Although Apergy has agreed to use reasonable best efforts to obtain the requisite approvals, there can be no assurance that these regulatory approvals will be obtained. Failure to obtain these regulatory approvals could adversely affect Apergy's ability to operate its business after the Transactions or jeopardize the consummation of the Transactions themselves.

For example, the requirement to receive certain regulatory approvals before the consummation of the Transactions could delay the completion of the Transactions if, for example, one or more government agencies request additional information from the parties in order to facilitate their review of the Transactions. Any delay in the completion of the Transactions could diminish the anticipated benefits of the Transactions or result in additional transaction costs, loss of revenue or other effects associated with uncertainty about the Transactions. In addition, these governmental entities may attempt to condition their approval of the Transactions of conditions, terms, obligations or restrictions that could have a material adverse effect on the Transactions themselves or Apergy's business after the Transactions, including, but not limited to, Apergy's operating results or the value of its common stock. If Apergy agrees to any material conditions, terms, obligations or results of operations in order to obtain any approvals required to complete the Transactions, the business, financial condition or results of operations of the combined company may be adversely affected.

Failure to complete the Transactions could adversely impact the market price of Apergy common stock as well as its business and operating results.

The consummation of the Transactions is subject to numerous conditions. There is no assurance that these conditions will be met and that the Transactions will be consummated.

If the Transactions are not completed for any reason, the price of Apergy common stock may decline to the extent that the market price of Apergy common stock reflects positive market assumptions that the Transactions will be completed and the related benefits will be realized. Apergy has expended and will continue to expend significant management time and resources and have incurred and will continue to incur significant expenses due to legal, advisory, printing and financial services fees related to the Transactions. These expenses must be paid regardless of whether the Transactions are consummated. Even if the Transactions or result in additional transaction expenses, loss of revenue or other effects associated with uncertainty about the Transactions. If the Transactions are not consummated because the Merger Agreement is terminated, Apergy may be required under certain circumstances to pay Ecolab a termination fee of \$89.8 million or may under other circumstances be required to reimburse Ecolab for expenses in connection with the Transactions in an amount equal to \$25 million.

The pendency of the Merger could have an adverse effect on Apergy's stock price, business, financial condition, results of operations or business prospects.

The announcement and pendency of the Merger could disrupt Apergy's business in negative ways. For example, customers and other third-party business partners of Apergy or ChampionX may seek to terminate and/or renegotiate their relationships with Apergy or ChampionX as a result of the Merger, whether pursuant to the terms of their existing agreements with Apergy and/or ChampionX or otherwise. In addition, current and prospective employees of Apergy and ChampionX may experience uncertainty regarding their future roles with the combined company, which might adversely affect Apergy's ability to retain, recruit and motivate key personnel. Should they occur, any of these events could adversely affect the stock price of, or harm the financial condition, results of operations or business prospects of, Apergy.

Apergy will incur significant costs related to the Transactions that could have a material adverse effect on its liquidity, cash flows and operating results.

Apergy expects to incur significant one-time costs in connection with the Transactions in 2019 and 2020. These costs have been, and will continue to be, substantial and, in many cases, will be borne by Apergy whether or not the Merger is completed. A substantial majority of these one-time costs will be transaction-related fees and expenses and include, among others, fees paid to financial, legal, accounting and other professional fees and transition and pre-Merger integration planning-related expenses. While Apergy expects to be able to fund these one-time costs using cash from operations and borrowings under existing and anticipated credit sources, these costs will negatively impact Apergy's liquidity, cash flows and results of operations in the periods in which they are incurred.

The Transactions may discourage other companies from trying to acquire Apergy before or for a period of time following completion of the Transactions.

Certain provisions in the Merger Agreement prohibit Apergy from soliciting any acquisition proposal during the pendency of the Merger. In addition, the Merger Agreement obligates Apergy to pay Ecolab a termination fee in certain circumstances. Apergy's financial condition will be adversely affected as a result of the payment of the termination fee in certain circumstances involving alternative acquisition proposals, which might deter third parties from proposing alternative acquisition proposals that might result in greater value to Apergy stockholders than the Transactions. In addition, certain provisions of the tax matters agreement to be entered into between Apergy, ChampionX and Ecolab (the "Ecolab Tax Matters Agreement") in connection with the Transactions, which are intended to preserve the intended tax treatment of certain aspects of the ChampionX Separation and the Distribution for U.S. federal income tax purposes, may discourage acquisition proposals for a period of time following the Transactions. Apergy currently expects to issue approximately 127.2 million shares of its common stock in connection with the Merger. Because Apergy will be a significantly larger company and have significantly more shares of common stock outstanding after the consummation of the Transactions, an acquisition of Apergy may become more expensive. As a result, some companies may not seek to acquire Apergy.

Under the Ecolab Tax Matters Agreement, Apergy will be restricted from taking certain actions that could adversely affect the intended tax treatment of the Transactions, and such restrictions could significantly impair Apergy's ability to implement strategic initiatives that otherwise would be beneficial.

The Ecolab Tax Matters Agreement generally restricts Apergy from taking certain actions after the Distribution that could adversely affect the intended tax treatment of the Transactions. Failure to adhere to these restrictions could result in tax being imposed on Ecolab for which Apergy could bear responsibility and for which Apergy could be obligated to indemnify Ecolab. Any such indemnification obligation would likely be substantial and would likely have a material adverse effect on Apergy. In addition, because of these provisions in the Ecolab Tax Matters Agreement, Apergy will be restricted from taking certain actions, particularly for the two (or, in certain cases three) years following the Merger, including (among other things) the

ability to freely issue stock, to make acquisitions and to raise additional equity capital. These restrictions could have a material adverse effect on Apergy's liquidity and financial condition, and otherwise could impair Apergy's ability to implement strategic initiatives. Also, Apergy's indemnity obligation to Ecolab might discourage, delay or prevent a change of control that stockholders of Apergy may consider favorable.

Current Apergy stockholders' percentage ownership interest in Apergy will be substantially diluted in the Merger.

Immediately following the Merger, the pre-Merger Apergy equityholders will own, in the aggregate, approximately 38% of the issued and outstanding Apergy common stock on a fully diluted basis. Consequently, Apergy's pre-Merger equityholders, as a group, will be substantially diluted in the Merger and have less ability to exercise influence over the management and policies of Apergy following the Merger than immediately prior to the Merger.

ChampionX may be negatively impacted if Apergy is unable to provide benefits and services, or access to equivalent financial strength and resources, to ChampionX that historically have been provided by Ecolab.

ChampionX has historically received benefits and services from Ecolab and has benefited from Ecolab's financial strength and extensive network of service offerings. After the Transactions, ChampionX will be a subsidiary of Apergy, and ChampionX will no longer benefit from Ecolab's services, financial strength or business relationships to the extent not otherwise addressed in the transaction documents contemplated by the ChampionX Separation. While Ecolab has agreed to provide certain transition services to ChampionX for a period of time following the consummation of the Transactions, it cannot be assured that Apergy will be able to adequately replace or provide resources formerly provided by Ecolab, or replace them at the same or lower cost. If Apergy is not able to replace the resources provided by Ecolab or is unable to replace them without incurring significant additional costs or is delayed in replacing the resources provided by Ecolab, Apergy's results of operations may be negatively impacted.

Apergy and ChampionX may have difficulty attracting, motivating and retaining executives and other employees in light of the Transactions.

Uncertainty about the effect of the Transactions on current Apergy employees and/or ChampionX employees may have an adverse effect on Apergy. This uncertainty may impair Apergy's ability to attract, retain and motivate personnel until the Transactions are completed. Employee retention may be particularly challenging during the pendency of the Transactions, as employees may feel uncertain about their future roles with Apergy after their combination. If large numbers of employees, or a concentration of critical employees of Apergy depart because of issues relating to the uncertainty or perceived difficulties of integration or a desire not to become employees of Apergy after the Transactions, Apergy's ability to realize the anticipated benefits of the Transactions could be reduced.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We lease our corporate headquarters in The Woodlands, Texas. We lease or own technical customer support offices and operating facilities in North America, Australia, the Middle East, and Latin America.

The following tables show information regarding our principal properties by reporting segment as of December 31, 2019:

	Manufacturing	Sales / Manufacturing Warehouse Service/Oth						
Production & Automation Technologies	17	52	78	147				
Drilling Technologies	3	—	1	4				
	North America	Australia	Other	Total				
Production & Automation Technologies	132	4	11	147				
Drilling Technologies	4		—	4				

We believe our properties and facilities are suitable for their present and intended purposes and are operating at a level consistent with the requirements of the industry in which we operate.

ITEM 3. LEGAL PROCEEDINGS

We are involved in various pending or potential legal actions in the ordinary course of our business. Management is unable to predict the ultimate outcome of these actions because of the inherent uncertainty of litigation. However, management believes the most probable, ultimate resolution of these matters will not have a material adverse effect on our consolidated financial position, results of operations or cash flows.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

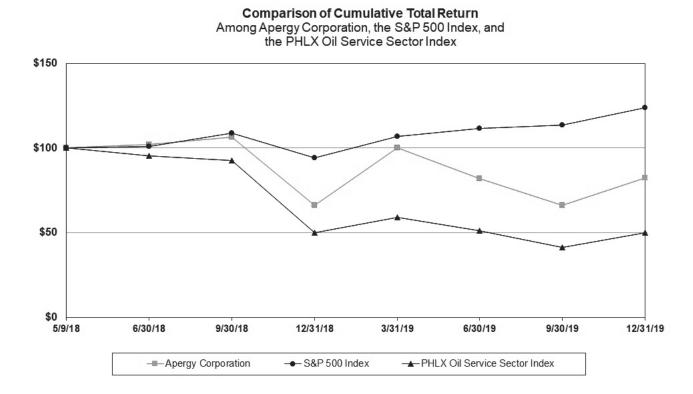
ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is listed on the NYSE under the "APY" symbol. At January 31, 2020, our number of common stockholders of record was 1,099.

We have not declared or paid cash dividends in 2019, and we do not currently have a plan to pay cash dividends in the future.

We had no unregistered sales of equity securities during the year ended December 31, 2019. We had no repurchases of our common stock during the year ended December 31, 2019.

The following performance graph and related information shall not be deemed "soliciting material" or "filed" with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933 or the Exchange Act, each as amended, except to the extent that we specifically incorporate it by reference into such filing.



The chart compares the percentage change in the cumulative stockholder return on our common stock against the cumulative total return of the Philadelphia Oil Service Sector Index, and the S&P Composite 500 Stock Index. The comparison is for a period beginning May 9, 2018 and ending December 31, 2019. The chart assumes the investment of \$100 on the closing price of May 9, 2018, and the reinvestment of all dividends.

ITEM 6. SELECTED FINANCIAL DATA

The following tables set forth selected financial data of Apergy for each of the five years in the period ended December 31, 2019. Prior to the Separation, the selected historical financial data presented below consisted of the combined operations of certain Dover entities conducting its upstream oil and gas energy business, including an allocated portion of Dover's corporate costs. Refer to Note 1 to our consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for additional information regarding the basis of presentation of financial data prior to the Separation. Historical financial information for the years ended December 31, 2018, 2017, 2016, and 2015 has been revised to correct immaterial errors. See Note 1—Basis Of Presentation And Summary Of Significant Accounting Policies to our consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for the impact of the revisions on our prior period consolidated financial statements.

This information should be read in conjunction with Part I, Item 1 "Business," Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the audited consolidated financial statements and notes thereto included in Part II, Item 8 of this Annual Report on Form 10-K.

(in thousands, except per share data)									
Years Ended December 31	2019		2018		2017		2016		2015
Statement of income (loss) data:									
Revenue	\$ 1,131,251	\$	1,218,156	\$	1,010,466	\$	751,337	\$	1,076,680
Gross profit	377,104		417,004		320,068		195,091		382,978
Provision for (benefit from) income taxes	6,226		28,162		(22,164)		(8,459)		24,131
Net income (loss)	52,960		93,191		110,519		(11,615)		53,134
Net income (loss) attributable to Apergy	52,164		92,737		109,589		(13,466)		51,698
Earnings (loss) per share attributable to Apergy ⁽¹⁾ :									
Basic	\$ 0.67	\$	1.20	\$	1.42	\$	(0.17)	\$	0.67
Diluted	\$ 0.67	\$	1.19	\$	1.41	\$	(0.17)	\$	0.66
As of December 31	 2019	_	2018		2017	_	2016	_	2015
Balance sheet data:									
Cash and cash equivalents	\$ 35,290	\$	41,832	\$	23,712	\$	26,012	\$	10,417
Property, plant and equipment, net	248,181		244,328		213,562		202,528		232,886
Total assets	1,922,825		1,973,116		1,906,408		1,851,714		1,983,377
Long-term debt	559,821		663,207		5,806		2,954		3,436
Total Apergy stockholders' equity	1,032,960		973,525				—		—
Total Parent Company equity					1,630,760		1,543,473		1,637,837
Years Ended December 31	 2019		2018	_	2017		2016		2015
Statement of cash flows data:									
Net cash provided by operating activities	\$ 155,899		163,900		76,050	\$	132,991		215,671
Net cash required by investing activities	(49,876)		(54,205)		(41, 949)		(27, 273)		(34, 101)
Net cash required by financing activities	(112,403)		(90,838)		(36,693)		(90,018)		(194,977)

(1) For comparative purposes and to provide a more meaningful calculation of weighted-average shares outstanding, we have assumed the shares issued in conjunction with the Separation to be outstanding as of the beginning of each period prior to the Separation. In addition, we have assumed the potential dilutive securities outstanding as of May 8, 2018, were outstanding and fully dilutive in each of the periods with positive income prior to the Separation.

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

This discussion includes forward-looking statements. See "Cautionary Note Regarding Forward-Looking Statements" for certain cautionary information regarding forward-looking statements and see "Risk Factors" in Part I, Item 1A, for certain factors that could cause actual results to differ materially from those predicted in those statements.

EXECUTIVE OVERVIEW

Apergy is a leading provider of highly engineered equipment and technologies that help companies drill for and produce oil and gas safely and efficiently around the world. Our products provide efficient functioning throughout the lifecycle of a well—from drilling to completion to production.

A description of our products and services and annual financial data for each reporting segment can be found in Part I, Item 1, "Business" and Note 20 to our consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K. A discussion of our consolidated results of operations and the results of operations of each of our reporting segments for the years ended December 31, 2019, 2018 and 2017 follows.

Separation and Distribution

On May 9, 2018, Apergy became an independent, publicly traded company as a result of the distribution by Dover of 100% of the outstanding common stock of Apergy to Dover's stockholders. Dover's Board of Directors approved the distribution on April 18, 2018 and Apergy's Registration Statement on Form 10 was declared effective by the SEC on April 19, 2018. On May 9, 2018, Dover's stockholders of record as of the close of business on the record date of April 30, 2018 received one share of Apergy stock for every two shares of Dover stock held at the close of business on the record date. Following the Separation, Dover retained no ownership interest in Apergy. Apergy's common stock began "regular-way" trading on the NYSE under the "APY" symbol on May 9, 2018.

Basis of Presentation

Prior to the Separation, our results of operations, financial position and cash flows were derived from the consolidated financial statements and accounting records of Dover and reflect the combined historical results of operations, financial position and cash flows of certain Dover entities conducting its upstream oil and gas energy business within Dover's Energy segment, including an allocated portion of Dover's corporate costs. These financial statements have been presented as if such businesses had been combined for all periods prior to the Separation. All intercompany transactions and accounts within Dover were eliminated. The assets and liabilities were reflected on a historical cost basis since all of the assets and liabilities presented were wholly owned by Dover and were transferred within the Dover consolidated group. These pre-Separation combined financial statements may not include all of the actual expenses that would have been incurred had we been a standalone public company during the periods presented prior to the Separation and consequently may not reflect our results of operations, financial position and cash flows had we been a stand-alone public company during the periods presented after the Separation represents the consolidated results of operations, financial position and cash flows of Apergy. Refer to Note 1 to our consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for additional information on the basis of presentation of the consolidated financial statements.

Business Environment

We focus on economic- and industry-specific drivers and key risk factors affecting our business segments as we formulate our strategic plans and make decisions related to allocating capital and human resources. Our business segments provide a broad range of technologies and products for the oil and gas drilling and production industry and, as a result, are substantially dependent upon activity levels in the oil and gas industry. Demand for our products, technologies and services is impacted by overall global demand for oil and gas, ongoing depletion rates of existing wells which produce oil and gas, and our customers' willingness to invest in the development and production of oil and gas resources. Our customers determine their operating and capital budgets based on current and future crude oil and natural gas prices, U.S. and worldwide rig count and U.S. well completions, among other factors. Crude oil and natural gas prices are impacted by supply and demand, which are influenced by geopolitical, macroeconomic and local events and have historically been subject to substantial volatility and cyclicality. Future higher crude oil and natural gas prices typically translate into higher exploration and production budgets. Rig count, footage drilled and exploration and production investment by oil and gas operators have often been used as leading indicators for the level of drilling and development activity in the oil and gas sector.

Market Conditions and Outlook

In the third quarter of 2019, customer spending associated with U.S. land drilling, and exploration and production (E&P) activity began to deteriorate and the pace of customer spending declined rapidly during the fourth quarter, which resulted in lower than expected operational results for the second half of 2019. The rapid and steep decrease in the U.S. rig count in the last two quarters of the year led to a longer period of customers de-stocking their polycrystalline diamond cutter inventories, and combined with an earlier start to a decline in customers' spending related to budget exhaustion, these events led to lower revenue volumes across our product portfolio. In light of these revenue declines, we engaged in cost management actions and progressed ongoing productivity initiatives to begin to mitigate the impact of lower activity levels in the second half of the year. Despite the declining U.S. drilling and E&P activity, we did experience growth in our international activity. Currently in 2020, we remain focused on (i) growing our ESP product line in the U.S. unconventional markets, (ii) capitalizing on well conversions to rod lift systems as well production declines, particularly in the Permian basin, (iii) further adoption of our "fitfor-purpose" digital products to improve our customers' productivity and economics, (iv) continued innovation and advancement of our technology in diamond sciences, and (v) continued, albeit slower due to customer capital discipline, adoption of our diamond bearings offering for downhole applications.

Tariffs instituted by the U.S. government, and retaliatory tariffs and other trade restrictions by other countries, continue to introduce uncertainty to our business since some of our products are impacted by the tariffs imposed. We continue to work to mitigate the impacts of higher costs through various measures, including customer price increases, supplier price concessions and stronger supplier relationships, as well as continued cost discipline and operational productivity improvement initiatives.

Although risk remains that crude oil prices and activity levels could deteriorate further from current levels, we believe the long-term outlook for our businesses is favorable. Increasing global demand for oil and gas, in combination with ongoing depletion of existing reservoirs, is expected to drive continued investment in the drilling and completion of new wells. In addition, productivity and efficiency are becoming increasingly important in the oil and gas industry as operators focus on improving per-well economics.

			2018					2019		
	Q1	Q2	Q3	Q4	FY	Q1	Q2	Q3	Q4	FY
WTI crude (\$ per bbl) ^(a)	62.91	68.07	69.69	59.50	65.07	54.82	59.88	56.34	56.86	56.99
Brent crude (\$ per bbl) ^(a)	66.86	74.53	75.08	67.99	71.09	63.10	60.56	61.95	63.27	62.22
Henry Hub natural gas (\$ per mmBtu) ^(a)	3.08	2.85	2.93	3.77	3.16	2.92	2.57	2.38	2.40	2.56
U.S. rig count ^(b)	966	1,039	1,051	1,073	1,032	1,043	989	920	820	941
Canada rig count ^(b)	269	108	209	179	191	183	82	132	139	134
International rig count (b)	970	968	1,003	1,011	988	1,030	1,051	1,059	1,056	1,049
Worldwide rig count	2,205	2,115	2,263	2,263	2,211	2,256	2,122	2,111	2,015	2,124
U.S. well completions ^(a)	3,413	3,909	3,896	3,497	14,715	3,814	4,161	4,193	3,639	15,807

Average crude oil and natural gas prices, rig counts and well completions are summarized below:

^(a) Source: U.S. Energy Information Administration (EIA), as of January 21, 2020.

^(b) Source: Baker Hughes Rig Count, as of January 21, 2020. Excludes Ukraine rig count.

CONSOLIDATED RESULTS OF OPERATIONS YEARS ENDED DECEMBER 31, 2019, 2018, AND 2017

	Year	rs Ended December 31,				2019 vs	. 2018	2018 vs. 2017		
(dollars in thousands)	2019		2018		2017	\$	%	\$	%	
Revenue	\$ 1,131,251	\$	1,218,156	\$	1,010,466	(86,905)	(7.1)	207,690	20.6	
Cost of goods and services	754,147		801,152		690,398	(47,005)	(5.9)	110,754	16.0	
Gross profit	377,104		417,004		320,068	(39,900)	(9.6)	96,936	30.3	
Selling, general and administrative expense	276,014		264,947		221,407	11,067	4.2	43,540	19.7	
Interest expense, net	39,301		27,648		863	11,653	*	26,785	*	
Other expense, net	2,603		3,056		9,443	(453)	*	(6,387)	*	
Income before income taxes	59,186		121,353		88,355	(62,167)	(51.2)	32,998	37.3	
Provision for (benefit from) income taxes	6,226		28,162		(22,164)	(21,936)	(77.9)	50,326	227.1	
Net income	52,960	_	93,191		110,519	(40,231)	(43.2)	(17,328)	(15.7)	
Net income attributable to noncontrolling interest	796		454		930	342	*	(476)	*	
Net income attributable to Apergy	\$ 52,164	\$	92,737	\$	109,589	(40,573)	(43.8)	(16,852)	(15.4)	
				_						
Gross profit margin	33.39	6	34.2%	ó	31.7 %		(90) bps.		250 bps.	
SG&A expense, percent of	24.49	6	21.7%	ó	21.9 %		270 bps.		(20) bps.	
Effective tax rate	10.59	6	23.2%	ó	(25.1)%		(1,270)		4,830 bps.	

* Not meaningful

2019 Compared with 2018

Revenue. Revenue for the consolidated entity decreased \$86.9 million, or (7.1)%, in 2019 compared to the prior year driven by a \$48.2 million decrease in revenue in our Production & Automation Technologies segment primarily related to a decline in customer spending in North America in the second half of 2019 affecting both artificial lift and other production equipment offerings, and a \$38.7 million decrease in revenue in our Drilling Technologies segment mostly due to customers destocking of their polycrystalline diamond cutter inventories resulting from the steep decline in U.S. land-based rig count throughout the second half of 2019.

Gross profit. Gross profit decreased \$39.9 million, or (9.6)%, in 2019 compared to the prior year mainly due to lower sales volume in both Production & Automation Technologies and Drilling Technologies. Partially offsetting the decrease in gross profit were lower salaries and wages primarily related to cost reductions from restructuring actions in both Production & Automation Technologies.

Selling, general and administrative (SG&A) expense. Selling, general and administrative expense increased \$11.1 million, or 4.2%, in 2019 compared to the prior year primarily due to \$10.1 million of acquisition costs associated with the planned merger with ChampionX and other smaller acquisition-related spending, along with \$3.0 million of increased bad debt expense, \$2.8 million of increased professional fees related to material weaknesses identified in the fourth quarter of 2019, \$2.0 million of environmental remediation charges, as well as a full year of costs in 2019 associated with being a stand-alone company since May 9, 2018. See "Risk Factors" in Part 1, Item 1A, and "Controls and Procedures" in Part II, Item 9A, for information related to the material weaknesses identified in our internal control over financial reporting. The increase in selling, general, and administrative expense was partially offset by a reduction in costs incurred related to the Separation of \$8.3 million as compared to 2018.

Interest expense, net. Interest expense, net increased \$11.7 million in 2019 compared to the prior year due to the full-year impact of issuances of our term loan facility and senior notes during the second quarter of 2018 related to the Separation, partially offset by a decrease resulting from debt repayments totaling \$105 million on our term loan facility in 2019.

Provision for income taxes. Our provision for income taxes reflected effective tax rates of 10.5% and 23.2% in 2019 and 2018, respectively. The year-over-year decrease in the effective tax rate was primarily driven by deferred tax benefits associated with the 2018 pre-Separation tax return and a reduction in the combined state tax rate from 2018 to 2019 reflecting lower than estimated state income tax.

2018 Compared with 2017

Revenue. Revenue increased \$207.7 million, or 20.6%, in 2018 compared to the prior year, driven by significant growth in U.S. and Canadian rig counts and increased well completion activity.

Gross profit. Gross profit increased \$96.9 million, or 30.3%, in 2018 compared to the prior year, primarily due to a significant increase in sales volume related to improving oil and gas markets. Gross profit margin improved primarily due to the increase in sales volume, operating cost leverage, the benefits of prior year restructuring actions and lower restructuring cost.

