
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, DC 20549

FORM 10-Q

(MARK ONE)

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

For the quarterly period ended March 31, 2014

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 0-23621

MKS INSTRUMENTS, INC.

(Exact name of registrant as specified in its charter)

Massachusetts
(State or other jurisdiction of
incorporation or organization)

04-2277512
(I.R.S. Employer
Identification No.)

2 Tech Drive, Suite 201, Andover, Massachusetts
(Address of principal executive offices)

01810
(Zip Code)

Registrant's telephone number, including area code (978) 645-5500

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes No

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

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

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

As of April 30, 2014, the registrant had 53,535,421 shares of common stock outstanding.

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ITEM 1. FINANCIAL STATEMENTS.MKS INSTRUMENTS, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share data)
(Unaudited)

	March 31, 2014	December 31, 2013
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 287,090	\$ 288,902
Short-term investments	306,513	300,715
Trade accounts receivable, net	119,463	116,744
Inventories	147,511	142,727
Deferred income taxes	16,053	13,428
Other current assets	17,552	16,715
Assets classified as held for sale	1,427	—
Total current assets	<u>895,609</u>	<u>879,231</u>
Property, plant and equipment, net	75,517	77,536
Long-term investments	53,620	60,405
Goodwill	151,112	150,909
Intangible assets, net	12,519	13,090
Other assets	34,383	31,847
Total assets	<u>\$ 1,222,760</u>	<u>\$ 1,213,018</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 35,385	\$ 40,074
Accrued compensation	35,763	43,662
Income taxes payable	8,620	10,444
Other current liabilities	36,442	34,242
Total current liabilities	<u>116,210</u>	<u>128,422</u>
Other liabilities	60,782	63,073
Commitments and contingencies (Note 18)		
Stockholders' equity:		
Preferred Stock, \$0.01 par value per share, 2,000,000 shares authorized; none issued and outstanding	—	—
Common Stock, no par value, 200,000,000 shares authorized; 53,456,493 and 53,363,450 shares issued and outstanding at March 31, 2014 and December 31, 2013, respectively	113	113
Additional paid-in capital	732,741	730,571
Retained earnings	301,147	278,966
Accumulated other comprehensive income	11,767	11,873
Total stockholders' equity	<u>1,045,768</u>	<u>1,021,523</u>
Total liabilities and stockholders' equity	<u>\$ 1,222,760</u>	<u>\$ 1,213,018</u>

The accompanying notes are an integral part of the consolidated financial statements.

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MKS INSTRUMENTS, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
AND COMPREHENSIVE INCOME
(in thousands, except per share data)
(Unaudited)

	Three Months Ended March 31,	
	2014	2013
Net revenues:		
Products	\$ 181,186	\$ 116,611
Services	25,167	25,034
Total net revenues	<u>206,353</u>	<u>141,645</u>
Cost of revenues:		
Cost of products	100,211	70,575
Cost of services	16,770	16,368
Total cost of revenues	<u>116,981</u>	<u>86,943</u>
Gross profit	89,372	54,702
Research and development	15,618	15,248
Selling, general and administrative	34,591	34,133
Acquisition costs	228	171
Restructuring	747	40
Amortization of intangible assets	410	434
Income from operations	37,778	4,676
Interest income	252	305
Interest expense	17	14
Income before income taxes	38,013	4,967
Provision (benefit) for income taxes	6,768	(794)
Net income	<u>\$ 31,245</u>	<u>\$ 5,761</u>
Other comprehensive income (loss):		
Changes in value of financial instruments designated as cash flow hedges, net of tax (benefit) expense ⁽¹⁾	\$ (163)	\$ 1,011
Foreign currency translation adjustments, net of tax of \$0 for the three months ended March 31, 2014 and 2013	21	(8,340)
Unrealized gain (loss) on investments, net of tax expense (benefit) ⁽²⁾	36	(16)
Total comprehensive income (loss)	<u>\$ 31,139</u>	<u>\$ (1,584)</u>
Net income per share:		
Basic	<u>\$ 0.58</u>	<u>\$ 0.11</u>
Diluted	<u>\$ 0.58</u>	<u>\$ 0.11</u>
Cash dividends per common share	<u>\$ 0.16</u>	<u>\$ 0.16</u>
Weighted average common shares outstanding:		
Basic	<u>53,411</u>	<u>52,773</u>
Diluted	<u>53,776</u>	<u>53,359</u>

(1) Tax (benefit) expense was \$(108) and \$605 for the three months ended March 31, 2014 and 2013, respectively.

(2) Tax expense (benefit) was \$24 and \$(10) for the three months ended March 31, 2014 and 2013, respectively.

The accompanying notes are an integral part of the consolidated financial statements.

MKS INSTRUMENTS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)
(Unaudited)

	Three Months Ended March 31,	
	2014	2013
Cash flows from operating activities:		
Net income	\$ 31,245	\$ 5,761
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	4,150	4,092
Stock-based compensation	3,198	3,798
Provision for excess and obsolete inventory	2,613	3,161
Provision for bad debt	94	969
Deferred income taxes	(3,974)	1,228
Excess tax benefits from stock-based compensation	(189)	(199)
Other	(141)	(33)
Changes in operating assets and liabilities:		
Trade accounts receivable	(2,784)	(10,348)
Inventories	(7,402)	(347)
Income taxes	(5,462)	(3,253)
Other current assets	(1,286)	(1,801)
Accrued compensation	(6,872)	(2,271)
Other current liabilities	2,512	(2,613)
Accounts payable	(4,656)	4,512
Other non-current assets	(1,143)	(193)
Net cash provided by operating activities	<u>9,903</u>	<u>2,463</u>
Cash flows from investing activities:		
Acquisition of businesses, net of cash acquired	—	(1,963)
Purchases of investments	(128,524)	(88,525)
Maturities of investments	104,623	84,145
Sales of investments	24,948	2,371
Purchases of property, plant and equipment	(3,098)	(3,356)
Other	79	130
Net cash used in investing activities	<u>(1,972)</u>	<u>(7,198)</u>
Cash flows from financing activities:		
Proceeds from short-term borrowings	—	6
Repurchase of common stock	(945)	(1,668)
Net payments related to employee stock awards	(762)	(1,251)
Dividend payments to common stockholders	(8,553)	(8,448)
Excess tax benefits from stock-based compensation	189	199
Net cash used in financing activities	<u>(10,071)</u>	<u>(11,162)</u>
Effect of exchange rate changes on cash and cash equivalents	328	(4,983)
Decrease in cash and cash equivalents	(1,812)	(20,880)
Cash and cash equivalents at beginning of period	288,902	287,588
Cash and cash equivalents at end of period	<u>\$ 287,090</u>	<u>\$ 266,708</u>

The accompanying notes are an integral part of the consolidated financial statements.

MKS INSTRUMENTS, INC.
NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS
(in thousands, except share and per share data)

1) Basis of Presentation

The terms “MKS” and the “Company” refer to MKS Instruments, Inc. and its subsidiaries. The interim financial data as of March 31, 2014 and for the three months ended March 31, 2014 and 2013 are unaudited; however, in the opinion of MKS, the interim data includes all adjustments, consisting only of normal recurring adjustments, necessary for a fair statement of the results for the interim periods. The consolidated balance sheet presented as of December 31, 2013 has been derived from the audited consolidated financial statements as of that date. The unaudited consolidated financial statements presented herein have been prepared in accordance with the instructions to Form 10-Q and do not include all of the information and note disclosures required by United States generally accepted accounting principles (“U.S. GAAP”). The consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto included in the MKS Annual Report on Form 10-K for the year ended December 31, 2013 filed with the Securities and Exchange Commission on February 26, 2014.

The preparation of these consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. On an on-going basis, management evaluates its estimates and judgments, including those related to revenue recognition, stock-based compensation, inventory, intangible assets, goodwill and other long-lived assets, acquisition expenses, income taxes and investments. Management bases its estimates and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

2) Recently Issued Accounting Pronouncements

On July 18, 2013, the Financial Accounting Standards Board issued Accounting Standards Update (“ASU”) 2013-11, “*Income Taxes (Topic 740): Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists.*” Under the new standard, unrecognized tax benefits will be netted against all available same-jurisdiction loss or other tax carryforwards that would be utilized, rather than only against carryforwards that are created by unrecognized tax benefits. The provisions of this ASU are effective for interim and annual periods beginning on or after December 15, 2013. The adoption of ASU No. 2013-11 did not have a material effect on the Company’s consolidated financial statements.

3) Investments

The fair value of short-term investments with maturities or estimated lives of less than one year consists of the following:

	March 31, 2014	December 31, 2013
Available-for-sale investments:		
Bankers’ acceptance drafts	\$ 637	\$ 491
Time deposits	3,442	3,439
Commercial paper and certificates of deposit	127,524	114,984
Corporate obligations	16,826	18,351
U.S. agency obligations	158,084	162,450
	<u>306,513</u>	<u>299,715</u>
Trading investments:		
Mutual funds	—	1,000
	<u>\$ 306,513</u>	<u>\$ 300,715</u>

MKS INSTRUMENTS, INC.
 NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
 (in thousands, except share and per share data)

The fair value of long-term investments with maturities of more than one year consists of the following:

	March 31, 2014	December 31, 2013
Available-for-sale investments:		
Time deposits	\$ 54	\$ 54
U.S. agency obligations	53,566	60,351
	<u>\$ 53,620</u>	<u>\$ 60,405</u>

The following tables show the gross unrealized gains and (losses) aggregated by investment category for short-term and long-term available-for-sale investments:

	Cost	Gross Unrealized Gains	Gross Unrealized (Losses)	Estimated Fair Value
As of March 31, 2014:				
Short-term investments:				
Bankers' acceptance drafts	\$ 637	\$ —	\$ —	\$ 637
Time deposits	3,442	—	—	3,442
Commercial paper and certificates of deposit	127,514	14	(4)	127,524
Corporate obligations	16,827	1	(2)	16,826
U.S. agency obligations	158,044	48	(8)	158,084
	<u>\$306,464</u>	<u>\$ 63</u>	<u>\$ (14)</u>	<u>\$306,513</u>
Long-term investments:				
Time deposits	\$ 54	\$ —	\$ —	\$ 54
U.S. agency obligations	53,558	18	(10)	53,566
	<u>\$ 53,612</u>	<u>\$ 18</u>	<u>\$ (10)</u>	<u>\$ 53,620</u>
As of December 31, 2013:				
Short-term investments:				
Available-for-sale investments:				
Time deposits	\$ 3,439	\$ —	\$ —	\$ 3,439
Bankers' acceptance drafts	491	—	—	491
Commercial paper and certificates of deposit	114,973	15	(4)	114,984
Corporate obligations	18,360	—	(9)	18,351
U.S. agency obligations	162,430	22	(2)	162,450
	<u>\$299,693</u>	<u>\$ 37</u>	<u>\$ (15)</u>	<u>\$299,715</u>
Long-term investments:				
Time Deposits	\$ 54	\$ —	\$ —	\$ 54
U.S. agency obligations	60,374	9	(32)	60,351
	<u>\$ 60,428</u>	<u>\$ 9</u>	<u>\$ (32)</u>	<u>\$ 60,405</u>

Interest income is accrued as earned. Dividend income is recognized as income on the date the stock trades "ex-dividend." The cost of marketable securities sold is determined by the specific identification method. Realized gains or (losses) are reflected in income and were not material for the three months ended March 31, 2014 and 2013, respectively.

