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 June 30, 2010

or

o **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	04-2277512
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
2 Tech Drive, Suite 201, Andover, Massachusetts	01810
(Address of principal executive offices)	*(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 o

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 o

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

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

As of July 30, 2010 the registrant had 50,175,005 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)

	June 30, 2010	December 31, 2009
ASSETS		
Current assets:		
Cash and cash equivalents	$151,522	$111,009
Short-term investments	171,892	160,786
Trade accounts receivable, net	149,863	94,215
Inventories	137,305	118,004
Income tax receivable	13,599	14,476
Deferred income taxes	28,001	21,505
Other current assets	13,481	12,886
Total current assets	665,663	532,881
Property, plant and equipment, net	65,568	67,196
Goodwill	138,850	144,511
Acquired intangible assets, net	2,243	4,963
Other assets	10,735	24,518
Total assets	$883,059	$774,069
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Short-term borrowings	$ 12,986	$ 12,885
Accounts payable	38,902	26,292
Accrued compensation	25,664	10,658
Other current liabilities	30,593	21,465
Total current liabilities	108,145	71,300
Other liabilities	21,071	17,836
Commitments and contingencies (Note 16)		
Stockholders' equity:		
Preferred Stock, $0.01 par value, 2,000,000 shares authorized; none issued and outstanding	—	—
Common Stock, no par value, 200,000,000 shares authorized; 50,158,151 and 49,514,941 shares issued and outstanding at June 30, 2010 and December 31, 2009, respectively	113	113
Additional paid-in capital	652,004	645,411
Retained earnings	96,771	28,769
Accumulated other comprehensive income	4,955	10,640
Total stockholders' equity	753,843	684,933
Total liabilities and stockholders' equity	$883,059	$774,069

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

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009
Net revenues				
Products	$198,930	$ 59,739	$370,001	$ 118,236
Services	21,717	15,884	42,812	29,652
Total net revenues	220,647	75,623	412,813	147,888
Cost of revenues				
Cost of products	111,117	41,825	205,256	95,543
Cost of services	12,211	9,548	24,743	19,577
Total cost of revenues	123,328	51,373	229,999	115,120
Gross profit	97,319	24,250	182,814	32,768
Research and development	16,154	11,514	31,829	25,963
Selling, general and administrative	30,902	24,620	58,714	51,273
Amortization of acquired intangible assets	314	690	783	1,381
Goodwill and asset impairment charges	—	142,958	—	142,958
Gain on sale of asset	—	—	(682)	—
Restructuring	—	15	—	5,393
Income (loss) from operations	49,949	(155,547)	92,170	(194,200)
Interest income	284	266	631	1,323
Interest expense	(30)	(53)	(52)	(101)
Income (loss) from continuing operations before income taxes	50,203	(155,334)	92,749	(192,978)
Provision (benefit) for income taxes	17,059	(8,986)	30,607	(31,657)
Income (loss) from continuing operations	33,144	(146,348)	62,142	(161,321)
Income (loss) from discontinued operations, net of taxes	5,633	(60,786)	5,860	(62,312)
Net income (loss)	$ 38,777	$(207,134)	$ 68,002	$(223,633)
Basic income (loss) per share:				
Continuing operations	$ 0.66	$ (2.97)	$ 1.24	$ (3.28)
Discontinued operations	0.11	(1.23)	0.12	(1.27)
Net income (loss)	$ 0.77	$ (4.20)	$ 1.36	$ (4.55)
Diluted income (loss) per share:				
Continuing operations	$ 0.65	$ (2.97)	$ 1.22	$ (3.28)
Discontinued operations	0.11	(1.23)	0.12	(1.27)
Net income (loss)	$ 0.76	$ (4.20)	$ 1.34	$ (4.55)
Weighted average common shares outstanding:				
Basic	50,067	49,307	49,834	49,151
Diluted	50,870	49,307	50,735	49,151