Selling, general and administrative expense. Selling, general and administrative expense increased \$43.5 million, or 19.7%, in 2018 compared to the prior year reflecting an increase in employee incentive compensation and corporate allocations by Dover as a result of a significant increase in revenues and earnings and an increase in the number of employees, partially offset by the benefits of prior restructuring actions and lower restructuring costs.

Provision for (benefit from) income taxes. Our provision for (benefit from) income taxes reflected effective tax rates of 23.2% and (25.1)% in 2018 and 2017, respectively. The increase in our effective tax rate in 2018 from 2017 was driven by a net tax benefit in 2017 of \$49.3 million due to the Tax Reform Act which reduced the U.S. corporate income tax rate from a maximum of 35% to 21%, effective January 1, 2018, which resulted in the re-evaluation of deferred tax assets and liabilities which produced the 2017 net tax benefit.

SEGMENT RESULTS OF OPERATIONS YEARS ENDED DECEMBER 31, 2019, 2018, AND 2017

	Years	En	Ended December 31,			2019 vs	s. 2018	2018 vs. 2017		
(dollars in thousands)	2019		2018		2017	\$	%	\$	%	
Revenue	\$ 884,364	\$	932,591	\$	782,813	(48,227)	(5.2)	149,778	19.1	
Operating profit	54,024		74,187		24,567	(20,163)	(27.2)	49,620	202.0	
Operating profit margin	6.1%	ó	8.0%	6	3.1%		-190 bps.		490 bps.	
Depreciation and amortization	\$ 110,131	\$	112,955	\$	100,912	(2,824)	(2.5)	12,043	11.9	
Royalty expense	_		2,277		9,765	(2,277)	*	(7,488)	(76.7)	
Restructuring and other related charges	10,308		4,347		6,921	5,961	*	(2,574)	*	
Environmental costs	1,988					1,988	*		*	
Bookings	\$ 881,106	\$	941,302	\$	792,798	(60,196)	(6.4)	148,504	18.7	

Production & Automation Technologies

* Not meaningful

2019 Compared with 2018

Revenue. Production & Automation Technologies revenue decreased \$48.2 million, or (5.2)%, in 2019 compared to the prior year, primarily due a decline in customer spending in the second half of 2019. This decline in customer spending led to lower volumes and associated revenue in our artificial lift and other production equipment offering in North America. The decrease in revenue was also attributable to the disposition of our pressure vessel manufacturing business in the second quarter of 2019. Partially offsetting the decrease in revenue was an increase in revenue from digital products of \$15.4 million, or 12.9%, to \$134.7 million in 2019, as well as an increase of \$11.5 million in revenue generated in markets outside of North America.

Operating profit. Production & Automation Technologies operating profit decreased \$20.2 million, or (27.2)%, in 2019 compared to the prior year. The decrease in operating profit was primarily due to lower sales volume, restructuring charges of \$10.3 million primarily related to impairment and disposal of our pressure vessel manufacturing business, increased bad debt expense of \$3.8 million, professional fees of \$2.8 million related to incremental activities associated with material weaknesses that were identified during the fourth quarter of 2019, and environmental remediation charges of \$2.0 million associated with our Norris Sucker Rods plant in Tulsa, Oklahoma. Partially offsetting the decrease in operating profit were increases associated with the benefits of productivity savings, including lower raw material costs, cost savings from our restructuring efforts, lower depreciation expense and a decrease in annual incentive compensation expense. Operating profit in 2019 also benefited from the absence of royalty charges from Dover which ended on April 1, 2018.

2018 Compared with 2017

Revenue. Production & Automation Technologies revenue increased \$149.8 million, or 19.1%, in 2018 compared to the prior year. The increase in revenue was the result of significantly higher demand from our customers as a result of the increase of active drilling rigs and well completion activity in the U.S. and abroad.

Operating profit. Production & Automation Technologies operating profit increased \$49.6 million, or 202.0%, in 2018 compared to the prior year. The higher operating profit was due to increased sales volume from improving oil and gas markets, cost savings realized from restructuring programs initiated in 2017, as well as a reduction in restructuring and other related charges year-over-year.

Drilling Technologies

	Years	En	ded Decem	ber	31,	2019 vs	s. 2018	2018 vs. 2017		
(dollars in thousands)	2019		2018		2017	\$	%	\$	%	
Revenue	\$ 246,887	\$	285,565	\$	227,653	(38,678)	(13.5)	57,912	25.4	
Operating profit	73,497		98,620		74,317	(25,123)	(25.5)	24,303	32.7	
Operating profit margin	29.8%	0	34.5%	ó	32.6%		-470 bps.		190 bps.	
Depreciation and amortization	\$ 9,263	\$	11,037	\$	11,950	(1,774)	(16.1)	(913)	(7.6)	
Restructuring and other related charges	710		_		_	710		_	*	
Bookings	\$ 236,282	\$	293,473	\$	232,796	(57,191)	(19.5)	60,677	26.1	

* Not meaningful

2019 Compared with 2018

Revenue. Drilling Technologies revenue decreased \$38.7 million, or (13.5)%, in 2019 compared to the prior year primarily driven by the significant decline in U.S. drilling activity in the second half of 2019 and the related customer destocking of polycrystalline diamond cutter inventories and pricing pressure. Partially offsetting the decrease in revenue was an increase driven by customer adoption of our diamond bearings technology.

Operating profit. Drilling Technologies operating profit decreased \$25.1 million, or (25.5)%, in 2019 compared to the prior year primarily due to lower revenue, and to a lesser extent, higher professional fees associated with the defense of our patented technologies. Partially offsetting the decrease in operating profit were increases associated with the benefits of productivity initiatives and a decrease in operational expenses primarily driven by lower employee costs related to a decline in headcount as part of our restructuring actions in 2019 and a decrease in annual incentive compensation expense.

2018 Compared with 2017

Revenue. Drilling Technologies revenue increased \$57.9 million, or 25.4%, in 2018 compared to the prior year. The increase in revenue was primarily driven by higher demand related to the growth in active drilling rigs in the United States and Canada.

Operating profit. Drilling Technologies operating profit increased \$24.3 million in 2018 compared to the prior year due to higher volumes driven by growing U.S. rig counts and overall operational productivity gains.

CAPITAL RESOURCES AND LIQUIDITY

As of December 31, 2019, approximately \$13.5 million, or 38.2%, of our cash balances were held outside the United States for the primary purpose of working capital and operational support needs. All of our cash held outside the United States could be repatriated; however, we have not provided for foreign withholding taxes on our undistributed foreign earnings from jurisdictions which impose such taxes since we have determined that such earnings are indefinitely reinvested in those jurisdictions.

Our primary source of cash is from operating activities. We have historically generated, and expect to continue to generate, positive cash flow from operations. We expect to meet the continuing funding requirements of our U.S. operations with cash generated by our U.S. operations, which includes the collection of accounts receivable, as well as borrowings under our revolving credit facility. Cash generated from operations is generally allocated to working capital requirements, investments in facilities and systems, acquisitions that create value with add-on capabilities that broaden our existing businesses and overall growth strategy, and debt repayments.

Cash Flows

	Years Ended December 31,					
(in thousands)		2019	2018	2017		
Cash provided by operating activities	\$	155,899 \$	163,900 \$	76,050		
Cash required by investing activities		(49,876)	(54,205)	(41,949)		
Cash required by financing activities		(112,403)	(90,838)	(36,693)		
Effect of exchange rate changes on cash and cash equivalents		(162)	(737)	277		
Net increase (decrease) in cash and cash equivalents	\$	(6,542) \$	18,120 \$	(2,315)		

Operating Cash Flows

Cash provided by operating activities in 2019 decreased \$8.0 million compared to 2018. The decrease in cash provided by operating activities was primarily driven by lower net income, adjusted for non-cash items. Partially offsetting the decrease in cash provided by operating cash flows were increases from changes in our operating assets and liabilities in 2019 as compared to 2018, primarily due to improved collections of accounts receivable and a reduction in our inventory balance due to strict adherence to cost and capital discipline.

Cash provided by operating activities in 2018 increased \$87.9 million compared to 2017. The increase in cash provided by operating activities was primarily driven by higher net income adjusted for non-cash items. Both our Production & Automation Technologies and Drilling Technologies segments reported increased cash income year-over-year. Additionally, we required less net cash investment in working capital in 2018 as compared to 2017.

"Leased assets" in the operating cash flows section of our consolidated statement of cash flows include expenditures for cable and downhole equipment expected to be placed into our leased asset program as well as the recovery of net book value associated with the sale of damaged leased equipment during the period.

Investing Cash Flows

Cash required by investing activities was \$49.9 million in 2019 and was primarily comprised of capital expenditures of \$39.8 million, a \$12.5 million payment to acquire a provider of digital technology strategic to our artificial lift product offering, and a \$2.2 million payment to dispose of our pressure vessel manufacturing business. Refer to Note 5 and Note 6 to our consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for additional information related to these acquisitions and dispositions, respectively. These cash outflows were partially offset by \$4.6 million of cash proceeds on sale of fixed assets, primarily due to the sale of two of our properties during 2019.

Cash required by investing activities was \$54.2 million in 2018 and was primarily comprised of capital expenditures of \$57.9 million, partially offset by net proceeds \$2.5 million related to sale of our Fisher Pump business and related property, and proceeds of \$1.2 million related to the sale of fixed assets.

Cash required by investing activities was \$41.9 million in 2017 and was primarily comprised of capital expenditures and an \$8.8 million payment to acquire a supplier of progressive cavity pump products and services. Refer to Note 5 to our

consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for additional information related to this acquisition.

"Capital expenditures" in the investing cash flows section of our consolidated statement of cash flows include expenditures for surface equipment expected to be placed into our leased asset program. During the year ended December 31, 2019, capital expenditures consisted mostly of infrastructure related capital spending and \$16.0 million of investment in surface equipment for our leased asset program. During the year ended December 31, 2018, capital expenditures consisted mostly of infrastructure related capital spending and \$26.7 million of investment in surface equipment for our leased asset program.

Financing Cash Flows

Cash required by financing activities of \$112.4 million in 2019 was primarily the result of \$105.0 million of debt repayment on the principal balance of our term loan and payments totaling \$5.6 million for capital lease obligations. Net borrowings under our revolving credit facility totaled zero in 2019.

Cash required by financing activities was \$90.8 million in 2018, and was the result of net transfers to Dover of \$736.6 million, primarily comprised of our \$700.0 million payment to Dover related to the Separation, and \$45.0 million of debt repayment on the principal balance of our term loan. These payments were partially offset by issuances of long-term debt, net of debt issuance costs and original issue discounts, of \$698.0 million. Net borrowings under our revolving credit facility totaled zero in 2018.

Cash required by financing activities of \$36.7 million in 2017 was primarily due to net transfers to Dover.

Debt and Liquidity

Total borrowings were comprised of the following:

(in thousands)	Decer	nber 31, 2019	December 31, 20		
Revolving credit facility	\$	—	\$	—	
Term loan facility		265,000		370,000	
6.375% Senior Notes due 2026		300,000		300,000	
Capital lease obligations		4,530		4,584	
Total borrowings	\$	569,530	\$	674,584	

Senior Notes

On May 3, 2018, and in connection with the Separation, we completed the offering of \$300.0 million in aggregate principal amount of 6.375% senior notes due May 2026 ("Senior Notes"). Interest on the Senior Notes is payable semi-annually in arrears on May 1 and November 1 of each year commencing on November 1, 2018. Net proceeds of \$293.8 million from the offering were utilized to partially fund the cash payment to Dover and to pay fees and expenses incurred in connection with the Separation.

Senior Secured Credit Facilities

On May 9, 2018, we entered into a credit agreement ("credit agreement") governing the terms of our senior secured credit facilities, consisting of (i) a seven-year senior secured term loan B facility ("term loan facility") and (ii) a five-year senior secured revolving credit facility ("revolving credit facility," and together with the term loan facility, the "senior secured credit facilities"), with JPMorgan Chase Bank, N.A. as administrative agent. The net proceeds of the senior secured credit facilities were used to pay fees and expenses in connection with the Separation, partially fund the cash payment to Dover and provide for working capital and other general corporate purposes.

Term Loan Facility. The term loan facility had an initial commitment of \$415.0 million. The full amount of the term loan facility was funded on May 9, 2018. Amounts borrowed under the term loan facility that are repaid or prepaid may not be reborrowed. The term loan facility matures in May 2025. Net proceeds of \$408.7 million from the term loan facility were utilized to partially fund the cash payment to Dover and to pay fees and expenses incurred in connection with the Separation.

During the year ended December 31, 2019, we repaid \$105.0 million of our term loan facility.

Revolving Credit Facility. The revolving credit facility consists of a five-year senior secured facility with aggregate commitments in an amount equal to \$250.0 million, of which up to \$50.0 million is available for the issuance of letters of credit. Amounts repaid under the revolving credit facility may be re-borrowed. The revolving credit facility matures in May 2023.

A summary of our revolving credit facility as of December 31, 2019 was as follows:

(in millions)	Amount	Debt Outstanding	Letters of Credit	Unused Capacity	Maturity	
Five-year revolving credit facility	\$ 250.0	\$ _	\$ 6.2	\$ 243.8	May 2023	

As of December 31, 2019, we were in compliance with all restrictive covenants under our revolving credit facility.

See Note 10—Debt to our consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for additional information.

Outlook

We expect to generate our liquidity and capital resources through operations and, when needed, through our revolving credit facility. We have \$243.8 million of capacity available under our revolving credit facility that we expect to utilize if working capital needs temporarily increase. The volatility in credit, equity and commodity markets creates some uncertainty for our businesses. However, management believes, based on our current financial condition and current expectations of future market conditions, that we will meet our short- and long-term needs with a combination of cash on hand, cash generated from operations, our use of our revolving credit facility and access to capital markets.

Over the next year, we expect to fund our organic capital expenditure needs and reduce our leverage through earnings growth and further debt reduction. We continue to focus on improving our customer collection efforts and overall working capital efficiency to improve our cash flow position. In 2020, we project spending approximately two and one-half percent of revenue for infrastructure related capital expenditures and an additional \$5.0 million to \$10.0 million for capital investments directed at expanding our portfolio of electric submersible pump leased assets.

We continue to evaluate acquisitions that meet our strategic priorities, expand our technology and product portfolio, improve our cost position or productivity, or broaden our geographic reach. The foregoing "Outlook" excludes the impact of our pending acquisition of ChampionX. See Part 1, Item 1, "Merger Agreement with ChampionX."

Contractual Obligations

The following is a summary of our contractual obligations as of December 31, 2019:

			Payments Due by Period							
(in thousands)	F	Total Payments	L	less than 1 year		1-3 years		3-5 years		After 5 years
Long-term debt	\$	565,000	\$		\$		\$	_	\$	565,000
Interest on long-term debt ⁽¹⁾		124,419		19,125		38,250		38,250		28,794
Operating leases		32,433		9,096		11,086		7,362		4,889
Purchase obligations		37,243		34,743		2,500				
Finance leases		9,950		5,219		4,542		189		
Supplemental and post-retirement benefits (2)		19,506		2,231		4,517		3,774		8,984
Total contractual obligations	\$	788,551	\$	70,414	\$	60,895	\$	49,575	\$	607,667

⁽¹⁾ Interest included relates to our senior notes. Interest on our term loan was not included as we cannot estimate these obligations given its variable nature.

⁽²⁾ Amounts represent estimated benefit payments under our unfunded employee benefit plans. See Note 17 to our consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for additional information.

Other Off-Balance Sheet Arrangements

As of December 31, 2019, we had approximately \$15.7 million outstanding letters of credit, surety bonds and guarantees which expire at various dates through 2026. These financial instruments are primarily maintained as security for insurance, warranty and other performance obligations. Generally, we would only be liable for the amount of these letters of credit and surety bonds in the event of default in the performance of our obligations, the probability of which we believe is remote.

CRITICAL ACCOUNTING ESTIMATES

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make certain estimates, judgments and assumptions about future events that affect the reported amounts of assets and liabilities at the date of the financial statements, the reported amounts of revenue and expenses during the periods presented and the related disclosures in the accompanying notes to the financial statements. Management has reviewed these critical accounting estimates with the Audit Committee of the Board of Directors. We believe the following critical accounting estimates used in preparing our financial statements address all important areas where the nature of the estimates or assumptions is material due to the levels of subjectivity and judgment necessary to account for highly uncertain matters or the susceptibility of such matters to change. See Note 1 to our consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for a description of our significant accounting policies.

Inventory Valuation

Inventory is recorded at the lower of cost or net realizable value. We evaluate the components of inventory on a regular basis for excess and obsolescence. We record the decline in the carrying value of estimated excess or obsolete inventory as a reduction of inventory and as an expense included in cost of sales in the period in which it is identified. Our estimate of excess and obsolete inventory is a critical accounting estimate because it is highly susceptible to change from period to period. In addition, the estimate requires management to make judgments about the future demand of inventory. Factors that could materially impact our estimate include changes in crude oil prices and its effect on the oil and gas industry, which would impact the demand for our products and services, as well as changes in the pattern of demand for the products that we offer. We believe our inventory valuation reserve is adequate to properly value potential excess and obsolete inventory as of December 31, 2019. However, any significant changes to the factors mentioned above could lead our estimate to change. Refer to Note 7 to our consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for additional information related to inventory.

Long-Lived and Intangible Assets Valuation

Long-lived assets to be held and used, including property, plant and equipment, identifiable intangible assets being amortized and capitalized software costs are reviewed for impairment whenever events or circumstances indicate the carrying amount of the long-lived asset may not be recoverable. The carrying amount of a long-lived asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. If it is determined that an impairment loss has occurred, the loss is measured as the amount by which the carrying amount of the long-lived asset exceeds its fair value. The determination of future cash flows as well as the estimated fair value of long-lived assets involves significant estimates on the part of management. Because there usually is a lack of quoted market prices for long-lived assets, fair value of impaired assets is typically determined based on the present values of expected future cash flows using discount rates believed to be consistent with those used by principal market participants, or based on a multiple of operating cash flow validated with historical market transactions of similar assets where possible. The expected future cash flows used for impairment reviews and related fair value calculations are based on judgmental assessments of future productivity of the asset, operating costs and capital decisions and all available information at the date of review. If future market conditions deteriorate from our current expectations or assumptions, impairment of long-lived assets may be identified if we conclude that the carrying amounts are no longer recoverable. Long-lived assets classified as held for sale are reported at the disposal group's fair value, less cost to sell, beginning in the period in which the held-for-sale criteria have been met. An impairment loss is recognized in the amount in which the carrying amount of the disposal group exceeds its fair value. The fair value of a disposal group is measured based on market information when available, such as negotiated selling price. Because there usually is a lack of market prices for longlived assets, the fair value of impaired held for sale assets is typically determined based on the present values of expected future cash flows using discount rates believed to be consistent with those used by principal market participants. We recorded \$1.7 million of impairment in 2019 related to classifying our pressure vessel manufacturing business in our Production & Automated Technologies segment as held for sale, and \$1.0 million and \$3.6 million of impairments during 2018 and 2017, respectively, primarily related to restructuring activities.

Valuation of Goodwill

Goodwill is not subject to amortization but is tested for impairment on an annual basis, or more frequently if impairment indicators arise. Goodwill is tested at the reporting unit level, which is at or one level below our operating segments. We have established October 1 as the date of our annual test for impairment of goodwill. Determining the fair value of a reporting unit is judgmental in nature and involves the use of significant estimates and assumptions. The goodwill impairment test involves comparing management's estimate of fair value of a reporting unit with its carrying value, including goodwill. If the fair value of the reporting unit is less than the carrying value, then goodwill is impaired to the extent of the difference; however, the impairment may not exceed the balance of goodwill assigned to that reporting unit.

When performing a goodwill impairment test, we estimate fair value using the income approach. Under the income approach, fair value is determined based on the present value of estimated future cash flows, discounted at an appropriate risk-adjusted rate. The discount rate, which was estimated based upon the weighted average cost of capital ("WACC"), applied to the estimated future cash flows is one of the most significant assumptions utilized under the income approach. We determined the WACC for the Company and each of its reporting units were not dissimilar, and as such, applied the same WACC for each reporting unit. The WACC takes into account both the cost of debt and cost of equity. The estimates and assumptions necessary in a discount rates believed to be consistent with those used by principal market participants and future economic and market conditions. Our estimates are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable and do not reflect unanticipated events and circumstances that may occur. A lower fair value estimate in the future for any of our reporting unit's products and services, cost increases, changes in our WACC, regulatory or political environment changes, changes in customer demand, changes to business models, and other changes in market conditions, which may affect certain market participant assumptions used in the discounted future cash flow model.

We had three reporting units for the purposes of assessing our goodwill balance for impairment as of October 1, 2019 as follows: (i) Artificial Lift, (ii) Automation, and (iii) Drilling Technologies. Artificial Lift and Automation are in the Production & Automation Technologies reportable segment, and Drilling Technologies is our Drilling Technologies reportable segment.

Significant assumptions used in our October 1, 2019 goodwill impairment review included: (i) a discount rate of 11.3%; (ii) annual revenue growth rates generally ranging from (4.9%) to 23.2% in the short term and 3.0% to 5.0% in the long term; (iii) operating margins ranging from 6.7% to 37.6% in the short term associated with market declines, but sustained or slightly increased gross margins long term; and (iv) terminal values for each reporting unit using a long-term growth rate of 3.0%. If actual results differ from estimates used in these calculations, we could incur future impairment charges.

The Automation and Drilling Technologies reporting units had goodwill balances of \$229.6 million and \$101.1 million, respectively, at the time of the October 1, 2019 assessment. Each of these reporting units' fair values substantially exceeded their carrying values.

The Artificial Lift reporting unit had a goodwill balance of \$580.0 million at October 1, 2019. For the Artificial Lift reporting unit, fair value exceeded the carrying value ("headroom") by more than 20% but less than 30%. The value derived from the income approach decreased 17.8% and the headroom decreased 51.1% from the October 1, 2018 annual goodwill impairment review. The October 1, 2019 impairment review assumed a WACC of 11.3% compared to 10.6% in the October 1, 2018 review, and a long-term growth rate of 3.0% used in computing the terminal value, which is consistent with the October 1, 2018 review. Revenue growth rates in the October 1, 2019 impairment review range from (4.2%) to 9.3% in the short-term as compared to 8.0% to 13.0% in the October 1, 2018 review. Long-term revenue growth rates ranging from 3.0% to 5.0% were used in the 2019 review, consistent with the 2018 review. In the latter half of 2019, customer spending associated with U.S. land drilling and exploration and production activity progressively deteriorated, which resulted in lower than expected operational results for the reporting unit. Continued deterioration of customer spending for a prolonged period of time may have an adverse impact on the economics of certain of our artificial lift product offering, further impacting the financial results of the reporting unit. We have engaged in cost management actions and progressed ongoing productivity initiatives to begin to mitigate the impact of lower activity levels. Management is monitoring the overall market, specifically crude oil prices, rig counts and related customer spending especially in the Permian basin and certain international markets, and its effect on the estimates and assumptions used in our goodwill impairment test for our Artificial Lift reporting unit, which may require re-evaluation and could result in an impairment of goodwill for this reporting unit. As a result of market conditions noted above, headroom at our Artificial Lift reporting unit decreased from 45% at the time of our 2018 annual assessment to 22% at the time of our 2019 annual assessment. Assuming all other components of our fair value estimate remain unchanged, a change in the following assumptions would have the following effect on headroom for our Artificial Lift reporting unit (i) a decline in revenue growth rates by 100 basis points reduces headroom to 15%, (ii) a decline in operating margins by 100 basis points reduces headroom to 14%, and (iii) an increase in discount rate by 100 basis points reduces headroom to 8%.

Certain of the inherent estimates and assumptions used in determining fair value of the reporting units are outside of the control of management. While the Company believes it has made reasonable estimates and assumptions to calculate the fair values of the reporting units, actual results may differ from those used in the Company's valuations and could result in impairment charges. The Company will continue to monitor its reporting units for any triggering events or other signs of impairment. The Company may be required to perform interim impairment tests based on changes in the economic environment, further sustained deterioration of the Company's market capitalization, and other factors in the future.

We have not recognized any goodwill impairments in 2019, 2018, or 2017, as the fair value of our reporting units exceeded their carrying amounts. In addition, there were no negative conditions, or triggering events, that occurred in 2019 requiring us to perform additional impairment reviews.