The gains and losses for trading investments were immaterial for the three months ended March 31, 2014 and 2013.

4) Fair Value Measurements

In accordance with the provisions of fair value accounting, a fair value measurement assumes that the transaction to sell an asset or transfer a liability occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability and defines fair value based upon an exit price model.

MKS INSTRUMENTS, INC.
NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
(in thousands, except share and per share data)

The fair value measurement guidance establishes a fair value hierarchy which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The guidance describes three levels of inputs that may be used to measure fair value:

- Level 1 Quoted prices in active markets for identical assets or liabilities assessed as of the reporting date. Active markets are those in which transactions for the asset or liability occur in sufficient frequency and volume to provide pricing information on an ongoing basis.
- Level 2 Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Level 2 assets and liabilities include debt securities with quoted prices that are traded less frequently than exchange-traded instruments or securities or derivative contracts that are valued using a pricing model with inputs that are observable in the market or can be derived principally from or corroborated by observable market data.
- Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. Level 3 assets and liabilities include financial instruments whose value is determined using pricing models, discounted cash flow methodologies, or similar techniques, as well as instruments for which the determination of fair value requires significant management judgment or estimation.

In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, the Company categorizes such assets and liabilities based on the lowest level input that is significant to the fair value measurement in its entirety. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the asset or liability.

MKS INSTRUMENTS, INC.
 NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
 (in thousands, except share and per share data)

Assets and liabilities of the Company are measured at fair value on a recurring basis as of March 31, 2014 and are summarized as follows:

Description	Total March 31, 2014	Fair Value Measurements at Reporting Date Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash equivalents:				
Money market funds	\$ 60,742	\$ 60,742	\$ —	\$ —
Bankers acceptance drafts	25	—	25	—
Commercial paper and certificates of deposit	3,568	—	3,568	—
Available-for-sale securities:				
Bankers' acceptance drafts	637	—	637	—
Time deposits	3,496	—	3,496	—
Commercial paper and certificates of deposit	127,524	—	127,524	—
Corporate obligations	16,826	—	16,826	—
U.S. agency obligations	211,650	—	211,650	—
Derivatives – currency forward contracts	401	—	401	—
Total assets	<u>\$ 424,869</u>	<u>\$ 60,742</u>	<u>\$ 364,127</u>	<u>\$ —</u>
Liabilities:				
Derivatives – currency forward contracts	<u>\$ 408</u>	<u>\$ —</u>	<u>\$ 408</u>	<u>\$ —</u>
Reported as follows:				
Assets:				
Cash and cash equivalents ⁽¹⁾	\$ 64,335	\$ 60,742	\$ 3,593	\$ —
Short-term investments	306,513	—	306,513	—
Other current assets	401	—	401	—
Total current assets	<u>\$ 371,249</u>	<u>\$ 60,742</u>	<u>\$ 310,507</u>	<u>\$ —</u>
Long-term investments	<u>\$ 53,620</u>	<u>\$ —</u>	<u>\$ 53,620</u>	<u>\$ —</u>
Liabilities:				
Other current liabilities	<u>\$ 408</u>	<u>\$ —</u>	<u>\$ 408</u>	<u>\$ —</u>

(1) The cash and cash equivalent amounts presented in the table above do not include cash of \$211,210 and non-negotiable time deposits of \$11,545 as of March 31, 2014.

MKS INSTRUMENTS, INC.
 NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
 (in thousands, except share and per share data)

Assets and liabilities of the Company are measured at fair value on a recurring basis as of December 31, 2013 and are summarized as follows:

Description	Total December 31, 2013	Fair Value Measurements at Reporting Date Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash equivalents:				
Money market funds	\$ 38,166	\$ 38,166	\$ —	\$ —
Bankers acceptance drafts	32	—	32	—
Commercial paper and certificates of deposit	10,400	—	10,400	—
Trading securities:				
Mutual funds	1,000	1,000	—	—
Available-for-sale securities:				
Time deposits	3,493	—	3,493	—
Bankers acceptance drafts	491	—	491	—
Commercial paper and certificates of deposit	114,984	—	114,984	—
Corporate obligations	18,351	—	18,351	—
U.S. agency obligations	222,801	—	222,801	—
Derivatives – currency forward contracts	920	—	920	—
Total assets	<u>\$ 410,638</u>	<u>\$ 39,166</u>	<u>\$ 371,472</u>	<u>\$ —</u>
Liabilities:				
Derivatives – currency forward contracts	<u>\$ 656</u>	<u>\$ —</u>	<u>\$ 656</u>	<u>\$ —</u>
Reported as follows:				
Assets:				
Cash and cash equivalents (1)	\$ 48,598	\$ 38,166	\$ 10,432	\$ —
Short-term investments	300,715	1,000	299,715	—
Other current assets	920	—	920	—
Total current assets	<u>\$ 350,233</u>	<u>\$ 39,166</u>	<u>\$ 311,067</u>	<u>\$ —</u>
Long-term investments	<u>\$ 60,405</u>	<u>\$ —</u>	<u>\$ 60,405</u>	<u>\$ —</u>
Liabilities:				
Other current liabilities	<u>\$ 656</u>	<u>\$ —</u>	<u>\$ 656</u>	<u>\$ —</u>

(1) The cash and cash equivalent amounts presented in the table above do not include cash of \$234,675 and non-negotiable time deposits of \$5,629 as of December 31, 2013.

Money Market Funds

Money market funds are cash and cash equivalents and are classified within Level 1 of the fair value hierarchy.

Trading Securities

As of December 31, 2013, trading securities consisted of certain U.S. and international equity mutual funds and government agency fixed income mutual funds.

MKS INSTRUMENTS, INC.
NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
(in thousands, except share and per share data)

Bankers' Acceptance Drafts

Bankers' acceptance drafts are short-term credit investments created by a non-financial firm and guaranteed by a bank. These drafts are often traded at a discount from face value and may be traded on a secondary market.

Available-For-Sale Investments

Available-for-sale investments consisted of time deposits and drafts denominated in the Euro currency, commercial paper, certificates of deposit, corporate obligations, U.S. treasury obligations and U.S. agency obligations. The Company measures its debt and equity investments at fair value.

Derivatives

As a result of the Company's global operating activities, the Company is exposed to market risks from changes in foreign currency exchange rates, which may adversely affect its operating results and financial position. When deemed appropriate, the Company minimizes its risks from foreign currency exchange rate fluctuations through the use of derivative financial instruments. The principal market in which the Company executes its foreign currency contracts is the institutional market in an over-the-counter environment with a relatively high level of price transparency. The market participants usually are large commercial banks. The forward foreign currency exchange contracts are valued using broker quotations, or market transactions and are classified within Level 2 of the fair value hierarchy.

5) Derivatives

The Company enters into derivative instruments for risk management purposes only, including derivatives designated as hedging instruments and those utilized as economic hedges. The Company operates internationally and, in the normal course of business, is exposed to fluctuations in interest rates and foreign exchange rates. These fluctuations can increase the costs of financing, investing and operating the business. The Company has used derivative instruments, such as forward contracts, to manage certain foreign currency exposure.

By nature, all financial instruments involve market and credit risks. The Company enters into derivative instruments with major investment grade financial institutions and no collateral is required. The Company has policies to monitor the credit risk of these counterparties. While there can be no assurance, the Company does not anticipate any material non-performance by any of these counterparties.

The Company hedges a portion of its forecasted foreign currency denominated intercompany sales of inventory, over a maximum period of eighteen months, using forward foreign exchange contracts accounted for as cash-flow hedges related to Japanese, South Korean, British and Euro currencies. To the extent these derivatives are effective in off-setting the variability of the hedged cash flows, and otherwise meet the hedge accounting criteria, changes in the derivatives' fair value are not included in current earnings but are included in other comprehensive income ("OCI") in stockholders' equity. These changes in fair value will subsequently be reclassified into earnings, as applicable, when the forecasted transaction occurs. To the extent that a previously designated hedging transaction is no longer an effective hedge, any ineffectiveness measured in the hedging relationship is recorded currently in earnings in the period it occurs. The cash flows resulting from forward exchange contracts are classified in the consolidated statements of cash flows as part of cash flows from operating activities. The Company does not enter into derivative instruments for trading or speculative purposes.

To the extent the hedge accounting criteria is not met, the related foreign currency forward contracts are considered as economic hedges and changes in the fair value of these contracts are recorded immediately in earnings in the period in which they occur. These include hedges that are used to reduce exchange rate risks arising from the change in fair value of certain foreign currency denominated assets and liabilities (i.e., payables, receivables) and other economic hedges where the hedge accounting criteria were not met.

MKS INSTRUMENTS, INC.
NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
(in thousands, except share and per share data)

As of March 31, 2014 and December 31, 2013, the Company had outstanding forward foreign exchange contracts with gross notional values of \$36,893 and \$21,018, respectively. The following tables provide a summary of the primary net hedging positions and corresponding fair values held as of March 31, 2014 and December 31, 2013:

Currency Hedged (Buy/Sell)	March 31, 2014	
	Gross Notional Value	Fair Value(1) Asset/(Liability)
U.S. Dollar/Japanese Yen	\$ 14,995	\$ 345
U.S. Dollar/South Korean Won	15,037	(258)
U.S. Dollar/Euro	4,344	(51)
U.S. Dollar/U.K. Pound Sterling	2,517	(43)
Total	\$ 36,893	\$ (7)

(1) Represents the fair value of the net asset / (liability) amount included in the consolidated balance sheets.

