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 September 30, 2012

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 October 31, 2012, the registrant had 52,627,677 shares of common stock outstanding.

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PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS.

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

	September 30, 2012	December 31, 2011
ASSETS		
Current assets:		
Cash and cash equivalents	$ 284,968	$ 312,916
Short-term investments	298,666	252,603
Trade accounts receivable, net	87,536	120,894
Inventories	145,518	153,632
Deferred income taxes	11,251	10,618
Other current assets	24,998	34,238
Total current assets	852,937	884,901
Property, plant and equipment, net	77,493	72,487
Long-term investments	40,062	7,873
Goodwill	149,887	140,084
Intangible assets, net	11,843	1,043
Other assets	10,080	12,266
Total assets	$ 1,142,302	$ 1,118,654
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Short-term borrowings	$ 4,164	$ 1,932
Accounts payable	16,395	24,853
Accrued compensation	23,771	21,774
Income taxes payable	3,858	7,548
Other current liabilities	41,002	40,324
Total current liabilities	89,190	96,431
Other liabilities	37,925	32,211
Commitments and contingencies (Note 15)		
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; 52,813,719 and 52,491,948 shares issued and outstanding at September 30, 2012 and December 31, 2011, respectively	113	113
Additional paid-in capital	715,001	707,419
Retained earnings	284,802	268,870
Accumulated other comprehensive income	15,271	13,610
Total stockholders' equity	1,015,187	990,012
Total liabilities and stockholders' equity	$ 1,142,302	$ 1,118,654

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

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

	Three Months Ended September 30, 2012	Three Months Ended September 30, 2011	Nine Months Ended September 30, 2012	Nine Months Ended September 30, 2011
Net revenues:				
Products	$114,647	$167,145	$427,986	$573,329
Services	26,800	27,363	81,726	77,517
Total net revenues	141,447	194,508	509,712	650,846
Cost of revenues:				
Cost of products	68,304	90,785	243,950	307,087
Cost of services	16,572	16,045	48,884	44,732
Total cost of revenues	84,876	106,830	292,834	351,819
Gross profit	56,571	87,678	216,878	299,027
Research and development	14,136	14,331	45,911	46,809
Selling, general and administrative	29,661	31,984	96,332	96,542
Litigation	5,316	—	5,316	—
Completed acquisition costs	851	—	1,258	—
Amortization of intangible assets	215	251	453	751
Income from operations	6,392	41,112	67,608	154,925
Interest income	299	284	760	869
Interest expense	32	12	92	17
Income before income taxes	6,659	41,384	68,276	155,777
Provision for income taxes	4,079	11,011	24,356	48,760
Net income	$ 2,580	$ 30,373	$ 43,920	$107,017
Other comprehensive income (loss):				
Changes in value of financial instruments designated as cash flow hedges, net of tax (benefit) expense(1)	$ (417)	$ 1,289	$ (297)	$ 1,167
Foreign currency translation adjustments, net of tax of $0 for the three and nine months ended September 30, 2012 and 2011	6,007	(3,997)	1,955	1,330
Unrealized gain on investments, net of tax (benefit) expense(2)	70	79	3	118
Total comprehensive income	$ 8,240	$ 27,744	$ 45,581	$109,632
Net income per share:				
Basic	$ 0.05	$ 0.58	$ 0.83	$ 2.06
Diluted	$ 0.05	$ 0.57	$ 0.82	$ 2.03
Cash dividends per common share	$ 0.16	$ 0.15	$ 0.46	$ 0.45
Weighted average common shares outstanding:				
Basic	52,854	52,456	52,679	52,070
Diluted	53,290	52,992	53,240	52,761

(1) Tax (benefit) expense was $(260) and $733 for the three months ended September 30, 2012 and 2011, respectively. Tax (benefit) expense was $(177) and $698 for the nine months ended September 30, 2012 and 2011, respectively.

(2) Tax expense was $44 and $47 for the three months ended September 30, 2012 and 2011, respectively. Tax expense was $2 and $71 for the nine months ended September 30, 2012 and 2011, respectively.

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

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

	Nine Months Ended September 30, 2012	Nine Months Ended September 30, 2011
Cash flows from operating activities:		
Net income	$ 43,920	$ 107,017
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	10,197	9,641
Stock-based compensation	9,900	8,597
Provision for excess and obsolete inventory	12,596	10,924
Deferred income taxes	3,059	3,084
Excess tax benefits from stock-based compensation	(1,998)	(5,282)
Other	610	503
Changes in operating assets and liabilities:		
Trade accounts receivable	33,992	13,511
Inventories	(893)	(14,856)
Income taxes	715	(3,295)
Other current assets	2,984	(9,816)
Accrued compensation and other liabilities	7,516	(1,422)
Accounts payable	(8,750)	(13,962)
Net cash provided by operating activities	113,848	104,644
Cash flows from investing activities:		
Acquisition of business, net of cash acquired	(24,385)	—
Purchases of investments	(363,040)	(359,857)
Maturities and sales of investments	288,030	311,419
Purchases of property, plant and equipment	(11,040)	(9,691)
Other	(347)	(466)
Net cash used in investing activities	(110,782)	(58,595)
Cash flows from financing activities:		
Proceeds from short-term borrowings	2,896	27,340
Payments on short-term borrowings	(4,956)	(26,094)
Repurchase of common stock	(7,026)	(475)
Net (payments) proceeds related to employee stock-based compensation	(830)	26,327
Dividend payments to common stockholders	(24,261)	(23,498)
Excess tax benefit from stock-based compensation	1,998	5,282
Net cash (used in) provided by financing activities	(32,179)	8,882
Effect of exchange rate changes on cash and cash equivalents	1,165	(1,296)
(Decrease) increase in cash and cash equivalents	(27,948)	53,635
Cash and cash equivalents at beginning of period	312,916	162,476
Cash and cash equivalents at end of period	$ 284,968	$ 216,111

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 September 30, 2012 and for the three and nine months ended September 30, 2012 and 2011 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, 2011 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, 2011 filed with the Securities and Exchange Commission on February 24, 2012.

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.

For the three and nine month periods ended September 31, 2012, the Company reclassified completed acquisition costs as a separate line item in the consolidated statements of operations. These costs were previously included within the selling, general and administrative line item.

2) Recently Issued Accounting Pronouncements

In September 2011, the Financial Accounting Standards Board (“FASB”) issued an Accounting Standards Update (“ASU”) which simplifies how companies test goodwill for impairment. Under these amendments, an entity has the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If, after assessing the totality of events or circumstances, an entity determines it is more likely than not that the fair value of a reporting unit is less than its carrying amount, then performing the two-step impairment test is unnecessary. However, if an entity concludes otherwise, then it is required to perform the first step of the two-step impairment test by calculating the fair value of the reporting unit and comparing the fair value with the carrying amount of the reporting unit, as described in the goodwill accounting standard. The amendments were effective for annual and interim goodwill impairment tests performed for fiscal years beginning after December 15, 2011. Early adoption was permitted. The Company adopted this new ASU in the fourth quarter of 2011. This new ASU did not have a material effect on the Company’s consolidated financial statements.

In June 2011, the FASB issued an ASU which eliminates the option to present the components of other comprehensive income as part of the statement of equity and requires an entity to present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements. The amendments were effective retrospectively for fiscal years, and interim periods within those years, beginning after December 15, 2011. The ASU requires changes in presentation only. The Company adopted this new ASU in the first quarter of 2012, electing to present the components of other comprehensive income as one continuous statement. This new ASU did not have a material effect on the Company’s consolidated financial statements.