Accounting for Income Taxes

Prior to the Separation, our income tax expense and deferred tax balances had been estimated as if we had filed income tax returns on a stand-alone basis separate from Dover. Income taxes payable computed under the stand-alone return basis are classified within "Net parent investment in Apergy" at each balance sheet date prior to the Separation since Dover is legally liable for the tax. Accordingly, changes in income taxes payable prior to the Separation are recorded as a component of "Distributions to Dover Corporation, net" in financing activities in the consolidated statements of cash flows. As a stand-alone entity, our deferred taxes and effective tax rates may differ from those of Dover for periods prior to the Separation.

Our income tax expense, and deferred tax asset and liability balances reflect management's best assessment of estimated future taxes to be paid. We are subject to income taxes in the United States and certain foreign jurisdictions. Significant judgments and estimates are required in determining our consolidated income tax expense. In determining our current income tax provision, we assess temporary differences resulting from differing treatments of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are recorded in our consolidated balance sheets. Deferred tax assets and liabilities are measured using the tax rates that are expected to apply to taxable income for the years in which those tax assets and liabilities are expected to be realized or settled. When we maintain deferred tax assets, we must assess the likelihood that these assets will be recovered through adjustments to future taxable income. To the extent we believe recovery is not likely, we establish a valuation allowance to reduce the asset to a value we believe will be recoverable based on our expectation of future taxable income. We believe the accounting estimate related to the valuation allowance is a critical accounting estimate because it is susceptible to change from period to period, requires management to make assumptions about our future income over the lives of the deferred tax assets, and because the impact of increasing or decreasing the valuation allowance is potentially material to our results of operations.

The calculation of our income tax expense involves dealing with uncertainties in the application of complex tax laws and regulations in numerous jurisdictions in which we operate. We recognize tax benefits related to uncertain tax positions when, in our judgment, it is more likely than not that such positions will be sustained on examination, including resolutions of any related appeals or litigation, based on the technical merits. We adjust our liabilities for uncertain tax positions when our judgment changes as a result of new information previously unavailable. We routinely monitor the potential impact of these situations. We had no reserves recorded for uncertain tax positions as of December 31, 2019 or 2018.

Reserves related to tax accruals and valuations related to deferred tax assets can be impacted by changes in tax codes and rulings, changes in statutory tax rates and our future taxable income levels. The Tax Reform Act, enacted on December 22, 2017, significantly changed U.S. tax law by, among other things, lowering corporate income tax rates, implementing a territorial tax system and imposing a repatriation tax on deemed repatriated earnings of foreign subsidiaries. The Tax Reform Act reduced the U.S. corporate income tax rate from a maximum of 35% to a flat 21% rate, effective January 1, 2018. The Tax Reform Act also provided for a one-time deemed repatriation of post-1986 undistributed foreign subsidiary earnings and profits through the year ended December 31, 2017. In 2017, we recognized the provisional tax impacts related to deemed repatriated earnings and the benefit for the revaluation of deferred tax assets and liabilities, and included these amounts in our consolidated financial statements for the year ended December 31, 2017. Refer to Note 16 to our consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for additional information related to our accounting for the Tax Reform Act.

Recently Issued Accounting Standards

Refer to Note 2 to our consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to certain market risks, including fluctuations in commodity prices, foreign currency exchange rates and interest rates. After the Separation from Dover, we have not utilized derivative financial instruments to manage or mitigate our exposure to these risks. Also, we do not use derivative financial instruments where the objective is to generate profits solely from trading activities.

Commodity Price Risk

We use a variety of raw materials, primarily metals and semi-processed or finished components, that are generally available from various sources. Commodity pricing for metals, such as nickel, chrome, molybdenum, vanadium, manganese and steel scrap, fluctuate with the market. As a result, our earnings are exposed to commodity market price fluctuations. Although some cost increases may be recovered through increased prices to customers, we attempt to control such costs through fixed-price contracts with suppliers and various other programs, such as our global supply chain activities.

Foreign Currency Risk

We conduct operations around the world in a number of different currencies. Many of our foreign subsidiaries have designated the local currency as their functional currency. Our earnings are therefore subject to change due to fluctuations in foreign currency exchange rates when the earnings in foreign currencies are translated into U.S. dollars. We do not hedge this translation impact on earnings. A 10% increase or decrease in the average exchange rates of all foreign currencies would have changed our revenue and income before income taxes by approximately 1.5% and 5.1%, respectively, for the year ended December 31, 2019.

When transactions are denominated in currencies other than our subsidiaries' respective functional currencies, both with external parties and intercompany relationships, these transactions result in increased exposure to foreign currency exchange effects. Currently, we do not manage these exposures through the use of derivative instruments. Consequently, significant changes in foreign currency exchange rates, particularly the Canadian Dollar, the Australian Dollar, the Argentinian Peso, the Colombian Peso and the Omani Rial, could have negative impacts on our reported results of operations.

Interest Rate Risk

Our use of fixed- or variable-rate debt directly exposes us to interest rate risk. Fixed-rate debt, such as the senior notes, exposes us to changes in the fair value of our debt due to changes in market interest rates. Fixed-rate debt also exposes us to the risk that we may need to refinance maturing debt with new debt at higher rates, or that we may be obligated to pay rates higher than the current market rate. Variable-rate debt, such as our term loan or borrowings under our revolving credit facility, exposes us to short-term changes in market rates that impact our interest expense.

As of December 31, 2019, we had unhedged variable rate debt of \$265.0 million with an interest rate of 4.42%. Using sensitivity analysis to measure the impact of a change in the interest rate, a 10% adverse movement in the interest rate, or 44 basis points, would result in an increase to interest expense of \$1.2 million on an annualized basis.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Apergy Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Apergy Corporation and its subsidiaries (the "Company") as of December 31, 2019 and 2018, 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 31, 2019, including the related notes and financial statement schedule listed in the index appearing under Item 15(a)(2) (collectively referred to as the "consolidated financial statements"). We also have audited the Companys internal control over financial reporting as of December 31, 2019, 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 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company did not maintain, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO because material weaknesses in internal control over financial reporting existed as of that date related to: (a) an ineffective control environment due to a lack of a sufficient complement of personnel with the appropriate level of knowledge, experience and training, (b) ineffective risk assessment component of internal control related to the Electrical Submersible Pump ("ESP") subsidiary as controls were not appropriately designed to ensure that the subsidiary had the proper resources to operate a complex business model, which was experiencing significant growth and turnover in personnel, (c) a lack of controls designed and maintained over the completeness, accuracy, occurrence and cut-off of revenue at certain artificial lift businesses and the valuation of accounts receivable at ESP, (d) a lack of controls maintained to ensure manual journal entries were properly prepared with appropriate supporting documentation or were reviewed and appropriately to ensure the accuracy of journal entries at ESP, (e) a lack of controls designed and maintained over the completeness, accuracy, existence and presentation and disclosure of inventory and fixed assets at ESP, and (f) a lack of controls designed and maintained over the granting of access to system capabilities to authorized users within the general ledger system across the Company such that there was a lack of segregation of duties between personnel that had the ability to prepare and post journal entries.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. The material weaknesses referred to above are described in Managements Annual Report on Internal Control over Financial Reporting appearing under Item 9A. We considered these material weaknesses in determining the nature, timing, and extent of audit tests applied in our audit of the 2019 consolidated financial statements, and our opinion regarding the effectiveness of the Company's internal control over financial reporting does not affect our opinion on those consolidated financial statements.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it accounts for leases in 2019.

Basis for Opinions

The Companys 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 managements report referred to above. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company 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.

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.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Goodwill Impairment Test -Artificial Lift Reporting Unit

As described in Notes 1 and 9 to the consolidated financial statements, the Company's consolidated goodwill balance was \$911 million as of December 31, 2019. As disclosed by management, the goodwill associated with the Artificial Lift Reporting Unit was \$580 million as of October 1, 2019 (date of latest impairment test). Management conducts an impairment test as of October 1 of each year. A quantitative test is used to determine the existence of goodwill impairment and the amount of the impairment loss at the reporting unit level. The quantitative test compares the fair value of a reporting unit to its carrying value, including goodwill. Fair value of a reporting unit is estimated by management using an income-based valuation method, determining the present value of estimated future cash flows. Significant assumptions used in estimating the reporting unit fair values include (i) annual revenue growth rates; (ii) operating margins; (iii) risk-adjusted discount rate; and (iv) terminal value determined using a long-term growth rate.

The principal considerations for our determination that performing procedures relating to the goodwill impairment test of the Artificial Lift Reporting Unit is a critical audit matter are there was significant judgment by management when developing the fair value measurement of the reporting unit. This in turn led to a high degree of auditor judgment, subjectivity, and effort in performing procedures and in evaluating audit evidence related to management's estimated future cash flows, including the significant assumptions for annual revenue growth rates, operating margins, and risk-adjusted discount rate. In addition, the audit effort involved the use of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill impairment test, including controls over the valuation of the Company's reporting units. These procedures also included, among others, testing management's process for developing the fair value estimate, including evaluating the appropriateness of the discounted cash flow model; testing the completeness and accuracy of the underlying data used in the model; and evaluating certain assumptions used by management, including the annual revenue growth rates, operating margins, and risk-adjusted discount rate. Evaluating management's significant assumptions related to annual revenue growth rates and operating margins involved evaluating whether the assumptions used by management were reasonable considering (i) the current and past performance of the reporting unit, (ii) the consistency with external market and industry data, and (iii) whether these assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in the evaluation of the Company's discounted cash flow model and certain assumptions, including the risk-adjusted discount rate.

Consolidated Financial Statements - Impact of Resources and Controls Related to Control Environment and Risk Assessment

The completeness and accuracy of the consolidated financial statements, including the financial condition, results of operations and cash flows, is dependent on, in part, (i) maintaining a sufficient complement of personnel with the appropriate level of knowledge, experience and training in financial reporting, (ii) designing and maintaining effective information technology general controls for systems used in the preparation of the financial statements, including access to system capabilities and (iii) journal entries being completely and accurately recorded to the appropriate accounts.

The principal considerations for our determination that performing procedures relating to the consolidated financial statementsimpact of resources and controls related to control environment and risk assessment is a critical audit matter are there was a high degree of auditor judgment, subjectivity and effort in performing procedures and evaluating audit evidence related to business processes and information systems, which affect substantially all financial statement account balances and disclosures. As described above in the "Opinions on Financial Statements and Internal Control over Financial Reporting" section, material weaknesses were identified as of December 31, 2019 related to (i) maintaining a sufficient complement of personnel with the appropriate level of knowledge, experience and training, (ii) assessing risk and designing controls to ensure that proper resources are in place at ESP to operate a complex business model and address significant growth and turnover in personnel, (iii) designing and maintaining effective controls over the granting of access to system capabilities to authorized users within the general ledger system across the Company such that there are appropriate segregation of duties between personnel that have the ability to create and post journal entries, and (iv) maintaining controls to ensure journal entries are properly prepared with appropriate supporting documentation or are reviewed and approved appropriately to ensure the accuracy of journal entries.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included, among others, evaluating and determining the nature and extent of audit procedures performed and evidence obtained that are responsive to the material weaknesses identified. These procedures included testing of transactions and performing procedures to evaluate whether segregation of duties were circumvented within the Company's information technology systems. Based on risk characteristics and materiality, professionals with specialized skill and knowledge assisted in selecting journal entries for testing. For each selection, the procedures performed examined the supporting documentation and verified the accuracy of the adjustment to determine the appropriateness of the journal entries recorded.

Leased Asset Program - ESP

As described in Notes 1, 13, 14 and 22, the Company had \$98 million of leased assets in the ESP leased asset program, which is reported in the Production & Automation Technologies segment as of December 31, 2019. At the time of purchase, assets are recorded to inventory and are transferred to property, plant, and equipment when a customer contracts for an asset under the lease program and are depreciated over their estimated useful lives to an estimated salvage value. The lease arrangements generally allow customers to rent equipment on a daily basis with no stated end date. Management accounts for these arrangements as a daily renewal option beginning on the lease commencement date, with the lease term determined as the period in which it is reasonably certain the option will be exercised. The lease arrangements generally include lease and non-lease components for which revenue is recognized based on each component's standalone price. Lease revenue is recognized on a straight-line basis over the term of the lease and is included in other revenue in the consolidated statement of income. Leased equipment damaged in operation is generally charged to the customer. Charges for damaged leased equipment is recorded as product revenue and the remaining net book value of the lease asset is expensed as costs of goods and services in the consolidated statements of income.

The principal considerations for our determination that performing procedures relating to the leased asset program is a critical audit matter are there was a high degree of auditor judgment, subjectivity, and effort in performing procedures and in evaluating the audit evidence obtained to support the transfer of leased assets between inventory and property, plant, and equipment, the completeness, accuracy and existence of leased assets, and the recognition of other and product revenues. As described in the "Opinions on the Financial Statements and Internal Control over Financial Reporting" section, material weaknesses as of December 31, 2019 were identified related to designing and maintaining controls over (i) the completeness, accuracy, and existence and presentation and disclosure of inventory and fixed assets at ESP and (ii) the completeness, accuracy, occurrence and cut-off of revenue at ESP.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included, among others, testing the ESP leased asset program, which included: (i) evaluating the terms and conditions of the leased asset arrangement, (ii) confirmation of leased asset arrangements with customers, (iii) performing physical inventory observations for assets not currently included in lease asset arrangements, (iv) evaluating the timing of revenue recognition for damaged leased equipment, and (v) evaluating the period end reserve related to product revenue from damaged leased equipment.

/s/ PricewaterhouseCoopers LLP Houston, Texas March 2, 2020

We have served as the Company's auditor since 2017.

APERGY CORPORATION CONSOLIDATED STATEMENTS OF INCOME

	Years Ended December 31,					
(in thousands, except per share data)		2019		2018		2017
Product revenue	\$	1,000,630	\$	1,090,218	\$	922,692
Other revenue		130,621		127,938		87,774
Total revenue		1,131,251		1,218,156		1,010,466
Cost of goods and services		754,147		801,152		690,398
Gross profit		377,104		417,004		320,068
Selling, general and administrative expense		276,014		264,947		221,407
Interest expense, net		39,301		27,648		863
Other expense, net		2,603		3,056		9,443
Income before income taxes		59,186		121,353		88,355
Provision for (benefit from) income taxes		6,226		28,162		(22,164)
Net income		52,960		93,191		110,519
Net income attributable to noncontrolling interest		796		454		930
Net income attributable to Apergy	\$	52,164	\$	92,737	\$	109,589
Earnings per share attributable to Apergy: *						
Basic	\$	0.67	\$	1.20	\$	1.42
Diluted	\$	0.67	\$	1.19	\$	1.41
Weighted-average shares outstanding: *						
Basic		77,427		77,342		77,340
Diluted		77,624		77,692		77,890

* See Note 4—Earnings Per Share.

APERGY CORPORATION CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Years Ended December 31,				
(in thousands)		2019	2018	2017	
Net income	\$	52,960 \$	93,191 \$	110,519	
Other comprehensive income (loss), net of tax:					
Foreign currency translation adjustments (1)		936	(14,210)	4,385	
Pension and other post-retirement benefit plans:					
Net actuarial gain (loss) arising during period		(2,521)	856	2,598	
Prior service cost arising during period		(190)	—		
Reclassification adjustment for net actuarial loss included in net income		272	247	257	
Reclassification adjustment for prior service costs included in net income		1		1	
Reclassification adjustment for settlement losses included in net income		371	353	—	
Total pension and other post-retirement benefit plans ⁽²⁾		(2,067)	1,456	2,856	
Other comprehensive income (loss)		(1,131)	(12,754)	7,241	
Comprehensive income		51,829	80,437	117,760	
Comprehensive income attributable to noncontrolling interest		796	454	930	
Comprehensive income attributable to Apergy	\$	51,033 \$	79,983 \$	116,830	

⁽¹⁾ Net of income tax (expense) benefit of nil for the years ended December 31, 2019, 2018 and 2017, respectively.

(2) Net of income tax (expense) benefit of \$347, \$352 and \$971 for the years ended December 31, 2019, 2018 and 2017, respectively.

APERGY CORPORATION CONSOLIDATED BALANCE SHEETS

(in thousands)	December 31, 2019	December 31, 2018
Assets		
Cash and cash equivalents	\$ 35,290	\$ 41,832
Receivables, net of allowances of \$8,072 in 2019 and \$4,745 in 2018	219,874	251,436
Inventories, net	211,342	219,421
Prepaid expenses and other current assets	26,934	18,534
Total current assets	493,440	531,223
Property, plant and equipment, net	248,181	244,328
Goodwill	911,113	904,985
Intangible assets, net	238,707	283,688
Other non-current assets	31,384	8,892
Total assets	1,922,825	1,973,116
Liabilities and Equity		
Accounts payable	120,291	140,125
Accrued compensation and employee benefits	38,470	40,546
Current portion of finance lease liabilities	4,845	4,320
Accrued expenses and other current liabilities	36,075	28,761
Total current liabilities	199,681	213,752
Long-term debt	559,821	663,207
Deferred income taxes	84,060	99,772
Other long-term liabilities	43,049	20,402
Total liabilities	886,611	997,133
Stockholders' equity:		
Common stock (2.5 billion shares authorized, \$0.01 par value) 77.5 million shares and 77.4 million shares issued and outstanding in 2019 and 2018, respectively	775	774
Capital in excess of par value of common stock	969,174	960,773
Retained earnings	107,048	54,884
Accumulated other comprehensive loss	(44,037)	(42,906)
Total stockholders' equity	1,032,960	973,525
Noncontrolling interest	3,254	2,458
Total equity	1,036,214	975,983
Total liabilities and equity	\$ 1,922,825	\$ 1,973,116

APERGY CORPORATION CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31,		
(in thousands)	2019	2018	2017
Cash provided (required) by operating activities:			
Net income	\$ 52,960	\$ 93,191 \$	\$ 110,519
Adjustments to reconcile net income (loss) to net cash provided (required) by operating activities:	4		
Depreciation	68,557	72,569	59,161
Amortization	51,381	51,892	53,701
Stock-based compensation	10,250	5,375	2,236
Loss (gain) on sale of fixed assets and business, net	429	(1,173)	(934)
Impairment of long-lived assets	1,874	990	3,581
Provision for doubtful accounts	4,955	2,007	954
Amortization of deferred loan costs and accretion of discount	2,590	1,671	
Deferred income taxes	(13,874)	1,492	(73,501)
Employee benefit plan expense	1,883	3,340	1,064
Other	3,464	1,885	(6,142)
Changes in operating assets and liabilities (net of effects of acquisitions and foreign exchange):			
Receivables	25,948	(55,378)	(61,573)
Inventories	19,065	(40,018)	(13,808)
Prepaid expenses and other current assets	(10,742)	(3,750)	(5,116)
Accounts payable	(20,526)	40,393	31,827
Accrued compensation and employee benefits	(6,358)	8,454	5,616
Accrued expenses and other liabilities	4,406	12,095	(165)
Leased assets	(40,700)	(25,867)	(27,788)
Other	337	(5,268)	(3,582)
Net cash provided by operating activities	155,899	163,900	76,050
Cash provided (required) by investing activities:			
Capital expenditures	(39,780)	(57,918)	(36,654)
Proceeds from sale of fixed assets	4,598	1,187	3,547
Proceeds from (payment on) sale of businesses	(2,194)	2,473	
Acquisition (net of cash and cash equivalents acquired)	(12,500)	—	(8,842)
Purchase price adjustments on acquisition		53	
Net cash required by investing activities	(49,876)	(54,205)	(41,949)
Cash provided (required) by financing activities:			
Proceeds from long-term debt, net of discounts	36,500	713,963	
Payment of debt issue costs		(16,006)	
Repayment of long-term debt	(141,500)	(45,000)	(599)
Distributions to Dover Corporation, net		(736,557)	(31,192)
Distribution to noncontrolling interest		(2,720)	(1,212)
Payment of capital lease obligations	(5,555)	(4,518)	(3,690)
Payments related to taxes withheld on stock-based compensation	(1,848)		
Net cash required by financing activities	(112,403)	(90,838)	(36,693)
Effect of exchange rate changes on cash and cash equivalents	(162)	(737)	277

Net increase (decrease) in cash and cash equivalents	(6,542)	18,120	(2,315)
Cash and cash equivalents at beginning of period	 41,832	23,712	26,027
Cash and cash equivalents at end of period	\$ 35,290 \$	41,832 \$	23,712

APERGY CORPORATION CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

	Comm	on stock					
(in thousands)	Par Value	Capital in excess of par value	Retained Earnings	Net Parent Investment in Apergy	Accum. Other Comp. Loss	Non- controlling Interest	Total
December 31, 2016	\$	\$	\$ —	\$ 1,577,130 \$	(33,657)	\$ 5,031	\$ 1,548,504
Net income			—	109,589		930	110,519
Other comprehensive income	_	—	—	—	7,241		7,241
Distributions to noncontrolling interest		_	_	_	_	(1,212)	(1,212)
Net transfers to Dover				(29,543)			(29,543)
December 31, 2017			_	1,657,176	(26,416)	4,749	1,635,509
Cumulative effect of accounting changes	_	_	_	1,315	(1,315)	_	_
Net income			54,884	37,853		454	93,191
Other comprehensive loss	_	_	_	_	(12,754)	_	(12,754)
Net transfers to/from Dover		_		(739,633)	(2,421)	_	(742,054)
Reclassification of net parent investment in Apergy	_	956,711	_	(956,711)	_	_	_
Issuance of common stock	773	(773)					_
Stock-based compensation	1	4,835	_	_	_	_	4,836
Distributions to noncontrolling interest		_	_	_	_	(2,720)	(2,720)
Other	—		—	—	—	(25)	(25)
December 31, 2018	774	960,773	54,884		(42,906)	2,458	975,983
Net income			52,164			796	52,960
Other comprehensive loss		_		_	(1,131)		(1,131)
Stock-based compensation	1	10,249	_	_	_	_	10,250
Taxes withheld on issuance of stock-based awards		(1,848)					(1,848)
December 31, 2019	\$ 775	\$ 969,174	\$ 107,048	\$ _ \$	(44,037)	\$ 3,254	\$ 1,036,214

APERGY CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1—BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Apergy Corporation is a leading provider of highly engineered equipment and technologies that help companies drill for and produce oil and gas safely and efficiently around the world. Our products provide efficient functioning throughout the lifecycle of a well—from drilling to completion to production. We report our results of operations in the following reporting segments: Production & Automation Technologies and Drilling Technologies. Our Production & Automation Technologies segment offerings consist of artificial lift equipment and solutions, including rod pumping systems, electric submersible pump systems, progressive cavity pumps and drive systems and plunger lifts, as well as a full automation and digital offering consisting of equipment, software and Industrial Internet of Things solutions for downhole monitoring, wellsite productivity enhancement and asset integrity management. Our Drilling Technologies segment offerings provide market leading polycrystalline diamond cutters and bearings that result in cost effective and efficient drilling.

Separation and Distribution

On May 9, 2018, Apergy became an independent, publicly traded company as a result of the distribution by Dover Corporation ("Dover") of 100% of the outstanding common stock of Apergy to Dover's stockholders. Dover's Board of Directors approved the distribution on April 18, 2018 and Apergy's Registration Statement on Form 10 was declared effective by the U.S. Securities and Exchange Commission ("SEC") on April 19, 2018. On May 9, 2018, Dover's stockholders of record as of the close of business on the record date of April 30, 2018 received one share of Apergy stock for every two shares of Dover stock held at the close of business on the record date (the "Separation"). Following the Separation, Dover retained no ownership interest in Apergy's common stock began "regular-way" trading on the New York Stock Exchange ("NYSE") under the "APY" symbol on May 9, 2018.

Basis of Presentation

Our consolidated financial statements were prepared in U.S. dollars and in accordance with U.S. generally accepted accounting principles ("GAAP").

Prior to the Separation, our results of operations, financial position and cash flows were derived from the consolidated financial statements and accounting records of Dover and reflect the combined historical results of operations, financial position and cash flows of certain Dover entities conducting its upstream oil and gas energy business within Dover's Energy segment, including an allocated portion of Dover's corporate costs. These financial statements have been presented as if such businesses had been combined for all periods prior to the Separation. All intercompany transactions and accounts within Dover were eliminated. The assets and liabilities were reflected on a historical cost basis since all of the assets and liabilities presented were wholly owned by Dover and were transferred within the Dover consolidated group. The statements of income also include expense allocations for certain corporate functions historically performed by Dover and not allocated to its operating segments, including corporate executive management, human resources, information technology, facilities, tax, shared services, finance and legal, including the costs of salaries, benefits and other related costs. These expense allocations were based on direct usage or benefit where identifiable, with the remainder allocated on the basis of revenue, headcount or other measures. These pre-Separation combined financial statements may not include all of the actual expenses that would have been incurred had we been a stand-alone public company during the periods presented prior to the Separation and consequently may not reflect our results of operations, financial position and cash flows had we been a stand-alone public company during the periods presented prior to the Separation. Actual costs that would have been incurred if we had been a stand-alone public company would depend on a variety of factors, including organizational structure and strategic decisions made in various areas, including information technology and infrastructure.