Currency Hedged (Buy/Sell)	December 31, 2013	
	Gross Notional Value	Fair Value(1) Asset/(Liability)
U.S. Dollar/Japanese Yen	\$ 7,191	\$ 920
U.S. Dollar/South Korean Won	9,254	(521)
U.S. Dollar/Euro	2,806	(85)
U.S. Dollar/U.K. Pound Sterling	1,767	(50)
Total	\$ 21,018	\$ 264

(1) Represents the fair value of the net asset / (liability) amount included in the consolidated balance sheets.

The following table provides a summary of the fair value amounts of the Company's derivative instruments:

<u>Derivatives Designated as Hedging Instruments</u>	March 31, 2014	December 31, 2013
Derivative assets:		
Forward exchange contracts	\$ 401	\$ 920
Derivative liabilities:		
Forward exchange contracts	(408)	(656)
Total net derivative asset (liability) designated as hedging instruments(1)	\$ (7)	\$ 264

(1) The derivative assets of \$401 and derivative liabilities of \$408 are classified in other current assets and other current liabilities, respectively, in the consolidated balance sheet as of March 31, 2014. The derivative asset of \$920 and derivative liability of \$656 are classified in other current assets and other current liabilities, respectively, in the consolidated balance sheet as of December 31, 2013. These foreign exchange contracts are subject to a master netting agreement with one financial institution. However, the Company has elected to record these contracts on a gross basis in the balance sheet.

The net amount of existing losses as of March 31, 2014 that is expected to be reclassified from accumulated OCI into earnings within the next twelve months is immaterial.

The following table provides a summary of the gains (losses) on derivatives designated as hedging instruments:

Derivatives Designated as Cash Flow Hedging Relationships	Three Months Ended March 31,	
	2014	2013
Forward exchange contracts:		
Net (loss) gain recognized in OCI(1)	\$ (334)	\$ 1,779
Net (loss) gain reclassified from OCI into income(2)	\$ (94)	203

(1) Net change in the fair value of the effective portion classified in OCI.

(2) Effective portion classified in cost of products for the three months ended March 31, 2014 and 2013.

MKS INSTRUMENTS, INC.
 NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
 (in thousands, except share and per share data)

The following table provides a summary of gains on derivatives not designated as hedging instruments:

Derivatives Not Designated as Hedging Instruments	Three Months Ended March 31,	
	2014	2013
Forward exchange contracts:		
Net gain recognized in income(1)	\$ 106	\$ 491

(1) The Company has a forward foreign exchange contract that hedges an intercompany loan with its Korean subsidiary. This hedge does not qualify for hedge accounting and any gains (losses) are recorded immediately in selling, general and administrative expenses.

6) Inventories

Inventories consist of the following:

	March 31, 2014	December 31, 2013
Raw materials	\$ 76,520	\$ 75,687
Work-in-process	23,140	24,304
Finished goods	47,851	42,736
	<u>\$ 147,511</u>	<u>\$ 142,727</u>

7) Acquisitions

Granville-Phillips

On March 18, 2014, the Company announced an agreement to purchase the assets of Granville-Phillips, a division of Brooks Automation, Inc., for \$87,000 in cash. Granville-Phillips is a leading global provider of vacuum measurement and control instruments to the semiconductor, thin film and general industrial markets with sales of approximately \$30,000 in 2013. The acquisition aligns with the Company's current strategy to grow its semiconductor business, while diversifying into other high growth advanced markets. Presuming regulatory approvals and other customary closing conditions are met, the acquisition is expected to close in the second quarter of 2014.

8) Goodwill and Intangible Assets

Goodwill

The Company's methodology for allocating the purchase price relating to purchase acquisitions is determined through established and generally accepted valuation techniques. Goodwill is measured as the excess of the cost of the acquisition over the sum of the amounts assigned to tangible and identifiable intangible assets acquired less liabilities assumed. The Company assigns assets acquired (including goodwill) and liabilities assumed to one or more reporting units as of the date of acquisition. Typically acquisitions relate to a single reporting unit and thus do not require the allocation of goodwill to multiple reporting units. If the products obtained in an acquisition are assigned to multiple reporting units, the goodwill is distributed to the respective reporting units as part of the purchase price allocation process.

Goodwill and purchased intangible assets with indefinite useful lives are not amortized, but are reviewed for impairment annually during the fourth quarter of each fiscal year and whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. The process of evaluating the potential impairment of goodwill and intangible assets requires significant judgment. The Company regularly monitors current business conditions and other factors including, but not limited to, adverse industry or economic trends, restructuring actions and lower projections of profitability that may impact future operating results.

As of October 31, 2013, the Company performed its annual impairment assessment of goodwill and determined that there was no impairment.

MKS INSTRUMENTS, INC.
 NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
 (in thousands, except share and per share data)

The changes in the carrying amount of goodwill and accumulated impairment (loss) during the three months ended March 31, 2014 and twelve months ended December 31, 2013 were as follows:

	2014			2013		
	Gross Carrying Amount	Accumulated Impairment (Loss)	Net	Gross Carrying Amount	Accumulated Impairment (Loss)	Net
Beginning balance at January 1	\$290,323	\$ (139,414)	\$150,909	\$290,147	\$ (139,414)	\$150,733
Acquired goodwill(1)	381	—	381	—	—	—
Foreign currency translation	(178)	—	(178)	176	—	176
Ending balance at March 31, 2014 and December 31, 2013	<u>\$290,526</u>	<u>\$ (139,414)</u>	<u>\$151,112</u>	<u>\$290,323</u>	<u>\$ (139,414)</u>	<u>\$150,909</u>

(1) During the three months ended March 31, 2014, the Company recorded a purchase accounting adjustment for \$381 related to the March 12, 2013 purchase of Alter S.r.l.

Intangible Assets

Components of the Company's intangible assets are comprised of the following:

As of March 31, 2014:	Gross	Accumulated Amortization	Foreign Currency Translation	Net
	Completed technology	\$ 84,680	\$ (78,277)	\$ 445
Customer relationships	14,571	(9,983)	372	4,960
Patents, trademarks, trade names and other	25,636	(25,004)	79	711
	<u>\$124,887</u>	<u>\$ (113,264)</u>	<u>\$ 896</u>	<u>\$12,519</u>

As of December 31, 2013:	Gross	Accumulated Amortization	Foreign Currency Translation	Net
	Completed technology	\$ 84,680	\$ (78,072)	\$ 519
Customer relationships	14,571	(9,831)	454	5,194
Patents, trademarks, trade names and other	25,636	(24,951)	84	769
	<u>\$124,887</u>	<u>\$ (112,854)</u>	<u>\$ 1,057</u>	<u>\$13,090</u>

Aggregate amortization expense related to acquired intangibles for the three months ended March 31, 2014 and 2013 were \$410 and \$434, respectively. Estimated amortization expense for each of the remaining fiscal years is as follows:

Year	Amount
2014 (remaining)	\$1,376
2015	1,769
2016	1,586
2017	1,555
2018	1,546
Thereafter	4,687

MKS INSTRUMENTS, INC.
 NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
 (in thousands, except share and per share data)

9) Other Assets

	<u>March 31, 2014</u>	<u>December 31, 2013</u>
Other Assets:		
Deferred tax assets, net	\$ 10,969	\$ 9,208
Long-term income tax receivable	21,315	20,516
Other	2,099	2,123
Total other assets	<u>\$ 34,383</u>	<u>\$ 31,847</u>

10) Other Liabilities

	<u>March 31, 2014</u>	<u>December 31, 2013</u>
Other Current Liabilities:		
Product warranties	\$ 7,013	\$ 6,956
Deferred revenue	6,353	5,556
Other	23,076	21,730
Total other current liabilities	<u>\$ 36,442</u>	<u>\$ 34,242</u>
Other Liabilities:		
Long-term income tax payable	\$ 43,713	\$ 46,745
Accrued compensation	10,690	9,646
Other	6,379	6,682
Total other liabilities	<u>\$ 60,782</u>	<u>\$ 63,073</u>

11) Debt

The Company's Japanese subsidiary has lines of credit and short-term borrowing arrangements with two financial institutions which generally expire and are renewed at three month intervals. The lines of credit provide for aggregate borrowings as of March 31, 2014 of up to an equivalent of \$22,527 U.S. dollars. One of the borrowing arrangements has an interest rate based on the Tokyo Interbank Offer Rate at the time of borrowing and the other has an interest rate based on the Japanese Short-term Prime Lending Rate. There were no borrowings outstanding under these arrangements at March 31, 2014 and December 31, 2013.

12) Product Warranties

The Company provides for the estimated costs to fulfill customer warranty obligations upon the recognition of the related revenue. While the Company engages in extensive product quality programs and processes, including actively monitoring and evaluating the quality of its component suppliers, the Company's warranty obligation is affected by shipment volume, product failure rates, utilization levels, material usage, and supplier warranties on parts delivered to the Company. Should actual product failure rates, utilization levels, material usage, or supplier warranties on parts differ from the Company's estimates, revisions to the estimated warranty liability would be required. The product warranty liability is included in other current liabilities in the consolidated balance sheets.

Product warranty activities were as follows:

	<u>Three Months Ended March 31,</u>	
	<u>2014</u>	<u>2013</u>
Balance at December 31	\$ 6,956	\$ 8,266
Provision for product warranties	704	630
Direct charges to warranty liability	(656)	(1,250)
Foreign currency translation	9	(113)
Balance at March 31	<u>\$ 7,013</u>	<u>\$ 7,533</u>

MKS INSTRUMENTS, INC.
NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
(in thousands, except share and per share data)

13) Income Taxes

The Company's effective tax rate for the three months ended March 31, 2014 and 2013 was 17.8% and (16.0)%, respectively. The primary reason the effective tax rate for the three months ended March 31, 2014, and related income tax expense was lower than the U.S. statutory tax rate was due to the discrete release of income tax reserves related to the effective settlement of a foreign tax examination. The geographic mix of income and profits earned by the Company's international subsidiaries being taxed at rates lower than the U.S. statutory rate also had a significant impact on the effective tax rate. The effective tax rate for the three months ended March 31, 2013, and related tax benefit were lower than the U.S. statutory tax rate due to certain tax incentives realized by the Company, and recognized as discrete events in the quarter. These incentives were reinstated under The American Taxpayer Relief Act of 2012 that was signed into law on January 2, 2013.