In May 2011, the FASB issued an ASU which applies to all reporting entities that are required or permitted to measure or disclose the fair value of an asset, a liability, or an instrument classified in a reporting entity’s shareholders’ equity in the financial statements. The amendments do not extend the use of fair value accounting, but provide guidance on how it should be applied where its use is already required or permitted by other standards within U.S. GAAP. The amendments change the wording used to describe many requirements in U.S. GAAP for measuring fair value and for disclosing information about fair value measurements. Additionally, the ASU clarifies the FASB’s intent about the application of existing fair value measurements. The amendments in this ASU are to be applied prospectively. For public entities, the amendments were effective during interim and annual periods beginning after December 15, 2011. The Company adopted the new ASU in the first quarter of 2012. This new ASU did not have a material effect on the Company’s consolidated financial statements.

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

3) Investments

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

	September 30, 2012	December 31, 2011
Available-for-sale investments:		
Time deposits	$ 3,138	$ 37
Bankers' acceptance drafts	5,356	962
U.S. treasury obligations	13,061	29,404
U.S. agency obligations	276,328	221,565
	$ 297,883	$ 251,968
Trading investments:		
Mutual funds	783	635
	$ 298,666	$ 252,603

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

	September 30, 2012	December 31, 2011
Time deposits	$ 369	$ —
U.S. agency obligations	39,693	7,873
	$ 40,062	$ 7,873

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

As of September 30, 2012:	Cost	Gross Unrealized Gains	Gross Unrealized (Losses)	Estimated Fair Value
Short-term investments:				
Time deposits	$ 3,138	$ —	$ —	$ 3,138
Bankers' acceptance drafts	5,356	—	—	5,356
U.S. treasury obligations	13,054	7	—	13,061
U.S. agency obligations	276,487	45	(204)	276,328
	$298,035	$ 52	$ (204)	$297,883
Long-term investments:				
Time deposits	$ 369	$ —	$ —	$ 369
U.S. agency obligations	39,740	1	(48)	39,693
	$ 40,109	$ 1	$ (48)	$ 40,062

As of December 31, 2011:	Cost	Gross Unrealized Gains	Gross Unrealized (Losses)	Estimated Fair Value
Short-term investments:				
Time deposits	$ 37	$ —	$ —	$ 37
Bankers' acceptance drafts	962	—	—	962
U.S. treasury obligations	29,393	11	—	29,404
U.S. agency obligations	221,516	56	(7)	221,565
	$251,908	$ 67	$ (7)	$251,968
Long-term investments:				
U.S. agency obligations	$ 7,876	$ —	$ (3)	$ 7,873

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 and nine months ended September 30, 2012 and 2011, respectively.

The unrealized gains and losses for trading investments were immaterial for the three and nine months ended September 30, 2012 and 2011.

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.

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 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.

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 September 30, 2012 and are summarized as follows:

		Fair Value Measurements at Reporting Date Using		
Description	Total September 30, 2012	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	$ 70,901	$ 70,901	$ —	$ —
Bankers' acceptance drafts	63	—	63	—
Trading securities:				
Mutual funds	783	783	—	—
Available-for-sale securities:				
Bankers' acceptance drafts	5,356	—	5,356	—
U.S. treasury obligations	13,061	—	13,061	—
U.S. agency obligations	316,021	284,373	31,648	—
Derivatives – currency forward contracts	145	—	145	—
Total assets	$ 406,330	$ 356,057	$ 50,273	$ —
Liabilities:				
Derivatives – currency forward contracts	$ 1,207	$ —	$ 1,207	$ —
Reported as follows:				
Assets:				
Cash and cash equivalents(1)	$ 70,964	$ 70,901	$ 63	$ —
Short-term investments(2)	295,528	245,463	50,065	—
Other current assets	145	—	145	—
Total current assets	$ 366,637	$ 316,364	$ 50,273	$ —
Long-term investments(3)	$ 39,693	$ 39,693	$ —	$ —
Liabilities:				
Other current liabilities	$ 1,207	$ —	$ 1,207	$ —

(1) The cash and cash equivalent amounts presented in the table above do not include cash of $176,168 and non-negotiable time deposits of $37,836 as of September 30, 2012.

(2) The short-term investments presented in the table above do not include non-negotiable time deposits of $3,138 as of September 30, 2012.

(3) The long-term investments presented in the table above do not include non-negotiable time deposits of $369.

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, 2011 and are summarized as follows:

		Fair Value Measurements at Reporting Date Using		
Description	Total December 31, 2011	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	$ 137,976	$ 137,976	$ —	$ —
Trading securities:				
Mutual funds	635	635	—	—
Available-for-sale securities:				
Bankers' acceptance drafts	962	—	962	—
U.S. treasury obligations	29,404	—	29,404	—
U.S. agency obligations	229,438	147,546	81,892	—
Derivatives – currency forward contracts	531	—	531	—
Total assets	$ 398,946	$ 286,157	$ 112,789	$ —
Liabilities:				
Derivatives – currency forward contracts	$ 1,054	$ —	$ 1,054	$ —
Reported as follows:				
Assets:				
Cash and cash equivalents(1)	$ 137,976	$ 137,976	$ —	$ —
Short-term investments(2)	252,566	140,308	112,258	—
Other current assets	531	—	531	—
Total current assets	$ 391,073	$ 278,284	$ 112,789	$ —
Long-term investments	$ 7,873	$ 7,873	$ —	$ —
Liabilities:				
Other current liabilities	$ 1,054	$ —	$ 1,054	$ —

(1) The cash and cash equivalent amounts presented in the table above do not include cash of $146,035 and non-negotiable time deposits of $28,905 as of December 31, 2011.

(2) The short-term investments presented in the table above do not include non-negotiable time deposits of $37 as of December 31, 2011.

Money Market Funds

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

Trading Mutual Fund Investments

As of September 30, 2012 and December 31, 2011, trading investments consisted of certain U.S. and international equity mutual funds and government agency fixed income mutual funds. During 2011, management changed the designation of the investments from available-for-sale to trading investments.

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

As of September 30, 2012 and December 31, 2011, available-for-sale investments consisted of time deposits and drafts denominated in the Euro currency, U.S. treasury obligations and U.S. agency obligations. U.S. agency obligations include certain corporate obligations issued under the government's Term Loan Guarantee Program which removed any credit risk associated with the corporate issuing entity, as they become obligations of the U.S. government should the corporate issuer be unable to honor its obligations.

(in thousands, except share and per share data)

The Company measures its debt and equity investments at fair value. The Company's available-for-sale investments are classified within Level 1 and Level 2 of the fair value hierarchy.

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 European 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.