Prior to the Separation, transactions between Apergy and Dover, with the exception of transactions discussed in Note 3— Related Party Transactions, are reflected in the combined statements of cash flows as a financing activity in "Distributions to Dover Corporation, net." See Note 3—Related Party Transactions for additional information.

No portion of Dover's third-party debt was historically held by an Apergy entity or was transferred to Apergy; therefore, no interest expense was presented in the combined statements of income for each of the periods presented prior to the Separation. Intercompany notes payable to Dover were presented within "Net parent investment in Apergy" in our combined balance sheet because the notes were not settled in cash. Accordingly, no interest expense related to intercompany debt was presented in the combined statements of income for each of the periods presented must be combined statements of income for each of the periods presented prior to the Separation.

All financial information presented after the Separation represents the consolidated results of operations, financial position and cash flows of Apergy. Accordingly, our results of operations and cash flows consist of the consolidated results of Apergy from May 9, 2018 to December 31, 2019, and the combined results of operations and cash flows for periods prior to May 9, 2018. Our balance sheets as of December 31, 2019 and 2018, reflect the consolidated balances of Apergy. Our management believes the assumptions underlying these consolidated financial statements, including the assumptions regarding the allocation of corporate expenses from Dover for periods prior to the Separation, are reasonable.

The legal transfer of the upstream oil and gas energy businesses from Dover to Apergy occurred on May 9, 2018; however, for ease of reference, and unless otherwise stated or the context otherwise requires, all references to "Apergy Corporation," "Apergy," "we," "us" or "our" refer (i) prior to the Separation, to the Apergy businesses, consisting of entities, assets and liabilities conducting the upstream oil and gas business within Dover's Energy segment and (ii) after the Separation, to Apergy Corporation and its consolidated subsidiaries.

Significant Accounting Policies

Use of estimates—The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates. Such estimates include, but are not limited to, net realizable value of inventories, allowance for doubtful accounts, pension and post-retirement plans, future cash flows associated with impairment testing of goodwill, indefinite-lived intangible assets and other long-lived assets, estimates related to income taxes and estimates related to contingencies.

Cash and cash equivalents—Cash equivalents are highly liquid, short-term investments with original maturities of three months or less from their date of purchase.

Receivables, net of allowances—An allowance for doubtful accounts is provided on receivables equal to the estimated uncollectible amounts. This estimate is based on historical collection experience, current economic and market conditions and a review of the current status of each customer's trade accounts receivable.

Inventories—Inventories for the majority of our subsidiaries, including all international subsidiaries, are stated at the lower of cost, determined on the first-in, first-out (FIFO) basis, or net realizable value. Other domestic inventories are stated at the lower of cost, determined on the last-in, first-out (LIFO) basis, or market. Under the LIFO method, the cost assigned to items sold is based on the cost of the most recent items purchased. As a result, the costs of the first items purchased remain in inventory and are used to value ending inventory.

Property, plant and equipment—Property, plant and equipment is recorded at cost. Depreciation is provided on the straightline basis over the estimated useful lives of our assets as follows: buildings and improvements 5 to 31.5 years; machinery and equipment 1 to 7 years; and software 3 to 10 years. Expenditures for maintenance and repairs are expensed as incurred. Gains and losses are realized upon the sale or disposition of assets and are recorded in "Other expense, net" on our consolidated statements of income.

Property, plant and equipment are reviewed for impairment whenever events or changes in circumstances indicate the carrying value of the long-lived asset may not be recoverable. The carrying value of a long-lived asset is not recoverable if it exceeds the sum of undiscounted cash flows expected to result from the use and eventual disposition of the asset. If it is determined that an impairment loss has occurred, the impairment loss is measured as the amount by which the carrying value of the long-lived asset exceeds its fair value.

Goodwill and other intangible assets—Goodwill is not subject to amortization but is tested for impairment on an annual basis or more frequently if impairment indicators arise. We have established October 1 as the date of our annual test for impairment of goodwill. A quantitative test is used to determine the existence of goodwill impairment and the amount of the impairment loss at the reporting unit level. The quantitative test compares the fair value of a reporting unit with its carrying amount, including goodwill. We use an income-based valuation method, determining the present value of estimated future cash flows, to estimate the fair value of a reporting unit. Significant assumptions used in estimating our reporting unit fair values include (i) annual revenue growth rates; (ii) operating margins; (iii) risk-adjusted discount rate; and (iv) terminal value determined using a long-term growth rate. If the carrying amount of a reporting unit exceeds its fair value, an impairment loss will be recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to the reporting unit.

Our finite-lived acquired intangible assets are amortized on a straight-line basis over their estimated useful lives, which generally range from 5 to 15 years. Intangible assets are reviewed for impairment whenever events or changes in circumstances indicate the carrying amount of the intangible asset may not be recoverable. The carrying amount of an intangible asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. If it is determined that an impairment loss has occurred, the loss is measured as the amount by which the carrying amount of the intangible asset exceeds its fair value. We have one intangible asset with an indefinite life which is tested annually for impairment.

Revenue Recognition—Prior to January 1, 2018, revenue was recognized when all of the following conditions were satisfied: a) persuasive evidence of an arrangement exists, b) price is fixed or determinable, c) collectability is reasonably assured and d) delivery has occurred or services have been rendered. Beginning in 2018, and in connection with the adoption of ASC Topic 606, revenue is recognized to depict the transfer of control of the related goods and services to the customer. The majority of our revenue is generated through the manufacture and sale of a broad range of specialized products and components, with revenue recognized upon transfer of title and risk of loss, which is generally upon shipment. We account for shipping and handling activities performed after control of a good has been transferred to the customer as a contract fulfillment cost rather than a separate performance obligation. In limited cases, revenue arrangements with customers require delivery, installation, testing, or other acceptance provisions to be satisfied before revenue is recognized. Service revenue is recognized as the services are performed. Software product revenue is recorded when the software product is shipped to the customer or over the term of the contract on a subscription based model.

Estimates are used to determine the amount of variable consideration in contracts, as well as the determination of the standalone selling price among separate performance obligations. Some contracts with customers include variable consideration primarily related to volume rebates. We estimate variable consideration at the most likely amount to determine the total consideration which we expect to be entitled. Estimated amounts are included in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. Our estimates of variable consideration and the determination of whether to include estimated amounts in the transaction price are largely based on an assessment of our anticipated performance and all information that is reasonably available. We exclude all taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction and collected from a customer (e.g., sales, use, value added, and some excise taxes) from the determination of the transaction price.

Lessor accounting—Our lease arrangements generally allow customers to rent equipment on a daily basis with no stated end date. Customers may return the equipment at any point subsequent to the lease commencement date without penalty. We account for these arrangements as a daily renewal option beginning on the lease commencement date, with the lease term determined as the period in which it is reasonably certain the option will be exercised. Based on our assessment of the lease classification criteria, our lease arrangements have been classified as operating leases. Our lease arrangements generally include lease and non-lease components for which revenue is recognized based on each component's standalone price. Lease revenue is recognized on a straight-line basis over the term of the lease and is included in "Other revenue" in the consolidated statement of income. Non-lease revenue related to our lease arrangements is recognized in accordance with our revenue recognition accounting policy. Assets in our lease program are reported in "Property, plant, and equipment, net" on our consolidated balance sheets and are depreciated over their estimated useful lives to an estimated salvage value. Leased equipment damaged in operation is generally charged to the customer. Charges for damaged leased equipment is recorded as "Product revenue" and the remaining net book value of the lease asset is expensed as "Costs of goods and services" in the consolidated statements of income.

Lessee accounting—Lease liabilities are measured at the lease commencement date and are based on the present value of remaining payments contractually required under the contract. Payments that are variable in nature are excluded from the measurement of our lease liabilities and are recorded as an expense as incurred. Options to renew or extend a lease are included in the measurement of our lease liabilities only when it is reasonably certain that we will exercise these rights. In estimating the

present value of our lease liabilities, payments are discounted at our incremental borrowing rate ("IBR"), which has been applied utilizing a portfolio approach. We utilized information publicly available from companies within our industry with similar credit profiles to construct a company-specific yield curve in order to estimate the rate of interest we would pay to borrow at various lease terms. At lease commencement, we recognize a lease right-of-use asset equal to our lease liability, adjusted for lease payments paid to the lessor prior to the lease commencement date, and any initial direct costs incurred. Operating lease expense is recorded on a straight-line basis over the lease term. For finance leases, we amortize our right-of-use assets on a straight-line basis over the shorter of the asset's useful life or the lease term. Additionally, interest expense is recognized each period related to the accretion of our lease liabilities over their respective lease terms.

Refer to Note 2 for additional information related to practical expedients and elections made under ASC Topic 842.

Stock-based compensation—Prior to the Separation, our employees participated in Dover's stock-based compensation plans. Stock-based compensation was allocated to us by Dover based on the awards and terms previously granted to our employees.

The cost of stock-based awards is measured at the grant date and are based on the fair value of the award. The value of the portion of the award that is expected to ultimately vest is recognized as expense on a straight-line basis, generally over the explicit service period and is included in selling, general and administrative expense in our consolidated statements of income. Forfeitures are accounted for as they occur. Expense for awards granted to retirement-eligible employees is recorded over the period from the date of grant through the date the employee first becomes eligible to retire and is no longer required to provide service.

Employee benefit plans—Prior to the Separation, Apergy participated in defined benefit plans and non-qualified supplemental retirement plans sponsored by Dover that were accounted for as multi-employer plans in the consolidated financial statements. Apergy also sponsored a defined benefit plan and non-qualified plan during the pre-Separation period. These plans were accounted for as single employer plans in the consolidated financial statements.

Research and development costs—Research and development costs are expensed as incurred and amounted to \$12.9 million, \$16.0 million and \$18.5 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Income Taxes—Prior to the Separation, our operations were historically included in Dover's consolidated federal tax return and certain combined state returns. The income tax expense in our consolidated financial statements for these pre-Separation periods was determined on a stand-alone return basis which requires the recognition of income taxes using the liability method. Under this method, we assume to have historically filed a return separate from Dover, reporting our taxable income or loss and paying applicable tax based on our separate taxable income and associated tax attributes in each tax jurisdiction. Income taxes payable prior to Separation, computed under the stand-alone return basis, were classified in "Net parent investment in Apergy" on our consolidated balance sheet since Dover is legally liable for the tax. Accordingly, changes in income taxes payable for periods prior to the Separation are presented as a component of financing activities in the statement of cash flows. The calculation of income taxes on the separate return basis requires considerable judgment and the use of both estimates and allocations. As a result, our effective tax rate and deferred tax balances will significantly differ from those in the periods prior to the Separation.

The Tax Reform Act, enacted on December 22, 2017, significantly changed U.S. tax law by, among other things, lowering corporate income tax rates, implementing a territorial tax system and imposing a repatriation tax on deemed repatriated earnings of foreign subsidiaries. The Tax Reform Act reduced the U.S. corporate income tax rate from a maximum of 35% to a flat 21% rate, effective January 1, 2018. The Tax Reform Act also provided for a one-time deemed repatriation of post-1986 undistributed foreign subsidiary earnings and profits through the year ended December 31, 2017. The Global Intangible Low-Taxed Income ("GILTI") provisions require us to include in our U.S. income tax return foreign subsidiary earnings in excess of an allowable return on the foreign subsidiary's tangible assets. We have elected to account for GILTI tax in the period in which it is incurred.

Deferred tax assets and liabilities are measured using the tax rates that are expected to apply to taxable income for the years in which those tax assets and liabilities are expected to be realized or settled. We record valuation allowances related to our deferred tax assets when we determine it is more likely than not the benefits will not be realized. Interest and penalties related to unrecognized tax benefits are recorded as a component of our provision for income taxes. We do not provide deferred taxes on undistributed earnings of our foreign subsidiaries as it is management's intention to permanently reinvest these earnings to support the expansion of our international operations. If we were to make distributions from the subsidiaries, we would be subject to withholding tax on the remittances in various jurisdictions.

Earnings per share ("EPS")—Basic EPS is computed using the weighted-average number of common shares outstanding during the year. We use the treasury stock method to compute diluted EPS which gives effect to the potential dilution of earnings that could have occurred if additional shares were issued for awards granted under our incentive compensation and stock plan. The treasury stock method assumes proceeds that would be obtained upon exercise of awards granted under our incentive compensation and stock plan are used to purchase outstanding common stock at the average market price during the period.

Fair value measurements—We record our financial assets and financial liabilities at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the reporting date. The fair value framework requires the categorization of assets and liabilities into three levels based upon the assumptions (inputs) used to price the assets or liabilities, with the exception of certain assets and liabilities measured using the net asset value practical expedient, which are not required to be leveled. Level 1 provides the most reliable measure of fair value, whereas Level 3 generally requires significant management judgment. The three levels are defined as follows:

- Level 1: Unadjusted quoted prices in active markets for identical assets and liabilities.
- Level 2: Observable inputs other than quoted prices included in Level 1. For example, quoted prices for similar assets or liabilities in active markets or quoted prices for identical assets or liabilities in inactive markets.
- Level 3: Unobservable inputs reflecting management's own assumptions about the assumptions market participants would use in pricing the asset or liability.

Derivative financial instruments—Prior to the Separation, we used derivative financial instruments to hedge our exposure to foreign currency exchange rate risk. For derivatives hedging the fair value of assets or liabilities, the changes in fair value of both the derivatives and the hedged items are recorded in earnings. We do not enter into derivative financial instruments for speculative purposes.

Foreign currency—Financial statements of operations for which the U.S. dollar is not the functional currency, and are located in non-highly inflationary countries, are translated into U.S. dollars prior to consolidation. Assets and liabilities are translated at the exchange rate in effect at the balance sheet date, while income statement accounts are translated at the weighted-average monthly exchange rates. For these operations, translation gains and losses are recorded as a component of accumulated other comprehensive income (loss) in stockholders' equity until the foreign entity is sold or liquidated. Assets and liabilities of an entity that are denominated in currencies other than an entity's functional currency are remeasured into the functional currency using end of period exchange rates or historical rates when applicable to certain balances. Gains and losses related to these remeasurements are recorded in our consolidated statements of income as a component of "Other expense, net".

Change in accounting estimate—Effective January 1, 2019, we changed our estimate of the useful lives for surface equipment used within our leased asset program in our Production & Automation Technologies segment to better reflect the estimated periods in which the assets will remain in service. The estimated useful lives of the equipment, previously estimated at three years, was increased to five years. The effect of this change in estimate for the year ended December 31, 2019, was a reduction in depreciation expense of \$8.8 million, an increase in net income of \$6.7 million, and an increase in basic and diluted earnings per share of \$0.09 per share.

Reclassifications-Certain prior-year amounts have been reclassified to conform to the current year presentation.

Revisions—We revised our previously issued financial statements for the years ended December 31, 2018 and December 31, 2017, to correct immaterial errors related to: (i) the assessing and recording of liabilities for state sales tax and associated penalties and interest, primarily resulting in an understatement of our selling, general, and administrative expense and interest expense of \$3.1 million and \$2.0 million for the years ended December 31, 2018 and 2017, respectively, and (ii) previously recorded amounts including, but not limited to, the write-off of inventory and leased assets, timing of revenue recognition, and revenue classification, that the Company concluded were immaterial to our previously filed consolidated financial statements. See the following tables for the impact of the corrections on the consolidated financial statements:

	Year Ended December 31, 2018					
(in thousands, except per share data)	A	s Reported	Ad	ljustments	As Revised	
Product revenue	\$	1,085,471	\$	4,747 \$	5 1,090,218	
Other revenue ⁽¹⁾		131,175		(3,237)	127,938	
Total revenue		1,216,646		1,510	1,218,156	
Cost of goods and services		800,347		805	801,152	
Gross profit		416,299		705	417,004	
Selling, general and administrative expense		262,625		2,322	264,947	
Interest expense, net		27,440		208	27,648	
Other expense, net		2,943		113	3,056	
Income before income taxes		123,291		(1,938)	121,353	
Provision for income taxes		28,796		(634)	28,162	
Net income		94,495		(1,304)	93,191	
Net income attributable to noncontrolling interest		454		—	454	
Net income attributable to Apergy	\$	94,041	\$	(1,304)	\$ 92,737	
				· ·		
Earnings per share attributable to Apergy:						
Basic	\$	1.22	\$	(0.02) \$	\$ 1.20	
Diluted	\$	1.21	\$	(0.02) \$	§ 1.19	
Comprehensive income	\$	81,741	\$	(1,304) \$		
Comprehensive income attributable to Apergy	\$	81,287	\$	(1,304) \$	5 79,983	

⁽¹⁾ Includes "Service revenue" and "Lease and other revenue" as reported in the consolidated statement of income for the year ended December 31, 2018.

	Year Ended December 31, 2017				
(in thousands, except per share data)	As Reported		Adjustments		As Revised
Product revenue	\$	919,669	\$	3,023 \$	922,692
Other revenue ⁽¹⁾		90,797		(3,023)	87,774
Total revenue	-	1,010,466			1,010,466
Cost of goods and services		689,990		408	690,398
Gross profit	-	320,476		(408)	320,068
Selling, general and administrative expense		218,558		2,849	221,407
Interest expense, net		753		110	863
Other expense, net		10,377		(934)	9,443
Income before income taxes		90,788		(2,433)	88,355
Benefit from income taxes		(21,876)		(288)	(22,164)
Net income		112,664		(2,145)	110,519
Net income attributable to noncontrolling interest		930			930
Net income attributable to Apergy	\$	111,734	\$	(2,145) \$	5 109,589
Earnings per share attributable to Apergy:					
Basic	\$	1.44	*	(0.02) \$	
Diluted	\$	1.43	\$	(0.02) \$	5 1.41
Comprehensive income	\$	119,905		(2,145) \$	
Comprehensive income attributable to Apergy	\$	118,975	\$	(2,145) \$	5 116,830

(1) Includes "Service revenue" and "Lease and other revenue" as reported in the consolidated statement of income for the year ended December 31, 2017.

	December 31, 2018				
(in thousands)	As	Reported	Adjus	tments	As Revised
Assets					
Receivables, net	\$	249,948	\$	1,488	\$ 251,436
Inventories, net		218,319		1,102	219,421
Prepaid expenses and other current assets		20,211		(1,677)	18,534
Total current assets		530,310		913	531,223
Other non-current assets		8,445		447	8,892
Total assets		1,971,756		1,360	1,973,116
Liabilities and Equity					
Accounts payable		131,058		9,067	140,125
Current portion of finance lease liabilities (1)		—		4,320	4,320
Accrued expenses and other current liabilities ⁽¹⁾		30,391		(1,630)	28,761
Total current liabilities		201,995		11,757	213,752
Long-term debt		666,108		(2,901)	663,207
Deferred income taxes		101,724		(1,952)	99,772
Total liabilities		990,229		6,904	997,133
Stockholders' equity:					
Capital in excess of par value of common stock		965,372		(4,599)	960,773
Retained earnings		55,829		(945)	54,884
Total stockholders' equity		979,069		(5,544)	973,525
Total equity		981,527		(5,544)	975,983
Total liabilities and equity	\$	1,971,756	\$	1,360	\$ 1,973,116

(1) "Current portion of finance lease liabilities" has been reclassified to a separate line consistent with the consolidated balance sheet as of December 31, 2019.

(in thousands)	Α	s Reported Ad	ljustments	As Revised
Total equity at December 31, 2016	\$	1,551,218 \$	(2,714) \$	1,548,504
Net income		112,664	(2,145)	110,519
Net transfers to Dover		(29,526)	(17)	(29,543)
Total equity at December 31, 2017		1,640,385	(4,876)	1,635,509
Net income		94,495	(1,304)	93,191
Net transfers to/from Dover		(742,690)	636	(742,054)
Total equity at December 31, 2018	\$	981,527 \$	(5,544) \$	975,983

NOTE 2-NEW ACCOUNTING STANDARDS

Recently Adopted Accounting Standards

Effective January 1, 2019, we adopted Financial Accounting Standards Board ("FASB") Accounting Standards Update ("ASU") 2016-02, "*Leases (Topic 842)*." This update requires a lessee to recognize in the statement of financial position a right-of-use asset representing its right to use the underlying asset for the lease term and a liability for future lease payments. Similar to past guidance, the update continues to differentiate between finance leases and operating leases; however, this distinction now primarily relates to differences in the manner of expense recognition over time. Additionally, lessors will be required to classify leases as sales-type, finance or operating, with classification affecting the pattern of income recognition. Classification for both lessees and lessors is now based on an assessment of whether a lease contract is economically similar to the purchase of a non-financial asset from the perspective of control. The update also requires quantitative and qualitative disclosures to enable users to understand the amount, timing, and judgments related to leases and the related cash flows. We applied the provisions of this ASU to our lease contracts as of January 1, 2019, using the modified retrospective method of adoption. Prior period amounts have not been adjusted and continue to be reflected in accordance with our historical accounting

policies. As of January 1, 2019, we recorded operating lease right-of-use assets of \$27.0 million and operating lease liabilities of \$27.0 million as a result of the adoption of this guidance.

We have applied the following practical expedients and elections under the new standard:

- We elected to utilize the package of transition practical expedients, which permitted us (i) to not reassess whether any expired or existing contracts are or contain a lease, (ii) to not reassess our historical lease classifications for existing leases, and (iii) to not reassess initial direct costs for existing leases.
- For contracts in which we are a lessee, we have elected for each of our asset classes to account for each lease component and its associated non-lease components as a single lease component.
- We elected to utilize the short term lease exemption for lease contracts with a term of less than 12 months. These contracts are excluded from the measurement of our right-of-use assets and lease liabilities and are recognized in earnings on a straight-line basis over their lease term.
- We elected to utilize the practical expedient to exclude sales tax from the measurement of lease revenue.

See Note 14—Leases for additional information related to our lease accounting. See Note 22—Cash Flow Information for additional information regarding the presentation of our leases within our consolidated statements of cash flows.

Effective July 1, 2019, we adopted ASU 2018-15, "Intangibles—Goodwill and Other-Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract." The amendments in this update align the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). The accounting for the service element of a hosting arrangement that is a service contract is not affected by the amendments in this update. The amendments in this update have been applied prospectively to all implementation costs incurred after the date of adoption. The impact of adopting the new standard was not material to our financial statements for the year ended December 31, 2019.

Effective December 31, 2019 we adopted ASU 2018-14, "*Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20): Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans.*" The amendment modifies certain disclosure requirements for defined benefit plans. Among other requirements and modifications, the amendment requires an explanation of the reasons for significant gains and losses related to changes in the benefit obligation for the period. The impact of adopting the new standard was not material to our financial statements for the year ended December 31, 2019.

Recently Issued Accounting Standards

In June 2016, the FASB issued ASU 2016-13, "*Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments.*" The update amends the impairment model to utilize an expected loss methodology in place of the currently used incurred loss methodology, which may result in earlier recognition of losses related to financial instruments. The guidance will be effective for us on January 1, 2020. We are currently evaluating the impact of this guidance and are in the process of:

- collecting historical data that will be used in the calculation of expected credit losses;
- documenting relevant assumptions to calculate expected losses; and
- updating policies, procedures and internal controls.

We do not expect the adoption of this update to have a material impact on our financial statements.

NOTE 3—RELATED PARTY TRANSACTIONS

Dover Corporation

Prior to the Separation, Dover provided certain services to us, including corporate executive management, human resources, information technology, facilities, tax, shared services, finance and legal services. Dover continued to provide us certain of these services on a temporary basis following the Separation under a transition services agreement. Under the transition services agreement, Apergy paid a fee to Dover for services under the transition services agreement, which fee was intended to allow Dover to recover all of its direct and indirect costs generally without profit. The transition services agreement was terminated on January 31, 2019, consistent with the initial term provided within the agreement.

Financial information presented prior to the Separation does not include all the expenses that would have been incurred had Apergy been a stand-alone public company. The corporate expenses allocated by Dover to these financial statements were \$7.4 million and \$23.0 million for the years ended December 31, 2018 and 2017, respectively, which were recorded in "Selling, general and administrative expense" in the consolidated statements of income.

For periods prior to the Separation, transactions between Apergy and Dover, with the exception of transactions discussed below with Dover's affiliates, are reflected in "Distributions to Dover Corporation, net" in the consolidated statements of cash flows for the years ended December 31, 2018, and 2017, as a financing activity. Revenue with Dover and its affiliates were not material for the periods presented. We recognized royalty expense of \$2.3 million and \$9.8 million for the years ended December 31, 2017, respectively, related to the use of Dover's intellectual property and patents which are included in "Other expense, net" in the consolidated statements of income. On April 1, 2018, patents and other intangibles owned by Dover related to our operations transferred to Apergy, and consequently, Apergy no longer incurred royalty charges related to these assets from Dover.

