# 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): October 23, 2018**

# MKS Instruments, Inc.
**(Exact name of Registrant as Specified in Its Charter)**

| Massachusetts | 000-23621 | 04-2277512 |
|---|---|---|
| (State or Other Jurisdiction of Incorporation) | (Commission File Number) | (IRS Employer Identification No.) |

| 2 Tech Drive, Suite 201, Andover, MA | 01810 |
|---|---|
| (Address of Principal Executive Offices) | (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 October 23, 2018, MKS Instruments, Inc. announced its financial results for the quarter ended September 30, 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 October 23, 2018

**Exhibit Index**

| Exhibit No. | Description |
|---|---|
| 99.1 | Press Release dated October 23, 2018 |

## 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: October 23, 2018* | *By:* | */s/Seth H. Bagshaw* |
| | | *Name: Seth H. Bagshaw* |
| | | *Title: Sr. Vice President, Chief Financial Officer and Treasurer* |

EXHIBIT 99.1

# MKS Instruments Reports Third Quarter 2018 Financial Results

Andover, MA, October 23, 2018 -- MKS Instruments, Inc. (NASDAQ: MKSI), a global provider of technologies that enable advanced processes and improve productivity, today reported third quarter 2018 financial results.

**Quarterly Financial Results**
**(in millions, except per share data)**

| | Q3 2018 | Q2 2018 |
|---|---|---|
| **GAAP Results** | | |
| Net revenues | $ 487 | $ 573 |
| Gross margin | 47.6% | 48.0% |
| Operating margin | 24.0% | 26.4% |
| Net income | $ 93 | $ 123 |
| Diluted EPS | $ 1.70 | $ 2.22 |
| **Non-GAAP Results** | | |
| Gross margin | 47.6% | 48.0% |
| Operating margin | 26.5% | 28.3% |
| Net earnings | $ 103 | $ 129 |
| Diluted EPS | $ 1.88 | $ 2.33 |

**Third Quarter 2018 Financial Results**

Revenue was $487 million, a decrease of 15% from a record of $573 million in the second quarter of 2018 and an increase of $1 million from $486 million in the third quarter of 2017.

Net income was $93 million, or $1.70 per diluted share, compared to net income of $123 million, or $2.22 per diluted share, in the second quarter of 2018, and $76 million, or $1.38 per diluted share, in the third quarter of 2017.

Non-GAAP net earnings, which exclude special charges and credits, were $103 million, or $1.88 per diluted share, compared to $129 million, or $2.33 per diluted share, in the second quarter of 2018, and $86 million, or $1.56 per diluted share, in the third quarter of 2017.

Sales in the Vacuum and Analysis Division were $286 million, a decrease of 7% from the third quarter a year ago, primarily due to moderation in semiconductor capital equipment spending. Sales in the Light and Motion Division were $201 million, an increase of 13% from the prior year period.

Sales to semiconductor customers were $259 million, a decrease of 8% compared to the third quarter of 2017, and sales to Advanced Markets were $228 million, an increase of 11% compared to the third quarter of 2017.

“Despite the recent moderation in the semiconductor market, we are pleased with our strong financial results for the third quarter, reflecting our ability to manage through these cycles,” said Gerald Colella, Chief Executive Officer.  “Although we foresee the semiconductor market will continue to face headwinds in the near term, exiting the third quarter we have seen that our semiconductor business has been more steady and consistent.  We are very optimistic on the long-term growth drivers within the semiconductor market.  Moreover, we have continued to diversify our markets, customers and product portfolio and are on target to grow our Advanced Markets more than two times faster than the overall market."

"The acquisition of Newport Corporation, which was completed two years ago, coupled with strong organic growth has continued to expand our portion of revenue from Advanced Markets," said Seth Bagshaw, Chief Financial Officer. "In the past five years, we have grown our Advanced Market revenue from approximately $211 million in 2013 to approaching over $900 million in 2018.  Advanced Markets represented approximately 47% of consolidated revenue in the third quarter and year to date revenue increased almost 20% from the same period a year ago."