As of September 30, 2012 and December 31, 2011, the Company had outstanding forward foreign exchange contracts with gross notional values of $63,460 and $36,119, respectively. The following tables provide a summary of the primary net hedging positions and corresponding fair values held as of September 30, 2012 and December 31, 2011:

	September 30, 2012	
Currency Hedged (Buy/Sell)	Gross Notional Value	Fair Value[(1)] Asset/(Liability)
U.S. Dollar/Japanese Yen	$ 17,508	$ (424)
U.S. Dollar/South Korean Won	39,884	(1,288)
U.S. Dollar/Euro	3,454	84
U.S. Dollar/U.K. Pound Sterling	2,614	(52)
Total	$ 63,460	$ (1,680)

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

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

Currency Hedged (Buy/Sell)	December 31, 2011 Gross Notional Value	December 31, 2011 Fair Value(1) Asset/(Liability)
U.S. Dollar/Japanese Yen	$ 18,676	$ (961)
U.S. Dollar/South Korean Won	10,799	60
U.S. Dollar/Euro	3,869	288
U.S. Dollar/U.K. Pound Sterling	2,775	90
Total	$ 36,119	$ (523)

(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:

Derivatives Designated as Hedging Instruments	September 30, 2012	December 31, 2011
Derivative assets:		
Forward exchange contracts	$ 145	$ 531
Derivative liabilities:		
Forward exchange contracts	(1,273)	(1,054)
Total net derivative liability designated as hedging instruments(1)	$ (1,128)	$ (523)

Derivatives Not Designated as Hedging Instruments	September 30, 2012	December 31, 2011
Derivative liabilities:		
Forward exchange contracts(1)	$ (552)	$ —

(1) The derivative assets of $145 and derivative liabilities of $1,825 are classified in other current assets and other current liabilities, respectively, in the consolidated balance sheet as of September 30, 2012. The derivative assets of $531 and derivative liabilities of $1,054 are classified in other current assets and other current liabilities, respectively, in the consolidated balance sheet as of December 31, 2011.

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 September 30, 2012	Three Months Ended September 30, 2011	Nine Months Ended September 30, 2012	Nine Months Ended September 30, 2011
Forward exchange contracts:				
Net (loss) gain recognized in OCI(1)	$(581)	$ 3,284	$ (312)	$ 2,965
Net gain (loss) reclassified from OCI into income(2)	$(739)	$ (1,387)	$(1,178)	$(2,861)
Net (loss) recognized in expense(3)	$ (66)	$ —	$ (66)	$ —

(1) Net change in the fair value of the effective portion classified in OCI.
(2) Effective portion classified in selling, general and administrative expenses.
(3) Ineffective portion amount excluded from effectiveness testing which is immediately recorded in selling, general and administrative expenses.

(in thousands, except share and per share data)

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

Derivatives Not Designated as Hedging Instruments	Three Months Ended September 30, 2012	Three Months Ended September 30, 2011	Nine Months Ended September 30, 2012	Nine Months Ended September 30, 2011
Forward exchange contracts:				
Net (loss) recognized in expense(1)	$ (552)	$ —	$ (552)	$ —

(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:

	September 30, 2012	December 31, 2011
Raw materials	$ 82,386	$ 78,501
Work-in-process	22,235	21,298
Finished goods	40,897	53,833
	$ 145,518	$ 153,632

7) Acquisition

On August 29, 2012, the Company completed its acquisition of Plasmart, Inc. ("Plasmart"), located in Daejeon, Korea. Plasmart develops radio frequency (RF) plasma generation and monitoring systems for the semiconductor, flat panel display, active matrix organic light emitting diodes and solar photovoltaic industries. Plasmart's expertise in RF systems and access to the important Korean market were key drivers in the selection of Plasmart for acquisition. The aggregate purchase price, net of cash acquired consisted of $24,385, subject to working capital and net debt adjustments. Acquisition related costs of $1,258 were expensed as incurred.

The following table summarizes the preliminary estimated fair value of the assets acquired and liabilities assumed at the date of the acquisition. The purchase price allocation is preliminary, pending the final determination of fair values of intangible assets and certain assumed assets and liabilities.

Current assets	$ 7,233
Property, plant and equipment	3,565
Other assets	805
Intangible assets	10,860
Goodwill	9,641
Total assets acquired	$32,104
Debt (Note 9)	4,561
Deferred taxes and other liabilities	3,065
Total liabilities assumed	$ 7,626
Total purchase price	$24,478
Cash acquired	(93)
Total purchase price, net of cash acquired	$24,385

(in thousands, except share and per share data)

The goodwill and other intangible assets associated with the acquisition are not deductible for tax purposes. The following table reflects the allocation of the acquired intangible assets and related estimates of useful lives. These acquired intangibles will be amortized on a straight-line basis.

Current developed technology	$ 5,029	7.5 – 9.5 years useful life
Tradenames	335	7 year useful life
Customer relationships	5,496	10 year useful life
	$10,860	

This transaction resulted in an amount of purchase price that exceeded the estimated fair value of tangible and intangible assets, which was allocated to goodwill. The Company believes that the amount of goodwill relative to identifiable intangible assets relates to several factors including: (1) potential buyer-specific synergies related to market opportunities for a combined product offering and (2) potential to leverage the Company's sales force and intellectual property to attract new customers and revenue.

The results of this acquisition were included in the Company's consolidated operations beginning on August 29, 2012. The pro forma consolidated statements reflecting the operating results of Plasmart, had they been acquired as of January 1, 2012, would not differ materially from the operating results of the Company as reported for the three and nine months ended September 30, 2012. Plasmart is included in the ENI operating segment and the Advanced Manufacturing Capital Equipment reporting segment.

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, 2011, the Company performed its annual impairment assessment of goodwill and determined that there was no impairment.

The changes in the carrying amount of goodwill and accumulated impairment losses during the nine months ended September 30, 2012 and twelve months ended December 31, 2011 were as follows:

	2012			2011		
	Gross Carrying Amount	Accumulated Impairment Loss	Net	Gross Carrying Amount	Accumulated Impairment Loss	Net
Beginning balance at January 1	$279,498	$(139,414)	$140,084	$279,434	$(139,414)	$140,020
Acquired goodwill(1)	9,641	—	9,641	64	—	64
Foreign currency translation	162	—	162	—	—	—
Ending balance at September 30, 2012 and December 31, 2011	$289,301	$(139,414)	$149,887	$279,498	$(139,414)	$140,084

(1) On August 29, 2012, the Company purchased Plasmart for $24,385, net of cash acquired. The Company recorded $10,860 of separately identified intangible assets and $9,641 of goodwill in connection with the acquisition. In September 2011, the Company purchased a product line from GE Osmonics, Inc. for $458. The Company recorded $315 of intangible assets and $64 of goodwill in connection with the acquisition.

(in thousands, except share and per share data)

Intangible Assets

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

As of September 30, 2012:	Gross	Accumulated Amortization	Net
Completed technology(1)	$ 82,154	$ (76,911)	$ 5,243
Customer relationships	14,778	(8,675)	6,103
Patents, trademarks, trade names and other	25,043	(24,546)	497
	$121,975	$(110,132)	$11,843

As of December 31, 2011:	Gross	Accumulated Amortization	Net
Completed technology	$ 76,829	$ (76,829)	$ —
Customer relationships	9,190	(8,393)	797
Patents, trademarks, trade names and other	24,703	(24,457)	246
	$110,722	$(109,679)	$1,043

(1) Intangible assets of $226 were re-classified from other assets to intangible assets during the quarter ended March 31, 2012. This was related to in-process research and development which was completed during the first quarter of 2012, related to a previous acquisition.