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

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

	Six Months Ended June 30, 2010	2009
Cash flows from operating activities:		
Net income (loss)	$ 68,002	$(223,633)
Adjustments to reconcile income (loss) to net cash provided by (used in) operating activities:		
Depreciation and amortization	7,037	10,004
Stock-based compensation	4,310	4,173
Provision for excess and obsolete inventory	4,926	14,796
Impairment of goodwill	—	193,254
Impairment of intangibles and other long-lived assets	—	15,243
Gain on disposal of discontinued operations	(4,228)	—
Other	918	(220)
Changes in operating assets and liabilities:		
Trade accounts receivable	(57,994)	26,536
Inventories	(28,280)	(1,261)
Income taxes	3,519	(29,542)
Other current assets	(696)	(912)
Accrued expenses and other current liabilities	27,700	(13,369)
Accounts payable	13,959	(968)
Net cash provided by (used in) operating activities	39,173	(5,899)
Cash flows from investing activities:		
Purchases of short-term and long-term available-for-sale investments	(111,767)	(125,742)
Maturities, sales and settlements of short-term and long-term available-for-sale investments	104,544	162,054
Purchases of property, plant and equipment	(6,627)	(2,366)
Proceeds from sale of assets	2,113	84
Net proceeds from sale of discontinued operations	15,097	—
Other	(1,438)	607
Net cash provided by investing activities	1,922	34,637
Cash flows from financing activities:		
Proceeds from short-term borrowings	71,795	86,014
Payments on short-term borrowings	(72,319)	(94,056)
Net proceeds (payments) related to employee stock awards	2,265	(672)
Other	640	(626)
Net cash provided by (used in) financing activities	2,381	(9,340)
Effect of exchange rate changes on cash and cash equivalents	(2,963)	1,044
Increase in cash and cash equivalents	40,513	20,442
Cash and cash equivalents at beginning of period	111,009	119,261
Cash and cash equivalents at end of period	$ 151,522	$ 139,703

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

MKS INSTRUMENTS, INC.
NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS
(Tables 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 June 30, 2010 and for the three and six months ended June 30, 2010 and 2009 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, 2009 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, 2009 filed with the Securities and Exchange Commission on February 26, 2010.

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, 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.

During the second quarter of 2010, the Company committed to a plan to divest two product lines, as their growth potential no longer met the Company’s long-term strategic objectives. The Company completed the sale of one product line, Ion Systems, Inc. (“Ion”), during the second quarter of 2010. The results of operations of the two product lines have been classified as discontinued operations in the consolidated statements of operations for all periods presented. The assets and liabilities of these discontinued product lines have not been reclassified and segregated in the consolidated balance sheets or consolidated statements of cash flows due to their immaterial amounts. Refer to Note 12 for additional disclosure of the discontinued operations.

For the periods in 2009, shown in the table below, the Company revised the amounts related to cash (used in) provided by operating activities and cash (used in) financing activities in its consolidated statements of cash flows to correct for immaterial errors. These corrections related to adjusting the excess tax benefit amounts associated with stock-based compensation.

	2009			
	Three Months Ended March 31,	Six Months Ended June 30,	Nine Months Ended September 30,	Year Ended December 31,
Net cash (used in) provided by operating activities:				
As reported	$ (5,753)	$ (2,104)	$ (1,147)	$ 7,368
As adjusted	(9,779)	(5,899)	(4,336)	4,903
Change	$ (4,026)	$ (3,795)	$ (3,189)	$(2,465)
Net cash (used in) financing activities:				
As reported	$(14,060)	$(13,135)	$(11,690)	$(8,021)
As adjusted	(10,034)	(9,340)	(8,501)	(5,556)
Change	$ 4,026	$ 3,795	$ 3,189	$ 2,465

2) Recently Issued Accounting Pronouncements

In January 2010, the Financial Accounting Standards Board (“FASB”) issued updated guidance to amend the disclosure requirements related to recurring and nonrecurring fair value measurements. This update requires new disclosures on significant transfers of assets and liabilities in and out of Level 1 and Level 2 of the fair value hierarchy (including the reasons for these transfers) and also requires a reconciliation of recurring Level 3 measurements about purchases, sales, issuances and settlements on a gross basis. In addition to these new disclosure requirements, this update clarifies certain existing disclosure requirements. For example, this update clarifies that reporting entities are required to provide fair value measurement disclosures for each class of assets and liabilities rather than each major category of assets and liabilities. This update also clarifies the requirement for entities to disclose information about both the valuation techniques and inputs used in estimating Level 2 and Level 3 fair value measurements. This update is effective for companies with interim and annual reporting periods after December 15, 2009, except for the requirement to provide the Level 3 activity of purchases, sales, issuances, and settlements on a gross basis, which will become effective for interim and annual reporting periods beginning after December 15, 2010. The Company adopted the updated guidance in the first quarter of 2010 and the adoption did not have an impact on the Company's financial position, results of operations, or cash flows.