**Additional Financial Information**

The Company had $620 million in cash and short-term investments and $348 million of Term Loan Debt as of September 30, 2018. During the third quarter of 2018, the Company repurchased 818 thousand shares for $75 million at an average price of $91.67 per share and paid a dividend of $10.9 million or $0.20 cents per diluted share.

**Fourth Quarter 2018 Outlook**

Based on current business levels, the Company expects that revenue in the fourth quarter of 2018 could range from $420 to $460 million.

At these volumes, GAAP net income could range from $1.19 to $1.45 per diluted share and Non-GAAP net earnings could range from $1.38 to $1.64 per diluted share. This financial guidance incorporates assumptions made based upon the Company's current interpretation of the 2017 Tax Cut and Jobs Act and may change as additional clarification and implementation guidance is issued.

**Conference Call Details**

A conference call with management will be held on Wednesday, October 24, 2018 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 4268689, 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 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 challenges, risks and costs involved with integrating the operations of the companies we have acquired, including our most recent 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. 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.

###

Company Contact: Seth H. Bagshaw
Senior Vice President, Chief Financial Officer and Treasurer
Telephone: 978.645.5578

Investor Relations Contacts:
Monica Gould
The Blueshirt Group
Telephone: 212.871.3927
Email: monica@blueshirtgroup.com

Lindsay Grant Savarese
The Blueshirt Group
Telephone: 212.331.8417
Email: lindsay@blueshirtgroup.com

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

| | Three Months Ended | | |
|---|---|---|---|
| | September 30, 2018 | September 30, 2017 (Note 12) | June 30, 2018 |
| Net revenues: | | | |
| Products | $ 426,255 | $ 428,891 | $ 509,999 |
| Services | 60,897 | 57,376 | 63,141 |
| Total net revenues | 487,152 | 486,267 | 573,140 |
| Cost of revenues: | | | |
| Products | 219,311 | 226,445 | 266,890 |
| Services | 35,981 | 31,827 | 31,373 |
| Total cost of revenues | 255,292 | 258,272 | 298,263 |
| Gross profit | 231,860 | 227,995 | 274,877 |
| Research and development | 31,898 | 32,548 | 36,504 |
| Selling, general and administrative | 70,822 | 71,347 | 76,181 |
| Acquisition and integration costs | 36 | 2,466 | (1,168) |
| Restructuring | 1,364 | 10 | 790 |
| Fees and expenses related to repricing of term loan | — | 492 | 378 |
| Amortization of intangible assets | 10,695 | 10,977 | 10,901 |
| Income from operations | 117,045 | 110,155 | 151,291 |
| Interest income | 1,516 | 873 | 1,456 |
| Interest expense | 3,719 | 7,172 | 3,922 |
| Other expense, net | 326 | 2,485 | 281 |
| Income from operations before income taxes | 114,516 | 101,371 | 148,544 |
| Provision for income taxes | 21,239 | 25,377 | 25,682 |
| Net income | $ 93,277 | $ 75,994 | $ 122,862 |
| Net income per share: | | | |
| Basic | $ 1.71 | $ 1.40 | $ 2.25 |
| Diluted | $ 1.70 | $ 1.38 | $ 2.22 |
| Cash dividends per common share | $ 0.20 | $ 0.18 | $ 0.20 |
| Weighted average shares outstanding: | | | |
| Basic | 54,476 | 54,282 | 54,719 |
| Diluted | 54,954 | 55,101 | 55,274 |

