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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): January 29, 2019

MKS Instruments, Inc.

(Exact name of Registrant as Specified in Its Charter)

Massachusetts
(State or Other Jurisdiction
of Incorporation)

000-23621

(Commission File Number)

04-2277512
(IRS Employer
Identification No.)

**2 Tech Drive, Suite 201,
Andover, MA**
(Address of Principal Executive Offices)

01810
(Zip Code)

Registrant's Telephone Number, Including Area Code: (978) 645-5500

Not Applicable

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instructions A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

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.

Item 2.02 Results of Operations and Financial Condition.

On January 29, 2019, MKS Instruments, Inc. announced its financial results for the quarter ended December 31, 2018. The full text of the press release is attached as Exhibit 99.1 to this Current Report on Form 8-K.

The information in this Form 8-K and the Exhibit attached hereto shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, except as expressly set forth by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

99.1 Press Release dated January 29, 2019

Exhibit Index

Exhibit No.	Description
99.1	Press Release dated January 29, 2019

SIGNATURES

Pursuant to the requirements 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.

MKS Instruments, Inc.

Date: January 29, 2019

By: /s/Seth H. Bagshaw

Name: Seth H. Bagshaw

Title: Sr. Vice President, Chief Financial Officer and Treasurer

MKS Instruments Reports Fourth Quarter and Full Year 2018 Financial Results

- *2018 was another record year in revenue and GAAP and Non-GAAP EPS*
- *Total revenue increased 8% in 2018, compared to 2017, to a record \$2.1 billion*
- *Revenue from advanced markets increased 14% to \$931 million in 2018, compared to 2017*
- *Semiconductor revenue increased 4% to \$1.14 billion in 2018, compared to 2017*

Andover, MA, January 29, 2019 -- MKS Instruments, Inc. (Nasdaq: MKSI), a global provider of technologies that enable advanced processes and improve productivity, today reported fourth quarter and full year 2018 financial results.

GAAP Financial Results

	Q4		Full Year	
	2018	2017	2018	2017
Net revenues (\$ millions)	\$ 461	\$ 512	\$ 2,075	\$ 1,916
Operating margin	20.4%	23.4%	23.8%	21.2%
Net income (\$ millions)	\$ 72	\$ 78	\$ 393	\$ 339
Diluted EPS	\$ 1.32	\$ 1.41	\$ 7.14	\$ 6.16

Non-GAAP Financial Results

	Q4		Full Year	
	2018	2017	2018	2017
Net revenues (\$ millions)	\$ 461	\$ 512	\$ 2,075	\$ 1,916
Operating margin	23.7%	25.9%	26.3%	24.6%
Net earnings (\$ millions)	\$ 84	\$ 95	\$ 430	\$ 328
Diluted EPS	\$ 1.54	\$ 1.71	\$ 7.83	\$ 5.96

“We are pleased to report another year of record results despite semiconductor market headwinds in the second half of the year,” said Gerald Colella, Chief Executive Officer. Mr. Colella added, “Our ability to consistently deliver sustainable and profitable growth through market cycles reflects the benefits of our diversification strategy as well as our cost discipline, flexible manufacturing capabilities, and continued market share gains.”

“During 2018, we recorded 8% revenue growth, a 170 basis point improvement in non-GAAP operating margins and a 31% increase in non-GAAP earnings per share,” said Seth Bagshaw, Senior Vice President and Chief Financial Officer. Mr. Bagshaw added “This performance reflects the strong operating leverage inherent

in our model as well as balanced exposure to a variety of end markets, and continued cost structure improvements.”

Fourth Quarter 2018 Financial Results

Revenue was \$461 million, a decrease of 5% from \$487 million in the third quarter of 2018 and a decrease of 10% from \$512 million in the fourth quarter of 2017.

Fourth quarter net income was \$72 million, or \$1.32 per diluted share, compared to net income of \$93 million, or \$1.70 per diluted share in the third quarter of 2018, and \$78 million, or \$1.41 per diluted share in the fourth quarter of 2017.

Non-GAAP net earnings, which exclude special charges and credits, were \$84 million, or \$1.54 per diluted share, compared to \$103 million, or \$1.88 per diluted share, in the third quarter of 2018, and \$95 million, or \$1.71 per diluted share, in the fourth quarter of 2017.

Sales to semiconductor customers were \$235 million, a decrease of 10% compared to the third quarter of 2018, and sales to Advanced Markets were \$226 million, consistent with the third quarter of 2018.

Sales in the Vacuum and Analysis Division were \$258 million, a decrease of 10% compared to the third quarter of 2018, and Sales in the Light and Motion Division were \$203 million, an increase of 1% from the third quarter of 2018.

Additional Financial Information

The Company had \$718 million in cash and short-term investments and \$348 million of Term Loan Debt as of December 31, 2018. During the fourth quarter, the Company also paid a dividend of \$10.8 million or \$0.20 per diluted share.