(Tables in thousands, except share and per share data)

In October 2009, the FASB issued guidance that establishes new accounting and reporting provisions for arrangements including multiple revenue-generating activities. This guidance provides amendments to the criteria for separating deliverables, measuring and allocating arrangement consideration to one or more units of accounting. The amendments in this guidance also establish a selling price hierarchy for determining the selling price of a deliverable. Significantly enhanced disclosures are also required to provide information about a vendor's multiple-deliverable revenue arrangements, including information about the nature and terms, significant deliverables, and its performance within arrangements. The amendments also require providing information about the significant judgments made and changes to those judgments and about how the application of the relative selling-price method affects the timing or amount of revenue recognition. The amendments in this guidance are effective prospectively for revenue arrangements entered into or materially modified in the fiscal years beginning on or after June 15, 2010. Early adoption is permitted. The Company is currently evaluating the potential impact of this new guidance on its consolidated financial statements.

In October 2009, the FASB issued guidance that changes the accounting model for revenue arrangements that include both tangible products and software elements that are "essential to the functionality," and scopes these products out of current software revenue guidance. The new guidance will include factors to help companies determine what software elements are considered "essential to the functionality." The amendments will now subject software-enabled products to other revenue guidance and disclosure requirements, such as guidance surrounding revenue arrangements with multiple-deliverables. The amendments in this guidance are effective prospectively for revenue arrangements entered into or materially modified in the fiscal years beginning on or after June 15, 2010. Early adoption is permitted. The Company is currently evaluating the potential impact of this new guidance on its consolidated financial statements.

3) Cash and Cash Equivalents and Investments

All highly liquid investments with a maturity date of three months or less at the date of purchase are considered to be cash equivalents. The appropriate classification of investments in securities is determined at the time of purchase. Debt and equity securities that the Company does not have the intent and ability to hold to maturity are classified as "available-for-sale" and are carried at fair value. Unrealized gains and losses on securities classified as available-for-sale are included in accumulated other comprehensive income ("OCI") in consolidated stockholders' equity.

The Company reviews its investment portfolio on a monthly basis to identify and evaluate individual investments that have indications of possible impairment. The factors considered in determining whether a loss is other-than-temporary include: the length of time and extent to which fair market value has been below the cost basis, the financial condition and near-term prospects of the issuer, credit quality, and the Company's ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in fair value. The Company concluded there were no impaired investments as of June 30, 2010 and December 31, 2009, respectively.

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

	June 30, 2010	December 31, 2009
Money market funds and certificates of deposit	$ 6,133	$ 4,296
Equity mutual funds	394	449
U.S. agency obligations	152,279	150,648
Corporate obligations	13,086	5,393
	$171,892	$160,786

(Tables in thousands, except share and per share data)

The fair value of long-term available-for-sale investments (included in Other assets) with maturities or estimated lives of more than one year consists of the following:

	June 30, 2010	December 31, 2009
U.S. agency obligations	$—	$4,853

The following table shows the gross unrealized gains and losses aggregated by investment category:

	Cost	Gross Unrealized Gains	Gross Unrealized (Losses)	Estimated Fair Value
As of June 30, 2010:				
Equity mutual funds	$ 649	$—	$(255)	$ 394
U.S. agency obligations	143,074	61	(137)	142,998
Corporate obligations	12,243	7	—	12,250
	$155,966	$68	$(392)	$155,642
As of December 31, 2009:				
Equity mutual funds	$ 649	$—	$(200)	$ 449
U.S. agency obligations	147,354	75	(82)	147,347
Corporate obligations	1,493	1	—	1,494
	$149,496	$76	$(282)	$149,290

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 and realized gains or losses are reflected in income and were not material for the three and six months ended June 30, 2010 and 2009, respectively.

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 1 assets and liabilities include money market funds, debt and equity securities and derivative contracts that are traded in an active exchange market.

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 and derivative contracts whose value is determined using a pricing model with inputs that are observable in the market or can be derived principally from or corroborated by observable market data. This category generally includes certain corporate obligations and non-exchange traded derivative contracts.

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.