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

| | September 30, 2018 | September 30, 2017 | June 30, 2018 |
|---|---|---|---|
| Net income | $ 93,277 | $ 75,994 | $ 122,862 |
| Adjustments: | | | |
| Acquisition and integration costs (Note 1) | 36 | 2,466 | (1,168) |
| Fees and expenses related to repricing of term loan (Note 2) | — | 492 | 378 |
| Amortization of debt issuance costs (Note 3) | 682 | 2,314 | 660 |
| Restructuring (Note 4) | 1,364 | 10 | 790 |
| Amortization of intangible assets | 10,695 | 10,977 | 10,901 |
| Windfall tax benefit on stock-based compensation (Note 5) | (287) | (594) | (4,752) |
| Accrued tax on subsidiary distribution (Note 6) | (2,756) | — | — |
| Transition tax on accumulated foreign earnings (Note 7) | 863 | — | (659) |
| Pro-forma tax adjustments | (659) | (5,789) | (200) |
| Non-GAAP net earnings (Note 8) | $ 103,215 | $ 85,870 | $ 128,812 |
| Non-GAAP net earnings per share (Note 8) | $ 1.88 | $ 1.56 | $ 2.33 |
| Weighted average shares outstanding | 54,954 | 55,101 | 55,274 |
| Income from operations | $ 117,045 | $ 110,155 | $ 151,291 |
| Adjustments: | | | |
| Acquisition and integration costs (Note 1) | 36 | 2,466 | (1,168) |
| Fees and expenses related to repricing of term loan (Note 2) | — | 492 | 378 |
| Restructuring (Note 4) | 1,364 | 10 | 790 |
| Amortization of intangible assets | 10,695 | 10,977 | 10,901 |
| Non-GAAP income from operations (Note 9) | $ 129,140 | $ 124,100 | $ 162,192 |
| Non-GAAP operating margin percentage (Note 9) | 26.5% | 25.5% | 28.3% |
| Interest expense | $ 3,719 | $ 7,172 | $ 3,922 |

| | | | |
|---|---|---|---|
| Amortization of debt issuance costs (Note 3) | 682 | 2,314 | 660 |
| Non-GAAP interest expense | $ 3,037 | $ 4,858 | $ 3,262 |
| Net income | $ 93,277 | $ 75,994 | $ 122,862 |
| Interest expense, net | 2,203 | 6,299 | 2,466 |
| Provision for income taxes | 21,239 | 25,377 | 25,682 |
| Depreciation | 8,834 | 9,153 | 8,984 |
| Amortization | 10,695 | 10,977 | 10,901 |
| EBITDA (Note 10) | $ 136,248 | $ 127,800 | $ 170,895 |
| Stock-based compensation | 5,213 | 4,846 | 6,366 |
| Acquisition and integration costs (Note 1) | 36 | 2,466 | (1,168) |
| Fees and expenses related to repricing of term loan (Note 2) | — | 492 | 378 |
| Restructuring (Note 4) | 1,364 | 10 | 790 |
| Other adjustments | — | 836 | — |
| Adjusted EBITDA (Note 11) | $ 142,861 | $ 136,450 | $ 177,261 |

Note 1: 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 2017. During the second quarter of 2018, we reversed a portion of these costs related to severance agreement provisions that were not met.

Note 2: We recorded fees and expenses during the three months ended June 30, 2018 and September 30, 2017 related to repricings of our Term Loan Credit Agreement.

Note 3: We recorded additional interest expense related to the amortization of debt issuance costs affiliated with our Term Loan Credit Agreement and ABL Facility.

Note 4: We recorded restructuring charges during the three months ended 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 June 30, 2018 which were primarily comprised of severance costs related to transferring a portion of our 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 months ended September 30, 2017, primarily related to the consolidation of two manufacturing plants.

Note 5: We recorded windfall tax benefits on the vesting of stock-based compensation.

Note 6: We recorded an adjustment to a tax accrual related to a planned distribution of an MKS subsidiary.

Note 7*: We adjusted the provisional transition tax on accumulated foreign earnings related to the 2017 Tax Cut and Jobs Act during the three months ended September 30, 2018 and June 30, 2018.

Note 8: The Non-GAAP net earnings and Non-GAAP net earnings per share amounts exclude acquisition and integration costs, fees and expenses related to the repricing of our Term Loan Credit Agreement, amortization of debt issuance costs, restructuring costs, amortization of intangible assets, a windfall tax benefit related to stock compensation expense, a deferred tax adjustment, transition tax on accumulated foreign earnings and the related tax effect of these adjustments to reflect the expected full year effective tax rate in the related period.