Full Year and 2018 Financial Results

Sales were a record \$2.1 billion, an increase of 8% from \$1.9 billion in 2017, driven by strong sales to both semiconductor customers, specifically during the first half of the year, as well as customers in our Advanced Markets, which include industrial manufacturing, life and health sciences and research and defense markets. Sales to semiconductor customers were \$1.1 billion, an increase of 4% compared to 2017, while sales to Advanced Markets were \$931 million, an increase of 14% compared to 2017.

Sales in the Vacuum and Analysis Division were \$1.3 billion, an increase of 4% compared to 2017, driven by very strong sales to semiconductor customers during the first half of 2018 and sales to our Advanced Markets.

Sales in the Light and Motion Division were \$814 million, an increase of 15% from \$709 million in 2017, driven by both sales to semiconductor customers as well as industrial manufacturing customers.

First Quarter 2019 Outlook

Based on current business levels, the Company expects that revenue in the first quarter of 2019 could range from \$400 million to \$440 million. At these volumes, GAAP net income could range from \$0.78 to \$1.02 per diluted share and Non-GAAP net earnings could range from \$0.95 to \$1.18 per diluted share. The financial

guidance excludes the effects of our announced acquisition of Electro Scientific Industries, Inc. (Nasdaq: ESIO) which is expected to close on February 1, 2019.

Conference Call Details

A conference call with management will be held on Wednesday, January 30, 2019 at 8:30 a.m. (Eastern Time). To participate in the conference call, please dial (877) 212-6076 for domestic callers and (707) 287-9331 for international callers, and an operator will connect you. Participants will need to provide the operator with the Conference ID of 6575625, which has been reserved for this call. A live and archived webcast of the call will be available on the Company's website at www.mksinst.com, along with the Company's earnings press release and supplemental financial information.

About MKS Instruments

MKS Instruments, Inc. is a global provider of instruments, subsystems and process control solutions that measure, monitor, deliver, analyze, power and control critical parameters of advanced manufacturing processes to improve process performance and productivity for our customers. Our products are derived from our core competencies in pressure measurement and control, flow measurement and control, gas and vapor delivery, gas composition analysis, residual gas analysis, leak detection, control technology, ozone generation and delivery, power, reactive gas generation, vacuum technology, lasers, photonics, sub-micron positioning, vibration control and optics. We also provide services relating to the maintenance and repair of our products, installation services and training. Our primary served markets include semiconductor, industrial technologies, life and health sciences, research and defense. Additional information can be found at www.mksinst.com.

Use of Non-GAAP Financial Results

This release includes measures that are not in accordance with U.S. generally accepted accounting principles ("Non-GAAP measures"). Non-GAAP measures exclude amortization of acquired intangible assets, asset impairments, costs associated with completed and announced acquisitions, acquisition integration costs, restructuring charges, certain excess and obsolete inventory charges, fees and expenses related to the re-pricings of our term loan, amortization of debt issuance costs, environmental costs related to an acquisition, costs associated with the sale of a business, the one-time tax effects of the 2017 Tax Cut and Jobs Act, windfall tax benefits from stock-based compensation, accrued taxes on subsidiary distributions, a tax adjustment related to the sale of a business, tax cost of the inter-company sale of an asset and the related tax effects of adjustments impacting pre-tax income. These Non-GAAP measures should be viewed in addition to, and not as a substitute for, MKS' reported results, and may be different from Non-GAAP measures used by other companies. In addition, these Non-GAAP measures are not based on any comprehensive set of accounting rules or principles. MKS management believes the presentation of these Non-GAAP measures is useful to investors for comparing prior periods and analyzing ongoing business trends and operating results.

SAFE HARBOR FOR FORWARD-LOOKING STATEMENTS

This release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 regarding the future financial performance, business prospects and growth of MKS. These statements are only predictions based on current assumptions and expectations. Actual events or results may differ materially from those in the forward-looking statements set forth herein. Among the important factors that could cause actual events to differ materially from those in the forward-looking statements are the conditions affecting the markets in which MKS operates, including the fluctuations in capital spending in the semiconductor industry and other advanced manufacturing markets, fluctuations in net sales to our major customers, the ability of MKS to complete the ESI acquisition, litigation relating to the ESI acquisition, the risk that disruption from the proposed ESI acquisition materially and adversely affects the respective business and operations of MKS and ESI, the risk that the anticipated benefits from the proposed ESI acquisition may not be realized within the expected time period or at all, competition from larger or more established companies in MKS' and ESI's respective markets; MKS' ability to successfully grow ESI's business; potential adverse reactions or changes to business relationships resulting from the announcement, pendency or completion of the ESI acquisition, the challenges, risks and costs involved with integrating the operations of the companies we have acquired, including our most recently completed acquisition of Newport Corporation, the Company's ability to successfully grow our business, potential fluctuations in quarterly results, the terms of our term loan, dependence on new product development, rapid technological and market change, acquisition strategy, manufacturing and sourcing risks, volatility of stock price, international operations, financial risk management, and the other factors described in MKS' most recent Annual Report on Form 10-K for the year ended December 31, 2017 filed with SEC, and its subsequent Quarterly Reports on Form 10-Q. MKS is under no obligation to, and expressly disclaims any obligation to, update or alter these forward-looking statements, whether as a result of new information, future events or otherwise after the date of this press release.