Noncontrolling Interest

For the years ended December 31, 2018, and 2017, we declared and paid \$2.7 million and \$1.2 million, respectively, of distributions to the noncontrolling interest holder in Apergy Middle East Services LLC, a subsidiary in the Sultanate of Oman. We have a commission arrangement with our noncontrolling interest for 5% of certain annual product sales.

NOTE 4—EARNINGS PER SHARE

On May 9, 2018, 77,339,828 shares of our common stock were distributed to Dover stockholders in conjunction with the Separation. See Note 1—Basis of Presentation and Summary of Significant Accounting Policies for additional information. For comparative purposes, and to provide a more meaningful calculation of weighted-average shares outstanding, we have assumed the shares issued in conjunction with the Separation to be outstanding as of the beginning of each period prior to the Separation. In addition, we have assumed the potential dilutive securities outstanding as of May 8, 2018, were outstanding and fully dilutive in each of the periods with positive income prior to the Separation.

A reconciliation of the number of shares used for the basic and diluted earnings per share calculation was as follows:

	Years Ended December 31,					31,
(in thousands, except per share data)		2019		2018		2017
Net income attributable to Apergy	\$	52,164	\$	92,737	\$	109,589
Weighted-average number of shares outstanding		77,427		77,342		77,340
Dilutive effect of stock-based compensation		197		350		550
Total shares and dilutive securities		77,624		77,692		77,890
Basic earnings per share attributable to Apergy	\$	0.67	\$	1.20	\$	1.42
Diluted earnings per share attributable to Apergy	\$	0.67	\$	1.19	\$	1.41

NOTE 5—ACQUISITIONS

On July 31, 2019, Apergy entered into an asset purchase agreement to acquire certain assets, which meet the definition of a business, used in the manufacturing of downhole monitoring systems. The acquisition is included among the consolidated subsidiaries reported in our Production & Automation Technologies segment and provides digital technology strategic to our artificial lift product offering.

The acquisition-date fair value of the consideration transferred consisted of the following:

(in thousands)	
Cash	\$ 12,500
Contingent consideration ⁽¹⁾	1,500
Total consideration transferred	\$ 14,000

 Contingent consideration is payable to the seller based on the acquired business exceeding a revenue target over an eighteen month period ending January 2021. Achievement of the revenue target is considered probable.

The following table summarizes the final fair values of the assets acquired at the acquisition date:

(in thousands)	
Inventory	\$ 1,840
Customer relationships	2,650
Technology - Technical know-how	4,000
Goodwill	5,510
Total assets acquired	\$ 14,000

The amortization period is 15 years for acquired customer relationships and technology. The goodwill recognized as a result of the acquisition is tax deductible and primarily reflects the expected benefits to be derived from operational synergies.

In October 2017, Apergy acquired 100% of the voting stock of PCP Oil Tools S.A. and Ener Tools S.A. ("PCP Tools"), a supplier of progressive cavity pump products and services for total consideration of \$8.8 million, net of cash acquired. This acquisition is a part of our Production & Automation Technologies segment and broadens our ability to supply customers in Argentina. We recorded non-deductible goodwill of \$5.1 million, customer intangible assets of \$4.5 million, and net working capital that is not material to the consolidated financial statements. The goodwill recorded as a result of the acquisition reflects the benefits expected to be derived from product line expansion and operational synergies. The intangible assets acquired are being amortized over nine years.

Results of operations of the acquired businesses have been included in our consolidated financial statements from their acquisition dates. Pro forma results of operations have not been presented as the effects of the acquisitions are not material to our consolidated financial statements.

NOTE 6—DISPOSITIONS

During March 2019, we classified our pressure vessel manufacturing business in our Production & Automated Technologies segment as held for sale. We recognized an impairment loss of \$1.7 million, which was recorded in "Selling, general and administrative expense" in the consolidated statements of income, to adjust the carrying amount of the disposal group to fair value. See Note 19—Fair Value Measurements for additional information. In June 2019, we completed the sale of our pressure vessel manufacturing business and made a cash payment of \$2.2 million, resulting in a loss on disposition of \$2.5 million, which was recorded in "Other expense, net" in the consolidated statements of income for the year ended December 31, 2019.

NOTE 7—INVENTORIES

Inventories consisted of the following:

(in thousands)	December 31, 2019	December 31, 2018
Raw materials	\$ 50,099	\$ 53,677
Work in progress	13,325	11,416
Finished goods	175,774	180,106
	239,198	245,199
LIFO and valuation adjustments	(27,856)	(25,778)
Inventories, net	\$ 211,342	\$ 219,421

As of December 31, 2019 and 2018, approximately 23% and 24%, respectively, of our total net inventories were accounted for using the LIFO method. The current replacement costs of LIFO inventories exceeded their carrying value by approximately \$15.8 million and \$12.9 million at December 31, 2019 and 2018, respectively. There were no reductions to the base LIFO inventories in 2019 or 2018.

NOTE 8—PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consisted of the following:

(in thousands)	Decen	nber 31, 2019	December 31, 20		
Land	\$	13,498	\$	13,607	
Buildings and improvements		107,914		105,036	
Software		15,323		14,553	
Machinery, equipment and other		538,168		503,476	
		674,903		636,672	
Accumulated depreciation		(426,722)		(392,344)	
Property, plant and equipment, net	\$	248,181	\$	244,328	

Depreciation expense was \$68.6 million, \$72.6 million and \$59.2 million for the years ended December 31, 2019, 2018, and 2017, respectively.

NOTE 9—GOODWILL AND INTANGIBLE ASSETS

Goodwill

The carrying amount, including changes therein, of goodwill by reporting segment was as follows:

(in thousands)	Α	oduction & utomation chnologies	Drilling Technologies	Total		
December 31, 2017	\$	808,952	\$ 101,136	\$	910,088	
Purchase price adjustment ⁽¹⁾		(53)	—		(53)	
Foreign currency translation		(5,050)	—		(5,050)	
December 31, 2018		803,849	101,136		904,985	
Acquisitions		5,510	—		5,510	
Foreign currency translation		618	—		618	
December 31, 2019	\$	809,977	\$ 101,136	\$	911,113	

⁽¹⁾ Purchase price adjustment related to our 2017 acquisition of PCP Oil Tools S.A. and Ener Tools S.A.

We recorded \$5.5 million of acquired goodwill in 2019. See Note 5—Acquisitions for additional information. We did not recognize any impairment for the years ended December 31, 2019 and 2018, as the fair values of our reporting units exceeded their carrying amounts.

Intangible Assets

The components of our definite- and indefinite-lived intangible assets were as follows:

	December 31, 2019			December 31, 2018						
(in thousands)		Gross Carrying Amount		Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount		Accumulated Amortization		Net Carrying Amount
Definite-lived intangible assets:										
Customer intangibles	\$	560,316	9	\$ 353,189	\$ 207,127	\$ 568,643	\$	319,827	\$	248,816
Trademarks		35,695		24,830	10,865	36,296		21,575		14,721
Patents		38,436		26,838	11,598	38,141		23,568		14,573
Unpatented technologies		13,700		9,811	3,889	9,700		9,700		—
Drawings and manuals		2,558		1,758	800	3,000		2,142		858
Other		5,332		4,504	828	5,268		4,148		1,120
		656,037		420,930	235,107	661,048		380,960		280,088
Indefinite-lived intangible assets:										
Trademarks		3,600			3,600	3,600				3,600
Total	\$	659,637	9	\$ 420,930	\$ 238,707	\$ 664,648	\$	380,960	\$	283,688

We recorded \$6.7 million of acquired intangible assets in 2019. See Note 5—Acquisitions for additional information. Additional changes to the gross carrying amount of intangible assets during the year ended December 31, 2019 were the result of foreign currency translation adjustments.

Amortization expense related to our intangible assets was \$51.4 million, \$51.9 million and \$53.7 million for the years ended December 31, 2019, 2018 and 2017, respectively. Estimated future amortization expense related to intangible assets held as of December 31, 2019, is as follows:

(in thousands)	Estimated Amortization
2020	\$ 50,147
2021	49,319
2022	47,820
2023	33,928
2024	23,271

NOTE 10-DEBT

Long-term debt consisted of the following:

(in thousands)	Decer	mber 31, 2019	December 31, 2018
Revolving credit facility	\$	_	\$ —
Term loan facility		265,000	370,000
6.375% Senior Notes due 2026		300,000	300,000
Finance lease obligations		4,530	4,584
Total		569,530	674,584
Net unamortized discounts and issuance costs		(9,709)	(11,377)
Total long-term debt	\$	559,821	\$ 663,207

Senior Notes

On May 3, 2018, and in connection with the Separation, we completed the offering of \$300.0 million in aggregate principal amount of 6.375% senior notes due May 2026 ("Senior Notes"). Interest on the Senior Notes is payable semi-annually in arrears on May 1 and November 1 of each year, commencing on November 1, 2018. Net proceeds of \$293.8 million from the offering were utilized to partially fund the \$700.0 million cash payment to Dover at the Separation and to pay fees and expenses incurred in connection with the Separation.

The terms of the Senior Notes are governed by the indenture dated as of May 3, 2018, between Apergy and Wells Fargo Bank, N.A., as trustee, and are guaranteed, on a senior unsecured basis, by the subsidiary guarantors of our senior secured credit facilities as described below. At any time prior to May 1, 2021, we may redeem all or part of the Senior Notes at a redemption price equal to 100% of the principal amount of the Senior Notes redeemed plus a premium, as defined in the indenture, plus accrued and unpaid interest. Beginning on or after May 1, 2021, we may redeem the Senior Notes, in whole or in part, at certain tiered redemption prices as defined in the indenture, plus accrued and unpaid interest. The Senior Notes are our senior unsecured obligations. The Senior Notes rank equally in right of payment with our future and existing senior debt but are effectively subordinated to our future and existing debt to the extent of the assets securing such senior debt. The Senior Notes rank senior in right of payment to all of our future subordinated debt.

Senior Secured Credit Facilities

On May 9, 2018, we entered into a credit agreement ("credit agreement") governing the terms of our senior secured credit facilities, consisting of (i) a 7-year senior secured term loan B facility ("term loan facility") and (ii) a 5-year senior secured revolving credit facility ("revolving credit facility," and together with the term loan facility, the "senior secured credit facilities"), with JPMorgan Chase Bank, N.A. as administrative agent. The net proceeds of the senior secured credit facilities were used (i) to pay fees and expenses in connection with the Separation, (ii) partially fund the cash payment to Dover and (iii) provide for working capital and other general corporate purposes. The senior secured credit facilities are jointly and severally guaranteed by Apergy and certain of Apergy's wholly owned U.S. subsidiaries ("guarantors"), on a senior secured basis, and are secured by substantially all tangible and intangible assets of Apergy and the guarantors, except for certain excluded assets.

At our election, outstanding borrowings under the senior secured credit facilities will accrue interest at a per annum rate of (i) LIBOR plus a margin or (ii) a base rate plus a margin. Interest on borrowings in which interest is accrued based on LIBOR plus an applicable margin is payable in three month increments. Interest on borrowings in which interest is accrued at a base rate plus an applicable margin is payable on the last business day of each quarter. The senior secured credit facilities contain a number of customary covenants that, among other things, limit or restrict the ability of Apergy and the restricted subsidiaries to, subject to certain qualifications and exceptions, perform certain activities which include, but are not limited to (i) incur additional indebtedness, (ii) make acquisitions and (iii) pay dividends or other payments in respect of our capital stock. Additionally, Apergy is required to maintain (a) a minimum interest coverage ratio, as defined in the credit agreement, of 2.75 to 1.00 and (b) a maximum total leverage ratio, as defined in the credit agreement, of 4.00 to 1.00 through the fiscal quarter ending June 30, 2019, then 3.75 to 1.00 through the fiscal quarter ending June 30, 2020, then 3.50 to 1.00 thereafter.

Term Loan Facility. The term loan facility had an initial commitment of \$415.0 million. The full amount of the term loan facility was funded on May 9, 2018. Amounts borrowed under the term loan facility that are repaid or prepaid may not be reborrowed. The term loan facility matures in May 2025. Net proceeds of \$408.7 million from the term loan facility were utilized to partially fund the cash payment to Dover at the Separation and to pay fees and expenses incurred in connection with the Separation.

The term loan is subject to mandatory amortization payments of 1% per annum of the initial commitment of \$415.0 million paid quarterly. Additionally, subject to certain exceptions, the term loan facility is subject to mandatory prepayments, including the amount equal to: 100% of the net cash proceeds of all non-ordinary course asset sales subject to (i) reinvestment periods and (ii) step-downs to 75% and 50% based on certain leverage targets; and 50% of excess cash flow, as defined in the credit agreement, with step-downs to 25% and 0% based on certain leverage targets. Apergy may voluntarily prepay amounts outstanding under the term loan facility in whole or in part at any time without premium or penalty, as defined in the credit agreement.

Revolving Credit Facility. The revolving credit facility consists of a 5-year senior secured facility with aggregate commitments in an amount equal to \$250.0 million, of which up to \$50.0 million is available for the issuance of letters of credit. Amounts repaid under the revolving credit facility may be re-borrowed. The revolving credit facility matures in May 2023.

As of December 31, 2019, aggregate contractual future principal payments on long-term debt are as follows:

(in thousands)	Principal Payments ⁽¹⁾
2020	\$ —
2021	—
2022	—
2023	—
2024	—
Thereafter	565,000
Total	\$ 565,000

(1) Principal payments included relate to our term loan facility and senior notes. See Note 14—Leases for future payments related to finance lease obligations.

NOTE 11—COMMITMENT AND CONTINGENCIES

Lease Commitments

See Note 14—Leases for a schedule of future minimum payments on our operating and finance lease arrangements.

Guarantees and Indemnifications

We have provided indemnities in connection with sales of certain businesses and assets, including representations and warranties, covenants and related indemnities for environmental health and safety, tax and employment matters. We do not have any material liabilities recorded for these indemnifications and are not aware of any claims or other information that would give rise to material payments under such indemnities.

In connection with the Separation, we entered into agreements with Dover that govern the treatment between Dover and us for certain indemnification matters and litigation responsibility. Generally, the separation and distribution agreement provides for

cross-indemnities principally designed to place financial responsibility for the obligations and liabilities of our business with us and to place financial responsibility for the obligations and liabilities of Dover's business with Dover. The separation and distribution agreement also establishes procedures for handling claims subject to indemnification and related matters. In addition, pursuant to the tax matters agreement, we have agreed to indemnify Dover and its affiliates against any and all tax-related liabilities incurred by them relating to the Separation and/or certain related transactions to the extent caused by an acquisition of Apergy stock or assets or by any other action or failure to act undertaken by Apergy or its affiliates.

During the year ended December 31, 2019, and pursuant to the provisions of the tax matters agreement with Dover, we recognized \$3.4 million of indemnification expense within "Selling, general and administrative expense" in the consolidated statements of income with respect to certain liabilities related to tax audits for the 2012-2016 tax years. We received notification in February 2020 that the tax audits and related assessments have been completed. The difference between the indemnification liability recorded at December 31, 2019 and the final settlement amount is not material to our consolidated financial statements.

As of December 31, 2019 and 2018, we had \$15.7 million and \$3.6 million, respectively, of outstanding letters of credit, surety bonds and guarantees which expire at various dates through 2026. These financial instruments are primarily maintained as security for insurance, warranty and other performance obligations. Generally, we would only be liable for the amount of these letters of credit and surety bonds in the event of default in the performance of our obligations, the probability of which we believe is remote.

Litigation and Environmental Matters

We are involved in various pending or potential legal actions in the ordinary course of our business. These proceedings primarily involve claims by private parties alleging injury arising out of use of our products, patent infringement, employment matters, and commercial disputes. We review the probable outcome of such proceedings, the costs and expenses reasonably expected to be incurred and accrued to-date, and the availability and extent of insurance coverage. We accrue a liability for legal matters that are probable and estimable, and as of December 31, 2019 and December 31, 2018, these liabilities were not material. Management is unable to predict the ultimate outcome of these actions because of the inherent uncertainty of litigation. However, management believes the most probable, ultimate resolution of these matters will not have a material adverse effect on our consolidated financial position, results of operations or cash flows.

Prior to the Separation, groundwater contamination was discovered at the Norris Sucker Rods plant site located in Tulsa, Oklahoma ("Norris"). Initial remedial efforts were undertaken at the time of discovery of the contamination and Norris has since coordinated monitoring and remediation with the Oklahoma Department of Environmental Quality ("ODEQ"). As part of the ongoing long-term remediation process, Norris contracted an engineering and consulting firm to develop a range of possible additional remedial alternatives in order to accelerate the remediation process and associated cost estimates for the work. In October 2019, we received the firm's preliminary remedial alternatives for consideration. Now that we have such recommendations, we expect to begin discussions with ODEQ regarding our proposed long-term remediation at the site and discussions with ODEQ remain ongoing, we cannot fully anticipate the timing, outcome or possible impact of such further remedial activities, financial or otherwise. At December 31, 2019, as a result of the recommendations in the report, we have accrued liabilities for these remediation efforts of approximately \$2.0 million with such charges recorded within "Selling, general and administrative expense" in the consolidated statements of income. Liabilities become probable and can be reasonably estimated.

NOTE 12—STOCKHOLDERS EQUITY

Capital stock—The following is a summary of our capital stock activity:

(in thousands)	Common Stock
December 31, 2017	
Issuance of common stock at the Separation	77,340
Shares issued—share-based compensation	13
December 31, 2018	77,353
Shares issued—share-based compensation	107
December 31, 2019	77,460

We have 250 million shares of preferred stock authorized, with a par value of \$0.01 per share. No shares of preferred stock were outstanding as of December 31, 2019, 2018 or 2017.

Accumulated other comprehensive loss—Accumulated other comprehensive loss consisted of the following:

(in thousands)	Foreign Currency Translation	Defined Pension and Other Post- Retirement Benefits	Accumulated Other Comprehensive Loss
December 31, 2017	\$ (21,936)	\$ (4,480)	\$ (26,416)
Reclassification adjustment for cumulative effect of change in accounting principle	_	(1,315)	(1,315)
Net transfer from Dover	—	(2,421)	(2,421)
Other comprehensive income (loss) before reclassifications, net of tax	(14,210)	856	(13,354)
Reclassification adjustment for net losses included in net income, net of tax	_	600	600
Other comprehensive income (loss), net of tax	(14,210)	1,456	(12,754)
December 31, 2018	(36,146)	(6,760)	(42,906)
Other comprehensive income (loss) before reclassifications, net of tax	936	(2,711)	(1,775)
Reclassification adjustment for net losses included in net income, net of tax	_	644	644
Other comprehensive income (loss), net of tax	936	(2,067)	(1,131)
December 31, 2019	\$ (35,210)	\$ (8,827)	\$ (44,037)

Reclassifications from accumulated comprehensive loss—Reclassification adjustments from accumulated other comprehensive loss to net income related to defined pension and other post-retirement benefits consisted of the following:

	Years Ended December 31,					Affected line items on the consolidated statements of														
(in thousands)	2019		2018	2017		2017		2017		2017		2017		2017		2017		2017		income
Amortization of actuarial loss and net transition obligation ⁽¹⁾	\$ 364	\$	330	\$	397	Other expense, net														
Amortization of prior service cost ⁽¹⁾	2		1		2	Other expense, net														
Settlement loss ⁽¹⁾	508		479			Other expense, net														
	874		810		399	Income before income taxes														
	(230)		(210)		(141)	Provision for (benefit from) income taxes														
	\$ 644	\$	600	\$	258	Net income														

(1) These accumulated comprehensive loss components are included in the computation of net periodic benefit cost (See Note 17—Employee Benefit Plans for additional information).

NOTE 13—REVENUE

Our revenue is substantially generated from product sales derived from the sale of drilling and production equipment. Service revenue is earned as technical advisory assistance and field services related to our products are provided. Lease revenue is derived from rental income of leased production equipment and is recognized ratably over the lease term.

The majority of our revenue is short cycle in nature, with shipments occurring within a year from the customer order date. A small portion of our revenue is derived from contracts extending over one year. Our payment terms generally range between 30 to 90 days and vary by the location of our businesses and the types and volumes of products manufactured and sold, among other factors. Costs incurred to obtain a customer contract are not material to us.

Disaggregation of Revenue

Revenue disaggregated by revenue type was as follows:

	Years Ended December 31,				
(in thousands)	 2019		2018		2017 ⁽¹⁾
Product revenue	\$ 1,000,630	\$	1,090,218	\$	922,692
Service revenue	82,021		83,334		63,386
Lease and other revenue	48,600		44,604		24,388
Total revenue	\$ 1,131,251	\$	1,218,156	\$	1,010,466

Revenue disaggregated by end market in each of our reportable segments was as follows:

	Years Ended December 31,				
(in thousands)		2019	2018	2017 ⁽¹⁾	
Drilling Technologies	\$	246,887	\$ 227,6	553	
Production & Automation Technologies:					
Artificial lift		687,607	725,584	602,2	287
Digital products		134,660	119,293	82,0)93
Other production equipment		63,117	88,754	103,5	564
Intra-segment eliminations		(1,020)	(1,040)) (5,1	31)
		884,364	932,591	782,8	313
Total revenue	\$	1,131,251	\$ 1,218,156	\$ 1,010,4	166

Revenue disaggregated by geography was as follows:

	Years Ended December 31,				
(in thousands)	 2019		2018		2017 ⁽¹⁾
United States	\$ 861,001	\$	959,167	\$	770,843
Canada	70,314		79,816		79,186
Middle East	60,064		53,516		48,899
Europe	51,965		38,669		28,112
Latin America	32,408		33,976		34,350
Australia	30,841		33,247		23,667
Asia-Pacific and other	24,658		19,765		25,409
Total revenue	\$ 1,131,251	\$	1,218,156	\$	1,010,466

⁽¹⁾ Revenue for the year ended December 31, 2017 is presented in accordance with accounting standards in effect prior to our adoption of ASU No. 2014-09 on January 1, 2018.

Revenue is attributed to regions based on the location of our direct customer.

Performance Obligations

The majority of our contracts have a single performance obligation which represents, in most cases, the equipment or product sold to the customer. Some contracts include multiple performance obligations, often satisfied at or near the same time, such as a product and the related installation, extended warranty and/or maintenance services. For contracts with multiple performance obligations, we allocate the transaction price to each performance obligation based on the estimated relative standalone selling prices of the promised goods or services underlying each performance obligation. We typically use observable prices to determine the stand-alone selling price of a performance obligation and utilize a cost plus margin approach when observable prices are not available.

Substantially all of our performance obligations are recognized at a point in time and are primarily related to our product revenue derived from the sale of drilling and production equipment. Revenue is recognized when control transfers to the customer upon shipment or completion of installation, testing, or certification as required under the contract. Leased equipment damaged in operation is generally charged to the customer and recognized as product revenue. Revenue is recognized over time for our service and lease offerings. Service revenue is recognized over time as we provide technical advisory assistance and field services related to our products.

Warranties

The majority of our contracts contain standard warranties in connection with the sale of a product to a customer which provide a customer assurance that the related product will function for a period of time as the parties intended. In addition to our standard warranties, we also offer extended warranties to our customers. Warranties that represent a distinct service are recognized as service revenue over the related warranty period.

Remaining performance obligations

As of December 31, 2019, we did not have any contracts with an original length of greater than a year from which revenue is expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied).

Contract Balances

The beginning and ending contract asset and contract liability balances from contracts with customers were as follows:

(in thousands)	ember 2019	ecember 51, 2018	J	anuary 1, 2018
Contract assets	\$ 285	\$ 4,571	\$	4,733
Contract liabilities	\$ 6,148	\$ 5,863	\$	3,912

Contract assets primarily relate to work completed for performance obligations that are satisfied over time and are recorded in "prepaid expenses and other current assets" on our consolidated balance sheets. Contract assets are transferred to receivables when the right to consideration becomes unconditional. Contract liabilities relate to our obligation to transfer goods or services to a customer for which we have received advance consideration (or an amount of consideration is due) from the customer. Current contract liabilities are recorded in other "accrued expenses and other current liabilities" on our consolidated balance sheets.

NOTE 14—LEASES

Lessee Accounting

We have operating and finance leases for real estate, vehicles and equipment. Certain of our vehicle leases include residual value guarantees, which have been excluded from the measurement of our lease liabilities as we do not believe it is probable the residual value guarantees will be paid at the end of the lease. Our real estate and vehicle leases generally include options to renew or extend the lease term at our discretion. These options are included in the measurement of our lease liabilities only when it is reasonably certain that we will exercise these rights.