At March 31, 2014, the total amount of gross unrecognized tax benefits, which excludes interest and penalties, was approximately \$42,794. At December 31, 2013, the total amount of gross unrecognized tax benefits, which excludes interest and penalties, was approximately \$47,684. The net decrease from December 31, 2013 was primarily attributable to a release in reserves for uncertain tax positions due to the effective settlement of a foreign tax examination in the current quarter. As of March 31, 2014, if these benefits were recognized in a future period, the timing of which is not estimable, the net unrecognized tax benefit of \$20,536, excluding interest and penalties, would impact the Company's effective tax rate. The Company accrues interest expense and, if applicable penalties, for any uncertain tax positions. Interest and penalties are classified as a component of income tax expense. At March 31, 2014, and December 31, 2013, the Company had accrued interest on unrecognized tax benefits of approximately \$1,863 and \$2,159, respectively.

The Company and its subsidiaries are subject to examination by federal, state and foreign tax authorities. The Internal Revenue Service commenced an examination of the Company's U.S. federal tax filings for tax years 2007 through 2009 during the quarter ended June 30, 2012. As a result, the U.S. statute of limitations remains open between tax years 2007 through present. However, carryforward amounts from prior years may still be adjusted upon examination by tax authorities if they are used in a future period. The statute of limitations for the Company's tax filings in other jurisdictions varies between fiscal years 2007 through present.

While the Company believes it has adequately provided for all tax positions, amounts asserted by taxing authorities could materially differ from the Company's accrued positions as a result of uncertain and complex application of tax regulations. Additionally, the recognition and measurement of certain tax benefits include estimates and judgment by management. Accordingly, the Company may record additional provisions or benefits due to U.S. federal, state, and foreign tax-related matters in the future as it obtains new information or settles or otherwise resolves the underlying matters.

14) Net Income Per Share

The following table sets forth the computation of basic and diluted net income per share:

	Three Months Ended March 31,	
	2014	2013
Numerator:		
Net income	\$ 31,245	\$ 5,761
Denominator:		
Shares used in net income per common share – basic	53,411,000	52,773,000
Effect of dilutive securities:		
Stock options, restricted stock and employee stock purchase plan	365,000	586,000
Shares used in net income per common share – diluted	53,776,000	53,359,000
Net income per common share:		
Basic	\$ 0.58	\$ 0.11
Diluted	\$ 0.58	\$ 0.11

MKS INSTRUMENTS, INC.
NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
(in thousands, except share and per share data)

Basic earnings per share (“EPS”) is computed by dividing income available to common stockholders by the weighted-average number of common shares outstanding during the period. The computation of diluted EPS is similar to the computation of basic EPS except that the denominator is increased to include the number of additional common shares that would have been outstanding (using the treasury stock method) if securities containing potentially dilutive common shares (stock options and restricted stock units) had been converted to such common shares, and if such assumed conversion is dilutive.

As of March 31, 2014, stock options and restricted stock units relating to an aggregate of approximately 1,034,000 shares were outstanding. For the three months ended March 31, 2014 and 2013, the potential dilutive effect of approximately 1,400 and 98,000 weighted-average shares, respectively, of restricted stock units and stock options were excluded from the computation of diluted weighted-average shares outstanding as the shares would have an anti-dilutive effect on EPS.

15) Stockholder’s Equity

Stock Repurchase Program

On July 25, 2011, the Company’s Board of Directors approved a share repurchase program for the repurchase of up to an aggregate of \$200,000 of its outstanding common stock from time to time in open market purchases, privately negotiated transactions or through other appropriate means. The timing and quantity of any shares repurchased depends upon a variety of factors, including business conditions, stock market conditions and business development activities, including, but not limited to, merger and acquisition opportunities. These repurchases may be commenced, suspended or discontinued at any time without prior notice.

During the three months ended March 31, 2014, the Company repurchased approximately 32,000 shares of its common stock for \$945, or an average price of \$29.81 per share.

Cash Dividends

Holders of the Company’s common stock are entitled to receive dividends when they are declared by the Company’s Board of Directors. During the three months ended March 31, 2014, the Board of Directors authorized a cash dividend of \$0.16 per share, which totaled \$8,553. During the three months ended March 31, 2013, the Board of Directors authorized a cash dividend of \$0.16 per share, which totaled \$8,448.

On May 5, 2014, our Board of Directors declared a quarterly cash dividend of \$0.165 per share to be paid on June 13, 2014 to shareholders of record as of June 2, 2014. Future dividend declarations, if any, as well as the record and payment dates for such dividends, are subject to the final determination of the Company’s Board of Directors.

16) Business Segment, Geographic Area, Product and Significant Customer Information

The Company develops, manufactures, sells and services products that measure, control, power and monitor critical parameters of advanced manufacturing processes. The Company’s Chief Operating Decision Maker (“CODM”) utilizes consolidated financial information to make decisions about allocating resources and assessing performance for the entire Company. In addition, certain disaggregated financial information is also provided to the CODM. Based upon the information provided to the CODM, the Company has determined it has eight operating segments and four reportable segments.

The eight operating segments are PFMC Products, Controls Products, ASTeX Products, ENI Products, HPS Products (Vacuum Products), Analytical Solutions Group, Europe Region Sales & Service and Asia Region Sales & Service.

PFMC Products, Controls Products, ASTeX Products, ENI Products and HPS Products comprise a single reportable segment due to the similarities of the operating segments. This reportable segment, Advanced Manufacturing Capital Equipment, includes the development, manufacturing, sales and servicing of instruments and control products, power and reactive gas products, and vacuum products, all of which are utilized in semiconductor processing and other similar advanced manufacturing processes. Sales in this segment include both external sales and intercompany sales (which are stated at agreed upon transfer prices). External sales of these products made in Europe or Asia are reported as sales in the Europe Region Sales & Service or Asia Region Sales & Service segments.

MKS INSTRUMENTS, INC.
 NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
 (in thousands, except share and per share data)

Analytical Solutions Group, Asia Region Sales & Service and Europe Region Sales & Service are each separate reportable segments. The Company has reported corporate expenses and certain intercompany pricing transactions in a Corporate, Eliminations and Other reconciling column. The Analytical Solutions Group includes gas composition analysis and information technology products. The Europe and Asia region sales and service segments mainly resell and service the Advanced Manufacturing Capital Equipment and Analytical Solutions Group products sold in their respective regions.

MKS derives the segment results directly from the manner in which results are reported in its management reporting system. The accounting policies MKS uses to derive reportable segment results are substantially the same as those used for external reporting purposes except that a substantial portion of the sales of the Advanced Manufacturing Capital Equipment and Analytical Solutions Group segments are intercompany sales to the regions at tax-based transfer prices and certain significant costs, including stock-based compensation and management incentive compensation, are not allocated to the segments and are included in Corporate, Eliminations and Other. The CODM reviews several metrics of each operating segment, including net revenues and gross profit (loss).

The following is net revenues by reportable segment:

	Three Months Ended March 31,	
	2014	2013
Advanced Manufacturing Capital Equipment	\$ 169,197	\$ 104,810
Analytical Solutions Group	14,170	14,396
Europe Region Sales & Service Operations ⁽¹⁾	14,386	11,048
Asia Region Sales & Service Operations ⁽¹⁾	66,683	47,143
Corporate, Eliminations and Other	(58,083)	(35,752)
	<u>\$ 206,353</u>	<u>\$ 141,645</u>

- (1) The Europe and Asia foreign sales and service operations do not represent total geographical Europe and Asia financial information. These sales and service operations mainly represent the sales from the resale and service of Advanced Manufacturing Capital Equipment and Analytical Solutions Group products in their respective regions. The Advanced Manufacturing Capital Equipment and Analytical Solutions Group segments both have sales in each region. Accordingly, total geographical sales include sales from multiple reportable segments.

The following is gross profit by reportable segment:

	Three Months Ended March 31,	
	2014	2013
Advanced Manufacturing Capital Equipment	\$ 67,614	\$ 34,836
Analytical Solutions Group	6,547	7,448
Europe Region Sales & Service Operations ⁽¹⁾	4,240	3,191
Asia Region Sales & Service Operations ⁽¹⁾	13,024	8,831
Corporate, Eliminations and Other	(2,053)	396
	<u>\$ 89,372</u>	<u>\$ 54,702</u>

- (1) The Europe and Asia foreign sales and service operations do not represent total geographical Europe and Asia financial information. These sales and service operations mainly represent the sales from the resale and service of Advanced Manufacturing Capital Equipment and Analytical Solutions Group products in their respective regions. The Advanced Manufacturing Capital Equipment and Analytical Solutions Group segments both have sales in each region. Accordingly, total geographical sales include sales from multiple reportable segments.

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NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
(in thousands, except share and per share data)

The following is capital expenditures by reportable segment for the three months ended March 31, 2014 and 2013:

	Product Groups		Foreign Sales & Service Operations			
	Advanced Manufacturing Capital Equipment	Analytical Solutions Group	Europe	Asia	Corporate, Eliminations and Other	Total
Three Months Ended March 31, 2014:						
Capital expenditures	<u>\$ 1,709</u>	<u>\$ 1,014</u>	<u>\$ 15</u>	<u>\$ 122</u>	<u>\$ 238</u>	<u>\$ 3,098</u>
	Product Groups		Foreign Sales & Service Operations			
	Advanced Manufacturing Capital Equipment	Analytical Solutions Group	Europe	Asia	Corporate, Eliminations and Other	Total
Three Months Ended March 31, 2013:						
Capital expenditures	<u>\$ 2,612</u>	<u>\$ 111</u>	<u>\$ 15</u>	<u>\$ 63</u>	<u>\$ 555</u>	<u>\$ 3,356</u>

The following is depreciation and amortization by reportable segment for the three months ended March 31, 2014 and 2013:

	Product Groups		Foreign Sales & Service Operations			
	Advanced Manufacturing Capital Equipment	Analytical Solutions Group	Europe	Asia	Corporate, Eliminations and Other	Total
Three Months Ended March 31, 2014:						
Depreciation and amortization	<u>\$ 2,911</u>	<u>\$ 214</u>	<u>\$ 90</u>	<u>\$ 289</u>	<u>\$ 646</u>	<u>\$ 4,150</u>
	Product Groups		Foreign Sales & Service Operations			
	Advanced Manufacturing Capital Equipment	Analytical Solutions Group	Europe	Asia	Corporate, Eliminations and Other	Total
Three Months Ended March 31, 2013:						
Depreciation and amortization	<u>\$ 2,941</u>	<u>\$ 243</u>	<u>\$ 74</u>	<u>\$ 294</u>	<u>\$ 540</u>	<u>\$ 4,092</u>

MKS INSTRUMENTS, INC.
NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
(in thousands, except share and per share data)

The following is segment assets by reportable segment:

	Product Groups		Foreign Sales & Service Operations			
	Advanced Manufacturing Capital Equipment	Analytical Solutions Group	Europe	Asia	Corporate, Eliminations and Other	Total
March 31, 2014:						
Segment assets:						
Accounts receivable(1)	\$ 17,055	\$ 4,513	\$ 7,592	\$43,216	\$ 47,087	\$ 119,463
Inventory	121,897	4,342	4,305	26,475	(9,508)	147,511
Total segment assets	\$ 138,952	\$ 8,855	\$11,897	\$69,691	\$ 37,579	\$266,974

	Product Groups		Foreign Sales & Service Operations			
	Advanced Manufacturing Capital Equipment	Analytical Solutions Group	Europe	Asia	Corporate, Eliminations and Other	Total
December 31, 2013:						
Segment assets:						
Accounts receivable(1)	\$ 20,767	\$ 5,603	\$ 6,538	\$44,207	\$ 39,629	\$ 116,744
Inventory	117,822	4,391	4,254	25,094	(8,834)	142,727
Total segment assets	\$ 138,589	\$ 9,994	\$10,792	\$69,301	\$ 30,795	\$259,471

(1) A significant portion of segment receivables are processed at the Company's shared services center at the Corporate location.