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MKS Instruments, Inc.
Unaudited Consolidated Statements of Operations
(In thousands, except per share data)

	Three Months Ended		
	December 31, 2018	December 31, 2017 (Note 14)	September 30, 2018
Net revenues:			
Products	\$ 402,271	\$ 458,155	\$ 426,255
Services	58,270	53,645	60,897
Total net revenues	<u>460,541</u>	<u>511,800</u>	<u>487,152</u>
Cost of revenues:			
Products	221,766	243,384	219,311
Services	28,891	30,090	35,981
Total cost of revenues	<u>250,657</u>	<u>273,474</u>	<u>255,292</u>
Gross profit	209,884	238,326	231,860
Research and development	32,461	33,045	31,898
Selling, general and administrative	68,166	72,510	70,822
Acquisition and integration costs	4,245	634	36
Restructuring	193	1,324	1,364
Amortization of intangible assets	10,735	10,797	10,695
Income from operations	<u>94,084</u>	<u>120,016</u>	<u>117,045</u>
Interest income	1,698	1,125	1,516
Interest expense	3,871	7,989	3,719
Other expense, net	763	2,155	326
Income from operations before income taxes	<u>91,148</u>	<u>110,997</u>	<u>114,516</u>
Provision for income taxes	19,512	33,359	21,239
Net income	<u>\$ 71,636</u>	<u>\$ 77,638</u>	<u>\$ 93,277</u>
Net income per share:			
Basic	\$ 1.33	\$ 1.43	\$ 1.71
Diluted	\$ 1.32	\$ 1.41	\$ 1.70
Cash dividends per common share	\$ 0.20	\$ 0.18	\$ 0.20
Weighted average shares outstanding:			
Basic	54,005	54,318	54,476
Diluted	54,454	55,236	54,954
The following supplemental Non-GAAP earnings information is presented to aid in understanding MKS' operating results:			
Net income	\$ 71,636	\$ 77,638	\$ 93,277
Adjustments:			
Acquisition and integration costs (Note 1)	4,245	634	36
Amortization of debt issuance costs (Note 2)	711	3,983	682
Restructuring (Note 3)	193	1,324	1,364
Amortization of intangible assets	10,735	10,797	10,695
Windfall tax benefit on stock-based compensation (Note 4)	(202)	(658)	(287)
Deferred tax adjustment (Note 5)	—	(24,546)	—
Transition tax on accumulated foreign earnings (Note 6)	—	28,658	863
Tax adjustment related to the sale of a business (Note 7)	—	(12,131)	—
Accrued tax on MKS subsidiary distributions (Note 8)	(2,277)	14,000	(2,756)
Tax cost on the inter-company sale of an asset (Note 9)	541	—	—
Pro-forma tax adjustments	(1,549)	(5,083)	(659)
Non-GAAP net earnings (Note 10)	<u>\$ 84,033</u>	<u>\$ 94,616</u>	<u>\$ 103,215</u>
Non-GAAP net earnings per share (Note 10)	<u>\$ 1.54</u>	<u>\$ 1.71</u>	<u>\$ 1.88</u>
Weighted average shares outstanding	54,454	55,236	54,954
Income from operations	\$ 94,084	\$ 120,016	\$ 117,045
Adjustments:			
Acquisition and integration costs (Note 1)	4,245	634	36
Restructuring (Note 3)	193	1,324	1,364
Amortization of intangible assets	10,735	10,797	10,695
Non-GAAP income from operations (Note 11)	<u>\$ 109,257</u>	<u>\$ 132,771</u>	<u>\$ 129,140</u>
Non-GAAP operating margin percentage (Note 11)	<u>23.7%</u>	<u>25.9%</u>	<u>26.5%</u>
Interest expense	\$ 3,871	\$ 7,989	\$ 3,719

Amortization of debt issuance costs (Note 2)	711	3,983	682
Non-GAAP interest expense	\$ 3,160	\$ 4,006	\$ 3,037
Net income	\$ 71,636	\$ 77,638	\$ 93,277
Interest expense, net	2,173	6,864	2,203
Provision for income taxes	19,512	33,359	21,239
Depreciation	9,212	9,208	8,834
Amortization	10,735	10,797	10,695
EBITDA (Note 12)	\$ 113,268	\$ 137,866	\$ 136,248
Stock-based compensation	5,257	4,544	5,213
Acquisition and integration costs (Note 1)	4,245	634	36
Restructuring (Note 3)	193	1,324	1,364
Other adjustments	—	839	—
Adjusted EBITDA (Note 13)	\$ 122,963	\$ 145,207	\$ 142,861

Note 1: During the fourth quarter of 2018 we incurred acquisition costs related to the announced acquisition of Electro Scientific Industries, Inc. which is expected to close on February 1, 2019. We recorded acquisition and integration costs related to the Newport Corporation acquisition, which closed during the second quarter of 2016, during the three months ended September 30, 2018 and December 31, 2017.