Aggregate amortization expense related to acquired intangibles for the three and nine months ended September 30, 2012 was $215 and $453, respectively. Aggregate amortization expense related to intangible assets for the three and nine months ended September 30, 2011 was $251 and $751, respectively. Estimated amortization expense for the remainder of the current fiscal year, each of the next five fiscal years and thereafter is as follows:

Year	Amount
2012 (remaining)	$ 413
2013	1,651
2014	1,273
2015	1,257
2016	1,257
2017	1,212
Thereafter	4,780

9) Debt

The Company's Japanese subsidiary has lines of credit and short-term borrowing arrangements with two financial institutions which provide for aggregate borrowings as of September 30, 2012 of up to an equivalent of $29,632 U.S. dollars, at an average interest rate of 0.65%, arrangements which generally expire and are renewed at three month intervals. There were no borrowings outstanding under these arrangements at September 30, 2012. There were $1,932 total borrowings outstanding under these arrangements at December 31, 2011.

The Company acquired six loans and an available line of credit with two financial institutions in the August 2012 Plasmart acquisition. The loans have various maturity dates ranging from 2012 through 2014 at interest rates ranging from 3.15% to 5.63%. There were $4,315 total borrowings outstanding under these loan arrangements at September 30, 2012. The available line of credit provides for aggregate borrowings as of September 30, 2012 of up to an equivalent of $1,343 U.S. dollars, at an average interest rate of 5.19%. There was $134 outstanding under this arrangement at September 30, 2012. Total short-term debt is $4,164 and total long-term debt is $285 at September 30, 2012.

(in thousands, except share and per share data)

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10) 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:

	Nine Months Ended September 30,	
	2012	2011
Balance at January 1	$ 8,315	$ 9,865
Provision for product warranties	3,750	4,773
Direct charges to warranty liability	(3,733)	(6,492)
Foreign currency translation	505	466
Balance at September 30	$ 8,837	$ 8,612

11) Income Taxes

The Company's effective tax rate for the three and nine months ended September 30, 2012 was 61.3% and 35.7%, respectively. The Company's effective tax rate for the three and nine months ended September 30, 2011 was 26.6% and 31.3%, respectively. The effective tax rate for the three and nine months ended September 30, 2012, and the related income tax expense were higher than the U.S. statutory tax rate primarily due to the cumulative year-to-date tax effect of a slightly higher annual effective tax rate based on the Company's revised full year forecast, and non-deductible acquisition costs that were offset in part by geographic mix of income and profits earned by the Company's international subsidiaries being taxed at rates lower than the U.S. statutory rate. The effective tax rate for the three and nine months ended September 30, 2011, and the related income tax expense were lower than the U.S. statutory tax rate primarily due to 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, and recognition of discrete tax benefits realized by the Company that related principally to U.S. tax incentives.

At September 30, 2012, the total amount of gross unrecognized tax benefits, which excludes interest and penalties, was approximately $39,728. At December 31, 2011, the total amount of gross unrecognized tax benefits, which excludes interest and penalties, was approximately $35,151. The net increase from December 31, 2011 was attributable to an increase in reserves for existing uncertain tax positions. If these benefits were recognized in a future period, the timing of which is not estimable, the net unrecognized tax benefit of $17,891, excluding interest and penalties, would impact the Company's effective tax rate as of September 30, 2012. 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 September 30, 2012 and December 31, 2011, the Company had accrued interest on unrecognized tax benefits of approximately $1,444 and $973, 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 open tax years through 2009 during the quarter ended June 30, 2012. The statute of limitations for the Company's tax filings varies by tax jurisdiction between fiscal years 2006 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 and inherently includes subjectivity. 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 revises estimates or settles or otherwise resolves the underlying matters.

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

12) Net Income Per Share

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

	Three Months Ended September 30, 2012	Three Months Ended September 30, 2011	Nine Months Ended September 30, 2012	Nine Months Ended September 30, 2011
Numerator:				
Net income	$ 2,580	$ 30,373	$ 43,920	$ 107,017
Denominator:				
Shares used in net income per common share – basic	52,854,000	52,456,000	52,679,000	52,070,000
Effect of dilutive securities:				
Stock options, restricted stock and employee stock purchase plan	436,000	536,000	561,000	691,000
Shares used in net income per common share – diluted	53,290,000	52,992,000	53,240,000	52,761,000
Net income per common share:				
Basic	$ 0.05	$ 0.58	$ 0.83	$ 2.06
Diluted	$ 0.05	$ 0.57	$ 0.82	$ 2.03

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 September 30, 2012, stock options and restricted stock units relating to an aggregate of approximately 1,250,000 shares were outstanding. For the three and nine months ended September 30, 2012, the potential dilutive effect of 105,000 and 227,000 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.

As of September 30, 2011, stock options and restricted stock units relating to an aggregate of approximately 1,593,000 shares were outstanding. For the three and nine months ended September 30, 2011, the potential dilutive effect of 373,000 and 295,000 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.

13) 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 million 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 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.

During the nine months ended September 30, 2012, the Company repurchased 244,600 shares of its common stock for $7,026 for an average price of $28.72 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 nine months ended September 30, 2012, the Board of Directors declared two quarterly dividends of $0.15 per share and one quarterly dividend of $0.16 per share that totaled $24,261 or $0.46 per share. 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.

(in thousands, except share and per share data)

On October 29, 2012, the Company's Board of Directors declared a quarterly cash dividend of $0.16 per share to be paid on December 14, 2012 to stockholders of record as of November 30, 2012.

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

Effective in the second quarter of fiscal year 2012, the Company changed its financial reporting structure to include four reportable segments based upon the manner in which information is produced internally and provided to the Company's chief operating decision-maker ("CODM"). The Company had previously reported as a single operating and reporting segment.

The Company develops, manufactures, sells and services products that measure, control, power and monitor critical parameters of advanced manufacturing processes. The Company's 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, Asia Region Sales & Service and Europe 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 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.

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 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 September 30,		Nine Months Ended September 30,	
	2012	2011	2012	2011
Advanced Manufacturing Capital Equipment	$104,191	$144,005	$ 382,016	$ 525,416
Analytical Solutions Group	15,160	15,130	47,680	45,274
Europe Region Sales & Service Operations(1)	13,485	19,380	38,141	61,546
Asia Region Sales & Service Operations(1)	46,782	72,154	182,663	240,995
Corporate, Eliminations and Other	(38,171)	(56,161)	(140,788)	(222,385)
	$141,447	$194,508	$ 509,712	$ 650,846

(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 only 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.