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

Assets and liabilities of the Company measured at fair value on a recurring basis as of June 30, 2010, are summarized as follows:

		Fair Value Measurements at Reporting Date Using		
Description	June 30, 2010	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Money market funds and certificates of deposit	$ 59,830	$ 59,830	$ —	$—
Available-for-sale equity securities:				
Equity mutual funds (1)	394	394	—	—
Available-for-sale debt securities:				
U.S. agency obligations	152,279	152,279	—	—
Corporate obligations	13,086	13,086	—	—
Derivatives — currency forward contracts	1,236	—	1,236	—
Total assets	$256,825	$255,589	$1,236	$—
Liabilities:				
Supplemental retirement benefits (2)	$ 513	$ 513	$ —	$—
Derivatives — currency forward contracts	1,279	—	1,279	—
Total liabilities	$ 1,792	$ 513	$1,279	$—

Assets and liabilities of the Company measured at fair value on a recurring basis as of December 31, 2009, are summarized as follows:

		Fair Value Measurements at Reporting Date Using		
Description	December 31, 2009	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Money market funds and certificates of deposit	$ 8,071	$ 8,071	$ —	$—
Available-for-sale equity securities:				
Equity mutual funds (1)	449	449	—	—
Available-for-sale debt securities:				
U.S. agency obligations	158,665	158,665	—	—
Corporate obligations	5,393	5,393	—	—
Derivatives — currency forward contracts	1,505	—	1,505	—
Total assets	$174,083	$172,578	$1,505	$—
Liabilities:				
Supplemental retirement benefits (2)	$ 546	$ 546	$ —	$—
Derivatives — currency forward contracts	423	—	423	—
Total liabilities	$ 969	$ 546	$ 423	$—

(1) Relates to short-term investments associated with the Company's supplemental defined contribution retirement benefits.

(2) Relates to the Company's obligations to pay benefits under its supplemental defined contribution retirement benefits, which are included in Other liabilities.

(Tables in thousands, except share and per share data)

Money Market Funds

As of June 30, 2010, this asset class consisted primarily of a money market portfolio that comprises Federal government and U.S. Treasury securities, classified within Level 1 of the fair value hierarchy because it's valued using quoted market prices in an active market for an identical asset. As of December 31, 2009, this asset class consisted primarily of certificates of deposit at financial institutions.

Available-For-Sale Equity Securities

As of June 30, 2010 and December 31, 2009, available-for-sale equity securities consisted of certain U.S. and international equity mutual funds, classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices in an active market for identical assets.

Available-For-Sale Debt Securities

As of June 30, 2010 and December 31, 2009, available-for-sale debt securities consisted of U.S. agency and corporate obligations classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices in an active market for identical assets.

Supplemental Retirement Benefits

As of June 30, 2010 and December 31, 2009, supplemental defined contribution retirement benefit liabilities were measured at fair-value based on the market return of certain U.S. and international equity mutual funds, classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices in an active market for identical assets.

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.

Assets and liabilities of the Company measured at fair value on a non-recurring basis as of December 31, 2009, are summarized as follows:

		Fair Value Measurements Using			
Description	December 31, 2009	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Losses
Assets					
Goodwill (1)	$ 144,511	$ —	$ —	$ 144,511	$ 193,254
Definite-lived intangible assets (2)	4,963	—	—	4,963	11,699
Long-lived assets held and used	1,297	—	1,297	—	3,544
Total assets	$ 150,771	$ —	$ 1,297	$ 149,474	$ 208,497

(1) For the twelve months ended December 31, 2009, the goodwill impairment charge of $193,254,000 includes $53,840,000 of charges classified in discontinued operations in the consolidated statement of operations.

(2) For the twelve months ended December 31, 2009, the definite-lived intangible asset impairment charge of $11,699,000 is classified in discontinued operations in the consolidated statement of operations.

In accordance with the provisions of accounting for goodwill and other intangible assets, during the second quarter of 2009, goodwill with a carrying amount of $337,765,000 was written down to its implied fair value of $144,511,000, resulting in an impairment charge of $193,254,000, which was included in earnings in such quarter. In accordance with the provisions of accounting for the impairment of long-lived assets, during the second quarter of 2009, definite-lived intangible assets with a carrying amount of $18,866,000, were written down to their fair value of $7,167,000, resulting in an impairment charge of $11,699,000, which was included in earnings in such quarter. Refer to Note 7 for the information and description used to develop the inputs and the fair value determination of the Level 3 goodwill and other definite-lived intangible assets.