Note 2: We recorded additional interest expense related to the amortization of debt issuance costs affiliated with our Term Loan Credit Agreement and ABL Facility.

Note 3: We recorded restructuring charges during the three months ended December 31, 2018 and September 30, 2018, which consisted primarily of severance costs related to an organization-wide reduction in workforce. We recorded restructuring costs during the three months ended December 31, 2017, primarily related to the consolidation of two manufacturing plants.

Note 4: We recorded windfall tax benefits on the vesting of stock-based compensation.

Note 5: We recorded a deferred tax adjustment, which also includes the reversal of a tax accrual on a French dividend, related to U.S. tax reform legislation during the three months ended December 31, 2017.

Note 6: We recorded and adjusted the transition tax on accumulated foreign earnings related to the 2017 Tax Cut and Jobs Act.

Note 7: We recorded a tax adjustment resulting from the 2017 Tax Cut and Jobs Act, related to the sale of our Data Analytics Solutions business during the three months ended December 31, 2017.

Note 8: We recorded and adjusted tax accruals related to distributions of MKS subsidiaries.

Note 9: We recorded taxes on the inter-company sale of an asset during the three months ended December 31, 2018.

Note 10: The Non-GAAP net earnings and Non-GAAP net earnings per share amounts exclude acquisition and integration costs, amortization of debt issuance costs, restructuring costs, amortization of intangible assets, a windfall tax benefit related to stock compensation expense, accrued taxes on subsidiary distributions, a deferred tax adjustment, transition tax on accumulated foreign earnings, a tax adjustment related to the sale of a business, tax cost on the inter-company sale of an asset and the related tax effect of these adjustments to reflect the expected full year effective tax rate in the related period.

Note 11: The Non-GAAP income from operations and Non-GAAP operating margin percentages exclude acquisition and integration costs, restructuring costs and amortization of intangible assets.

Note 12: EBITDA excludes net interest, income taxes, depreciation and amortization of intangible assets.

Note 13: Adjusted EBITDA excludes stock-based compensation, acquisition and integration costs, restructuring costs and other adjustments as defined in our Term Loan Credit Agreement.

Note 14: We historically recorded the revenue and related cost of revenue for our spare parts within Products in our Statement of Operations for the Vacuum and Analysis Division. We have now determined that these items are better reflected within Services in our Statement of Operations and have revised the presentation of our previously issued financial statements as shown below:

Three Months Ended December 31, 2017

	As previously reported	Adjustment	As revised
Net revenues:			
Products	\$ 463,851	\$ (5,696)	\$ 458,155
Services	47,949	5,696	53,645
Total net revenues	<u>511,800</u>	<u>—</u>	<u>511,800</u>
Cost of revenues:			
Cost of products	242,008	1,376	243,384
Cost of services	31,466	(1,376)	30,090
Total cost of revenues	<u>\$ 273,474</u>	<u>\$ —</u>	<u>\$ 273,474</u>

MKS Instruments, Inc.
Unaudited Consolidated Statements of Operations
(In thousands, except per share data)

	Twelve Months Ended December 31,	
	2018	2017 (Note 21)
Net revenues:		
Products	\$ 1,835,202	\$ 1,701,301
Services	239,906	214,676
Total net revenues	2,075,108	1,915,977
Cost of revenues:		
Products	969,288	906,369
Services	126,344	118,157
Total cost of revenues	1,095,632	1,024,526
Gross profit	979,476	891,451
Research and development	135,720	132,555
Selling, general and administrative	298,118	290,056
Acquisition and integration costs	3,113	5,332
Restructuring	3,567	3,920
Environmental costs	1,000	—
Asset impairment	—	6,719
Fees and expenses related to repricing of term loan	378	492
Amortization of intangible assets	43,521	45,743
Income from operations	494,059	406,634
Interest income	5,775	3,021
Interest expense	16,942	30,990
Gain on sale of business	—	74,856
Other expense, net	1,942	5,896
Income from operations before income taxes	480,950	447,625
Provision for income taxes	88,054	108,493
Net income	<u>\$ 392,896</u>	<u>\$ 339,132</u>
Net income per share:		
Basic	\$ 7.22	\$ 6.26
Diluted	\$ 7.14	\$ 6.16
Cash dividends per common share	\$ 0.78	\$ 0.71
Weighted average shares outstanding:		
Basic	54,406	54,137
Diluted	54,992	55,074

The following supplemental Non-GAAP earnings information is presented to aid in understanding MKS' operating results:

Net income	\$ 392,896	\$ 339,132
Adjustments:		
Acquisition and integration costs (Note 1)	3,113	5,332
Expenses related to sale of a business (Note 2)	—	859
Excess and obsolete inventory charge (Note 3)	—	1,160
Fees and expenses related to repricing of term loan (Note 4)	378	492
Amortization of debt issuance costs (Note 5)	3,884	9,405
Restructuring (Note 6)	3,567	3,920
Environmental costs (Note 7)	1,000	—
Asset impairment (Note 8)	—	6,719
Gain on sale of business (Note 9)	—	(74,856)
Amortization of intangible assets	43,521	45,743
Windfall tax benefit on stock-based compensation (Note 10)	(8,277)	(11,071)
Accrued tax on MKS subsidiary distributions (Note 11)	(5,033)	14,000
Tax adjustment related to the sale of a business (Note 12)	—	2,876
Deferred tax adjustment (Note 13)	878	(24,546)
Transition tax on accumulated foreign earnings (Note 14)	(1,464)	28,658

Tax cost on the inter-company sale of an asset (Note 15)	541	—
Pro-forma tax adjustments	(4,655)	(19,639)
Non-GAAP net earnings (Note 16)	\$ 430,349	\$ 328,184
Non-GAAP net earnings per share (Note 16)	\$ 7.83	\$ 5.96
Weighted average shares outstanding	54,992	55,074
Income from operations	\$ 494,059	\$ 406,634
Adjustments:		
Acquisition and integration costs (Note 1)	3,113	5,332
Expenses related to sale of a business (Note 2)	—	859
Excess and obsolete inventory charge (Note 3)	—	1,160
Fees and expenses related to repricing of term loan (Note 4)	378	492
Restructuring (Note 6)	3,567	3,920
Environmental costs (Note 7)	1,000	—
Asset impairment (Note 8)	—	6,719
Amortization of intangible assets	43,521	45,743
Non-GAAP income from operations (Note 17)	\$ 545,638	\$ 470,859
Non-GAAP operating margin percentage (Note 17)	26.3%	24.6%
Gross profit	\$ 979,476	\$ 891,451
Excess and obsolete inventory charge (Note 3)	—	1,160
Non-GAAP gross profit (Note 18)	\$ 979,476	\$ 892,611
Non-GAAP gross profit percentage (Note 18)	47.2%	46.6%
Interest expense	\$ 16,942	\$ 30,990
Amortization of debt issuance costs (Note 5)	3,884	9,405
Non-GAAP interest expense	\$ 13,058	\$ 21,585
Net Income	\$ 392,896	\$ 339,132
Interest expense, net	11,167	27,969
Provision for income taxes	88,054	108,493
Depreciation	36,332	36,813
Amortization	43,521	45,743
EBITDA (Note 19)	\$ 571,970	\$ 558,150
Stock-based compensation	27,262	24,378
Acquisition and integration costs (Note 1)	3,113	5,332
Expenses related to sale of a business (Note 2)	—	859
Excess and obsolete inventory charge (Note 3)	—	1,160
Fees and expenses related to repricing of term loan (Note 4)	378	492
Restructuring (Note 6)	3,567	3,920
Environmental costs (Note 7)	1,000	—
Asset impairment (Note 8)	—	6,719
Gain on sale of business (Note 9)	—	(74,856)
Other adjustments	772	3,244
Adjusted EBITDA (Note 20)	\$ 608,062	\$ 529,398

Note 1: Acquisition and integration costs for the twelve months ended December 31, 2018 include acquisition costs of \$4.2 million related to the announced acquisition of Electro Scientific Industries, Inc. which is expected to close on February 1, 2019. In addition, we reversed a severance accrual of \$1.1 million related to our 2016 acquisition of Newport Corporation. For the twelve months ended December 31, 2017, we recorded integration costs related to our acquisition of Newport Corporation.

Note 2: We recorded legal and consulting expenses during the twelve months ended December 31, 2017 related to the sale of a business, which was completed in April 2017.

Note 3: We recorded excess and obsolete inventory charges in cost of sales during the twelve months ended December 31, 2017, related to the discontinuation of a product line in connection with the consolidation of two manufacturing sites.

Note 4: We recorded fees and expenses during the twelve months ended December 31, 2018 and 2017 related to repricings of our Term Loan Credit Agreement.

Note 5: We recorded additional interest expense related to the amortization of debt issuance costs affiliated with our Term Loan Credit Agreement and ABL Facility.

Note 6: We recorded restructuring costs during the twelve months ended December 31, 2018, which were primarily comprised of severance costs related to a worldwide reduction in workforce in the third quarter, transferring a portion of our U.S. shared accounting functions to a third party as well as the consolidation of certain shared accounting functions in Asia. We recorded restructuring costs during the twelve months ended December 31, 2017, primarily related to the restructuring of one of our international facilities and the consolidation of sales offices.

Note 7: We recorded environmental costs during the twelve months ended December 31, 2018, related to an Environmental Protection Agency-designated Superfund site, which was acquired as part of our acquisition of Newport Corporation.

Note 8: We recorded an asset impairment charge, primarily related to the write-off of goodwill and intangible assets, during the twelve months ended December 31, 2017, in connection with the consolidation of two manufacturing plants.

Note 9: We recorded a gain during the twelve months ended December 31, 2017, related to the sale of our Data Analytics Solutions business.

Note 10: We recorded windfall tax benefits on the vesting of stock-based compensation.