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

The following is gross profit by reportable segment:

	Three Months Ended September 30, 2012	Three Months Ended September 30, 2011	Nine Months Ended September 30, 2012	Nine Months Ended September 30, 2011
Advanced Manufacturing Capital Equipment	$34,829	$55,484	$141,521	$215,605
Analytical Solutions Group	8,100	7,981	24,485	23,227
Europe Region Sales & Service Operations(1)	3,547	5,779	11,292	17,027
Asia Region Sales & Service Operations(1)	9,030	10,618	28,143	34,866
Corporate, Eliminations and Other	1,065	7,816	11,437	8,302
	$56,571	$87,678	$216,878	$299,027

(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 only 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 capital expenditures by reportable segment for the three and nine months ended September 30, 2012 and 2011:

	Product Groups		Foreign Sales & Service Operations			
	Advanced Manufacturing Capital Equipment	Analytical Solutions Group	Europe	Asia	Corporate, Eliminations and Other	Total
Three Months Ended September 30, 2012:						
Capital expenditures	$ 2,102	$ 283	$ 35	$ 237	$ 371	$ 3,028
Nine Months Ended September, 2012:						
Capital expenditures	$ 6,741	$ 698	$ 109	$ 654	$ 2,838	$11,040

	Product Groups		Foreign Sales & Service Operations			
	Advanced Manufacturing Capital Equipment	Analytical Solutions Group	Europe	Asia	Corporate, Eliminations and Other	Total
Three Months Ended September 30, 2011:						
Capital expenditures	$ 2,143	$ 92	$ 66	$ 853	$ 272	$ 3,426
Nine Months Ended September 30, 2011:						
Capital expenditures	$ 6,907	$ 312	$ 193	$ 1,329	$ 950	$ 9,691

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
September 30, 2012:						
Segment assets:						
Accounts receivable	$ 12,442	$ 4,356	$ 7,136	$ 33,469	$ 30,133	$ 87,536
Inventory	118,009	4,382	4,185	31,215	(12,273)	145,518
Total segment assets	$ 130,451	$ 8,738	$ 11,321	$ 64,684	$ 17,860	$233,054

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

	Product Groups		Foreign Sales & Service Operations			
	Advanced Manufacturing Capital Equipment	Analytical Solutions Group	Europe	Asia	Corporate, Eliminations and Other	Total
December 31, 2011:						
Segment assets:						
Accounts receivable	$ 24,224	$ 5,099	$ 6,079	$ 60,242	$ 25,250	$120,894
Inventory	119,314	4,442	3,828	45,828	(19,780)	153,632
Total segment assets	$ 143,538	$ 9,541	$ 9,907	$ 106,070	$ 5,470	$274,526

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

	September 30, 2012	December 31, 2011
Total segment assets	$ 233,054	$ 274,526
Cash and cash equivalents and investments	623,696	573,392
Other current assets	36,249	44,856
Property, plant and equipment, net	77,493	72,487
Goodwill and intangible assets, net	161,730	141,127
Other assets	10,080	12,266
Consolidated total assets	$ 1,142,302	$ 1,118,654

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 four 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 September 30,		Nine Months Ended September 30,	
	2012	2011	2012	2011
Instruments and Control Products	$ 57,761	$ 81,321	$205,654	$281,157
Power and Reactive Gas Products	52,031	77,193	199,864	257,198
Vacuum Products	15,435	19,834	53,158	64,478
Analytical Solutions Group Products	16,220	16,160	51,036	48,013
	$141,447	$194,508	$509,712	$650,846

Sales of Instruments and Control Products, Power and Reactive Gas Products and Vacuum 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.

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 September 30,		Nine Months Ended September 30,	
	2012	2011	2012	2011
Net revenues				
United States	$ 73,775	$ 89,218	$259,954	$310,233
Japan	14,270	28,571	67,122	80,761
Europe	21,341	30,033	65,800	90,589
Asia (excluding Japan)	32,061	46,686	116,836	169,263
	$141,447	$194,508	$509,712	$650,846

MKS INSTRUMENTS, INC.
NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS – (continued)
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	September 30, 2012	December 31, 2011
Long-lived assets(1)		
United States	$ 59,297	$ 56,760
Japan	3,290	3,908
Europe	5,415	5,437
Asia (excluding Japan)	11,763	8,374
	$ 79,765	$ 74,479

(1) Long-lived assets include property, plant and equipment, net and certain other assets.

Major Customers

The Company had two customers with net revenues greater than 10% of total net revenues in the periods shown as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2012	2011	2012	2011
Customer A	13.9%	12.9%	14.8%	14.0%
Customer B	8.5%	8.0%	10.3%	9.0%

15) Commitments and Contingencies

During the three months ended September 30, 2012, the Company settled litigation with shareholders of its former subsidiary for $5,316. The complaint alleged certain claims against the Company including breach of contract and implied covenants, and statutory violations. The claims sought unspecified damages and equitable relief. The Company believed that it had meritorious factual and legal defenses to the allegations raised, but reached a settlement primarily to eliminate future legal expenses related to the suit.

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 at some point 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, 2011 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 manufactured products. 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 industrial, medical, pharmaceutical manufacturing, energy generation, environmental monitoring and other advanced manufacturing companies, as well as university, government and industrial research laboratories. For the nine months ended September 30, 2012 and 2011, approximately 64% and 61% 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.

Effective in the second quarter of fiscal 2012, we changed our reporting segments from one to four segments based upon the information that is provided to the Company's chief operating decision maker. The Company's new reportable segments are: 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 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. The Analytical Solutions Group includes, materials delivery, gas composition analysis and information technology products. The Europe and Asia sales and service groups mainly resell and service the Advanced Manufacturing Capital Equipment and Analytical Solutions Group products sold into their respective regions.

Net revenues to semiconductor capital equipment manufacture and semiconductor device manufacture customers declined by 18% for the nine months ended September 30, 2012 compared to the same period in the prior year. Since the second quarter of 2012, we have seen a weakening in our orders and sales in the semiconductor markets as worldwide economic uncertainty and slowing consumer spending resulted in lower electronics demand and a slowing of investments in semiconductor production capacity. As a result of this weakening in demand in the semiconductor markets, we anticipate that our overall fourth quarter revenue amounts in 2012 could be lower than our third quarter revenue amounts in 2012. 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, declined by 28% for the nine months ended September 30, 2012 compared to the same period for the prior year. This decline was primarily caused by decreases in the solar and LED markets, which in total declined by 65%, as manufacturers are absorbing existing inventories from 2010 and 2011. Our net revenues to all other non-semiconductor markets (excluding solar and LED) declined by 9% for the nine months ended September 30, 3012 compared to the same period for the prior year. These advanced markets include medical, pharmaceutical, environmental, thin films, solar and other markets and we anticipate that these markets will grow and in future years could represent a larger portion of our total revenue.

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A significant portion of our net revenues is to customers in international markets. For the nine months ended September 30, 2012 and 2011, international net revenues accounted for approximately 49% and 52% of our net revenues, respectively. A significant portion of our international net revenues were in Japan, Korea and China. We expect that international net revenues will continue to represent a significant percentage of our total net revenues.

On August 29, 2012, we completed our acquisition of Plasmart, Inc. ("Plasmart") located in Daejeon, Korea. Plasmart develops radio frequency (RF), plasma generation and monitoring systems for the semiconductor, flat panel display, active matrix organic light emitting diodes and solar photovoltaic industries. The purchase price was $24.4 million, net of $0.1 of cash acquired.