Note 9: The Non-GAAP income from operations and Non-GAAP operating margin percentages exclude acquisition and integration costs, fees and expenses related to the repricing of the Term Loan Credit Agreement, restructuring costs and amortization of intangible assets.

Note 10: EBITDA excludes net interest, income taxes, depreciation and amortization of intangible assets.

Note 11: Adjusted EBITDA excludes stock-based compensation, acquisition and integration costs, fees and expenses related to the repricing of the Term Loan Credit Agreement, restructuring costs and other adjustments as defined in our Term Loan Credit Agreement.

Note 12: 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 September 30, 2017 | | |
|---|---|---|---|
| | As previously reported | Adjustment | As revised |
| Net revenues: | | | |
| Products | $ 434,710 | $ (5,819) | $ 428,891 |
| Services | 51,557 | 5,819 | 57,376 |
| Total net revenues | 486,267 | — | 486,267 |
| Cost of revenues: | | | |
| Cost of products | 225,174 | 1,271 | 226,445 |
| Cost of services | 33,098 | (1,271) | 31,827 |
| Total cost of revenues | $ 258,272 | $ — | $ 258,272 |

*The computation of the one-time tax on our offshore earnings pursuant to the 2017 Tax Cut and Jobs Act (the "Tax Act") as well as our net deferred tax liability is based on our current understanding and assumptions regarding the impact of the Tax Act, and may change as additional clarification and implementation guidance is issued and as the interpretation of the Tax Act evolves over time.

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

| | Nine Months Ended September 30, 2018 | Nine Months Ended September 30, 2017 (Note 20) |
|---|---|---|
| Net revenues: | | |
| Products | $ 1,432,931 | $ 1,243,146 |
| Services | 181,636 | 161,031 |
| Total net revenues | 1,614,567 | 1,404,177 |
| Cost of revenues: | | |
| Products | 747,522 | 662,985 |
| Services | 97,453 | 88,067 |
| Total cost of revenues | 844,975 | 751,052 |
| Gross profit | 769,592 | 653,125 |
| Research and development | 103,259 | 99,510 |
| Selling, general and administrative | 229,952 | 217,546 |
| Acquisition and integration costs | (1,132) | 4,698 |
| Restructuring | 3,374 | 2,596 |
| Environmental costs | 1,000 | — |
| Asset impairment | — | 6,719 |
| Fees and expenses related to repricing of term loan | 378 | 492 |
| Amortization of intangible assets | 32,786 | 34,946 |
| Income from operations | 399,975 | 286,618 |
| Interest income | 4,077 | 1,896 |
| Interest expense | 13,071 | 23,001 |
| Gain on sale of business | — | 74,856 |
| Other expense, net | 1,179 | 3,741 |
| Income from operations before income taxes | 389,802 | 336,628 |
| Provision for income taxes | 68,542 | 75,134 |
| Net income | $ 321,260 | $ 261,494 |
| Net income per share: | | |
| Basic | $ 5.89 | $ 4.84 |
| Diluted | $ 5.82 | $ 4.75 |
| Cash dividends per common share | $ 0.58 | $ 0.53 |
| Weighted average shares outstanding: | | |
| Basic | 54,539 | 54,076 |
| Diluted | 55,171 | 55,020 |
| **The following supplemental Non-GAAP earnings information is presented to aid in understanding MKS' operating results:** | | |
| Net income | $ 321,260 | $ 261,494 |
| Adjustments: | | |
| Acquisition and integration costs (Note 1) | (1,132) | 4,698 |
| 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) | 3,173 | 5,422 |
| Restructuring (Note 6) | 3,374 | 2,596 |
| 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 | 32,786 | 34,946 |
| Windfall tax benefit on stock-based compensation (Note 10) | (8,075) | (10,413) |
| Accrued tax on subsidiary distribution (Note 11) | (2,756) | — |
| Tax adjustment related to the sale of a business (Note 12) | — | 15,007 |
| Deferred tax adjustment (Note 13) | 878 | — |
| Transition tax on accumulated foreign earnings (Note 14) | (1,464) | — |