Note 11: We recorded and adjusted tax accruals related to distributions of MKS subsidiaries.

Note 12: We recorded taxes related to the sale of our Data Analytics Solutions business during the twelve months ended December 31, 2017.

Note 13: As a result of tax reform, we recorded an adjustment to deferred taxes and reversed taxes previously accrued on a dividend from a foreign subsidiary in December 2017. The deferred tax effect of tax reform was further adjusted in Q1 2018 after additional analysis.

Note 14: During the twelve months ended December 31, 2017, we recorded a transition tax on accumulated foreign earnings related to the 2017 Tax Cut and Jobs Act. During the twelve months ended December 31, 2018, we adjusted the transition tax on accumulated foreign earnings that was recorded in 2017.

Note 15: We recorded taxes on the inter-company sale of an asset during the twelve months ended December 31, 2018.

Note 16: The Non-GAAP net earnings and Non-GAAP net earnings per share amounts exclude acquisition and integration costs, expenses related to the sale of a business, an excess and obsolete inventory charge, fees and expenses related to the repricing of the Term Loan Credit Agreement, amortization of debt issuance costs, restructuring costs, environmental costs, an asset impairment charge, a gain on the sale of a business, amortization of intangible assets, accrued taxes on subsidiary distributions, a windfall tax benefit related to stock compensation expense, taxes related to the sale of a business, a deferred tax adjustment, transition tax on accumulated foreign earnings, tax costs on the inter-company sale of an asset and the related tax effect of these adjustments to reflect the expected full year effective tax rate in the related period.

Note 17: The Non-GAAP income from operations and Non-GAAP operating margin percentages exclude acquisition and integration costs, expenses related to the sale of a business, an excess and obsolete inventory charge, fees and expenses related to the repricing of the Term Loan Credit Agreement, restructuring costs, environmental costs, an asset impairment charge and amortization of intangible assets.

Note 18: The Non-GAAP gross profit amounts and Non-GAAP gross profit percentages exclude an excess and obsolete inventory charge related to the discontinuation of a product line.

Note 19: EBITDA excludes net interest, income taxes, depreciation and amortization of intangible assets.

Note 20: Adjusted EBITDA excludes stock-based compensation, acquisition and integration costs, expenses related to the sale of a business, an excess and obsolete inventory charge, fees and expenses related to the repricing of the Term Loan Credit Agreement, restructuring costs, environmental costs, an asset impairment charge, a gain on the sale of a business and other adjustments as defined in our Term Loan Credit Agreement.

Note 21: We historically recorded the revenue and related cost of revenue for our spare parts within Products in our Statement of Operations for the Vacuum and Analysis Division. We have now determined that these items are better reflected within Services in our Statement of Operations and have revised the presentation of our previously issued financial statements as shown below:

Twelve Months Ended December 31, 2017

	As previously reported	Adjustment	As revised
Net revenues:			
Products	\$ 1,723,433	\$ (22,132)	\$ 1,701,301
Services	192,544	22,132	214,676
Total net revenues	<u>1,915,977</u>	<u>—</u>	<u>1,915,977</u>
Cost of revenues:			
Cost of products	901,546	4,823	906,369
Cost of services	122,980	(4,823)	118,157
Total cost of revenues	<u>\$ 1,024,526</u>	<u>\$ —</u>	<u>\$ 1,024,526</u>

MKS Instruments, Inc.
Unaudited Consolidated Balance Sheet
(In thousands)

	December 31, 2018	December 31, 2017
ASSETS		
Cash and cash equivalents, including restricted cash	\$ 644,345	\$ 333,887
Short-term investments	73,826	209,434
Trade accounts receivable, net	295,454	300,308
Inventories	384,689	339,081
Other current assets	65,790	53,543
Total current assets	1,464,104	1,236,253
Property, plant and equipment, net	194,367	171,782
Goodwill	586,996	591,047
Intangible assets, net	319,807	366,398
Long-term investments	10,290	10,655
Other assets	38,682	37,883
Total assets	<u>\$ 2,614,246</u>	<u>\$ 2,414,018</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Short-term debt	\$ 3,986	\$ 2,972
Accounts payable	83,825	82,518
Accrued compensation	82,350	96,147
Income taxes payable	16,358	21,398
Deferred revenue	8,134	12,842
Other current liabilities	68,632	73,945
Total current liabilities	263,285	289,822
Long-term debt, net	343,842	389,993
Non-current deferred taxes	48,223	61,571
Non-current accrued compensation	55,598	51,700
Other liabilities	30,111	32,025
Total liabilities	741,059	825,111
Stockholders' equity:		
Common stock	113	113
Additional paid-in capital	793,932	789,644
Retained earnings	1,084,797	795,698
Accumulated other comprehensive income	(5,655)	3,452
Total stockholders' equity	1,873,187	1,588,907
Total liabilities and stockholders' equity	<u>\$ 2,614,246</u>	<u>\$ 2,414,018</u>

MKS Instruments, Inc.
Unaudited Consolidated Statements of Cash Flows
(In thousands, except per share data)