Balance sheet presentation-Leases are presented in our consolidated balance sheet as follows:

(in thousands)	Balance Sheet Classification	December 31		
Right-of Use Assets:				
Finance leases	Property, plant, and equipment, net	\$	9,406	
Operating leases	Other non-current assets		24,289	
Total lease right-of-use assets			33,695	
Lease Liabilities:			-	
Finance leases - current	Current portion of finance lease liabilities		4,845	
Finance leases	Long-term debt		4,530	
Operating leases - current	Accrued expenses and other current liabilities		7,620	
Operating leases	Other long-term liabilities		19,419	
Total lease liabilities		\$	36,414	

Components of total lease cost—Components of total lease cost were as follows:

(in thousands)	Year ended December 31, 2019
Finance lease cost:	
Amortization of right-of-use assets	\$ 5,200
Interest on lease liabilities	439
Operating lease cost ⁽¹⁾	11,191
Short-term lease cost	3,996
Variable lease cost	1,049
Sublease income	(463
Total net lease cost	\$ 21,412

(1) Rent expense, net of sublease rental income, for our operating leases was \$16.8 million and \$15.6 million for the years ended December 31, 2018, and 2017, respectively.

Lease term and discount rate—Our weighted-average remaining lease term and weighted-average discount rate for operating and finance leases are as follows:

	December 31, 2019
Weighted-average remaining lease term (years):	
Operating lease	4.6
Finance lease	2.1
Weighted-average discount rate:	
Operating lease	6.7%
Finance lease	5.3%

Maturity Analysis—Future minimum payments, as determined in accordance with ASC 842, on our operating and finance leases as of December 31, 2019 are as follows:

(in thousands)	Operating	1	Finance
2020	\$ 9,096	\$	5,219
2021	5,939		3,488
2022	5,147		1,054
2023	4,456		155
2024	2,906		34
Thereafter	4,889		_
Total future minimum lease payments	 32,433		9,950
Interest included within lease payments	(5,394)		(575)
Total lease liabilities	\$ 27,039	\$	9,375

Lessor Accounting

Lease revenue is primarily generated from our electric submersible pump ("ESP") leased asset program within our Production & Automation Technologies segment. An ESP rental unit has components consisting of surface, downhole and cable equipment. Our lease arrangements generally allow customers to rent equipment on a daily basis with no stated end date. Customers may return the equipment at any point subsequent to the lease commencement date without penalty. We account for these arrangements as a daily renewal option beginning on the lease commencement date, with the lease term determined as the period in which it is reasonably certain the option will be exercised. The average length of these arrangements generally range from six months to nine months. Lease revenue was \$44.7 million for the year ended December 31, 2019.

Leased assets—Components of our leased asset program, all of which are included within "Property, plant, and equipment, net" on our consolidated balance sheet, are as follows:

(in thousands)	Useful life	Decem	ber 31, 2019
Cable equipment	1 year	\$	52,144
Downhole equipment	1 year		32,193
Surface equipment	5 years		69,566
Other lease equipment	3 - 5 years		16,090
			169,993
Accumulated depreciation			(71,968)
Leased assets, net		\$	98,025

Depreciation expense on our leased assets was \$37.1 million for the year ended December 31, 2019.

NOTE 15—RESTRUCTURING

We initiated various restructuring programs and incurred severance and other restructuring costs by segment as follows:

	Years Ended December 31,									
(in thousands)		2019		2018		2017				
Production & Automation Technologies	\$	4,467	\$	5,632	\$	6,921				
Drilling Technologies		710								
Total	\$	5,177	\$	5,632	\$	6,921				
Cost of goods and services	\$	3,592	\$	4,693	\$	6,332				
Selling, general and administrative expense		1,585		939		589				
Total	\$	5,177	\$	5,632	\$	6,921				

Restructuring charges incurred during years ended December 31, 2019, 2018, and 2017, included the following programs, which were substantially completed during those three years:

Production & Automation Technologies. Production & Automation Technologies incurred restructuring charges of \$4.5 million, \$5.6 million and \$6.9 million during the years ended December 31, 2019, 2018 and 2017, respectively, related to various programs, primarily focused on facility closures and consolidations, exit of certain nonstrategic product lines, and workforce reductions.

Drilling Technologies. Drilling Technologies recorded \$0.7 million in restructuring charges during the year ended December 31, 2019, related to various programs, primarily focused on workforce reductions to better align the cost base with the significantly lower demand environment.

NOTE 16—INCOME TAXES

Prior to the Separation, the operations of Apergy were included in Dover's U.S. combined federal and state income tax returns. Income tax expense and deferred tax balances are presented in these financial statements as if Apergy filed its own tax returns in each jurisdiction. These statements include tax losses and tax credits that may not reflect tax positions taken by Dover. In many cases, tax losses and tax credits generated by Apergy have been utilized by Dover.

Components of income before income taxes—Domestic and foreign components of income before income taxes were as follows:

	Years Ended December 31,										
(in thousands)	2019		2018		2017						
Domestic	\$ 51,073	\$	104,234	\$	65,923						
Foreign	8,113		17,119		22,432						
Income before income tax	\$ 59,186	\$	121,353	\$	88,355						

Provision for (benefit from) income taxes—The provision for (benefit from) income taxes consisted of:

	Years Ended December 31,									
(in thousands)		2019		2018		2017				
Current:										
U.S. federal	\$	15,327	\$	24,221	\$	42,690				
State and local		1,196		1,598		4,255				
Foreign		4,264		4,362		6,127				
Total current		20,787		30,181		53,072				
Deferred:										
U.S. federal		(12,815)		(2,255)		(73,544)				
State and local		(1,156)		2,735		(1,595)				
Foreign		(590)		(2,499)		(97)				
Total deferred		(14,561)		(2,019)		(75,236)				
Provision for (benefit from) income taxes	\$	6,226	\$	28,162	\$	(22,164)				

Effective income tax rate reconciliation—The effective income tax rate was different from the statutory U.S. federal income tax rate due to the following:

	Years Ended December 31,					
-	2019	2018	2017			
Statutory U.S. federal income tax rate	21.0%	21.0%	35.0 %			
Net difference resulting from:						
State and local taxes, net of federal income tax benefit	3.2	3.4	2.1			
Foreign withholding tax	1.8	0.3	_			
Foreign derived intangible income	(0.8)	(1.9)	_			
Foreign operations tax effect		0.3	(2.8)			
Research and experimentation tax credits	(1.2)	(0.6)	(0.7)			
Foreign tax credit	(8.0)	(1.5)	_			
Domestic manufacturing deduction			(4.4)			
Nondeductible expenses	2.5	0.7	0.7			
ESOP dividends		(0.1)	(0.2)			
Branch income	0.6		1.1			
Tax return to accrual adjustments	(9.4)		_			
State deferred taxes	(7.9)		_			
Changes due to the Tax Reform Act		_	(54.3)			
Global intangible low-taxed income		2.3	_			
Change in valuation allowance	9.0		_			
Other	(0.3)	(0.7)	(1.6)			
Effective income tax rate	10.5%	23.2%	(25.1)%			

Deferred tax assets and liabilities—Significant components of deferred tax assets and liabilities were as follows:

(in thousands)	December 31, 2019	December 31, 2018
Deferred tax assets attributable to:		
Accrued compensation	\$ 8,725	\$ 8,146
Accrued expenses, principally for state income taxes, interest and warranty	455	2,807
Net operating loss and other carryforwards	5,937	766
Inventories	1,380	—
Accounts receivable, principally due to allowance for doubtful accounts	1,699	973
Long-term liabilities, principally warranty and exit cost	6,178	505
Other assets	1,202	64
Deferred tax assets	25,576	13,261
Valuation allowance	(6,027)	(722)
Deferred tax assets, net of valuation allowance	\$ 19,549	\$ 12,539
Deferred tax liabilities attributable to:		
Inventories	\$ —	\$ (2,061)
Intangible assets, including goodwill	(66,736)	(83,436)
Property, plant and equipment	(36,873)	(25,520)
Deferred tax liabilities	(103,609)	(111,017)
Net deferred tax liabilities	\$ (84,060)	\$ (98,478)
Other non-current assets	\$ —	\$ 1,294
Deferred income taxes	(84,060)	(99,772)
	\$ (84,060)	\$ (98,478)

Effective Tax Rate. Our effective tax rate was 10.5% for 2019 compared to 23.2% for 2018. The year-over-year decrease in the effective tax rate was primarily driven by deferred tax benefits associated with the 2018 pre-Separation tax return and a reduction in the combined state tax rate from 2018 to 2019 reflecting lower than estimated state income tax.

Net operating loss carryforwards. As of December 31, 2019, our deferred tax asset balance included non-U.S. net operating loss carryforwards of \$1.8 million. This entire balance is available to be carried forward and will expire during the years 2024 through 2038. We have established valuation allowances by jurisdiction against the full amount of our net operating loss carryforwards as it is more likely that not these assets will not be realized.

Foreign tax credit carryforwards. As of December 31, 2019, our deferred tax asset balance included U.S. foreign tax credit carryforwards of \$4.2 million. This entire balance is available to be carried forward and will expire during 2029. We maintain a valuation allowance against the full amount of our U.S. foreign tax credit carryforwards as it is more likely than not that these assets will not be realized.

Tax Reform Act. The Tax Reform Act, enacted on December 22, 2017, reduced the U.S. corporate income tax rate from a maximum of 35% to a flat 21% rate, effective January 1, 2018. As a result of the reduction in the U.S. corporate income tax rate, we revalued our ending net deferred tax liabilities as of December 31, 2017, and recognized a provisional tax benefit of \$53.2 million. The Tax Reform Act also imposed a tax for a one-time deemed repatriation of post-1986 unremitted foreign earnings and profits through the year ended December 31, 2017. We recorded a provisional tax expense related to the deemed repatriation of \$3.9 million during the year ended December 31, 2017. We completed our accounting for the income tax effects of the Tax Reform Act in 2018 with no change to the provisional amounts recorded during the year ended December 31, 2017.

The GILTI provisions of the Tax Reform Act require us to include in our U.S. income tax return foreign subsidiary earnings in excess of an allowable return on the foreign subsidiary's tangible assets. We elected to account for GILTI tax in the period in which it is incurred, and therefore did not provide any deferred tax impacts of GILTI in our consolidated financial statements for the year ended December 31, 2019. The impact of GILTI (net of foreign tax credits) had an immaterial impact to our income tax provision for the year ended December 31, 2019.

Unrecognized tax benefits. We file federal, state, and local tax returns in the United States as well as foreign tax returns. We are routinely audited by the tax authorities in these jurisdictions, and a number of audits are currently underway. We believe all income tax uncertainties have been properly accounted. We have not recorded a liability for uncertain tax positions as of December 31, 2019 and 2018.

Undistributed earnings. As of December 31, 2019, we did not provide for deferred taxes associated with withholding taxes on our earnings of our subsidiaries that are permanently reinvested.

NOTE 17—EMPLOYEE BENEFIT PLANS

Prior to the Separation, certain of our employees participated in defined benefit and non-qualified plans sponsored by Dover, which included participants of other Dover subsidiaries. For periods prior to the Separation, we accounted for such plans as multi-employer benefit plans and recorded a proportionate share of the cost in our consolidated statements of income. For the years ended December 31, 2018 and 2017, costs associated with these multi-employer plans amounted to \$1.6 million, and \$4.6 million, respectively.

Dover provided a defined benefit pension plan for its eligible U.S. employees and retirees ("U.S. Pension Plan"). Shortly before the Separation, Apergy participants in the U.S. Pension Plan (other than Norris USW participants) fully vested in their benefits, and all participants ceased accruing benefits. In addition, Apergy did not assume any funding requirements or obligations related to the U.S. Pension Plan upon the Separation. Norris USW participants were moved to a new pension plan and continued to accrue benefits.

Dover also provided a defined benefit pension plan for its eligible salaried non-U.S. employees and retirees in Canada ("Canada Salaried Pension Plan"). The Canada Salaried Pension Plan, including all assets and liabilities, was transferred to Apergy at the Separation. Shortly before the Separation, all non-Apergy participants in this plan ceased accruing benefits nor were permitted to make contributions, as applicable. The non-Apergy participants may elect a lump sum cash payment post Separation that will be the responsibility of Apergy and will be funded out of the plan assets.

Dover provided to certain U.S. management employees, through non-qualified plans, supplemental retirement benefits in excess of qualified plan limits imposed by federal tax law. As of January 1, 2018, Apergy participants in these non-qualified plans no longer accrued benefits nor were permitted to make contributions, as applicable. We assumed the funding requirements and related obligations attributable to Apergy employees associated with these non-qualified plans upon the Separation. The non-qualified plans are unfunded and contributions are made as benefits are paid.

At the Separation, we recognized \$6.1 million of liabilities and \$2.4 million of accumulated other comprehensive loss, net of tax, related to plans previously accounted for as multi-employer plans prior to the Separation.

We sponsor non-qualified plans covering certain U.S. employees and retirees. The plans provide supplemental retirement benefits in excess of qualified plan limits imposed by federal tax law. The plans are closed to new hires and all benefits under the plans are frozen.

Obligations and Funded Status

The funded status of our benefit plans, together with the associated balances recognized in our consolidated balance sheets as of December 31, 2019 and 2018, were as follows:

	Pension	\$	Other post-retirement benefits				
(in thousands)	2019	2018	2019	2018			
Projected benefit obligation at January 1	\$ 15,948 \$	3,881	\$ 13,061 \$	5 14,197			
Service cost	760	598					
Interest cost	588	455	503	448			
Benefits paid	(328)	(370)	(1,751)	(1,022)			
Actuarial (gain)/loss (1)	2,784	(530)	1,398	(562)			
Liabilities assumed from the Separation		14,348	_	_			
Amendments	250						
Settlements and curtailments	(2,156)	(1,763)	_	_			
Foreign currency translation and other	503	(671)					
Projected benefit obligation at December 31	18,349	15,948	13,211	13,061			
Fair value of plan assets at January 1	15,130	3,993	—				
Actual return on plan assets	1,888	(76)	—				
Company contributions	1,486	4,740	1,751	1,022			
Benefits paid	(328)	(370)	(1,751)	(1,022)			
Assets assumed from the Separation		9,227	—				
Settlements and curtailments	(2,156)	(1,763)	—				
Foreign currency translation and other	467	(621)	—				
Fair value of plan assets at December 31	16,487	15,130					
Funded (unfunded) status at December 31	\$ (1,862) \$	(818)	\$ (13,211) \$	6 (13,061)			
Other non-current assets	\$ 18 \$	146	\$ _ \$	S —			
Accrued compensation and employee benefits	—		(1,592)	(1,598)			
Other long-term liabilities	(1,880)	(964)	(11,619)	(11,463)			
Funded (unfunded) status	\$ (1,862) \$	(818)	\$ (13,211) \$	6 (13,061)			
Accumulated benefit obligations	\$ 16,235 \$	14,076	\$ 13,211 \$	5 13,061			

⁽¹⁾ Actuarial losses incurred for year ended December 31, 2019 primarily relate to change in discount rate assumption utilized in estimating the projected benefit obligation.

The following table summarizes the pre-tax amounts in accumulated other comprehensive loss as of December 31, 2019 and 2018 that have not been recognized as components of net periodic benefit cost:

	Pensions					Other post-retirement benefits			
(in thousands)		2019		2018		2019		2018	
Pre-tax amounts recognized in accumulated other comprehensive loss (income):									
Unrecognized net actuarial loss	\$	4,699	\$	3,586	\$	6,883	\$	5,685	
Unrecognized prior service cost		274		25					
Unrecognized net transition asset		(10)		(8)					
Accumulated other comprehensive loss	\$	4,963	\$	3,603	\$	6,883	\$	5,685	

The following table summarizes the accumulated benefit obligations and fair values of plan assets where the accumulated benefit obligation exceeds the fair value of plan assets as of December 31, 2019 and 2018:

	Pensions O				ther post-reti	irem	ent benefits
(in thousands)	2019		2018		2019		2018
Aggregate accumulated benefit obligation	\$ 4,108	\$	3,722	\$	13,211	\$	13,061
Aggregate fair value of plan assets	3,449		3,672				

The following table summarizes the projected benefit obligations and fair values of plan assets where the projected benefit obligation exceeds the fair value of plan assets as of December 31, 2019 and 2018:

	 Pensions				ther post-reti	rem	ent benefits
(in thousands)	2019		2018		2019		2018
Aggregate projected benefit obligation	\$ 13,834	\$	12,334	\$	13,211	\$	13,061
Aggregate fair value of plan assets	11,954		11,370				

Net Periodic Benefit Cost

Components of the net periodic benefit cost were as follows:

	Pensions Other post-retirement bene					enefits			
(in thousands)		2019		2018		2017	2019	 2018	2017
Service cost	\$	760	\$	598	\$	106	\$ _	\$ — \$	
Interest cost		588		455		137	503	448	621
Expected return on plan assets		(733)		(593)		(198)			
Amortization of prior service cost		2		1		2			
Amortization of actuarial loss		162		127		68	200	202	330
Amortization of transition obligation		2		1		(1)			
Settlement loss		508		479		—	—		
Other									(1)
Net periodic benefit cost	\$	1,289	\$	1,068	\$	114	\$ 703	\$ 650 \$	950

Assumptions

The following weighted-average assumptions were used to determine the benefit obligations:

	Pensio	ns	Other post-retirement bene			
	2019	2018	2019	2018		
Discount rate	3.11%	3.90%	3.00%	4.10%		

The following weighted-average assumptions were used to determine the net periodic benefit cost:

		Pensions		Other pos	t-retirement b	enefits
	2019	2018	2017	2019	2018	2017
Discount rate	3.85%	3.68%	3.75%	4.10%	3.35%	3.55%
Expected return on plan assets	4.89%	4.80%	5.50%			

Plan Assets

The primary financial objective of the plans is to secure participant retirement benefits. Accordingly, the key objective in the plans' financial management is to promote stability and, to the extent appropriate, growth in the funded status. We have retained professional investment managers to manage the plans' assets and implement the investment process. The investment managers have the authority and responsibility to select appropriate investments in the asset classes specified by the terms of their applicable prospectus or investment manager agreements with the plans. The assets of the plans are invested to achieve an appropriate return for the plans consistent with a prudent level of risk. The asset return objective is to achieve, as a minimum over time, the passively managed return earned by market index funds, weighted in the proportions outlined by the asset class exposures identified in the plans' strategic allocation.

Our pension plan assets measured at fair value on a recurring basis are presented below. Refer to "Fair value measurements" in Note 1 to these consolidated financial statements for a description of the levels.

								Pen	sior	IS						
	_	December 31, 2019						December 31, 2018								
(in thousands)	Ι	Level 1]	Level 2	I	Level 3		Total	Ι	Level 1	Ι	Level 2		Level 3		Total
Mutual funds	\$	5,170	\$	7,868	\$		\$	13,038	\$	4,775	\$	6,683	\$		\$	11,458
Cash and cash equivalents		3,449						3,449		3,672						3,672
Total	\$	8,619	\$	7,868	\$	_	\$	16,487	\$	8,447	\$	6,683	\$	_	\$	15,130

Mutual funds are categorized as either Level 1 or 2 depending on the nature of the observable inputs. We had no Level 3 plan assets as of December 31, 2019 and 2018. The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values.

Expected contributions in 2020 are \$1.1 million. The non-qualified plans are unfunded and contributions are made as benefits are paid.

Estimated Future Benefit Payments

Estimated future benefit payments to retirees from our various pension and other post-retirement benefit plans are outlined in the table below. Actual benefit payments may differ from these expected payments.

(in thousands)	Pensions	Other Post-retirement benefits
2020	\$ 1,139	\$ 1,592
2021	857	1,424
2022	941	1,295
2023	785	1,167
2024	782	1,040
2025-2029	5,427	3,557

Defined Contribution Plan

We offer a defined contribution retirement plan which covers the majority of our U.S. employees, as well as employees in certain other countries. Expense relating to defined contribution plans was \$9.0 million, \$9.6 million and \$8.2 million for the years ended December 31, 2019, 2018 and 2017, respectively.

NOTE 18—EQUITY AND CASH INCENTIVE PROGRAMS

Prior to the Separation, Dover granted share-based awards to its officers and other key employees, including certain Apergy individuals. The principal awards issued under Dover's stock-based compensation plans included stock options, stock-settled stock appreciation rights, restricted stock units and performance share awards. All awards granted under the program consisted of Dover common shares and are not necessarily indicative of the results that Apergy would have experienced as a stand-alone public company for the periods presented prior to the Separation. Effective with the Separation, outstanding Dover share-based awards were converted to Apergy share-based awards, with the exception of outstanding Dover performance share awards that relate to performance periods ending after the Separation. Such performance share awards were cancelled effective with the Separation.

In connection with the Separation, the Board of Directors of Apergy adopted the Apergy Corporation 2018 Equity and Cash Incentive Plan ("2018 Plan"). The 2018 Plan was also approved by Dover in its capacity as the sole stockholder of Apergy at the time of adoption. A total of 6.5 million shares of common stock are reserved for issuance under the 2018 Plan, subject to customary adjustments arising from stock splits and other similar changes.

The 2018 Plan authorized the grant of stock options, stock-settled stock appreciation rights ("SARs"), restricted stock awards, restricted stock units, performance share awards, cash performance awards, directors' shares and deferred stock units. The Apergy Compensation Committee determines the exercise price for options and the base price of SARs, which may not be less than the fair market value of Apergy common stock on the date of grant. Generally, stock options or SARs vest after three years of service and expire at the end of ten years. Performance share awards vest if Apergy achieves certain pre-established performance targets based on specified performance criteria over a performance period of not less than three years.

Stock-based compensation expense is reported within "selling, general and administrative expense" in the consolidated statements of income. Stock-based compensation expense relating to all stock-based incentive plans was as follows:

	Years Ended December 31,						
		2019		2018	2017		
Stock-based compensation expense	\$	10,250	\$	5,375 \$	2,236		
Tax benefit		(2,153)		(1,141)	(774)		
Stock-based compensation expense, net of tax	\$	8,097	\$	4,234 \$	1,462		

SARs

We did not issue SARs during 2019 and 2018. In 2017, SARs were granted by Dover and the fair value of each SAR granted was estimated on the grant date using a Black-Scholes option-pricing model utilizing the following assumptions:

	 2017
Risk-free interest rate	 1.80%
Dividend yield	2.27%
Expected life (years)	4.6
Volatility	21.90%
Grant price	\$ 79.28
Fair value at date of grant	\$ 12.63

A summary of activity relating to SARs outstanding for the year ended December 31, 2019, is as follows:

		SA	ARs	
	Shares	ighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at January 1, 2019	477,950	\$ 29.43		
Forfeited / expired	(7,030)	34.13		
Exercised	(48,559)	25.95		
Outstanding at December 31, 2019	422,361	29.75	6.1	\$ 1,799
Exercisable at December 31, 2019	253,901	\$ 26.84	5.4	\$ 1,799

Unrecognized compensation expense related to SARs not yet exercisable was not material to our consolidated financial statements as of December 31, 2019.

Other information regarding the exercise of SARs is presented below:

(in thousands)	2019	2018	2017
SARs:			
Fair value of SARs that became exercisable	\$ 662	\$ 310	\$ 1,239
Aggregate intrinsic value of SARs exercised	629	40	2,787

Performance Share Awards - Dover

Performance shares granted by Dover were cancelled effective with the Separation. Performance share awards granted prior to the Separation were considered performance condition awards as attainment was based on Dover's performance relative to established internal metrics. The fair value of these awards was determined using Dover's closing stock price on the date of grant. The expected attainment of the internal metrics for these awards was analyzed each reporting period, and the related expense was adjusted based on expected attainment. The cumulative effect on current and prior periods of a change in expected attainment is recognized in stock-based compensation expense in the period of change.

The fair value and average attainment used in determining stock-based compensation expense of the performance shares issued in 2017 are as follows:

Performance shares:	2017
Fair value per share at date of grant	\$ 79.28
Average attainment rate reflected in expense	0.0%

Performance Share Awards - Apergy

Market Vesting Conditions

We granted 46,459 and 86,817 performance share awards subject to market vesting conditions during 2019 and 2018, respectively, under the 2018 Plan. These awards vest if Apergy achieves certain pre-established performance targets based on specified performance criteria over a performance period of not less than three years. The performance targets for these awards are classified as a market vesting condition, therefore the compensation cost was calculated using the grant date fair market value, as estimated using a Monte Carlo simulation, and is not subject to change based on future events. The fair value used in determining stock-based compensation expense of the performance share awards issued in 2019 and 2018 is as follows:

Performance shares:	 2019	2018
Fair value per share at date of grant	\$ 57.43	\$ 56.32

Performance Vesting Conditions

We granted 46,460 performance share awards subject to performance vesting conditions during 2019 under the 2018 Plan. These awards are considered performance condition awards as attainment is based on Apergy's performance relative to established internal metrics. The fair value of these awards was determined using Apergy's closing stock price on the date of grant. The expected attainment of the internal metrics for these awards is analyzed each reporting period, and the related expense is adjusted based on expected attainment. The cumulative effect on current and prior periods of a change in expected attainment is recognized in stock-based compensation expense in the period of change.