| | | |
|---|---|---|
| Pro-forma tax adjustments | (3,106) | (15,499) |
| Non-GAAP net earnings (Note 15) | $ 346,316 | $ 232,625 |
| Non-GAAP net earnings per share (Note 15) | $ 6.28 | $ 4.23 |
| Weighted average shares outstanding | 55,171 | 55,020 |
| Income from operations | $ 399,975 | $ 286,618 |
| Adjustments: | | |
| Acquisition and integration costs (Note 1) | (1,132) | 4,698 |
| 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) | 3,374 | 2,596 |
| Environmental costs (Note 7) | 1,000 | — |
| Asset impairment (Note 8) | — | 6,719 |
| Amortization of intangible assets | 32,786 | 34,946 |
| Non-GAAP income from operations (Note 16) | $ 436,381 | $ 338,088 |
| Non-GAAP operating margin percentage (Note 16) | 27.0% | 24.1% |
| Gross profit | $ 769,592 | $ 653,125 |
| Excess and obsolete inventory charge (Note 3) | — | 1,160 |
| Non-GAAP gross profit (Note 17) | $ 769,592 | $ 654,285 |
| Non-GAAP gross profit percentage (Note 17) | 47.7% | 46.6% |
| Interest expense | $ 13,071 | $ 23,001 |
| Amortization of debt issuance costs (Note 5) | 3,173 | 5,422 |
| Non-GAAP interest expense | $ 9,898 | $ 17,579 |
| Net Income | $ 321,260 | $ 261,494 |
| Interest expense, net | 8,994 | 21,105 |
| Provision for income taxes | 68,542 | 75,134 |
| Depreciation | 27,120 | 27,605 |
| Amortization | 32,786 | 34,946 |
| EBITDA (Note 18) | $ 458,702 | $ 420,284 |
| Stock-based compensation | 22,005 | 19,835 |
| Acquisition and integration costs (Note 1) | (1,132) | 4,698 |
| 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) | 3,374 | 2,596 |
| Environmental costs (Note 7) | 1,000 | — |
| Asset impairment (Note 8) | — | 6,719 |
| Gain on sale of business (Note 9) | — | (74,856) |
| Other adjustments | 772 | 2,405 |
| Adjusted EBITDA (Note 19) | $ 485,099 | $ 384,192 |

Note 1: We recorded acquisition and integration costs related to the Newport Corporation acquisition, which closed during the second quarter of 2016, during the nine months ended September 30, 2018 and 2017. During the second quarter of 2018, we reversed a portion of these costs related to severance agreement provisions that were not met.

Note 2: We recorded legal and consulting expenses during the nine months ended September 30, 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 nine months ended September 30, 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 nine months ended September 30, 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 nine months ended September 30, 2018, which were primarily comprised of severance costs related to a worldwide reduction in workforce in the third quarter, transferring a portion of our 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 nine months ended September 30, 2017, primarily related to the restructuring of one of our international facilities and the consolidation of sales offices.

Note 7: We recorded additional environmental costs during the nine months ended September 30, 2018, related to an EPA-designated Superfund site, which was acquired as part of our Newport acquisition.

Note 8: We recorded an asset impairment charge, primarily related to the write-off of goodwill and intangible assets, during the nine months ended September 30, 2017, in connection with the consolidation of two manufacturing plants.

Note 9: We recorded a gain during the nine months ended September 30, 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 an adjustment to a tax accrual related to a planned distribution of an MKS subsidiary.

Note 12: We recorded taxes related to the sale of our Data Analytics Solutions business during the nine months ended September 30, 2017.

Note 13*: We recorded a provisional 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 fourth quarter of 2017.

Note 14*: We adjusted the provisional transition tax on accumulated foreign earnings related to the 2017 Tax Cut and Jobs Act during the nine months ended September 30, 2018.

Note 15: 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, 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 and the related tax effect of these adjustments to reflect the expected full year effective tax rate in the related period.

Note 16: 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 17: 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 18: EBITDA excludes net interest, income taxes, depreciation and amortization of intangible assets.