The long-lived asset held and used with a carrying amount of $4,841,000 was written down in the second quarter of 2009 to its fair value of $1,297,000, resulting in a loss of $3,544,000, which was included in earnings in such quarter. During the first quarter of 2010, the Company sold this long-lived asset for its net realizable value of approximately $1,297,000. In addition, the Company sold a vacated facility during the first quarter of 2010 and received net proceeds of $785,000 and recorded a net gain on the sale of $682,000.

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 OCI in stockholders' equity. These changes in fair value will subsequently be reclassified into earnings as a component of product cost, 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 June 30, 2010 and December 31, 2009, the Company had outstanding forward foreign exchange contracts with gross notional values of $42,441,000 and $48,724,000, respectively. The following tables provide a summary of the primary net hedging positions and corresponding fair values held as of June 30, 2010 and December 31, 2009:

(Tables in thousands, except share and per share data)

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Currency Hedged (Buy/Sell)	June 30, 2010 Gross Notional Value	June 30, 2010 Fair Value (1)
U.S. Dollar/Japanese Yen	$20,170	$(687)
U.S. Dollar/South Korean Won	15,823	127
U.S. Dollar/Euro	4,601	857
U.S. Dollar/U.K. Pound Sterling	1,847	(339)
Total	$42,441	$ (42)

Currency Hedged (Buy/Sell)	December 31, 2009 Gross Notional Value	December 31, 2009 Fair Value (1)
U.S. Dollar/Japanese Yen	$28,980	$1,220
U.S. Dollar/South Korean Won	8,477	(338)
U.S. Dollar/Euro	8,069	149
U.S. Dollar/U.K. Pound Sterling	3,198	51
Total	$48,724	$1,082

(1) Represents the net receivable (payable) 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	June 30, 2010	December 31, 2009
Derivative assets:		
Forward exchange contracts	$ 1,237	$ 1,505
Derivative liabilities:		
Forward exchange contracts	(1,279)	(423)
Total net derivative (liabilities) assets designated as hedging instruments (1)	$ (42)	$ 1,082

(1) The derivative asset of $1,237,000 and derivative liability of $1,279,000 are classified in other current assets and other current liabilities, respectively, in the consolidated balance sheet as of June 30, 2010. The derivative asset of $1,505,000 and derivative liability of $423,000 are classified in other current assets and other current liabilities, respectively, in the consolidated balance sheet as of December 31, 2009.

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		Six Months Ended	
Forward exchange contracts	June 30, 2010	June 30, 2009	June 30, 2010	June 30, 2009
Net loss recognized in OCI (1)	$(1,097)	$(1,790)	$(741)	$ (101)
Net gain reclassified from OCI into income (2)	371	1,028	384	1,585
Net gain recognized in income (3)	—	939	—	939

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

(2) Effective portion classified as cost of products.

(3) Ineffective portion and amount excluded from effectiveness testing, classified in selling, general and administrative.

(Tables in thousands, except share and per share data)

6) Inventories

Inventories consist of the following:

	June 30, 2010	December 31, 2009
Raw material	$ 70,513	$ 56,083
Work-in-process	21,092	16,501
Finished goods	45,700	45,420
	$137,305	$118,004

During the first quarter of 2009, the Company recorded charges of $14,373,000 for excess and obsolete inventory. The excess and obsolete inventory charge was primarily a result of a lower inventory consumption plan in the first quarter of 2009 that the Company implemented in response to the weakness in its markets during that period.

7) Goodwill and Intangible Assets

Goodwill

The Company tests goodwill for impairment on an annual basis, which has been determined to be as of October 31 of each fiscal year. The Company also tests goodwill between annual tests if an event occurs or circumstances change that indicate that the fair value of a reporting unit may be below its carrying value.

Goodwill impairment is determined using a two-step process. The first step involves a comparison of the estimated fair value of a reporting unit to its carrying amount, including goodwill. In performing the first step, the Company determines the fair value of a reporting unit using a discounted cash flow (“DCF”) analysis. Determining fair value requires the exercise of significant judgment, including judgments about appropriate discount rates, perpetual growth rates, and the amount and timing of expected future cash flows. Discount rates are based on a weighted average cost of capital (“WACC”), which represents the average rate a business must pay its providers of debt and equity. The WACC used to test goodwill was derived from a group of comparable companies. The cash flows employed in the DCF analysis were derived from internal earnings and forecasts and external market forecasts. If the estimated fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is not impaired and the second step of the impairment test is not necessary. If the carrying amount of a reporting unit exceeds its estimated fair value, then the second step of the goodwill impairment test must be performed.