	Three Months Ended		
	December 31, 2018	December 31, 2017	September 30, 2018
Cash flows from operating activities:			
Net income	\$ 71,636	\$ 77,638	\$ 93,277
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	19,947	20,006	19,529
Amortization of debt issuance costs and original issue discount	934	4,314	897
Stock-based compensation	5,257	4,544	5,213
Provision for excess and obsolete inventory	6,749	4,864	5,283
Provision for doubtful accounts	576	175	263
Deferred income taxes	(13,249)	(11,472)	(4,695)
Other	2,118	(8)	71
Changes in operating assets and liabilities	41,490	(19,275)	(23,882)
Net cash provided by operating activities	135,458	80,786	95,956
Cash flows from investing activities:			
Purchases of investments	(39,824)	(30,545)	(64,958)
Sales of investments	139,674	9,993	4,505
Maturities of investments	46,410	40,563	44,605
Purchases of property, plant and equipment	(26,056)	(13,430)	(15,067)
Other	—	66	—
Net cash provided by (used in) investing activities	120,204	6,647	(30,915)
Cash flows from financing activities:			
Payments of short-term borrowings	(9,299)	(16,434)	(29,803)
Proceeds from short and long-term borrowings	7,045	15,393	23,635
Payments of long-term borrowings	—	(50,000)	(2)
Repurchase of common stock	—	—	(75,000)
Dividend payments	(10,797)	(9,775)	(10,858)
Net proceeds (payments) related to employee stock awards	2,537	2,503	(589)
Net cash used in financing activities	(10,514)	(58,313)	(92,617)
Effect of exchange rate changes on cash and cash equivalents	(653)	(1,327)	(5)
Increase (decrease) in cash and cash equivalents and restricted cash	244,495	27,793	(27,581)
Cash and cash equivalents, including restricted cash at beginning of period	399,850	306,094	427,431
Cash and cash equivalents, including restricted cash at end of period	\$ 644,345	\$ 333,887	\$ 399,850

MKS Instruments, Inc.
Reconciliation of GAAP Income Tax Rate to Non-GAAP Income Tax Rate
(In thousands)

	Three Months Ended December 31, 2018			Three Months Ended September 30, 2018		
	Income Before Income Taxes	Provision (benefit) for Income Taxes	Effective Tax Rate	Income Before Income Taxes	Provision (benefit) for Income Taxes	Effective Tax Rate
GAAP	\$ 91,148	\$ 19,512	21.4%	\$ 114,516	\$ 21,239	18.5%
Adjustments:						
Acquisition and integration costs (Note 1)	4,245	—		36	—	
Amortization of debt issuance costs (Note 2)	711	—		682	—	
Restructuring (Note 3)	193	—		1,364	—	
Amortization of intangible assets	10,735	—		10,695	—	
Windfall tax benefit on stock-based compensation (Note 10)	—	202		—	287	
Accrued tax on MKS subsidiary distributions (Note 12)	—	2,277		—	2,756	
Transition tax on accumulated foreign earnings (Note 14)	—	—		—	(863)	
Tax cost on the inter-company sale of an asset (Note 15)	—	(541)		—	—	
Tax effect of pro-forma adjustments	—	1,549		—	659	
Non-GAAP	<u>\$ 107,032</u>	<u>\$ 22,999</u>	21.5%	<u>\$ 127,293</u>	<u>\$ 24,078</u>	18.9%

	Three Months Ended December 31, 2017		
	Income Before Income Taxes	Provision (benefit) for Income Taxes	Effective Tax Rate
GAAP	\$ 110,997	\$ 33,359	30.1%
Adjustments:			
Acquisition and integration costs (Note 1)	634	—	
Amortization of debt issuance costs (Note 2)	3,983	—	
Restructuring (Note 3)	1,324	—	
Amortization of intangible assets	10,797	—	
Windfall tax benefit on stock-based compensation (Note 10)	—	658	
Deferred tax adjustment (Note 13)	—	24,546	
Transition tax on accumulated foreign earnings (Note 14)	—	(28,658)	
Accrued tax on MKS subsidiary distributions (Note 12)	—	(14,000)	
Tax adjustment related to the sale of a business (Note 11)	—	12,131	
Tax effect of pro-forma adjustments	—	5,083	
Non-GAAP	\$ 127,735	\$ 33,119	25.9%