Note 19: 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 20: 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:

| | Nine Months Ended September 30, 2017 | | |
|---|---|---|---|
| | As previously reported | Adjustment | As revised |
| Net revenues: | | | |
| Products | $ 1,259,582 | $ (16,436) | $ 1,243,146 |
| Services | 144,595 | 16,436 | 161,031 |
| Total net revenues | 1,404,177 | — | 1,404,177 |
| Cost of revenues: | | | |
| Cost of products | 659,538 | 3,447 | 662,985 |
| Cost of services | 91,514 | (3,447) | 88,067 |
| Total cost of revenues | $ 751,052 | $ — | $ 751,052 |

*The computation of the one-time tax on our offshore earnings pursuant to the 2017 Tax Cut and Jobs Act (the "Tax Act") as well as our net deferred tax liability is based on our current understanding and assumptions regarding the impact of the Tax Act, and may change as additional clarification and implementation guidance is issued and as the interpretation of the Tax Act evolves over time.

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

| | September 30, 2018 | December 31, 2017 |
|---|---|---|
| ASSETS | | |
| Cash and cash equivalents, including restricted cash | $ 399,850 | $ 333,887 |
| Short-term investments | 219,776 | 209,434 |
| Trade accounts receivable, net | 318,470 | 300,308 |
| Inventories | 399,077 | 339,081 |
| Other current assets | 75,298 | 53,543 |
| Total current assets | 1,412,471 | 1,236,253 |
| Property, plant and equipment, net | 180,182 | 171,782 |
| Goodwill | 587,861 | 591,047 |
| Intangible assets, net | 331,288 | 366,398 |
| Long-term investments | 10,404 | 10,655 |
| Other assets | 42,390 | 37,883 |
| Total assets | $ 2,564,596 | $ 2,414,018 |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | |
| Short-term debt | $ 6,130 | $ 2,972 |
| Accounts payable | 81,486 | 82,518 |
| Accrued compensation | 74,472 | 96,147 |
| Income taxes payable | 12,942 | 21,398 |
| Deferred revenue | 9,136 | 12,842 |
| Other current liabilities | 78,327 | 73,945 |
| Total current liabilities | 262,493 | 289,822 |
| Long-term debt, net | 342,970 | 389,993 |
| Non-current deferred taxes | 61,540 | 61,571 |
| Non-current accrued compensation | 56,888 | 51,700 |
| Other liabilities | 30,412 | 32,025 |
| Total liabilities | 754,303 | 825,111 |
| Stockholders' equity: | | |
| Common stock | 113 | 113 |
| Additional paid-in capital | 786,138 | 789,644 |
| Retained earnings | 1,023,959 | 795,698 |
| Accumulated other comprehensive income | 83 | 3,452 |
| Total stockholders' equity | 1,810,293 | 1,588,907 |
| Total liabilities and stockholders' equity | $ 2,564,596 | $ 2,414,018 |