The second step of the goodwill impairment test compares the implied fair value of the reporting unit’s goodwill with its carrying amount of goodwill to measure the amount of impairment loss, if any. The implied fair value of goodwill is determined in the same manner as the amount of goodwill recognized in a business combination, whereby the estimated fair value of the reporting unit is allocated to all of the assets and liabilities of that unit (including any unrecognized intangible assets) as if the reporting unit had been acquired in a business combination and the fair value of the reporting unit was the purchase price paid. If the carrying amount of the reporting unit’s goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized in an amount equal to that excess.

The Company determined that during the second quarter of 2010, an interim assessment for impairment was required for the goodwill allocated to its CIT reporting unit, since a component of the reporting unit was sold, and a second component was classified as held for sale. During this interim assessment, the Company determined that the estimated fair value of its CIT reporting unit exceeded its carrying amount and as a result, the goodwill of the reporting unit was not impaired and the second step of the impairment test was not required.

During the second quarter of 2009, the Company determined an interim assessment for impairment should be conducted for its goodwill due to various factors, including market and economic conditions that contributed to a decline in the Company’s forecasted business levels, and the excess of the Company’s consolidated net assets over its market capitalization for a sustained period of time. During this interim assessment, the Company determined that for certain reporting units, the carrying amount of their net assets exceeded their respective fair values, indicating that a potential impairment existed. After completing the second step of the goodwill impairment test, the Company recorded a goodwill impairment charge in the second quarter of 2009 of $193,254,000. In

(Tables in thousands, except share and per share data)

2010, the Company reclassified $53,840,000 of the goodwill impairment charge to discontinued operations for the three and six months ended June 30, 2009 as it related to the two discontinued product lines.

The Company completed its annual impairment test as of October 31, 2009 and concluded that no additional impairment of goodwill existed.

The changes in the carrying amount of goodwill and accumulated impairment losses during the six months ended June 30, 2010 and twelve months ended December 31, 2009 were as follows:

	2010			2009		
	Gross Carrying Amount	Accumulated Impairment Loss	Net	Gross Carrying Amount	Accumulated Impairment Loss	Net
Beginning balance at January 1	$337,765	$(193,254)	$144,511	$337,765	$ -	$ 337,765
Sale of discontinued operation (1)	(44,925)	39,264	(5,661)	-	-	—
Impairment losses (2)	-	-	-	-	(193,254)	(193,254)
Ending balance at June 30, 2010 and December 31, 2009	$292,840	$(153,990)	$138,850	$337,765	$(193,254)	$ 144,511

(1) During the second quarter of 2010, the Company sold its Ion business and as a result wrote-off the related net goodwill to the gain on sale of discontinued operations.

(2) For the twelve months ended December 31, 2009, $53,840,000 of the goodwill impairment charge was classified in discontinued operations in the consolidated statement of operations.

Intangible Assets

The Company is required to test certain long-lived assets when indicators of impairment are present. For the purposes of the impairment test, long-lived assets are grouped with other assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. Due to various factors, including market and economic conditions that contributed to a decline in the Company’s forecasted business levels, and the excess of the Company’s consolidated net assets over market capitalization for a sustained period of time, the Company concluded an interim assessment for impairment should be conducted for its intangible assets as of April 30, 2009. The Company tested the long-lived assets in question for recoverability by comparing the sum of the undiscounted cash flows attributable to each respective asset group to their carrying amounts, and determined that the carrying amounts were not recoverable. Management then evaluated the fair values of each long-lived asset of the potentially impaired long-lived asset group to determine the amount of the impairment, if any. The fair value of each intangible asset was based primarily on an income approach, which is a present value technique used to measure the fair value of future cash flows produced by the asset. The Company estimated future cash flows over the remaining useful life of each intangible asset. As a result of this analysis, the Company determined that certain of its intangible assets related to completed technology, customer relationships, and patents and trademarks had carrying values that exceeded their estimated fair values. As a result, an impairment charge of $11,699,000 was recorded in the second quarter of 2009. This impairment charge is classified in discontinued operations in the consolidated statement of operations as the intangible assets relate to the two discontinued product lines.

Components of the Company’s acquired intangible assets are comprised of the following:

As of June 30, 2010:

	Gross (1)	Accumulated Amortization (1)	Net
Completed technology	$ 77,904	$ (77,000)	$ 904
Customer relationships	9,290	(8,289)	1,001
Patents, trademarks, trade names and other	25,721	(25,383)	338
	$112,915	$(110,672)	$2,243

(Tables in thousands, except share and per share data)

(1) Excludes $15,791,000 and $14,095,000 from gross and accumulated amortization, respectively, as a result of the Company's sale of its Ion business.