A reconciliation of segment assets to consolidated total assets is as follows:

	March 31, 2014	December 31, 2013
Total segment assets	\$ 266,974	\$ 259,471
Cash and cash equivalents and investments	647,223	650,022
Other current assets	35,032	30,143
Property, plant and equipment, net	75,517	77,536
Goodwill and intangible assets, net	163,631	163,999
Other assets	34,383	31,847
Consolidated total assets	\$ 1,222,760	\$ 1,213,018

Worldwide Product Information

Because the reportable segment information above does not reflect worldwide sales of the Company's products, the Company groups its products into three groups of similar products based upon the similarity of product function. Worldwide net revenue for each group of products is as follows:

	Three Months Ended March 31,	
	2014	2013
Instruments, Control and Vacuum Products	\$ 101,657	\$ 75,186
Power and Reactive Gas Products	90,602	52,063
Analytical Solutions Group Products	14,094	14,396
	\$ 206,353	\$ 141,645

Sales of Instruments, Control and Vacuum Products and Power and Reactive Gas Products are included in the Company's Advanced Manufacturing Capital Equipment Products segment as well as in the foreign sales and service operations because the products are sold through the foreign sales and service operations in their respective regions. Sales of the Analytical Solutions Group products are included in the Analytical Solutions Group segment as well as in the foreign sales and service operations because the products are sold through the foreign sales and service operations in their respective regions.

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NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
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Geographic

Information about the Company's operations in different geographic regions is presented in the tables below. Net revenues to unaffiliated customers are based on the location in which the sale originated. Transfers between geographic areas are at negotiated transfer prices and have been eliminated from consolidated net revenues.

	Three Months Ended March 31,	
	2014	2013
Net revenues:		
United States	\$ 117,377	\$ 74,567
Korea	27,591	13,477
Japan	16,928	13,829
Europe	19,555	18,803
Asia (excluding Korea and Japan)	24,902	20,969
	<u>\$ 206,353</u>	<u>\$ 141,645</u>
Long-lived assets:(1)	March 31, 2014	December 31, 2013
United States	\$ 58,176	\$ 60,700
Europe	6,222	5,484
Asia	12,775	13,475
	<u>\$ 77,173</u>	<u>\$ 79,659</u>

(1) Long-lived assets include property, plant and equipment, net and certain other long-term assets, excluding long-term income tax receivable.

Major Customers

The Company had two customers with net revenues greater than 10% of total net revenues in the three months ended March 31, 2014 and 2013 as shown below:

	Three Months Ended March 31,	
	2014	2013
Customer A	20.3%	14.7%
Customer B	13.1%	9.6%

17) Restructuring

The Company recorded restructuring charges of \$747 during the three months ended March 31, 2014. The restructuring charges were primarily for severance associated with the reduction in workforce of approximately 65 people throughout the Company.

The activity related to the Company's restructuring accrual is shown below:

	Three Months Ended March 31,	
	2014	
Balance at December 31	\$	—
Charged to expense		747
Payments		(217)
Balance at March 31	<u>\$</u>	<u>530</u>

During the three months ended March 31, 2014, the Company re-classified certain assets from property, plant and equipment to current assets classified as held for sale, as these assets met the criteria for classification as held for sale. These assets relate to the Company closing one of its facilities in Colorado, as part of restructuring activities announced during the third quarter of 2013.

MKS INSTRUMENTS, INC.
NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
(in thousands, except share and per share data)

The net book value of assets held for sale consists of the following:

	<u>March 31, 2014</u>
Land	\$ 474
Building and building improvements	953
	<u>\$ 1,427</u>

The estimated fair value approximates the net book value of the land and building at March 31, 2014.

18) Commitments and Contingencies

The Company is subject to various legal proceedings and claims, which have arisen in the ordinary course of business. In the opinion of management, the ultimate disposition of these matters will not have a material adverse effect on the Company's results of operations, financial condition or cash flows.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

This Quarterly Report on Form 10-Q contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). When used herein, the words "believes," "anticipates," "plans," "expects," "estimates," "would," "will," "intends" and similar expressions are intended to identify forward-looking statements. These forward-looking statements reflect management's current opinions and are subject to certain risks and uncertainties that could cause results to differ materially from those stated or implied. While we may elect to update forward looking statements in the future, we specifically disclaim any obligation to do so even if our estimates or expectations change. Risks and uncertainties include, but are not limited to those discussed in our Annual Report on Form 10-K for the year ended December 31, 2013 in the section entitled "Risk Factors" as referenced in Part II, Item 1A "Risk Factors" of this Quarterly Report on Form 10-Q.

Overview

We are a global provider of instruments, subsystems and process control solutions that measure, control, power, monitor and analyze critical parameters of advanced manufacturing processes to improve process performance and productivity. We also provide services relating to the maintenance and repair of our products, software maintenance, installation services and training.

Our products are derived from our core competencies in pressure measurement and control, materials delivery, gas composition analysis, control and information technology, power and reactive gas generation and vacuum technology. Our products are used in diverse markets, applications and processes. Our primary served markets are manufacturers of capital equipment for semiconductor devices, and for other thin film applications including flat panel displays, solar cells and light emitting diodes ("LEDs"), data storage media and other advanced coatings. We also leverage our technology into other markets with advanced manufacturing applications including medical equipment, pharmaceutical manufacturing, energy generation and environmental monitoring.

We have a diverse base of customers that includes manufacturers of semiconductor capital equipment and semiconductor devices, thin film capital equipment used in the manufacture of flat panel displays, LEDs, solar cells, data storage media and other coating applications; and other industrial, medical, pharmaceutical manufacturing, energy generation, environmental monitoring and other advanced manufacturing companies, as well as university, government and industrial research laboratories. For the three months ended March 31, 2014 and 2013, approximately 73% and 63% of our net revenues, respectively, were to semiconductor capital equipment manufacturers and semiconductor device manufacturers. We expect that sales to semiconductor capital equipment manufacturers and semiconductor device manufacturers will continue to account for a substantial portion of our sales.

We have four reportable segments: Advanced Manufacturing Capital Equipment, Analytical Solutions Group, Europe Region Sales & Service and Asia Region Sales & Service. The Advanced Manufacturing Capital Equipment segment includes the development, manufacture, sales and servicing of instruments and control products, power and reactive gas products, materials delivery products and vacuum products, all of which are utilized in semiconductor processing and other similar advanced manufacturing processes. Sales in this segment include both external sales and intercompany sales (which are recorded at agreed upon transfer prices). External sales of these products made in Europe or Asia are reported as sales in the Europe Region Sales & Service or Asia Region Sales & Service segments. The Analytical Solutions Group includes gas composition analysis, information technology products and custom fabrication services. The Europe and Asia region sales and service segments mainly resell and service the Advanced Manufacturing Capital Equipment and Analytical Solutions Group products sold into their respective regions.

Net revenues from semiconductor capital equipment manufacture and semiconductor device manufacture customers increased by 67% for the three months ended March 31, 2014 compared to the same period in the prior year. Net revenues to semiconductor capital equipment manufacture and semiconductor device manufacture customers increased sequentially each quarter since March 31, 2013, from \$90 million in the first quarter of 2013 to \$150 million in the first quarter of 2014. Based upon current business levels in our semiconductor market, we believe that second quarter semiconductor revenues could be lower than our first quarter semiconductor revenues. The semiconductor capital equipment industry is subject to rapid demand shifts, which are difficult to predict, and we are uncertain as to the timing or extent of future demand or any future weakness in the semiconductor capital equipment industry.

Our net revenues sold to other advanced markets, which exclude semiconductor capital equipment and semiconductor device product applications, increased by 8% for the three months ended March 31, 2014, compared to the same period for the prior year. This increase was primarily attributed to increases in the general industrial and thin film markets.

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A significant portion of our net revenues is to customers in international markets. For the three months ended March 31, 2014 and 2013, international net revenues accounted for approximately 43% and 47% of our net revenues, respectively. A significant portion of our international net revenues were in Korea and Japan. We expect that international net revenues will continue to represent a significant percentage of our total net revenues.

On March 18, 2014, we announced an agreement to purchase the assets of Granville-Phillips, a division of Brooks Automation, Inc., for \$87 million in cash. Granville-Phillips is a leading global provider of vacuum measurement and control instruments to the semiconductor, thin film and general industrial markets with sales of approximately \$30 million in 2013. The acquisition aligns with our current strategy to grow our semiconductor business, while diversifying into other high growth advanced markets. Presuming regulatory approvals and other customary closing conditions are met, the acquisition is expected to close in the second quarter of 2014.

Critical Accounting Policies and Estimates

The preparation of our consolidated financial statements and related disclosures in conformity with accounting principles generally accepted in the United States of America requires management to make judgments, assumptions and estimates that affect the amounts reported. There have been no material changes in our critical accounting policies since December 31, 2013. For further information, please see the discussion of critical accounting policies in our Annual Report on Form 10-K for the year ended December 31, 2013 in the section captioned "Management's Discussion and Analysis of Financial Condition and Results of Operations – Critical Accounting Policies and Estimates."