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, 2011. 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, 2011 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 September 30,		Nine Months Ended September 30,	
	2012	2011	2012	2011
Net revenues:				
Product	81.1%	85.9%	84.0%	88.1%
Services	18.9	14.1	16.0	11.9
Total net revenues	100.0%	100.0%	100.0%	100.0%
Cost of revenues:				
Cost of product revenues	48.3	46.7	47.9	47.2
Cost of service revenues	11.7	8.2	9.6	6.9
Total cost of revenues	60.0%	54.9%	57.5%	54.1%
Gross profit	40.0%	45.1%	42.5%	45.9%
Research and development	10.0	7.4	9.0	7.2
Selling, general and administrative	21.0	16.5	18.9	14.8
Litigation	3.8	—	1.0	—
Completed acquisition costs	0.6	—	0.2	—
Amortization of intangible assets	0.1	0.1	0.1	0.1
Income from operations	4.5%	21.1%	13.3%	23.8%
Interest income, net	0.2	0.1	0.1	0.1
Income from operations before income taxes	4.7%	21.2%	13.4%	23.9%
Provision for income taxes	2.9	5.6	4.8	7.5
Net income	1.8%	15.6%	8.6%	16.4%

Net Revenues (dollars in millions)

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2012	2011	% Change	2012	2011	% Change
Net Revenues:						
Product	$ 114.6	$ 167.1	(31.4)%	$428.0	$573.3	(25.4)%
Service	26.8	27.4	(2.1)	81.7	77.5	5.4
Total net revenues	$ 141.4	$ 194.5	(27.3)%	$509.7	$650.8	(21.7)%

Product revenues decreased $52.5 million and $145.3 million during the three and nine months ended September 30, 2012, respectively, compared to the same periods for the prior year. Product revenues from customers in the semiconductor markets decreased by 25.7% and 17.6% for the three and nine month periods ended in 2012 compared to 2011, while product revenues to customers in our non-semiconductor markets decreased by 29.5% and 28.0% for the same periods. The decrease in the semiconductor markets we serve was mainly the result of the worldwide economic uncertainty and slowing consumer spending resulting in lower electronics demand and a slowing of investments in semiconductor production capacity. The decrease in the non-semiconductor markets was primarily caused by decreases in the solar and LED markets as end market customers utilize existing product shipments from 2010 and 2011.

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 decreased $0.6 million and increased $4.2 million, during the three and nine months ended September 30, 2012, compared to the same period for the prior year. The increase for the nine month period relates primarily to our foreign locations where we have made investments in our service organizations.

Total international net revenues, including product and service, were $67.7 million and $249.8 million or 47.8% and 49.0% of net revenues for the three and nine months ended September 30, 2012, respectively. Total international net revenues, including product and service, were $105.3 million and $340.6 million, or 54.1% and 52.3% of net revenues for the three and nine months ended September 30, 2011, respectively. The decrease in the three and nine month periods are mainly attributable to a decrease in sales in China, primarily attributed to a significant solar shipment during the three months ended March 31, 2011, and a decrease in sales in Japan and Europe.

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

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2012	2011	% Change	2012	2011	% Change
Net revenues:						
Advanced Manufacturing Capital Equipment	$ 104.2	$ 144.0	(27.6)%	$ 382.0	$ 525.4	(27.3)%
Analytical Solutions Group	15.1	15.1	0.2	47.7	45.3	5.3
Europe Sales & Service Operations	13.5	19.4	(30.4)	38.1	61.5	(38.0)
Asia Sales & Service Operations	46.8	72.2	(35.2)	182.7	241.0	(24.2)
Corporate, Eliminations and Other	(38.2)	(56.2)	32.0	(140.8)	(222.4)	36.7
Total net revenues	$ 141.4	$ 194.5	(27.3)%	$ 509.7	$ 650.8	(21.7)%

Net revenues for the Advanced Manufacturing Capital Equipment decreased 27.6% and 27.3% and the Asia Sales & Service segments decreased 35.2% and 24.2% for the three and nine month periods ended September 30, 2012, respectively, compared to the same periods in the prior year. These decreases are consistent with our overall consolidated revenue decreases for the same periods, since both of these groups sell into the semiconductor and non-semiconductor markets and comprise the majority of our consolidated revenues. The decrease in the Europe Sales & Service segment of 30.4% and 38.0% for the three and nine month periods ended September 30, 2012 compared to the same periods in the prior year was mainly caused by lower revenues in Germany related to the solar market. The increase in net revenues in the Analytical Solutions Group of 0.2% and 5.3% for the three and nine month periods ended September 30, 2012 compared to the same periods in the prior year was mainly caused by an increase in sales of certain products to semiconductor device manufacturers.

Gross Profit

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2012	2011	% Points Change	2012	2011	% Points Change
Gross profit as percentage of net revenues:						
Product	40.4%	45.7%	(5.3)%	43.0%	46.4%	(3.4)%
Service	38.2	41.4	(3.2)	40.2	42.3	(2.1)
Total gross profit percentage	40.0%	45.1%	(5.1)%	42.5%	45.9%	(3.4)%

Gross profit on product revenues decreased by 5.3% for the three months ended September 30, 2012, compared to the same period for the prior year. The decrease is primarily due to a decrease of 4.9% due to lower revenue volumes, 1.1% related to unfavorable product mix and 0.3% due to unfavorable foreign exchange. These decreases were partially offset by an increase of 0.8% due to lower overhead spending and 0.5% due to lower excess and obsolete inventory related charges.

Gross profit on product revenues decreased by 3.4% for the nine months ended September 30, 2012, compared to the same period for the prior year. The decrease is mainly due to a decrease of 2.6% due to lower revenue volumes, 1.4% due to higher warranty charges, 1.2% due to higher excess and obsolete related charges and 0.6% due to less overhead absorption. These decreases were partially offset by 2.5% related to favorable product mix.

Cost of service revenues primarily consists of salaries and related expenses and other fixed costs for repair, software services and training. Service gross profit decreased by 3.2% for the three months ended September 30, 2012 compared to the same period for the prior year. The decrease is primarily due to a decrease of 5.0% primarily due to higher overhead, as a result of our continued investment in our service business, and 0.5% related to unfavorable foreign exchange. This decrease was partially offset by 2.3% related to favorable product mix.

Service gross profit decreased by 2.1% for the nine months ended September 30, 2012 compared to the same period for the prior year. This decrease is primarily due to a decrease of 3.0% due to higher overhead spending and less overhead absorption and a decrease of 0.4% due to unfavorable foreign exchange. These decreases were offset by 0.8% due to favorable revenue volumes and 0.5% related to favorable product mix.

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

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2012	2011	% Points Change	2012	2011	% Points Change
Gross profit:						
Advanced Manufacturing Capital Equipment	33.4%	38.5%	(5.1)%	37.0%	41.0%	(4.0)%
Analytical Solutions Group	53.4	52.7	0.7	51.4	51.3	—
Europe Region Sales & Service Operations	26.3	29.8	(3.5)	29.6	27.7	1.9
Asia Region Sales & Service Operations	19.3	14.7	4.6	15.4	14.5	0.9
Corporate, Eliminations and Other	(2.8)	(13.9)	11.1	(8.1)	(3.7)	(4.4)
Total net revenues	40.0%	45.1%	(5.1)%	42.5%	45.9%	(3.4)%

Gross profit for the Advanced Manufacturing Capital Equipment group decreased 5.1% and 4.1% for the three and nine month periods ended September 30, 2012, compared to the same periods in the prior year. The decreases are primarily related to lower revenue volumes.

Gross profit for the Analytical Solutions Group increased 0.7% and was unchanged for the three and nine month periods ended September 30, 2012, compared to the same periods in the prior year. The slight increase in the three month period ended September 30, 2012, is primarily attributed to product mix, offset by higher overhead spending.

Gross profit for the Europe Region Sales & Service Operations decreased 3.5% and increased 1.9% for the three and nine month periods ended September 30, 2012, compared to the same periods in the prior year. The decrease of 3.5% is primarily related to unfavorable product mix, higher warranty charges and higher overhead spending. The increase of 1.9% is primarily related to favorable product mix, partially offset by lower revenue volumes.