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

| | Three Months Ended | | |
|---|---|---|---|
| | September 30, 2018 | September 30, 2017 | June 30, 2018 |
| Cash flows from operating activities: | | | |
| Net income | $ 93,277 | $ 75,994 | $ 122,862 |
| Adjustments to reconcile net income to net cash provided by operating activities: | | | |
| Depreciation and amortization | 19,529 | 20,129 | 19,885 |
| Amortization of debt issuance costs and original issue discount | 897 | 2,643 | 868 |
| Stock-based compensation | 5,213 | 4,845 | 6,366 |
| Provision for excess and obsolete inventory | 5,283 | 4,347 | 4,959 |
| Provision for doubtful accounts | 263 | 139 | 261 |
| Deferred income taxes | (4,695) | (1,157) | 1,875 |
| Other | 71 | 36 | 426 |
| Changes in operating assets and liabilities | (23,882) | (8,013) | (47,891) |
| Net cash provided by operating activities | 95,956 | 98,963 | 109,611 |
| Cash flows from investing activities: | | | |
| Purchases of investments | (64,958) | (129,430) | (99,063) |
| Sales of investments | 4,505 | 18,252 | 54,433 |
| Maturities of investments | 44,605 | 31,545 | 41,138 |
| Purchases of property, plant and equipment | (15,067) | (8,118) | (12,428) |
| Net cash used in investing activities | (30,915) | (87,751) | (15,920) |
| Cash flows from financing activities: | | | |
| Payments of short-term borrowings | (29,803) | (4,016) | (17,788) |
| Proceeds from short and long-term borrowings | 23,635 | 4,521 | 25,082 |
| Payments of long-term borrowings | (2) | (125,000) | — |
| Repurchase of common stock | (75,000) | — | — |
| Dividend payments | (10,858) | (9,500) | (10,942) |
| Net payments related to employee stock awards | (589) | (1,306) | (4,131) |
| Net cash used in financing activities | (92,617) | (135,301) | (7,779) |
| Effect of exchange rate changes on cash and cash equivalents | (5) | 2,071 | 631 |
| Increase in cash and cash equivalents and restricted cash | (27,581) | (122,018) | 86,543 |
| Cash and cash equivalents, including restricted cash at beginning of period | 427,431 | 428,112 | 340,888 |
| Cash and cash equivalents, including restricted cash at end of period | $ 399,850 | $ 306,094 | $ 427,431 |

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

| | Three Months Ended September 30, 2018 | | | Three Months Ended June 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 | $ 114,516 | $ 21,239 | 18.5% | $ 148,544 | $ 25,682 | 17.3% |
| Adjustments: | | | | | | |
| Acquisition and integration costs (Note 1) | 36 | — | | (1,168) | — | |
| Fees and expenses related to repricing of term loan (Note 2) | — | — | | 378 | — | |
| Amortization of debt issuance costs (Note 3) | 682 | — | | 660 | — | |
| Restructuring (Note 4) | 1,364 | — | | 790 | — | |
| Amortization of intangible assets | 10,695 | — | | 10,901 | — | |
| Windfall tax benefit on stock-based compensation (Note 10) | — | 287 | | — | 4,752 | |
| Accrued tax on subsidiary distribution (Note 11) | — | 2,756 | | — | — | |
| Transition tax on accumulated foreign earnings (Note 14) | — | (863) | | — | 659 | |
| Tax effect of pro-forma adjustments | — | 659 | | — | 200 | |
| Non-GAAP | $ 127,293 | $ 24,078 | 18.9% | $ 160,105 | $ 31,293 | 19.5% |

| | Three Months Ended September 30, 2017 | | |
|---|---|---|---|
| | Income Before Income Taxes | Provision (benefit) for Income Taxes | Effective Tax Rate |
| GAAP | $ 101,371 | $ 25,377 | 25.0% |
| Adjustments: | | | |
| Acquisition and integration costs (Note 1) | 2,466 | — | |
| Fees and expenses related to repricing of term loan (Note 2) | 492 | — | |
| Amortization of debt issuance costs (Note 3) | 2,314 | — | |
| Restructuring (Note 4) | 10 | — | |
| Amortization of intangible assets | 10,977 | — | |
| Windfall tax benefit on stock-based compensation (Note 10) | — | 594 | |
| Tax effect of pro-forma adjustments | — | 5,789 | |
| Non-GAAP | $ 117,630 | $ 31,760 | 27.0% |

| | Nine Months Ended September 30, 2018 | | | Nine Months Ended September 30, 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 | $ 389,802 | $ 68,542 | 17.6% | $ 336,628 | $ 75,134 | 22.3% |
| Adjustments: | | | | | | |
| Acquisition and integration costs (Note 1) | (1,132) | — | | 4,698 | — | |
| Fees and expenses related to repricing of term loan (Note 2) | 378 | — | | 492 | — | |
| Amortization of debt issuance costs (Note 3) | 3,173 | — | | 5,422 | — | |
| Restructuring (Note 4) | 3,374 | — | | 2,596 | — | |
| Expenses related to the sale of a business (Note 5) | — | — | | 859 | — | |
| Excess and obsolete inventory charge (Note 6) | — | — | | 1,160 | — | |
| 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 | 32,786 | — | | 34,946 | — | |
| Windfall tax benefit on stock-based compensation (Note 10) | — | 8,075 | | — | 10,413 | |
| Accrued tax on subsidiary distribution (Note 11) | — | 2,756 | | | | |
| Tax adjustment related to the sale of a business (Note 12) | — | — | | — | (15,007) | |
| Deferred tax adjustment (Note 13) | — | (878) | | — | — | |
| Transition tax on accumulated foreign earnings (Note 14) | — | 1,464 | | — | — | |
| Tax effect of pro-forma adjustments | — | 3,106 | | — | 15,499 | |
| Non-GAAP | $ 429,381 | $ 83,065 | 19.3% | $ 318,664 | $ 86,039 | 27.0% |