	Twelve Months Ended December 31, 2018			Twelve Months Ended December 31, 2017		
	Income Before Income Taxes	Provision (benefit) for Income Taxes	Effective Tax Rate	Income Before Income Taxes	Provision (benefit) for Income Taxes	Effective Tax Rate
GAAP	\$ 480,950	\$ 88,054	18.3%	\$ 447,625	\$ 108,493	24.2%
Adjustments:						
Acquisition and integration costs (Note 1)	3,113	—		5,332	—	
Amortization of debt issuance costs (Note 2)	3,884	—		9,405	—	
Restructuring (Note 3)	3,567	—		3,920	—	
Expenses related to the sale of a business (Note 4)	—	—		859	—	
Excess and obsolete inventory charge (Note 5)	—	—		1,160	—	
Fees and expenses related to repricing of term loan (Note 6)	378	—		492	—	
Environmental costs (Note 7)	1,000	—		—	—	
Asset impairment (Note 8)	—	—		6,719	—	
Gain on sale of business (Note 9)	—	—		(74,856)	—	
Amortization of intangible assets	43,521	—		45,743	—	
Windfall tax benefit on stock-based compensation (Note 10)	—	8,277		—	11,071	
Tax adjustment related to the sale of a business (Note 11)	—	—		—	(2,876)	
Accrued tax on MKS subsidiary distributions (Note 12)	—	5,033		—	(14,000)	
Deferred tax adjustment (Note 13)	—	(878)		—	24,546	
Transition tax on accumulated foreign earnings (Note 14)	—	1,464		—	(28,658)	
Tax cost on the inter-company sale of an asset (Note 15)	—	(541)		—	—	
Tax effect of pro-forma adjustments	—	4,655		—	19,639	
Non-GAAP	\$ 536,413	\$ 106,064	19.8%	\$ 446,399	\$ 118,215	26.5%

Note 1: Acquisition and integration costs include acquisition costs related to the announced acquisition of Electro Scientific Industries, Inc. which is expected to close on February 1, 2019, for the three and twelve month periods ended December 31, 2018. We recorded acquisition and integration costs related to the Newport Corporation acquisition, which closed during the second quarter of 2016 during the three and twelve month periods ended December 31, 2018 and 2017.

Note 2: We recorded additional interest expense related to the amortization of debt issuance costs affiliated with our Term Loan Credit Agreement and ABL Facility.

Note 3: We recorded restructuring costs during the three and twelve months ended December 31, 2018 and the three months ended September 30, 2018, which were primarily comprised of severance costs related to a worldwide reduction in workforce, transferring a portion of our U.S. shared accounting functions to a third party as well as the consolidation of certain shared accounting functions in Asia. We recorded restructuring costs during the three and twelve months ended December 31, 2017, primarily related to the restructuring of one of our international facilities and the consolidation of sales offices.

Note 4: We recorded legal and consulting expenses during the twelve months ended December 31, 2017 related to the sale of a business, which was completed in April 2017.

Note 5: We recorded excess and obsolete inventory charges in cost of sales during the twelve months ended December 31, 2017, related to the discontinuation of a product line in connection with the consolidation of two manufacturing sites.

Note 6: We recorded fees and expenses during the twelve months ended December 31, 2018 and 2017 related to repricings of our Term Loan Credit Agreement.

Note 7: We recorded additional environmental costs during the twelve months ended December 31, 2018, related to an Environmental Protection Agency-designated Superfund site, which was acquired as part of our acquisition of Newport Corporation.

Note 8: We recorded an asset impairment charge, primarily related to the write-off of goodwill and intangible assets, during the twelve months ended December 31, 2017, in connection with the consolidation of two manufacturing plants.

Note 9: We recorded a gain during the twelve months ended December 31, 2017, related to the sale of our Data Analytics Solutions business.

Note 10: We recorded windfall tax benefits on the vesting of stock-based compensation.

Note 11: We recorded and adjusted taxes related to the sale of our Data Analytics Solutions business during the three and twelve months ended December 31, 2017.

Note 12: We recorded and adjusted our tax accruals related to distributions of MKS subsidiaries during the three months ended September 30, 2018 and the three and twelve months ended December 31, 2018 and 2017.

Note 13: We recorded a deferred tax adjustment, related to the 2017 Tax Cut and Jobs Act during the three months ended December 31, 2017 and the twelve months ended December 31, 2018 and 2017.

Note 14: We recorded and adjusted the transition tax on accumulated foreign earnings related to the 2017 Tax Cut and Jobs Act during the three months ended September 30, 2018 and December 31, 2017 and twelve months ended December 31, 2018 and 2017.

Note 15: We recorded taxes on the inter-company sale of an asset during the three and twelve months ended December 31, 2018.

MKS Instruments, Inc.
Reconciliation of Q1-19 Guidance — GAAP Net Income to Non-GAAP Net Earnings
(In thousands, except per share data)

	Three Months Ended March 31, 2019			
	Low Guidance		High Guidance	
	\$ Amount	\$ Per Share	\$ Amount	\$ Per Share
GAAP net income	\$ 42,400	\$ 0.78	\$ 55,600	\$ 1.02
Amortization	10,400	0.19	10,400	0.19
Deferred financing costs	600	0.01	600	0.01
Restructuring	300	0.01	300	0.01
Tax effect of adjustments (Note 1)	(2,100)	(0.04)	(2,200)	(0.04)
Non-GAAP net earnings	<u>\$ 51,600</u>	<u>\$ 0.95</u>	<u>\$ 64,700</u>	<u>\$ 1.18</u>
Q1 -19 forecasted shares		54,600		54,600

Note 1: The Non-GAAP adjustments are tax effected at the applicable statutory rates and the difference between the GAAP and Non-GAAP tax rates.