Results of Operations

The following table sets forth, for the periods indicated, the percentage of total net revenues of certain line items included in MKS' consolidated statements of operations and comprehensive income data.

	Three Months Ended March 31,	
	2014	2013
Net revenues:		
Product	87.8%	82.3%
Services	12.2	17.7
Total net revenues	100.0	100.0
Cost of revenues:		
Cost of product revenues	48.6	49.8
Cost of service revenues	8.1	11.6
Total cost of revenues	56.7	61.4
Gross profit	43.3	38.6
Research and development	7.5	10.8
Selling, general and administrative	16.8	24.1
Acquisition costs	0.1	0.1
Restructuring	0.4	—
Amortization of intangible assets	0.2	0.3
Income from operations	18.3	3.3
Interest income, net	0.1	0.2
Income from operations before income taxes	18.4	3.5
Provision (benefit) for income taxes	3.3	(0.6)
Net income	15.1%	4.1%

Net Revenues

(dollars in millions)	Three Months Ended March 31,		
	2014	2013	% Change
Product	\$181.2	\$116.6	55.4%
Service	25.2	25.0	0.5
Total net revenues	\$206.4	\$141.6	45.7%

Product revenues increased \$64.6 million during the three months ended March 31, 2014, compared to the same period for the prior year. Product revenues related to our semiconductor capital equipment manufacturer and semiconductor device manufacturer customers increased by \$59.6 million, or 80.6%. The increase in the semiconductor markets we serve was mainly the results of volume increases in four consecutive quarters since March 31, 2013. Our product revenues for other advanced markets, which exclude semiconductor capital

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equipment and semiconductor device product applications, increased by \$5.0 million, or 11.7% during the three months ended March 31, 2014, compared to the same period for the prior year. The increase in our non-semiconductor markets was primarily caused by volumes increases of \$5.9 million in our general industrial markets.

Service revenues consisted mainly of fees for services relating to the maintenance and repair of our products and software services, installation and training. Service revenues increased \$0.2 million during the three months ended March 31, 2014, compared to the same period in the prior year. The increases in service revenues are primarily attributed to increases in the semiconductor markets.

Total international net revenues, including product and service, were \$89.0 million for the three months ended March 31, 2014, or 43.1% of net revenues, compared to \$67.1 million for the three months ended March 31, 2013, or 47.4% of net revenues. The increase for the three months ended March 31, 2014 compared to the same period in the prior year related mainly to an increase in net revenues in Korea.

The following is our net revenues by reportable segment (dollars in millions):

	Three Months Ended March 31,		
	2014	2013	% Change
Net revenues:			
Advanced Manufacturing Capital Equipment	\$169.2	\$104.8	61.4%
Analytical Solutions Group	14.2	14.4	(1.6)
Europe Region Sales & Service	14.4	11.0	30.2
Asia Region Sales & Service	66.7	47.1	41.4
Corporate, Eliminations and Other	(58.1)	(35.7)	(62.5)
Total net revenues	<u>\$206.4</u>	<u>\$141.6</u>	<u>45.7%</u>

Net revenues increased in our Advanced Manufacturing Capital Equipment segment by 61.4% for the three months ended March 31, 2014, compared to the same period in the prior year. This increase was mainly driven by an increase in net revenues from our top two customers who represented approximately 33% of our total revenues in 2014. This segment sells mainly in the semiconductor market where net revenues from semiconductor capital equipment manufacturers and semiconductor device manufacturers increased by 67% for the three months ended March 31, 2014, compared to the same period in the prior year.

Net revenues for our Analytical Solutions Group remained relatively flat for the three months ended March 31, 2014, compared to the same period in the prior year. This segment sells to many different markets and sales in this segment can vary from quarter to quarter depending upon specific orders.

Net revenues for the Europe Region Sales & Service segment increased by 30.2% for the three months ended March 31, 2014, compared to the same period in the prior year. This segment sells to many different markets and sales increased primarily in the general industrial market.

Net revenues for the Asia Region Sales & Service segment increased by 41.4% for the three months ended March 31, 2014, compared to the same period in the prior year. This increase is consistent with overall consolidated net revenue increases for the same periods since most of Asia sales are in the semiconductor market.

Gross Profit

	Three Months Ended March 31,		
	2014	2013	% Points Change
Gross profit as a percentage of net revenues:			
Product	44.7%	39.5%	5.2%
Service	33.4%	34.6	(1.2)
Total gross profit percentage	<u>43.3%</u>	<u>38.6%</u>	<u>4.7%</u>

Gross profit on product revenues increased by 5.2 percentage points for the three months ended March 31, 2014, compared to the same period for the prior year. The increase is primarily due to an increase of 6.9 percentage points due to higher revenue volume and a net increase of 0.6 percentage points due to lower direct labor and overhead costs, partially offset by a decrease of 2.2 percentage points related to unfavorable product mix.

Cost of service revenues, which includes salaries and related expenses and other fixed costs, consists primarily of providing services for repair and software services and training. Service gross profit decreased by 1.2 percentage points for the three months ended March 31, 2014, compared to the same period in the prior year. The decrease is primarily due to a decrease of 0.7 percentage points due to unfavorable foreign exchange and 0.5 percentage points due to higher overhead costs.

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The following is gross profit as a percentage of net revenues by reportable segment:

	Three Months Ended March 31,		
	2014	2013	% Points Change
Gross profit:			
Advanced Manufacturing Capital Equipment	40.0%	33.1%	6.9%
Analytical Solutions Group	46.2	51.7	(5.5)
Europe Region Sales & Service	29.5	28.9	0.6
Asia Region Sales & Service	19.5	18.7	0.8
Corporate, Eliminations and Other	3.5	(1.1)	4.6
Total gross profit	<u>43.3%</u>	<u>38.6%</u>	<u>4.7%</u>

Gross profit for the Advanced Manufacturing Capital Equipment group increased 6.9 percentage points for the three month period ended March 31, 2014, compared to the same period in the prior year. The increase is primarily attributed to higher revenue and production volumes.

Gross profit for the Analytical Solutions Group decreased 5.5 percentage points for the three month period ended March 31, 2014, compared to the same period in the prior year. The decrease is primarily related to unfavorable product mix and higher direct labor and overhead costs, partially offset by lower material costs.

Gross profit for the Europe Region Sales & Service operations increased 0.6 percentage points for the three month period ended March 31, 2014, compared to the same period in the prior year. The increase is primarily related to higher revenue volumes, lower excess and obsolete inventory charges and lower direct labor and overhead costs. These increases are partially offset by unfavorable product mix.

Gross profit for the Asia Region Sales & Service operations increased 0.8 percentage points for the three month period ended March 31, 2014, compared to the same period in the prior year. The increase is primarily related to favorable revenue volumes, lower excess and obsolete inventory charges and lower material costs, partially offset by unfavorable product mix.

Research and Development

<i>(dollars in millions)</i>	Three Months Ended March 31,		
	2014	2013	% Change
Research and development expenses	\$15.6	\$15.2	2.4%

Research and development expenses increased \$0.4 million for the three months ended March 31, 2014, compared to the same period in the prior year. This increase is primarily attributed to an increase of \$0.6 million for compensation related costs and \$0.1 million in consulting and professional fees, partially offset by a \$0.5 million decrease in project materials.

Our research and development is primarily focused on developing and improving our instruments, components, subsystems and process control solutions to improve process performance and productivity.

We have thousands of products and our research and development efforts primarily consist of a large number of projects related to these products, none of which is individually material to us. Current projects typically have durations of 3 to 30 months depending upon whether the product is an enhancement of existing technology or a new product. Our current initiatives include projects to enhance the performance characteristics of older products, to develop new products and to integrate various technologies into subsystems. These projects support in large part, the transition in the semiconductor industry to smaller integrated circuit geometries and in the flat panel display and solar markets to larger substrate sizes, which require more advanced process control technology. Research and development expenses consist primarily of salaries and related expenses for personnel engaged in research and development, fees paid to consultants, material costs for prototypes and other expenses related to the design, development, testing and enhancement of our products.

We believe that the continued investment in research and development and ongoing development of new products are essential to the expansion of our markets, and we expect to continue to make significant investment in research and development activities. We are subject to risks if products are not developed in a timely manner, due to rapidly changing customer requirements and competitive threats from other companies and technologies. Our success primarily depends on our products being designed into new generations of equipment for the

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semiconductor industry and other advanced technology markets. We develop products that are technologically advanced so that they are positioned to be chosen for use in each successive generation of semiconductor capital equipment. If our products are not chosen to be designed into our customers' products, our net revenues may be reduced during the lifespan of those products.

Selling, General and Administrative

<i>(dollars in millions)</i>	Three Months Ended March 31,		
	2014	2013	% Change
Selling, general and administrative expenses	\$34.6	\$34.1	1.3%

Selling, general and administrative expenses increased by \$0.5 million in the three months ended March 31, 2014, compared to the same period in the prior year. The increase is primarily attributed to an increase of \$0.8 million in consulting and professional fees, \$0.5 million in commissions and \$0.5 million in variable compensation charges, partially offset by a decrease of \$0.9 million in bad debt expense and \$0.6 million in favorable foreign exchange.

Acquisition Costs

<i>(dollars in millions)</i>	Three Months Ended March 31,		
	2014	2013	% Change
Acquisition costs	\$ 0.2	\$ 0.2	33.0%

We incurred \$0.2 million of acquisition costs in the three months ended March 31, 2014, comprising of legal and filing fees related to the Granville-Philips acquisition, which is expected to close in the second quarter of 2014. We incurred \$0.2 million of acquisition costs, comprising of legal fees in the three months ended March 31, 2013 related to our March 2013 acquisition of Alter S.r.l.

Restructuring

<i>(dollars in millions)</i>	Three Months Ended March 31,		
	2014	2013	% Change
Restructuring	\$ 0.7	\$ —	1767.0%

The three months ended March 31, 2014, includes restructuring charges primarily related to severance costs associated with a reduction in workforce of approximately 65 people throughout the Company. The three months ended March 31, 2013 includes restructuring charges of \$40 thousand related to the consolidation of two sites.

Amortization of Intangible Assets

<i>(dollars in millions)</i>	Three Months Ended March 31,		
	2014	2013	% Change
Amortization of intangible assets	\$ 0.4	\$ 0.4	(5.6)%

Amortization expense for the three months ended March 31, 2014 remained relatively flat compared to the same period in the prior year.