The fair value and average attainment used in determining stock-based compensation expense of the performance shares issued in 2019 are as follows:

Performance shares:	2019
Fair value per share at date of grant	\$ 40.22
Average attainment rate reflected in expense	100.0%

A summary of activity for Apergy's performance share awards for the year ended December 31, 2019, is as follows:

	Shares	Weighted- Average Grant-Date Fair Value
Unvested at January 1, 2019	86,817	\$ 56.32
Granted	92,919	48.83
Forfeited	(5,010)	52.60
Vested		
Unvested at December 31, 2019	174,726	\$ 52.44

Unrecognized compensation expense related to unvested performance share awards as of December 31, 2019, was \$5.3 million, which will be recognized over a weighted average period of 1.8 years.

Restricted Stock Units

Restricted stock units may be granted at no cost to certain officers and key employees. Restricted stock units generally vest over a three-or-four-year period.

A summary of activity for restricted stock units for the year ended December 31, 2019, is as follows:

	Shares	Weighted- Average Grant-Date Fair Value
Unvested at January 1, 2019	414,840	\$ 41.91
Granted	183,143	37.82
Forfeited	(16,498)	40.74
Vested	(141,437)	39.35
Unvested at December 31, 2019	440,048	\$ 41.07

Unrecognized compensation expense relating to unvested restricted stock as of December 31, 2019, was \$12.6 million, which will be recognized over a weighted average period of 1.5 years.

NOTE 19—FAIR VALUE MEASUREMENTS

We had no outstanding derivative contracts as of December 31, 2019 and 2018. Other assets and liabilities measured at fair value on a recurring basis as of December 31, 2019 and 2018, were not significant; thus, no fair value disclosures are presented.

The fair value, based on Level 1 quoted market rates, of our Senior Notes was approximately \$316.7 million as of December 31, 2019, as compared to the \$300.0 million face value of the debt. The fair value, based on Level 2 quoted market rates, of our term loan facility was approximately \$266.2 million as of December 31, 2019, as compared to the \$265.0 million face value of the debt.

The carrying amounts of cash and cash equivalents, trade receivables, and accounts payable, as well as amounts included in other current assets and other current liabilities that meet the definition of financial instruments, approximate fair value due to their short-term nature.

Impairment of Assets Held For Sale

In March 2019, we classified our pressure vessel manufacturing business in our Production & Automation Technologies segment as held for sale and recognized an impairment loss of \$1.7 million to adjust the carrying amount of the disposal group to fair value. The fair value was determined by a negotiated selling price through a non-binding expression of interest with a third party, a Level 3 input. We completed the sale of our pressure vessel manufacturing business in June 2019. See Note 6— Dispositions for additional information.

Acquisition

On July 31, 2019, Apergy entered into an asset purchase agreement to acquire certain assets, which meet the definition of a business. See Note 5—Acquisitions for additional information. The fair value of the contingent consideration is based on the probability of the acquired business achieving an eighteen month revenue target, a Level 3 input. As of December 31, 2019, the estimated fair value of the contingent consideration liability was \$1.5 million, as attainment of the revenue target was deemed probable.

Credit Risk

By their nature, financial instruments involve risk, including credit risk, for non-performance by counterparties. Financial instruments that potentially subject us to credit risk primarily consist of trade receivables. We manage credit risk on trade receivables by transacting only with what management believes are financially secure counterparties, requiring credit approvals and credit limits, and monitoring counterparties' financial condition. Our maximum exposure to credit loss in the event of non-performance by a customer is limited to the amount drawn and outstanding on account. Allowances for losses on trade receivables are established based on collectability assessments.

NOTE 20—SEGMENT INFORMATION

We report our results of operations in the following reporting segments: Production & Automation Technologies and Drilling Technologies. Management's determination of our reporting segments was made on the basis of our strategic priorities within each segment and corresponds to the manner in which our chief operating decision maker reviews and evaluates operating performance to make decisions about resources to be allocated to the segment. In addition to our strategic priorities, segment reporting is also based on differences in the products and services we provide.

Our reporting segments are:

- Production & Automation Technologies—designs, manufactures, markets and services a full range of artificial lift equipment, end-to-end digital automation solutions, as well as other production equipment. Production & Automation Technologies' products are sold under a collection of brands including Harbison-Fischer, Norris, Alberta Oil Tool, Oil Lift Technology, PCS Ferguson, Pro-Rod, Upco, Unbridled ESP, Norriseal-Wellmark, Quartzdyne, Spirit, Theta, Timberline and Windrock.
- Drilling Technologies—designs, manufactures and markets polycrystalline diamond cutters and bearings for use in oil and gas drill bits under the US Synthetic brand.

Segment revenue and segment operating profit

	Years Ended December 31,					31,
(in thousands)		2019		2018		2017
Segment revenue:						
Production & Automation Technologies	\$	884,364	\$	932,591	\$	782,813
Drilling Technologies		246,887		285,565		227,653
Total revenue	\$	1,131,251	\$	1,218,156	\$	1,010,466
Income before income taxes:						
Segment operating profit:						
Production & Automation Technologies	\$	54,024	\$	74,187	\$	24,567
Drilling Technologies		73,497		98,620		74,317
Total segment operating profit		127,521		172,807		98,884
Corporate expense and other ⁽¹⁾		29,034		23,806		9,666
Interest expense, net		39,301		27,648		863
Income before income taxes	\$	59,186	\$	121,353	\$	88,355

(1) Corporate expense and other includes costs not directly attributable or allocated to our reporting segments such as corporate executive management and other administrative functions, costs related to our Separation from Dover and the results attributable to our noncontrolling interest.

Segment assets

	Dece	ember 31,
(in thousands)	2019	2018
Production & Automation Technologies	\$ 1,668,31	9 \$ 1,702,396
Drilling Technologies	209,88	0 231,438
Corporate	44,62	6 39,282
Total assets	\$ 1,922,82	5 \$ 1,973,116

Geographic segment information

	December 31,		
(in thousands)	2019		2018
Property, plant, and equipment, net:			
United States	\$ 238,464	\$	233,809
Middle East	2,760		3,616
Canada	5,749		6,299
Australia	789		254
Latin & South America	419		350
Total property, plant, and equipment, net	\$ 248,181	\$	244,328

See Note 13—Revenue for information related to revenue by geography and end markets.

Other business segment information

	Capital Expenditures Years Ended December 31,						on & Amor ded Deceml		
(in thousands)		2019		2018		2017	2019	2018	2017
Production & Automation Technologies	\$	30,291	\$	45,190	\$	28,483	\$ 110,131	\$ 112,955	\$ 100,912
Drilling Technologies		9,061		11,123		8,171	9,263	11,037	11,950
Corporate		428		1,605		_	544	469	
Total	\$	39,780	\$	57,918	\$	36,654	\$ 119,938	\$ 124,461	\$ 112,862

NOTE 21—CONDENSED CONSOLIDATING FINANCIAL INFORMATION

Apergy Corporation has senior notes outstanding, the payment obligations of which are fully and unconditionally guaranteed by certain 100-percent-owned subsidiaries of Apergy on a joint and several basis. The following financial information presents the results of operations, financial position and cash flows for:

- Apergy Corporation (issuer)
- 100-percent-owned guarantor subsidiaries
- All other non-guarantor subsidiaries
- Adjustments and eliminations necessary to present Apergy results on a consolidated basis.

This condensed consolidating financial information should be read in conjunction with the accompanying consolidated financial statements and related notes. As disclosed in Note 1—Basis Of Presentation And Summary Of Significant Accounting Policies, we have revised prior period financial statements for the years ended December 31, 2018 and 2017. The errors, which were immaterial to our previously filed consolidated financial statements, are not material to this disclosure. We have revised the Condensed Consolidating Statements of Income for the years ended December 31, 2018 and 2017 for Apergy Corporation, Subsidiary Guarantors, Subsidiary Non-guarantors, and Adjustments and eliminations. We have revised the Condensed Consolidating Balance Sheet as of December 31, 2018 for Apergy Corporation, Subsidiary Guarantors, Subsidiary Non-guarantors.

	Year Ended December 31, 2019						
(in thousands)	Apergy Corporation	Subsidiary Guarantors	Subsidiary Non- guarantors	Adjustments and eliminations	Total		
Product revenue	\$ —	\$ 884,355	\$ 116,275	\$ _ \$	1,000,630		
Other revenue	—	120,677	53,830	(43,886)	130,621		
Total revenue		1,005,032	170,105	(43,886)	1,131,251		
Cost of goods and services		654,440	143,962	(44,255)	754,147		
Gross profit		350,592	26,143	369	377,104		
Selling, general and administrative expense	271	251,834	23,909		276,014		
Interest expense, net	38,673	594	34		39,301		
Other expense, net		937	1,666		2,603		
Income (loss) before income taxes and equity in earnings of affiliates	(38,944)	97,227	534	369	59,186		
Provision for (benefit from) income taxes	(8,906)	13,934	1,122	76	6,226		
Income (loss) before equity in earnings of affiliates	(30,038)	83,293	(588)	293	52,960		
Equity in earnings of affiliates	82,202	4,313	9,294	(95,809)			
Net income	52,164	87,606	8,706	(95,516)	52,960		
Net income attributable to noncontrolling interest	_	_	796	_	796		
Net income attributable to Apergy	\$ 52,164	\$ 87,606	\$ 7,910	\$ (95,516) \$	52,164		
Comprehensive income attributable to Apergy	\$ 51,033	\$ 86,077	\$ 8,296	\$ (94,373) \$	51,033		

	Year Ended December 31, 2018						
(in thousands)	Apergy Corporation	Subsidiary Guarantors	Subsidiary Non- guarantors	Adjustments and eliminations	Total		
Product revenue	\$ —	\$ 965,057	\$ 125,161	\$ _ \$	1,090,218		
Other revenue	—	126,508	45,112	(43,682)	127,938		
Total revenue		1,091,565	170,273	(43,682)	1,218,156		
Cost of goods and services		696,874	147,255	(42,977)	801,152		
Gross profit		394,691	23,018	(705)	417,004		
Selling, general and administrative expense	1,614	241,796	21,537		264,947		
Interest expense, net	26,973	633	42		27,648		
Other expense, net		1,322	1,733	1	3,056		
Income before income taxes and equity in earnings of affiliates	(28,587)	150,940	(294)	(706)	121,353		
Benefit from income taxes	(8,727)	38,395	(1,358)	(148)	28,162		
Income before equity in earnings of affiliates	(19,860)	112,545	1,064	(558)	93,191		
Equity in earnings of affiliates	112,597	25,652	45,308	(183,557)			
Net income	92,737	138,197	46,372	(184,115)	93,191		
Net income attributable to noncontrolling interest	_	_	454	_	454		
Net income attributable to Apergy	\$ 92,737	\$ 138,197	\$ 45,918	\$ (184,115) \$	92,737		
Comprehensive income attributable to Apergy	\$ 79,983	\$ 136,893	\$ 34,466	\$ (171,359) \$	79,983		

	Year Ended December 31, 2017						
(in thousands)	Apergy Corporation	Subsidiary Guarantors	Subsidiary Non- guarantors	Adjustments and eliminations	Total		
Product revenue	\$ —	\$ 799,337	\$ 123,355	\$ _ \$	922,692		
Other revenue		82,725	41,152	(36,103)	87,774		
Total revenue		882,062	164,507	(36,103)	1,010,466		
Cost of goods and services		585,592	140,717	(35,911)	690,398		
Gross profit		296,470	23,790	(192)	320,068		
Selling, general and administrative expense		201,797	19,610		221,407		
Interest expense, net		834	29		863		
Other expense, net		10,169	(726)		9,443		
Income before income taxes and equity in loss of affiliates		83,670	4,877	(192)	88,355		
Benefit from income taxes		(10,510)	(11,587)	(67)	(22,164)		
Income before equity in loss of affiliates		94,180	16,464	(125)	110,519		
Equity in earnings of affiliates	109,589	21,294	10,335	(141,218)			
Net income	109,589	115,474	26,799	(141,343)	110,519		
Net income attributable to noncontrolling interest			930	_	930		
Net income attributable to Apergy	\$ 109,589	\$ 115,474	\$ 25,869	\$ (141,343) \$	109,589		
Comprehensive income attributable to Apergy	\$ 116,830	\$ 118,354	\$ 30,231	\$ (148,585) \$	116,830		

	December 31, 2019						
(in thousands)	Apergy Corporation	Subsidiary Guarantors	Subsidiary Non- guarantors	Adjustments and eliminations	Total		
Assets							
Cash and cash equivalents	\$ 108	\$ 21,705	\$ 13,477	\$ \$	\$ 35,290		
Receivables	572	190,101	39,000	(9,799)	219,874		
Inventories, net		181,596	31,015	(1,269)	211,342		
Prepaid expenses and other current assets	40	25,571	1,323	—	26,934		
Total current assets	720	418,973	84,815	(11,068)	493,440		
Property, plant and equipment, net	—	236,295	11,886	—	248,181		
Goodwill		639,281	271,832		911,113		
Advances due from affiliates	495,699	20,582	87,686	(603,967)			
Investment in subsidiaries	1,095,712	683,003	552,386	(2,331,101)			
Intangible assets, net	_	168,711	69,996	_	238,707		
Other assets	3,074	20,426	7,884		31,384		
Total assets	1,595,205	2,187,271	1,086,485	(2,946,136)	1,922,825		
Liabilities and Equity							
Accounts payable	60	102,120	27,910	(9,799)	120,291		
Accrued compensation and employee benefits	_	31,974	6,496		38,470		
Current portion of finance lease liabilities		4,745	100	_	4,845		
Accrued expenses and other current liabilities	3,639	28,627	5,078	(1,269)	36,075		
Total current liabilities	3,699	167,466	39,584	(11,068)	199,681		
Advances due to affiliates		583,386	20,581	(603,967)			
Long-term debt	555,292	4,388	141	_	559,821		
Deferred income taxes		68,286	15,774	—	84,060		
Other long-term liabilities	—	36,610	6,439	—	43,049		
Total liabilities	558,991	860,136	82,519	(615,035)	886,611		
Equity:							
Stockholders' capital	1,036,214	1,336,012	1,035,872	(2,331,101)	1,076,997		
Accumulated other comprehensive loss	_	(8,877)	(35,160)	—	(44,037)		
Total stockholders' equity	1,036,214	1,327,135	1,000,712	(2,331,101)	1,032,960		
Noncontrolling interest			3,254		3,254		
Total equity	1,036,214	1,327,135	1,003,966	(2,331,101)	1,036,214		
Total liabilities and equity	\$ 1,595,205	\$ 2,187,271	\$ 1,086,485	\$ (2,946,136) \$	\$ 1,922,825		

	December 31, 2018					
(in thousands)	Apergy Corporation	Subsidiary Guarantors	Subsidiary Non- guarantors	Adjustments and eliminations	Total	
Assets						
Cash and cash equivalents	\$ 108	. ,			,	
Receivables	1,743	231,718	35,019	(17,044)	251,436	
Inventories, net		190,117	30,936	(1,632)	219,421	
Prepaid expenses and other current assets	24,583	15,387	3,106	(24,542)	18,534	
Total current assets	26,434	464,755	83,252	(43,218)	531,223	
Property, plant and equipment, net	—	231,373	12,955	—	244,328	
Goodwill		633,771	271,214		904,985	
Advances due from affiliates	600,802	14,185	82,889	(697,876)		
Investment in subsidiaries	1,008,325	682,545	540,622	(2,231,492)		
Intangible assets, net		198,531	85,157	—	283,688	
Other assets	3,996	2,818	2,078	_	8,892	
Total assets	1,639,557	2,227,978	1,078,167	(2,972,586)	1,973,116	
Liabilities and Equity						
Accounts payable	22	123,812	33,335	(17,044)	140,125	
Accrued compensation and employee benefits		35,278	5,268	_	40,546	
Current portion of finance lease liabilities		4,320	_	_	4,320	
Accrued expenses and other current liabilities	4,929	46,458	3,548	(26,174)	28,761	
Total current liabilities	4,951	209,868	42,151	(43,218)	213,752	
Intercompany notes payable		683,700	14,176	(697,876)		
Long-term debt	658,623	4,462	122	_	663,207	
Deferred income taxes		79,344	20,428		99,772	
Other long-term liabilities	_	19,441	961		20,402	
Total liabilities	663,574	996,815	77,838	(741,094)	997,133	
Equity:						
Stockholders' capital	975,983	1,238,517	1,033,423	(2,231,492)	1,016,431	
Accumulated other comprehensive loss	_	(7,354)	(35,552)		(42,906)	
Total stockholders' equity	975,983	1,231,163	997,871	(2,231,492)	973,525	
Noncontrolling interest			2,458	(_,, , , , , , , , , , , , , , , , , ,	2,458	
Total equity	975,983	1,231,163	1,000,329	(2,231,492)	975,983	
Total liabilities and equity	\$ 1,639,557		·		-	
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	Year Ended December 31, 2019							
(in thousands)	Apergy Corporation	Subsidiary Guarantors	Subsidiary Non- guarantors	Adjustments and eliminations	Total			
Cash provided (required) by operating activities	\$ (48,970)	\$ 204,877	\$ (8)	\$ —	\$ 155,899			
Cash provided (required) by investing activities:								
Capital expenditures		(37,725)	(2,055)		(39,780)			
Proceeds from sale of property, plant and equipment	_	4,580	18	_	4,598			
Payment on sale of business		(2,194)			(2,194)			
Acquisitions	_	(12,500)	_	_	(12,500)			
Net cash required by investing activities		(47,839)			(49,876)			
			· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·			
Cash provided (required) by financing activities:								
Proceeds from long-term debt, net of discounts	36,500	_	_	_	36,500			
Repayment of long-term debt	(141,500)				(141,500)			
Advances due to (from) affiliates	153,970	(155,578)	1,608	—				
Payments on capital lease obligations		(5,493)	(62)		(5,555)			
Payments related to taxes withheld on stock-based	_	(1,795)	(53)	_	(1,848)			
Net cash provided (required) by financing activities	48,970	(162,866)	1,493		(112,403)			
Effect of exchange rate changes on cash and cash equivalents			(162)		(162)			
Net (increase) decrease in cash and cash equivalents	_	(5,828)	(714)		(6,542)			
Cash and cash equivalents at beginning of period	108	27,533	14,191	_	41,832			
Cash and cash equivalents at end of period	\$ 108	\$ 21,705	\$ 13,477	\$ —	\$ 35,290			

	Year Ended December 31, 2018											
(in thousands)		pergy poration		ubsidiary uarantors		Subsidiary Non- guarantors	Adjustments and eliminations		Total			
Cash provided (required) by operating activities	\$	(51,728)	\$	200,907	\$	15,720	\$ (999)	\$	163,900			
Cash provided (required) by investing activities:												
Capital expenditures				(55,070)		(2,848)			(57,918)			
Proceeds from sale of property, plant and equipment		_		1,127		60	_		1,187			
Proceeds from the sale of businesses		_		2,473					2,473			
Purchase price adjustments on acquisition		_		_		53	_		53			
Net cash required by investing activities				(51,470)		(2,735)		_	(54,205)			
				/								
Cash provided (required) by financing activities:												
Proceeds from long-term debt, net of discounts		713,963		_			_		713,963			
Payment of debt issue costs		(16,006)		_					(16,006)			
Repayment of long-term debt		(45,000)				—	—		(45,000)			
Advances due to (from) affiliates		(600,802)		621,109		(20,307)						
Distributions to Dover Corporation, net		(319)		(744,258)		7,021	999		(736,557)			
Distribution to noncontrolling interest				_		(2,720)			(2,720)			
Payments on capital lease obligations		_		(4,518)					(4,518)			
Net cash provided (required) by financing activities		51,836		(127,667)		(16,006)	999	_	(90,838)			
Effect of exchange rate changes on cash and cash equivalents		_		_		(737)	_		(737)			
Net increase (decrease) in cash and cash equivalents		108		21,770		(3,758)	_		18,120			
Cash and cash equivalents at beginning of period				5,763		17,949	_		23,712			
Cash and cash equivalents at end of period	\$	108	\$	27,533	\$	14,191	\$ —	\$	41,832			

	Year Ended December 31, 2017												
(in thousands)	Apergy Corporation	Subsidiary Guarantors	Subsidiary Non- guarantors	Adjustments and eliminations	Total								
Cash provided by operating activities	\$ —	\$ 64,422	\$ 11,561	\$ 67	\$ 76,050								
Cash provided (required) by investing activities:													
Capital expenditures		(35,008)	(1,646)		(36,654)								
Acquisitions, net of cash and cash equivalents acquired	_	_	(8,842)	_	(8,842)								
Proceeds from sale of property, plant and equipment		3,433	114		3,547								
Net cash required by investing activities		(31,575)	(10,374)		(41,949)								
Cash provided (required) by financing activities:													
Change in borrowings, net			(599)		(599)								
Distributions to Dover Corporation, net		(27,124)	(4,001)	(67)	(31,192)								
Distribution to noncontrolling interest		_	(1,212)		(1,212)								
Payments of capital lease obligations		(3,690)			(3,690)								
Net cash required by financing activities		(30,814)	(5,812)	(67)	(36,693)								
Effect of exchange rate changes on cash and cash equivalents			277		277								
Net increase in cash and cash equivalents	_	2,033	(4,348)	_	(2,315)								
Cash and cash equivalents at beginning of period	_	3,730	22,297	_	26,027								
Cash and cash equivalents at end of period	\$	\$ 5,763	\$ 17,949	\$	\$ 23,712								

NOTE 22—CASH FLOW INFORMATION

Cash payments for income taxes and cash payments for interest incurred related to our debt are as follows:

		Years Ended December 31,											
(in thousands)	201	9	2018		2017								
Cash information:													
Cash paid for income taxes	\$ 20	5,464 \$	27,191	\$	8,698								
Cash paid for interest	3	5,085	21,899										

Supplemental cash flow information related to our lease liabilities is as follows:

(in thousands)	Statement of Cash Flows Classification	December 31, 2019			
Cash paid for amounts included in measurement of lease liabilities:					
Operating leases ⁽¹⁾	Operating	\$	12,026		
Finance leases - interest	Operating		439		
Finance leases - principal	Financing		5,555		
Supplemental non-cash information on lease liabilities arising from obtaining right-of-use assets:					
Operating leases ⁽²⁾	Non-cash	\$	38,225		
Finance leases ⁽³⁾	Non-cash		6,412		

⁽¹⁾ Cash required by operating leases is reported net of operating lease expense in the operating section of our consolidated statements of cash flows in "Accrued expenses and other liabilities."

(2) Operating lease additions include lease liabilities recognized at the time of adoption. Refer to Note 2-New Accounting Standards for additional information.

(3) Capital lease additions were \$4.4 million and \$4.6 million for the years ended December 31, 2018 and 2017, respectively.

Lease Program

Our ESP leased asset program is reported in our Production & Automation Technologies segment. At the time of purchase, assets are recorded to inventory and are transferred to property, plant, and equipment when a customer contracts for an asset under our lease program. During the year ended December 31, 2019 and 2018, we transferred \$75.7 million and \$97.0 million of inventory into property, plant, and equipment as a result of assets entering our lease program.

Expenditures for surface equipment are reported in "Capital expenditures" in the investing section of our consolidated statement of cash flows. During the years ended December 31, 2019, 2018, and 2017 we made cash payments of \$16.0 million, \$26.7 million, and \$14.5 million, respectively, for surface equipment. Expenditures for cable and downhole equipment are reported in "Leased assets" in the operating section of our consolidated statement of cash flows. Additionally, the recovery of the carrying value from the sale of assets on lease is presented in "Leased assets" in the operating section of our consolidated statements of cash flows.

Sale of Property

In March 2019, we completed the sale of an individual property previously classified as held for sale in our Production & Automation Technologies segment. Net proceeds of \$2.1 million were received upon the close of the transaction, resulting in a gain that was not material to the consolidated statement of income during the year ended December 31, 2019.

In December 2019, we completed the sale of an individual property in our Production & Automation Technologies segment. Net proceeds of \$0.8 million were received upon the close of the transaction, resulting in a gain of \$0.6 million during the year ended December 31, 2019.

Sale of Business

Refer to Note 6—Dispositions for information related to our sale of our pressure vessel manufacturing business in our Production & Automation Technologies segment in June 2019.