Note 1: We recorded acquisition and integration costs related to the Newport Corporation acquisition, which closed during the second quarter of 2016, during the three and nine months ended June 30, 2017. During the second quarter of 2018, we reversed a portion of these costs related to severance agreement provisions that were not met.

Note 2: We recorded fees and expenses during the three months ended June 30, 2018 and nine months ended September 30, 2018 and three and nine months ended September 30, 2017 related to repricings of our Term Loan Credit Agreement.

Note 3: We recorded additional interest expense related to the amortization of debt issuance costs affiliated with our Term Loan Credit Agreement and ABL Facility.

Note 4: We recorded restructuring costs during the three and nine months ended September 30, 2018 and three months ended June 30, 2018, which were primarily comprised of severance costs related to a worldwide reduction in workforce, transferring a portion of our 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 nine months ended September 30, 2017, primarily related to the restructuring of one of our international facilities and the consolidation of sales offices.

Note 5: We recorded legal and consulting expenses during the nine months ended September 30, 2017 related to the sale of a business, which was completed in April 2017.

Note 6: We recorded excess and obsolete inventory charges in cost of sales during the nine months ended September 30, 2017, related to the discontinuation of a product line in connection with the consolidation of two manufacturing sites.

Note 7: We recorded additional environmental costs during the nine months ended September 30, 2018, related to an EPA-designated Superfund site, which was acquired as part of our Newport acquisition.

Note 8: We recorded an asset impairment charge, primarily related to the write-off of goodwill and intangible assets, during the nine months ended September 30, 2017, in connection with the consolidation of two manufacturing plants.

Note 9: We recorded a gain during the nine months ended September 30, 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 an adjustment to a tax accrual related to a planned distribution of an MKS subsidiary.

Note 12: We recorded taxes related to the sale of our Data Analytics Solutions business during the nine months ended September 30, 2017.

Note 13*: We recorded a provisional 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 fourth quarter of 2017.

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

*The computation of the one-time tax on our offshore earnings pursuant to the 2017 Tax Cut and Jobs Act (the "Tax Act") as well as our net deferred tax liability is based on our current understanding and assumptions regarding the impact of the Tax Act, and may change as additional clarification and implementation guidance is issued and as the interpretation of the Tax Act evolves over time.

**MKS Instruments, Inc.**
**Reconciliation of Q4-18 Guidance — GAAP Net Income to Non-GAAP Net Earnings**
**(In thousands, except per share data)**

| | Three Months Ended December 31, 2018 | | | |
|---|---|---|---|---|
| | Low Guidance | | High Guidance | |
| | $ Amount | $ Per Share | $ Amount | $ Per Share |
| GAAP net income | $ 64,900 | $ 1.19 | $ 78,800 | $ 1.45 |
| Amortization | 10,800 | 0.20 | 10,800 | 0.20 |
| Deferred financing costs | 700 | 0.01 | 700 | 0.01 |
| Restructuring | 100 | 0.00 | 100 | 0.00 |
| Tax effect of adjustments (Note 1) | (1,400) | (0.03) | (1,200) | (0.02) |
| Non-GAAP net earnings | $ 75,100 | $ 1.38 | $ 89,200 | $ 1.64 |
| Q4 -18 forecasted shares | | 54,500 | | 54,500 |

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.