Interest Income, Net

<i>(dollars in millions)</i>	Three Months Ended March 31,		
	2014	2013	% Change
Interest income, net	\$ 0.2	\$ 0.3	(0.2)%

Interest income, net remained relatively flat for the three months ended March 31, 2014 compared to the same period in the prior year.

Provision for Income Taxes

<i>(dollars in millions)</i>	Three Months Ended March 31,		
	2014	2013	% Change
Provision (benefit) for income taxes	\$ 6.8	\$ (0.8)	(952.1)%

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Our effective tax rate for the three months ended March 31, 2014 and 2013 was 17.8% and (16.0)%, respectively. The primary reason the effective tax rate for the three months ended March 31, 2014, and related income tax expense was lower than the U.S. statutory tax rate was due to the discrete release of income tax reserves related to the effective settlement of a foreign tax examination. The geographic mix of income and profits earned by the Company's international subsidiaries being taxed at rates lower than the U.S. statutory rate also had a significant impact on the effective tax rate. The effective tax rate for the three months ended March 31, 2013, and related tax benefit were lower than the U.S. statutory tax rate due to certain tax incentives realized by the Company, and recognized as discrete events in the quarter. These incentives were reinstated under The American Taxpayer Relief Act of 2012 that was signed into law on January 2, 2013.

We and our subsidiaries are subject to examination by federal, state and foreign tax authorities. The Internal Revenue Service commenced an examination of our U.S. federal tax filings for open tax years 2007 through 2009 during the quarter ended June 30, 2012.

Our future effective income tax rate depends on various factors, including the impact of tax legislation, the geographic composition of our pre-tax income, and changes in tax reserves for unrecognized tax benefits. We monitor these factors and timely adjust our effective tax rate accordingly. Additionally, the effective tax rate could be adversely affected by changes in the valuation of deferred tax assets and liabilities. In particular, the carrying value of deferred tax assets, which are predominantly in the United States, is dependent on our ability to generate sufficient future taxable income in the United States. While we believe we have adequately provided for all tax positions, amounts asserted by taxing authorities could materially differ from our accrued positions as a result of uncertain and complex application of tax law and regulations. Additionally, the recognition and measurement of certain tax benefits include estimates and judgment by management. Accordingly, we could record additional provisions or benefits for U.S. federal, state, and foreign taxes matters in future periods as new information becomes available.

Liquidity and Capital Resources

Cash and cash equivalents and short-term investments totaled \$593.6 million at March 31, 2014, compared to \$589.6 million at December 31, 2013.

Net cash provided by operating activities was \$9.9 million for the three months ended March 31, 2014 and resulted mainly from net income of \$31.2 million, which included non-cash charges of \$6.1 million and changes in working capital of \$27.1 million. The increase in working capital was primarily due to an increase in inventories of \$7.4 million and an increase in trade accounts receivable of \$2.8 million, due to increased business levels, a decrease in accrued compensation of \$6.9 million, a decrease in income taxes of \$5.5 million and a decrease in accounts payable of \$4.7 million, primarily due to timing of payments, offset by an increase in other current liabilities of \$2.5 million.

Net cash provided by operating activities was \$2.5 million for the three months ended March 31, 2013 and resulted mainly from net income of \$5.8 million, which included non-cash charges of \$13.2 million and changes in working capital of \$16.3 million. The increase in working capital was primarily due to an increase in trade accounts receivable of \$10.3 million, a decrease in accrued compensation of \$4.9 million, a decrease in income taxes of \$3.3 million, offset by an increase in accounts payable of \$4.5 million. The increase in accounts receivable and accounts payable is due to increased business activities during the three months ended March 31, 2013, compared to the fourth quarter of 2012. The decrease in accrued compensation and income taxes is related to the timing of payments.

Net cash used in investing activities of \$2.0 million for the three months ended March 31, 2014 resulted primarily from \$3.1 million in purchases of production related equipment, partially offset by \$1.0 million in net sales and maturities of short-term and long-term investments. Net cash used in investing activities of \$7.2 million for the three months ended March 31, 2013 resulted primarily from \$3.4 million in purchases of production related equipment, \$2.0 million in net purchases of investments and \$2.0 million from the acquisition of Alter, S.r.l.

Net cash used in financing activities was \$10.1 million for the three months ended March 31, 2014 and consisted primarily of \$8.6 million of dividend payments made to common stockholders, \$0.9 million related to the repurchase of common stock and \$0.8 million of net payments related to tax payments for employee stock awards. Net cash used in financing activities was \$11.2 million for the three months ended March 31, 2013 and consisted primarily of \$8.4 million of dividend payments made to common stockholders, \$1.7 million related to the repurchase of common stock and \$1.3 million of net payments related to tax payments for employee stock awards.

Our Japanese subsidiary has lines of credit and short-term borrowing arrangements with two financial institutions which generally expire and are renewed at three month intervals. The lines of credit provide for aggregate borrowings as of March 31, 2014 of up to an equivalent of

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\$22.5 million U.S. dollars. One of the borrowing arrangements has an interest rate based on the Tokyo Interbank Offer Rate at the time of borrowing and the other has an interest rate based on the Japanese Short-term Prime Lending Rate. There were no borrowings outstanding under these arrangements at March 31, 2014 and December 31, 2013.

On July 25, 2011, our Board of Directors approved a share repurchase program for the repurchase of up to an aggregate of \$200 million of our outstanding common stock from time to time in open market purchases, privately negotiated transactions or through other appropriate means. The timing and quantity of any shares repurchased depends upon a variety of factors, including business conditions, stock market conditions and business development activities, including but not limited to merger and acquisition opportunities. These repurchases may be commenced, suspended or discontinued at any time without prior notice. During the three months ended March 31, 2014, we repurchased approximately 32,000 shares of our common stock for \$0.9 million at an average price of \$29.81 per share. During the three months ended March 31, 2013, we repurchased 61,000 shares of our common stock for \$1.7 million at an average price of \$27.35 per share.

During the three months ended March 31, 2014, our Board of Directors declared a quarterly dividend of \$0.16 per share that totaled \$8.6 million.

On May 5, 2014, the Board of Directors declared a quarterly cash dividend of \$0.165 per share to be paid on June 13, 2014 to stockholders of record as of June 2, 2014. Future dividend declarations, if any, as well as the record and payment dates for such dividends, are subject to the final determination of our Board of Directors.

Our total cash and cash equivalents and short-term marketable investments at March 31, 2014 consisted of \$326.6 million held in the U.S. and \$267.0 million held by our foreign subsidiaries, substantially all of which would be subject to tax in the U.S. if returned to the U.S. We believe our existing U.S. cash and short-term investment balances are adequate to meet domestic operating needs, including estimated working capital, planned capital expenditure requirements and any future cash dividends, if declared, or share repurchases in the next twelve months and foreseeable future.

As previously noted, presuming receipt of regulatory approval and satisfaction of other customary closing conditions, we expect to close our acquisition of Granville-Philips in the second quarter of 2014, for approximately \$87 million of cash.

Off-Balance Sheet Arrangements

We do not have any financial partnerships with unconsolidated entities, such as entities often referred to as structured finance, special purpose entities or variable interest entities, which are often established for the purpose of facilitating off-balance sheet arrangements or for other contractually narrow or limited purposes. Accordingly, we have no off-balance sheet arrangements that have or are reasonably expected to have a current or future effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources that are material to investors.

Recently Issued Accounting Pronouncements

On July 18, 2013, the Financial Accounting Standards Board issued Accounting Standards Update (“ASU”) 2013-11, “*Income Taxes (Topic 740): Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carry-forward, a Similar Tax Loss, or a Tax Credit Carry-forward Exists.*” Under the new standard, unrecognized tax benefits will be netted against all available same-jurisdiction loss or other tax carry-forwards that would be utilized, rather than only against carry-forwards that are created by unrecognized tax benefits. The provisions of this ASU are effective for interim and annual periods beginning on or after December 15, 2013. The adoption of ASU No 2013-11 did not have a material effect on our consolidated financial statements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Information concerning market risk is contained in the section entitled “Quantitative and Qualitative Disclosures About Market Risk” contained in our Annual Report on Form 10-K for the year ended December 31, 2013 filed with the Securities and Exchange Commission on February 26, 2014. As of March 31, 2014, there were no material changes in our exposure to market risk from December 31, 2013.

ITEM 4. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2014. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), means controls and other procedures of an issuer

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that are designed to ensure that information required to be disclosed by the issuer in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Exchange Act is accumulated and communicated to the issuer's management, including its principal executive and principal financial officers, or persons performing similar functions as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of March 31, 2014, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms and is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended March 31, 2014 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS.

We are subject to various legal proceedings and claims, which have arisen in the ordinary course of business.

In the opinion of management, the ultimate disposition of these matters will not have a material adverse effect on our results of operations, financial condition or cash flows.

ITEM 1A. RISK FACTORS.

Information regarding risk factors affecting the Company's business are discussed in the Company's Annual Report on Form 10-K for the year ended December 31, 2013 in the section entitled "Risk Factors." There have been no material changes from the risks disclosed therein.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS.

The following table sets forth certain information with respect to repurchases of our common stock during the three months ended March 31, 2014.

Period	ISSUER PURCHASES OF EQUITY SECURITIES			
	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs(1)(2)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs(1)
January 1 – January 30, 2014	—	\$ —	—	\$ 183,618,000
February 1 – February 28, 2014	21,807	\$ 29.76	21,807	\$ 182,969,000
March 1 – March 31, 2014	9,900	\$ 29.93	9,900	\$ 182,673,000
Total	31,707	\$ 29.81	31,707	

- (1) On July 25, 2011, our Board of Directors approved a share repurchase program (the "Program") for the repurchase of up to an aggregate of \$200 million of our common stock from time to time in open market purchases, privately negotiated transactions or through other appropriate means, which we announced on July 27, 2011. The timing and quantity of any shares repurchased will depend upon a variety of factors, including business conditions, stock market conditions and business development activities, including but not limited to merger and acquisition opportunities. These repurchases may be commenced, suspended or discontinued at any time without prior notice.
- (2) We have repurchased approximately 659,000 shares of our common stock pursuant to the Program since its adoption.

ITEM 6. EXHIBITS.