Gross profit for the Asia Region Sales & Service Operations increased 4.6% and 0.9% for the three and nine month periods ended September 30, 2012, compared to the same periods in the prior year. The increases are primarily related to favorable product mix, partially offset by lower revenue volumes.

Research and Development (dollars in millions)

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2012	2011	% Change	2012	2011	% Change
Research and development expenses	$ 14.1	$ 14.3	(1.4)%	$ 45.9	$ 46.8	(1.9)%

Research and development expenses decreased slightly for the three and nine months ended September 30, 2012, compared to the same period for the prior year, as a result of lower consulting and project materials spending.

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 as well as legal costs associated with maintaining and defending our intellectual property.

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 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 (dollars in millions)

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2012	2011	% Change	2012	2011	% Change
Selling, general and administrative expenses	$ 29.7	$ 32.0	(7.3)%	$ 96.3	$ 96.5	(0.2)%

Selling, general and administrative expenses decreased $2.3 million and $0.2 million for the three and nine months ended September 30, 2012, compared to the same periods for the prior year. The decrease in the three month period includes a $1.9 million decrease which was due to favorable changes in foreign exchange rates and a $0.2 million decrease in compensation related expenses.

Litigation (dollars in millions)

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2012	2011	% Change	2012	2011	% Change
Litigation	$ 5.3	—	100%	$ 5.3	—	100%

Litigation with shareholders of one of our former subsidiaries was settled for $5.3 million, during the three months ended September 30, 2012. The complaint alleged certain claims against us including breach of contract and implied covenants, and statutory violations. The claims sought unspecified damages and equitable relief. This litigation was long standing and we made the decision to reach a settlement primarily to eliminate future legal expenses related to the suit.

Completed Acquisition Costs (dollars in millions)

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2012	2011	% Change	2012	2011	% Change
Completed acquisition costs	$ 0.9	—	100%	$ 1.3	—	100%

The Company incurred $0.9 million and $1.3 million of costs in the three and nine months ended September 30, 2012, respectively, related to the August 2012 acquisition of Plasmart. These costs consisted of investment banking fees, legal fees and due diligence costs.

Amortization of Intangible Assets (dollars in millions)

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2012	2011	% Change	2012	2011	% Change
Amortization of intangible assets	$ 0.2	$ 0.3	(14.3)%	$ 0.5	$ 0.8	(39.7)%

Amortization expense for the three and nine months ended September 30, 2012 decreased by $0.1 million and $0.3 million, respectively, compared to the same period for the prior year, as certain intangible assets became fully amortized, partially offset by additional amortization related to the Plasmart acquisition.

Interest Income, Net (dollars in millions)

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2012	2011	% Change	2012	2011	% Change
Interest income, net	$ 0.3	$ 0.3	(1.8)%	$ 0.7	$ 0.9	(21.6)%

Interest income, net decreased modestly for the three and nine months ended September 30, 2012 compared to the same period for the prior year, resulting from slightly lower interest rates and changes in our investment portfolio.

Provision for Income Taxes (dollars in millions)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2012	2011	2012	2011
Provision for income taxes	$ 4.1	$ 11.0	$ 24.4	$ 48.8

Our effective tax rate for the three and nine months ended September 30, 2012 was 61.3% and 35.7%, respectively. Our effective tax rate for the three and nine months ended September 30, 2011 was 26.6% and 31.3%, respectively. The effective tax rate for the three and nine months ended September 30, 2012, and the related income tax expense were higher than the U.S. statutory tax rate primarily due to the cumulative year-to-date tax effect of a slightly higher annual effective tax rate based on our revised full year forecast, and non-deductible acquisition costs that were offset in part by geographic mix of income and profits earned by our international subsidiaries being taxed at rates lower than the U.S. statutory rate. The effective tax rate for the three and nine months ended September 30, 2011, and the related income tax expense were lower than the U.S. statutory tax rate primarily due to the geographic mix of income and profits earned by our international subsidiaries being taxed at rates lower than the U.S. statutory rate, and recognition of discrete tax benefits realized by us that related principally to U.S. tax incentives.

At September 30, 2012, our total amount of gross unrecognized tax benefits, which excludes interest and penalties, was approximately $39.7 million. At December 31, 2011, our total amount of gross unrecognized tax benefits, which excludes interest and penalties, was approximately $35.2 million. The net increase from December 31, 2011 was attributable to an increase in reserves for existing uncertain tax positions. If these benefits were recognized in a future period, the timing of which is not estimable, the net unrecognized tax benefit of $17.9 million, excluding interest and penalties, would impact our effective tax rate. We accrue interest expense and, if applicable, penalties for any uncertain tax positions. Interest and penalties are classified as a component of income tax expense. At September 30, 2012 and December 31, 2011, we had accrued interest on unrecognized tax benefits of approximately $1.4 million and $1.0 million, respectively.

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 through 2009 during the quarter ended June 30, 2012. The statute of limitations for our tax filings varies by tax jurisdiction between fiscal years 2006 through present.

Our future effective income tax rate depends on various factors, such as tax legislation and the geographic composition of our pre-tax income. 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 regulations. Additionally, the recognition and measurement of certain tax benefits include estimates and judgment by management and inherently includes subjectivity. Accordingly, we could record additional provisions or benefits due to U.S. federal, state, and foreign tax-related matters in the future as we revise estimates or settle or otherwise resolve the underlying matters.

Liquidity and Capital Resources

Cash, cash equivalents and short-term investments totaled $583.6 million at September 30, 2012 compared to $565.5 million at December 31, 2011. This increase was mainly attributable to our net cash provided by operating activities as a result of our net income and decreases in working capital, partially offset by the acquisition of Plasmart, dividend payments to our common stockholders, repurchases of common stock and capital expenditures.

Net cash provided by operating activities was $113.8 million for the nine months ended September 30, 2012 and resulted mainly from net income of $43.9 million, which included non-cash charges of $32.7 million and a decrease in working capital of $35.6 million. The decrease in working capital consisted primarily of a $34.0 million decrease in trade accounts receivable as a result of lower revenues and favorable collections, a $7.5 million increase in accrued compensation and other liabilities, and a $3.0 million decrease in other current assets, offset by a decrease in accounts payable of $8.8 million.

Net cash provided by operating activities was $104.6 million for the nine months ended September 30, 2011 and resulted mainly from net income of $107.0 million which included non-cash charges of $29.2 million, partially offset by an increase of $29.8 million in working capital. The increase in working capital consisted primarily of a $14.9 million increase in inventory, a $14.0 million decrease in accounts payable, a $9.8 million increase in other current assets, and a $3.3 million increase in income tax receivable. These increases were partially offset by a decrease in accounts receivable of $13.5 million. The decrease in accounts receivable and decrease in accounts payable reflected a moderation of business activity and favorable customer collections. The increase in inventory related to specific solar products that have now been shipped as of September 30, 2012.

Net cash used in investing activities of $110.8 million for the nine months ended September 30, 2012, resulted primarily from the $24.4 million purchase price for the acquisition of Plasmart, net purchases of short-term and long-term investments of $75.0 million, and $11.0 million in purchases of production related equipment. Net cash used in investing activities of $58.6 million for the nine months ended September 30, 2011, resulted primarily from $48.4 million of net purchases of short-term and long-term investments and $9.7 million in purchases of production related equipment.