In October 2018, we closed on the sale of our Fisher Pump business and related property. Net proceeds of \$2.5 million were received upon the close of the transaction, resulting in a gain of \$1.3 million during the year ended December 31, 2018.

NOTE 23—SUBSEQUENT EVENTS

On February 14, 2020, Apergy amended its credit agreement, which among other things (i) provides for the incurrence of an additional \$150 million of revolving commitments under the amended credit agreement, upon consummation of the Merger as described in Part 1, Item 1, (ii) permits the consummation of the Merger and the incurrence of a senior secured term loan facility in an aggregate amount up to \$537 million by ChampionX, and (iii) continues to provide that all obligations under the amended agreement continue to be guaranteed by certain of Apergy's wholly owned U.S. subsidiaries.

SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

					2018											
(in thousands, except per share data)	4	th Qtr.	3r	d Qtr.	2	nd Qtr.		1st Qtr.	4	lth Qtr.		Brd Qtr.	2	nd Qtr.		1st Qtr.
Revenue	\$ 2	247,748	\$ 2'	76,839	\$	306,170	\$	300,494	\$	313,133	\$	316,171	\$	305,747	\$	283,105
Gross profit		72,634	(92,699		108,760		103,011		106,595		112,327		104,090		93,992
Net income (loss)		(1,574)		11,588		23,008		19,938		23,347		24,015		21,879		23,950
Net income (loss) attributable to Apergy		(1,823)		11,394		22,937		19,656		23,187		23,961		21,816		23,773
Basic earnings (loss) per share ⁽¹⁾	\$	(0.02)	\$	0.15	\$	0.30	\$	0.25	\$	0.30	\$	0.31	\$	0.28	\$	0.31
Diluted earnings (loss) per share ⁽¹⁾	\$	(0.02)	\$	0.15	\$	0.30	\$	0.25	\$	0.30	\$	0.31	\$	0.28	\$	0.31

(1) On May 9, 2018, 77,339,828 shares of our common stock were distributed to Dover stockholders in conjunction with the Separation. For comparative purposes, we have assumed the shares issued in conjunction with the Separation to be outstanding as of the beginning of each period prior to the Separation. In addition, we have assumed the potential dilutive securities outstanding as of May 8, 2018, were outstanding and fully dilutive in each of the periods with positive income prior to Separation.

The information included in the Selected Quarterly Financial Data table above includes the impact of revision adjustments to correct immaterial errors related to: (i) the assessing and recording of liabilities for state sales tax and associated penalties and interest, primarily resulting in an understatement of our selling, general, and administrative expense and interest expense and (ii) previously recorded amounts including, but not limited to, the write-off of inventory and leased assets, timing of revenue recognition, and revenue classification, that the Company concluded were immaterial to our previously filed consolidated financial statements. See the following tables for the impact of the corrections on each historical quarterly period:

	Three Months Ended December 31,									
(in thousands, except per share data)	As	Reported	Ac	ljustments	A	s Revised				
Total revenue	\$	311,202	\$	1,931	\$	313,133				
Gross profit		105,271		1,324		106,595				
Net income		22,732		615		23,347				
Net income attributable to Apergy	\$	22,571	\$	616	\$	23,187				
Earnings per share attributable to Apergy:										
Basic	\$	0.29	\$	0.01	\$	0.30				
Diluted	\$	0.29	\$	0.01	\$	0.30				

	Т	hree Mont	hs F	Ended Septen	nbo	er 30, 2019	Three Months Ended September 30, 2018							
(in thousands, except per share data)	As	Reported	A	djustments		As Revised	A	s Reported	A	djustments	A	As Revised		
Total revenue	\$	278,381	\$	(1,542)	\$	276,839	\$	316,468	\$	(297)	\$	316,171		
Gross profit		91,519		1,180		92,699		113,734		(1,407)		112,327		
Net income		10,419		1,169		11,588		25,496		(1,481)		24,015		
Net income attributable to Apergy	\$	10,225	\$	1,169	\$	11,394	\$	25,264	\$	(1,303)	\$	23,961		
Earnings per share attributable to Apergy:														
Basic	\$	0.13	\$	0.02	\$	0.15	\$	0.33	\$	(0.02)	\$	0.31		
Diluted	\$	0.13	\$	0.02	\$	0.15	\$	0.33	\$	(0.02)	\$	0.31		

		Three M	s Ended Jun	0, 2019	Three Months Ended June 30, 2018							
(in thousands, except per share data)	As	Reported	А	djustments	A	As Revised	A	As Reported	A	djustments	A	s Revised
Total revenue	\$	306,054	\$	116	\$	306,170	\$	305,850	\$	(103)	\$	305,747
Gross profit		109,769		(1,009)		108,760		103,679		411		104,090
Net income		23,850		(842)		23,008		22,075		(196)		21,879
Net income attributable to Apergy	\$	23,779	\$	(842)	\$	22,937	\$	22,154	\$	(338)	\$	21,816
Earnings per share attributable to Apergy:												
Basic	\$	0.31	\$	(0.01)	\$	0.30	\$	0.29	\$	(0.01)	\$	0.28
Diluted	\$	0.31	\$	(0.01)	\$	0.30	\$	0.28	\$		\$	0.28

		Three Mo	nths	Ended Marc	ch (31, 2019	Three Months Ended March 31, 2018							
(in thousands, except per share data)	As	Reported	A	djustments	A	As Revised	A	s Reported	A	djustments	A	s Revised		
Total revenue	\$	301,691	\$	(1,197)	\$	300,494	\$	283,126	\$	(21)	\$	283,105		
Gross profit		105,549		(2,538)		103,011		93,615		377		93,992		
Net income		22,569		(2,631)		19,938		24,194		(244)		23,950		
Net income attributable to Apergy	\$	22,287	\$	(2,631)	\$	19,656	\$	24,052	\$	(279)	\$	23,773		
Earnings per share attributable to Apergy:														
Basic	\$	0.29	\$	(0.04)	\$	0.25	\$	0.31	\$		\$	0.31		
Diluted	\$	0.29	\$	(0.04)	\$	0.25	\$	0.31	\$		\$	0.31		

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As of December 31, 2019, and under the direction of our principal executive officer and principal financial officer, we have evaluated the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based upon this evaluation, our principal executive officer and principal financial officer have concluded as of December 31, 2019, that our disclosure controls and procedures were not effective because of the material weaknesses in our internal control over financial reporting described below.

Management's Annual Report on Internal Control over Financial Reporting

The Company's Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) under the Exchange Act.

The Company carried out an evaluation under the supervision and with the participation of the Company's management, including the Company's principal executive officer and principal financial officer, of the effectiveness of the Company's internal control over financial reporting. The Company's management used the framework in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) to perform this evaluation. Based on this evaluation, management has concluded that the Company did not maintain effective control over financial reporting as of December 31, 2019, due to the material weaknesses described below.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis.

Management identified a material weakness in the control environment component of internal control as the Company did not maintain a sufficient complement of personnel with the appropriate level of knowledge, experience and training in internal control over financial reporting commensurate with its financial reporting requirements to allow for the consistent execution of control activities at its Artificial Lift business within the Production and Automation Technologies ("PAT") segment. Further, management identified a material weakness in the risk assessment component of internal control as the Company did not appropriately design controls in response to the risk of misstatement at its Electrical Submersible Pump ("ESP") subsidiary, a subsidiary within the PAT segment and part of the Artificial Lift business, to ensure that the subsidiary had the proper resources to operate a complex business model, which was experiencing significant growth and turnover in personnel. These material weaknesses gave rise to the following additional control deficiencies at the Artificial Lift business, which management also determined constituted a material weakness:

• *Material weakness related to revenue recognition and accounts receivable at certain of the Company's subsidiaries within the Artificial Lift businesses within PAT:* The Company did not design or maintain effective controls within certain of its Artificial Lift businesses over the completeness, accuracy, occurrence and cut-off of revenue and within ESP over the valuation of accounts receivable. Specifically, controls were not designed or maintained to ensure (i) accuracy of the price and quantity, including the evidence of the existence of a customer contract during the revenue recognition process, and (ii) appropriate valuation of accounts receivable reserves in response to updated assessments of expected collectability. This material weakness resulted in audit adjustments to the consolidated financial statements have been revised to correct immaterial misstatements of selling, general and administrative expense and revenue for the quarters ended March 31, June 30, and September 30, 2019 and 2018. This material weakness could result in a misstatement of revenue and accounts receivable or the related disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected.

Additionally, the material weaknesses in control environment and risk assessment described above gave rise to the following additional control deficiencies at ESP, which were also determined to be material weaknesses:

- *Material weakness related to manual journal entries:* The Company did not maintain effective controls over the recording of manual journal entries. Specifically, controls were not operating effectively to ensure that journal entries were properly prepared with appropriate supporting documentation and/or were reviewed and approved appropriately to ensure the accuracy of journal entries. This material weakness did not result in any material misstatements to the Company's consolidated financial statements or disclosures, however, previously-issued interim financial statements have been revised to correct immaterial misstatements to cost of goods sold for the quarters ended June 30 and September 30, 2019. Additionally, this material weakness could result in a misstatement of accounts or disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected.
- Material weakness related to inventory and fixed assets: The Company did not design and maintain effective controls over the completeness, accuracy, existence and presentation and disclosure of inventory and fixed assets. Specifically, controls were not designed or maintained to (a) properly account for asset disposals and active and terminated leases, and (b) properly account for transfers between inventory and leased assets. This material weakness did not result in any material misstatements to the Company's consolidated financial statements or disclosures, however, this material weakness resulted in audit adjustments to the consolidated financial statements as of and for the year ended December 31, 2019. In addition, previously-issued interim financial statements have been revised to correct immaterial misstatements to cost of goods sold, inventory and fixed assets for the quarters ended March 31, June 30 and September 30, 2019. Additionally, this material weakness could result in a misstatement of the aforementioned account balances or disclosures that would result in a material misstatement to the annual or interim consolidated financial statement to the annual or interim consolidated financial statements that would not be prevented or detected.

In addition, management identified a material weakness related to the granting of access to system capabilities to authorized users within the general ledger system across the Company. Specifically, the Company did not design and maintain effective controls over user roles, which defines the actions an individual can perform within the system. As a result, there was a lack of segregation of duties as personnel had the ability to both prepare and post journal entries. This material weakness did not result in a material misstatement. However, this material weakness could result in a material misstatement to the accounts or disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2019 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Remediation Activities

In order to address the material weaknesses in internal control over financial reporting described above, management, with direction from the Audit Committee, has begun the process of developing remediation plans to address control deficiencies that led to these material weaknesses. Specifically, management has:

- Initiated personnel changes at ESP and within the Artificial Lift business;
- Engaged third party experts to assist management in assessing current processes and designing improved processes and controls at ESP and within the Artificial Lift business; and
- Reviewed business processes surrounding revenue recognition, manual journal entries, inventory and fixed assets, and the performance of the risk assessment to identify and begin the implementation of enhanced procedures and related internal controls at ESP.

In addition, management's planned actions to further address the material weaknesses include:

- Enhance and augment business process policies and procedure documentation for greater transparency, scalability, and sustainability;
- Establish training and education programs for business personnel regarding updated policies, procedures, and control activities.
- Complete implementation of enhanced policies, procedures, and related internal controls to standardize business processes.

Management will continue to review and make necessary changes to the overall design of the Company's internal control environment within the Artificial Lift business, as well as policies and procedures to improve the overall effectiveness of internal control over financial reporting. Management believes the measures described above and others that will be implemented will remediate the material weaknesses identified and will strengthen the Company's internal control over

financial reporting. The weaknesses will not be considered remediated, however, until the applicable controls operate for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively. Management expects these remedial actions and other remedial actions related to these material weaknesses to be effectively implemented in 2020.

Changes in Internal Control Over Financial Reporting

Except as described above, there were no changes in internal control over financial reporting identified in the evaluation for the quarter ended December 31, 2019, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information about our executive officers is presented under the caption "Information about our Executive Officers" in Part I, Item 1 of this Annual Report on Form 10-K.

In accordance with Instruction G(3) of Form 10-K, the remaining information required by Part III, Item 10 of this Annual Report on Form 10-K is incorporated herein by reference from our Proxy Statement for the 2020 Annual Meeting of Stockholders, or will be included in an amendment to this Form 10-K.*

ITEM 11. EXECUTIVE COMPENSATION

In accordance with Instruction G(3) of Form 10-K, the information required by Part III, Item 11 of this Annual Report on Form 10-K is incorporated herein by reference from our 2020 Proxy Statement, or will be included in an amendment to this Form 10-K.*

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

In accordance with Instruction G(3) of Form 10-K, the information required by Part III, Item 12 of this Annual Report on Form 10-K is incorporated herein by reference from our 2020 Proxy Statement, or will be included in an amendment to this Form 10-K.*

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

In accordance with Instruction G(3) of Form 10-K, the information required by Part III, Item 13 of this Annual Report on Form 10-K is incorporated herein by reference from our 2020 Proxy Statement, or will be included in an amendment to this Form 10-K.*

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

In accordance with Instruction G(3) of Form 10-K, the information required by Part III, Item 14 of this Annual Report on Form 10-K is incorporated herein by reference from our 2020 Proxy Statement, or will be included in an amendment to this Form 10-K.*

* Except for information or data specifically incorporated herein by reference under Items 10 through 14, other information in our 2020 Proxy Statement are not deemed to be a part of this Annual Report on Form 10-K.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

- (a) The following documents are filed as part of this Annual Report on Form 10-K:
 - 1. Financial Statements:

Our consolidated financial statements are included under Part II, Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.

2. Financial Statement Schedule and related Report of Independent Registered Public Accounting Firm:

See "Schedule II—Valuation and Qualifying Accounts" and the related Report of Independent Registered Public Accounting Firm included herein. All other financial statement schedules are omitted because of the absence of conditions under which they are required or because information required is shown in the consolidated financial statements and notes thereto in Part II, Item 8 of this Annual Report on Form 10-K.

3. Exhibits:

See "Index of Exhibits" filed as part of this Annual Report on Form 10-K.

ITEM 16. FORM 10-K SUMMARY

None.

Schedule II—Valuation and Qualifying Accounts

Allowance for Doubtful Accounts	B	alance at Beginning of Year	inning Cost and Written		0	other	Balance at End of Year		
Year Ended December 31, 2019	\$	4,745	\$	4,955	\$ (1,447)	5	(181)	\$	8,072
Year Ended December 31, 2018		4,753		2,007	(1,489)		(526)		4,745
Year Ended December 31, 2017		5,634		954	(1,882)		47		4,753

(1) Net of recoveries on previously reserved or written-off balances.

Deferred Tax Valuation Allowance	Be	lance at ginning f Year	Additions	Red	uctions	(Other	ance at of Year
Year Ended December 31, 2019	\$	722	\$ 5,556	\$	(251) 5	\$		\$ 6,027
Year Ended December 31, 2018		1,280	331		(889)			722
Year Ended December 31, 2017		1,082	198		—			1,280

LIFO Valuation Adjustments	E	alance at Beginning of Year	(Charged to Cost and Expense	Ree	luctions	Other	alance at d of Year
Year Ended December 31, 2019	\$	12,867	\$	2,922	\$		\$ _	\$ 15,789
Year Ended December 31, 2018		10,556		2,311				12,867
Year Ended December 31, 2017		9,381		1,175		—	—	10,556

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

APERGY CORPORATION (Registrant)

Date: March 2, 2020

By: /s/ JAY A. NUTT

Jay A. Nutt Senior Vice President and Chief Financial Officer Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

-

Date	Signature
March 2, 2020	/s/ SIVASANKARAN SOMASUNDARAM
	Sivasankaran Somasundaram President and Chief Executive Officer Director
	(Principal Executive Officer)
March 2, 2020	/s/ JAY A. NUTT
	Jay A. Nutt Senior Vice President and Chief Financial Officer
	(Principal Financial Officer)
March 2, 2020	/s/ MICHAEL D. WHITE
	Michael D. White Vice President, Corporate Controller and Chief Accounting Officer
	(Principal Accounting Officer)
March 2, 2020	/s/ MAMATHA CHAMARTHI
	Mamatha Chamarthi Director
March 2, 2020	/s/ KENNETH M. FISHER
	Kenneth M. Fisher Director
March 2, 2020	/s/ GARY P. LUQUETTE
	Gary P. Luquette Director
March 2, 2020	/s/ DANIEL W. RABUN
	Daniel W. Rabun Chairman of the Board of Directors
March 2, 2020	/s/ STEPHEN M. TODD
	Stephen M. Todd Director
March 2, 2020	/s/ STEPHEN K. WAGNER
	Stephen K. Wagner Director

INDEX OF EXHIBITS

		Incorporated by Reference		
Exhibit	-	Form	Exhibit	Filing Data
No.	Exhibit Description		No.	Filing Date
<u>2.1</u>	Separation and Distribution Agreement, dated May 9, 2018, by and between Dover Corporation and Apergy Corporation.	<u>8-K</u>	<u>2.1</u>	<u>May 11, 2018</u>
<u>2.2</u>	Agreement and Plan of Merger and Reorganization, dated as of December 18, 2019, by and among Ecolab Inc., ChampionX Holding Inc., Apergy Corporation, and Athena Merger Sub, Inc.	<u>8-K</u>	<u>2.1</u>	<u>December 20,</u> <u>2019</u>
<u>2.3</u>	Separation and Distribution Agreements, dated as of December 18, 2019, by and among Ecolab Inc., ChampionX Holding Inc., and Apergy Corporation	<u>8-K</u>	<u>2.2</u>	<u>December 20,</u> <u>2019</u>
<u>3.1</u>	<u>Amended and Restated Certificate of Incorporation of Apergy</u> <u>Corporation.</u>	<u>8-K</u>	<u>3.1</u>	<u>May 11, 2018</u>
3.2	Amended and Restated By-Laws of Apergy Corporation.	<u>8-K</u>	<u>3.2</u>	May 11, 2018
<u>4.1</u>	Indenture, dated as of May 3, 2018, between Apergy Corporation, as Issuer, and Wells Fargo Bank, National Association, as Trustee.	<u>8-K</u>	<u>4.1</u>	<u>May 7, 2018</u>
<u>4.2</u>	Form of 6.375% Senior Notes due 2026 (included as Exhibit 1 to the Indenture filed as Exhibit 4.1).	<u>8-K</u>	<u>4.2</u>	<u>May 7, 2018</u>
<u>4.3</u>	Registration Rights Agreement, dated May 3, 2018, by and between Apergy Corporation and J.P. Morgan Securities LLC, for itself and on behalf of the several initial purchasers.	<u>8-K</u>	<u>4.3</u>	<u>May 7, 2018</u>
<u>4.4</u>	Effective Date Supplemental Indenture, dated as of May 9, 2018, among the Guarantors named therein and Wells Fargo Bank, National Association, as Trustee.	<u>8-K</u>	<u>4.1</u>	<u>May 11, 2018</u>
4.5*	Supplemental Indenture, dated as of November 5, 2019, among Apergy Corporation, the Guarantor named therein and Wells Fargo Bank, National Association, as Trustee.			
4.6*	Description of Apergy Corporation Common Stock			
<u>10.1</u>	Employee Matters Agreement, dated May 9, 2018, by and between Dover Corporation and Apergy Corporation.	<u>8-K</u>	<u>10.1</u>	<u>May 11, 2018</u>
<u>10.2</u>	Tax Matters Agreement, dated May 9, 2018, by and between Dover Corporation and Apergy Corporation.	<u>8-K</u>	<u>10.2</u>	<u>May 11, 2018</u>
<u>10.3</u>	Transition Services Agreement, dated May 9, 2018, by and between Dover Corporation and Apergy Corporation.	<u>8-K</u>	<u>10.3</u>	<u>May 11, 2018</u>
<u>10.4</u>	Credit Agreement, dated May 9, 2018, among Apergy Corporation, as borrower, the lenders and issuing banks party thereto and JPMorgan Chase Bank, N.A., as administrative agent.	<u>8-K</u>	<u>10.4</u>	<u>May 11, 2018</u>
<u>10.5</u>	Amendment No. 1, dated February 14, 2020, amending that certain Credit Agreement dated as of May 9, 2018, by and among the Company, as borrower, the lenders party thereto and JPMorgan Chase Bank, N.A., as administrative agent	<u>8-K</u>	<u>10.1</u>	February 18, 2020
10.6+	Apergy Corporation 2018 Equity and Cash Incentive Plan.	<u>8-K</u>	<u>10.5</u>	<u>May 11, 2018</u>
10.7+	Apergy Corporation Executive Officer Annual Incentive Plan.	<u>8-K</u>	<u>10.6</u>	<u>May 11, 2018</u>
10.8+	Apergy USA, Inc. Executive Deferred Compensation Plan.	<u>8-K</u>	<u>10.7</u>	<u>May 11, 2018</u>
10.9+	Apergy Corporation Executive Severance Plan.	<u>8-K</u>	<u>10.8</u>	<u>May 11, 2018</u>
10.10+	<u>Apergy Corporation Senior Executive Change-in-Control</u> Severance Plan.	<u>8-K</u>	<u>10.9</u>	<u>May 11, 2018</u>
<u>10.11+</u>	Form of award grant letter for restricted stock unit awards made under the Apergy Corporation 2018 Equity and Cash Incentive Plan.	<u>8-K</u>	<u>10.10</u>	<u>May 11, 2018</u>
<u>10.12+</u>	Form of award grant letter for performance share awards made under the Apergy Corporation 2018 Equity and Cash Incentive Plan.	<u>8-K</u>	<u>10.11</u>	<u>May 11, 2018</u>

10.13	Employee Matters Agreement, dated as of December 18, 2019, by and among Ecolab Inc., ChampionX Holding Inc., and Apergy Corporation	8-K	10.1	December 20, 2019
10.14	Form of Tax Matters Agreement to be entered into by and among Ecolab, Inc., ChampionX Holding Inc., and Apergy Corporation	S-4	10.2	February 11, 2020
21.1*	Subsidiaries of Apergy Corporation.			
23.1*	Consent of PricewaterhouseCoopers LLP, an independent registered public accounting firm.			
31.1*	Certification of Chief Executive Officer Pursuant to Rule 13a- 14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.			
31.2*	Certification of Chief Financial Officer Pursuant to Rule 13a- 14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.			
32.1**	Certification of Chief Executive Officer Under Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. 1350.			
32.2**	Certification of Chief Financial Officer Under Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. 1350.			
101.INS*	XBRL Instance Document			
101.SCH*	XBRL Taxonomy Extension Schema Document			
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document			
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document			
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document			
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document			
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)			

* Filed herewith

** Furnished herewith

+ Denotes management contract or compensatory plan or arrangement

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Shareholder Information

Investor Information

Shareholders, brokers, securities analysts or portfolio managers seeking information about Apergy Corporation should contact David Skipper either by email at david.skipper@apergy.com or by phone at 713-230-8031.

Forward Looking Statements

Any statements included in this 2019 Annual Report that are not historical facts, including without limitation regarding future market trends and results of operations are forward-looking statements within the meaning of applicable securities law. Please see "Forward-Looking Statements" in this 2019 Annual Report for more information.

Corporate Information

Transfer Agent

Computershare Trust Company, N.A. 462 South 4th Street Suite 1600 Louisville, KY 40202 +1 (800) 522-6645

Independent Registered Public Accounting Firm

PricewaterhouseCoopers LLP Houston, Texas

Shares Listed on New York Stock Exchange Trading Symbol "APY"

Shareholder Information Website

Additional information on Apergy, including securities filings, press releases, Code of Business Conduct and Ethics, Corporate Governance Guidelines and Board Committee Charters, is available on our website at www.apergy.com.

Our Board of Directors

Daniel W. Rabun Chairman of the Board Director since 2018 Committees: Compensation, Governance and Nominating

Mamatha Chamarthi Director since 2018 Committees: Compensation

Kenneth M. Fisher Director since 2018 Committees: Audit

Gary P. Luquette Director since 2018 Committees: Compensation, Governance and Nominating

Stephen M. Todd Director since 2018 Committees: Audit

Stephen K. Wagner Director since 2018 Committees: Audit, Governance and Nominating

Sivasankaran "Soma" Somasundaram Director since 2018 Committees: None

Our Management

Sivasankaran "Soma" Somasundaram President & CEO

Jay A. Nutt Senior Vice President and Chief Financial Officer

Paul E. Mahoney *President, Production and Automation Technologies*

Rob K. Galloway *President, Drilling Technologies*

Syed "Ali" Raza Senior Vice President and Chief Digital Officer

Julia Wright Senior Vice President, General Counsel and Secretary

Amy Thompson Broussard Senior Vice President and Chief Human Resources Officer

Saurabh Nitin Senior Vice President Strategy and Corporate Development



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apergy.com