<u>Exhibit No.</u>	<u>Exhibit Description</u>
+3.1(1)	Restated Articles of Organization of the Registrant
+3.2(2)	Articles of Amendment to Articles of Organization, as filed with the Secretary of State of Massachusetts on May 18, 2001
+3.3(3)	Articles of Amendment to Articles of Organization, as filed with the Secretary of State of Massachusetts on May 16, 2002
+3.4(4)	Amended and Restated By-Laws of the Registrant
+10.1(4)*	2014 Stock Incentive Plan
+10.2(4)*	2014 Employee Stock Purchase Plan
+10.3(4)*	Form of Restricted Stock Unit Agreement for Non-Employee Directors under the 2014 Stock Incentive Plan
+10.4(4)*	Form of Restricted Stock Unit Agreement for employees under the 2014 Stock Incentive Plan
†10.5*	2014 Sales Commission Plan for John R. Abrams
31.1	Certification of Principal Executive Officer pursuant to Rule 13a-14(a)/Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended

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31.2	Certification of Principal Financial Officer pursuant to Rule 13a-14(a)/Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended
32.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Calculation Linkbase Document.
101.LAB	XBRL Taxonomy Labels Linkbase Document.
101.PRE	XBRL Taxonomy Presentation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.

+ Previously filed

* Management contract or compensatory plan arrangement.

† Confidential Treatment has been requested as to certain portions of this Exhibit. Such portions have been omitted and filed separately with the Securities and Exchange Commission.

- (1) Incorporated by reference to the Registration Statement on Form S-4 (File No. 333-49738) filed with the Securities and Exchange Commission on November 13, 2000.
- (2) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001.
- (3) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2002.
- (4) Incorporated by reference to the Current Report on Form 8-K filed with the Securities and Exchange Commission on May 6, 2014.

SIGNATURE

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.

May 7, 2014

By: /s/ Seth H. Bagshaw
Seth H. Bagshaw
Vice President, Chief Financial Officer and Treasurer
(Principal Financial Officer)

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. Double asterisks denote omission.



2014 SALES COMMISSION PLAN

January 1, 2014

Jack Abrams

MKS Sales

Plan Objective:

The MKS Sales Commission Plan or SCP is intended to attract and retain high quality talent and to motivate participants of the SCP to build and sustain value for the Company. Participants are eligible to receive a sales commission/bonus payout based on MKS's financial success and individual goals and objectives that align with MKS's Strategic Business Plan.

Policy:

The purpose of this document is to set forth the Company's policies governing Incentive Compensation under the SCP.

MKS is committed to providing compensation opportunities that, when performance warrants, will be comparable to those provided by other companies with similar revenues and operational characteristics.

The Company will attempt to set overall compensation at levels consistent with rates paid by other companies for positions similar in importance and complexity to those at MKS.

Sales commission/bonus plans will be structured so that when goals are achieved, incentive awards will also be consistent with competitive pay levels. When results exceed or fall short of goals, compensation will exceed or fall short of competitive levels.

The Vice President, Human Resources is responsible for ensuring that actual pay practices at MKS conform to the philosophy described above.

Effective Date:

This SCP will be in effect from January 1, 2014 to December 31, 2014, unless revised or terminated during the year by the Company in its sole discretion. This SCP will be reviewed and revised annually and semi-annually for Key Accounts as determined by the agreed upon December and June forecasts. This SCP supersedes and cancels all previous Sales Commission/Bonus Plans.

Eligibility:

Participation in the Sales Commission Plan will be determined each year by the respective Director of Sales and/or the Vice President of Sales or respective Group Vice President/GM with final approval by the CEO.

Definitions:

Base Compensation is defined as the Participant's base salary earnings, prior to the calculation of any commission/bonus or Incentive Compensation, in effect as of January 1 of the current plan year. If an employee receives a compensation adjustment during the year, the participant's incentive target will be prorated based upon the effective date. For effective dates of the first of the month through the fifteenth of the month, the bonus payment will be prorated based on the first of the month. For effective dates after the fifteenth of the month, the incentive target will be prorated based on the first of the following month.

Bookings are defined as written customer Purchase Orders which have been reviewed, approved and accepted by the Company in accordance with the standard Company (a) contract review and approval process, and (b) purchase order review and approval process. It is understood that only Bookings that fulfill all of the above will be credited against the Participant's Target and be included in the calculation of the Participants' Incentive Compensation payment under this plan.

Company is defined as MKS Instruments or any of its subsidiaries.

Customer Purchase Order(s) is defined as a written order to purchase standard Company products.

Incentive Compensation is defined as the amount indicated in Attachment A to be paid in accordance with the percentage of the Revenue or Bookings performance level achieved.

Incentive Target is defined as the amount indicated in Attachment A.

Participant(s) is/are defined as current employees of the Company who both meet the eligibility requirements, as stated below to participate in the Plan and execute a copy of this Plan.

Revenue is defined as revenue that is recognized by the Company in accordance with standard Company revenue recognition guidelines, policies and procedures, and is recorded on official Company reports, records and financial statements as Company revenue. Only Revenue that meets this definition will be credited against the Participant's Target and considered in the calculation of the Participant's Incentive Compensation payment under this Plan.

Shipment is defined as shipments of company products to customers. It is understood that shipments will be credited against the Participant's Target and included in the calculation of the Participants' Incentive Compensation payment under this plan.

Targeted Incentive is the total amount of Incentive Compensation that would be earned if 100% of all Target(s) was/ were met.

Payment of Incentive Compensation:

Participants are eligible to receive Incentive Compensation for the sale of Company products and services included on all Bookings. Incentive Compensation is earned and paid 100% upon shipment. Payments will be made on a monthly or quarterly basis depending on the position, with some exceptions which are paid annually. Following approval of the respective Group Vice President/GM and/or Director of Sales, payments will be processed with the last bi-weekly payroll of the month.

If shipments, which result in an Incentive Compensation payment, are subsequently canceled or returned, these canceled orders will be debited against the monthly/quarterly bookings currently accrued at the time of the cancellation.

Commission/Bonus will be calculated per the performance level achieved by applying the respective commission rate formula stated in Attachment A. The amount of the Incentive Compensation is calculated by using the calculation formula contained in Attachment A, and, if applicable, along with any threshold or cap on the Incentive Compensation amount that Participant can earn under this Plan.

Eligibility for full payment under this Plan is conditioned upon remaining actively employed. For involuntary terminations, other than cause, Incentive Compensation that has been fully earned by Participant prior to the termination date shall be paid to Participant within forty-five (45) calendar days of termination date.

Incentive Splits

In the event that more than one Participant participate in the same sale, the Incentive Compensation will potentially be divided by the number of participants to determine the incentive amount. Participants will only be eligible for Incentive Compensation if they were actively involved in the selling process as determined by the respective Director of Sales and/or the Vice President of Sales or respective Group Vice President/GM.

Personnel Changes:

In the event of a transfer, promotion, leave of absence, territorial realignment, or other personnel change, other than termination, that would affect the Participant's entitlement under this Plan, Incentive Compensation shall be calculated from the first date of eligibility in the Plan up to the day just prior to the effective date of the change in status of the Participant. For effective dates of the first of the month

through the fifteenth of the month, the bonus payment will be prorated based on the first of the month. For effective dates after the fifteenth of the month, the incentive target will be prorated based on the first of the following month. For involuntary terminations, other than cause, Incentive Compensation that has been fully earned by Participant prior to the termination date shall be paid to Participant within forty-five (45) calendar days of termination date.

Administration:

Authority for the overall administration and interpretation of this SCP rests entirely with the Company.

Disputes regarding the administration of this plan, calculation of Incentive Compensation, or any other matter related to this Plan should be referred to the President & Chief Executive Officer.

Plan Amendments:

Company reserves the right to amend, alter or discontinue the Plan at any time, as a whole or as it may pertain to a particular transaction, for any reason. Notice, which may be given in any form, of any such change will be provided to Participant within a reasonable time. All Incentive Compensation earned under a prior incentive plan but not paid shall be paid according to that plan.

Entire Agreement:

These terms and conditions, including Attachment A, constitute the entire agreement between the Company and the Participant with respect to the subject matter hereof and expressly supersedes all proposals and prior negotiations and understandings, whether written or oral, between the Company and the Participant with respect to the subject matter hereof.

Acknowledgement and Receipt:

My signature verifies that I have received a copy of the Sales Commission Plan and Attachment for the Plan Period and agree to abide by its terms:

/s/ Jack Abrams
Jack Abrams, Senior VP, Global Sales

3/28/14
Date

/s/ Gerald Colella
Gerald Colella, CEO & President

3/28/14
Date

/s/ Marina Smith
Marina Smith, Director, Compensation & Benefits

3/28/14
Date

Attachment A
2014 Incentive Compensation Plan
MKS Accounts

Employee Name: Jack Abrams

Job Title: Sr. Vice President, Global Sales

Region (if applicable):

Products (if applicable): All MKS Products

Accounts (for Key Accounts):

Base Salary (in local currency):

Base Salary (in US\$): \$275,000

Total Incentive Comp at 100% achievement (in local currency):

Total Incentive Comp at 100% achievement (in US\$): \$192,500

Total Bookings Goal
\$M
[**]

Commission Rate (or % of base)
70%

Commission Target
\$192,500

Bookings

<u>Bookings % Target</u>	<u>Bookings</u>	<u>% Bonus</u>
70%	[**]	15%
74%	[**]	25%
77%	[**]	35%
82%	[**]	50%
86%	[**]	60%
87%	[**]	63%
88%	[**]	66%
89%	[**]	69%
91%	[**]	75%
95%	[**]	85%
100%	[**]	100%
108%	[**]	125%
115%	[**]	150%
123%	[**]	175%
130%	[**]	200%

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO RULE 13a-14(a)/RULE 15d-14(a) OF THE
SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Gerald G. Colella, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of MKS Instruments, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 7, 2014

/s/ Gerald G. Colella

Gerald G. Colella
Chief Executive Officer and President
(Principal Executive Officer)

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO RULE 13a-14(a)/RULE 15d-14(a) OF THE
SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Seth H. Bagshaw, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of MKS Instruments, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 7, 2014

/s/ Seth H. Bagshaw

Seth H. Bagshaw
Vice President, Chief Financial Officer and Treasurer
(Principal Financial Officer)

CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER

PURSUANT TO 18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of MKS Instruments, Inc. (the "Company") for the period ended March 31, 2014, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Gerald G. Colella, Chief Executive Officer and President of the Company, and Seth H. Bagshaw, Vice President, Chief Financial Officer and Treasurer of the Company, each hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, based on his knowledge:

- (1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: May 7, 2014

/s/ Gerald G. Colella

Gerald G. Colella
Chief Executive Officer and President

Dated: May 7, 2014

/s/ Seth H. Bagshaw

Seth H. Bagshaw
Vice President, Chief Financial Officer and Treasurer