Net cash used in financing activities was $32.2 million for the nine months ended September 30, 2012 and consisted primarily of $24.3 million of dividend payments made to common stockholders, $7.0 million related to the repurchase of common stock and $2.1 million of net payments made on short-term borrowings. Net cash provided by financing activities was $8.9 million for the nine months ended September 30, 2011 and consisted primarily of $26.3 million in net proceeds related to employee stock-based compensation and $5.3 million from excess tax benefits from stock-based compensation. These increases were partially offset by dividend payments to common stockholders of an aggregate of $23.5 million.

Our Japanese subsidiary has lines of credit and short-term borrowing arrangements with two financial institutions which provide for aggregate borrowings as of September 30, 2012 of up to an equivalent of $29.6 million U.S. dollars, at an average interest rate of 0.65%, which arrangements will generally expire and are renewed at three month intervals. There were no borrowings outstanding under these arrangements at September 30, 2012. There were $1.9 million total borrowings outstanding under these arrangements at December 31, 2011.

We have six loans and an available line of credit with two financial institutions from the August 29, 2012 Plasmart acquisition. The loans have various maturity dates ranging from 2012 through 2014 at interest rates ranging from 3.15% to 5.63%. There were $4.1 million of total borrowings outstanding under these arrangements at September 30, 2012. The available line of credit provides for aggregate borrowings as of September 30, 2012 of up to an equivalent of $1.3 million U.S. dollars, at an average interest rate of 5.19%. There was $0.1 million outstanding under this arrangement at September 30, 2012. Total short-term debt is $4.2 million and total long-term debt is $0.3 million at September 30, 2012.

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 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. During the nine months ended September 30, 2012, we repurchased approximately 244,600 shares of our common stock for $7.0 million at an average price of $28.72 per share.

During the nine months ended September 30, 2012, our Board of Directors declared two quarterly dividends of $0.15 per share and one quarterly dividend of $0.16 per share that totaled $24.3 million or $0.46 per share. 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.

On October 29, 2012, the Board of Directors declared a quarterly cash dividend of $0.16 per share to be paid on December 14, 2012 to stockholders of record as of November 30, 2012.

We believe that our current cash position and available borrowings will be sufficient to satisfy our estimated working capital and planned capital expenditure requirements through the next 12 months and the foreseeable future.

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

In September 2011, the Financial Accounting Standards Board (“FASB”) issued an Accounting Standards Update (“ASU”) which simplifies how companies test goodwill for impairment. Under these amendments, an entity has the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If, after assessing the totality of events or circumstances, an entity determines it is more likely than not that the fair value of a reporting unit is less than its carrying amount, then performing the two-step impairment test is unnecessary. However, if an entity concludes otherwise, then it is required to perform the first step of the two-step impairment test by calculating the fair value of the reporting unit and comparing the fair value with the carrying amount of the reporting unit, as described in the goodwill accounting standard. The amendments are effective for annual and interim goodwill impairment tests performed for fiscal years beginning after December 15, 2011. Early adoption was permitted. We adopted this new ASU in the fourth quarter of 2011. This new ASU did not have a material effect on our consolidated financial statements.

In June 2011, the FASB issued an ASU which eliminates the option to present the components of other comprehensive income as part of the statement of equity and requires an entity to present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements. The amendments were effective retrospectively for fiscal years, and interim periods within those years, beginning after December 15, 2011. The ASU requires changes in presentation only. We adopted this new ASU in the first quarter of 2012, electing to present the components of other comprehensive income as one continuous statement. This new ASU did not have a material effect on our consolidated financial statements.

In May 2011, the FASB issued an ASU which applies to all reporting entities that are required or permitted to measure or disclose the fair value of an asset, a liability, or an instrument classified in a reporting entity's shareholders' equity in the financial statements. The amendments do not extend the use of fair value accounting, but provide guidance on how it should be applied where its use is already required or permitted by other standards within U.S. GAAP. The amendments change the wording used to describe many requirements in U.S. GAAP for measuring fair value and for disclosing information about fair value measurements. Additionally, the ASU clarifies the FASB's intent about the application of existing fair value measurements. The amendments in this ASU are to be applied prospectively. For public entities, the amendments were effective during interim and annual periods beginning after December 15, 2011. We adopted the new ASU in the first quarter of 2012. This new ASU 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, 2011 filed with the Securities and Exchange Commission on February 24, 2012. As of September 30, 2012, there were no material changes in our exposure to market risk from December 31, 2011.

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 September 30, 2012. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of an issuer 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 Securities and Exchange Commission'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, 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 September 30, 2012, 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 September 30, 2012 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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, 2011 in the section entitled "Risk Factors." There have been no material changes from the risks disclosed therein other than as follows:

The Company may have risks associated with export violations in its Shanghai office.

As previously announced, in May of 2012, an employee from the Company's Shanghai, China subsidiary was arrested as part of a U.S. government investigation into violations of U.S. law, including providing false information to obtain U.S. export licenses for certain MKS pressure transducers. U.S. government authorities have made it clear that MKS is not a target of the investigation. MKS is cooperating with the government's investigation. In addition, MKS conducted its own investigation into these matters. Although MKS has taken corrective human resources actions, and has implemented additional export compliance procedures, we cannot be certain these efforts will be sufficient to avoid similar situations. While MKS does not expect any of the alleged violations to have a material adverse effect upon its business, the disruption caused by this matter could adversely affect its Shanghai sales office. Additionally, the Company cannot be certain of the outcome of the governmental investigation, which could include the identification of other violations, fines, penalties, restrictions on export activities or other governmental actions.

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 September 30, 2012.

ISSUER PURCHASES OF EQUITY SECURITIES

Period	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)
July 1 – July 31, 2012	—	$ —	—	$ 193,033,000
August 1 – August 31, 2012	40,000	$ 26.91	40,000	$ 191,957,000
September 1 – September 30, 2012	36,600	$ 27.03	36,600	$ 190,968,000
Total	76,600	$ 26.97	76,600	

(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 330,000 shares of our common stock pursuant to the Program since its adoption.

ITEM 6. EXHIBITS.

Exhibit No.	Exhibit Description
3.1(1)	Restated Articles of Organization
3.2(2)	Articles of Amendment, as filed with the Secretary of State of Massachusetts on May 18, 2001
3.3(3)	Articles of Amendment, as filed with the Secretary of State of Massachusetts on May 16, 2002
3.4(4)	Amended and Restated By-Laws
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
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

Exhibit No.	Exhibit Description
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.

(1) Incorporated by reference to Exhibit 3.1 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 Exhibit 3.5 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001.
(3) Incorporated by reference to Exhibit 3.5 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2002.
(4) Incorporated by reference to Exhibit 3.3 to the Registration Statement on Form S-1 filed with the Securities and Exchange Commission on January 28, 1999, as amended.

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.

November 7, 2012

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

EXHIBIT 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

I, Leo Berlinghieri, 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: November 7, 2012

/s/ Leo Berlinghieri
Leo Berlinghieri
Chief Executive Officer and President
(Principal Executive Officer)

EXHIBIT 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

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: November 7, 2012

/s/ Seth H. Bagshaw

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

EXHIBIT 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

In connection with the Quarterly Report on Form 10-Q of MKS Instruments, Inc. (the “Company”) for the period ended September 30, 2012, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), the undersigned, Leo Berlinghieri, 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: November 7, 2012

/s/ Leo Berlinghieri
Leo Berlinghieri
Chief Executive Officer and President

Dated: November 7, 2012

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