For the year ended and as of December 31, 2009:

	Gross	Impairment Charges (1)	Accumulated Amortization	Net
Completed technology	$ 88,855	$ (3,812)	$ (82,705)	$2,338
Customer relationships	21,879	(7,113)	(13,326)	1,440
Patents, trademarks, trade names and other	29,672	(774)	(27,713)	1,185
	$140,406	$(11,699)	$(123,744)	$4,963

(1) For the twelve months ended December 31, 2009, the intangible asset impairment charge of $11,699,000 is classified in discontinued operations in the consolidated statement of operations.

Aggregate amortization expense related to acquired intangibles for the three and six months ended June 30, 2010 was $314,000 and $783,000, respectively. Aggregate amortization expense related to acquired intangibles for the three and six months ended June 30, 2009 was $690,000 and $1,381,000, respectively. Estimated amortization expense for each of the four remaining fiscal years is as follows:

Year	Amount
2010 (remaining)	$499
2011	989
2012	389
2013	366

8) Debt

On July 31, 2010, the Optional Advance Demand Grid Note dated August 3, 2004 expired without renewal. The unsecured short-term LIBOR-based loan agreement was with HSBC Bank USA and was utilized primarily by the Company's Japanese subsidiary for short-term liquidity purposes and had a maximum borrowing amount of $5,000,000. The Company did not have outstanding borrowings under this line of credit at June 30, 2010 or December 31, 2009.

Additionally, the Company's Japanese subsidiary has lines of credit and short-term borrowing arrangements with two financial institutions that provide for aggregate borrowings as of June 30, 2010 of up to an equivalent of $28,229,000, which generally expire and are renewed at three month intervals. At June 30, 2010 and December 31, 2009, total borrowings outstanding under these arrangements were $12,986,000 and $12,885,000, respectively, at interest rates ranging from 0.73% to 1.47% at June 30, 2010 and at interest rates ranging from 0.76% to 1.48% at December 31, 2009.

9) 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.

(Tables in thousands, except share and per share data)

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Product warranty activities were as follows:

	Six Months Ended June 30,	
	2010	2009
Balance at January 1	$ 6,560	$ 8,334
Provision for product warranties	4,731	(93)
Direct charges to warranty liability	(2,309)	(1,829)
Balance at June 30	$ 8,982	$ 6,412

10) Restructuring

In the first quarter of 2009, the Company initiated a restructuring plan due to the global financial crisis and its impact on the Company's semiconductor equipment OEM customers and the other markets it serves. The plan included a reduction in the Company's worldwide headcount of approximately 630 people, which represented approximately 24% of its global workforce.

The Company recorded restructuring charges of $15,000 and $5,393,000 during the three and six months ended June 30, 2009, respectively. The restructuring charges were primarily for severance and other charges associated with the reductions in workforce. As of June 30, 2010 and 2009, the accrued restructuring costs totaled zero and $663,000, respectively and were included in accrued compensation in the consolidated balance sheets.

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

	Six Months Ended June 30,	
	2010	2009
Beginning balance	$ 220	$ —
Charged to expense (1)	—	5,688
Payments	(220)	(5,025)
Ending balance	$ —	$ 663

(1) For the six months ended June 30, 2009, restructuring charges of $295,000 are classified in discontinued operations in the consolidated statement of operations.

11) Income Taxes

The Company's effective tax rate for the three and six months ended June 30, 2010 was 34.0% and 33.0%, respectively. The effective tax rate for the six months ended June 30, 2010 and the related income tax provision was lower than the U.S. statutory tax rate primarily due to 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 Company's effective tax rate for the three and six months ended June 30, 2009 was 5.8% and 16.4%, respectively. The effective tax rate for the six months ended June 30, 2009 and the related tax benefit was lower than the U.S. statutory tax rate primarily due to non-deductible goodwill impairment charges of $139,414,000 during the second quarter of 2009.

At June 30, 2010, the total amount of gross unrecognized tax benefits, which excludes interest and penalties, was approximately $10,729,000. At December 31, 2009, the total amount of gross unrecognized tax benefits, which excludes interest and penalties, was approximately $9,085,000. The net increase from December 31, 2009 was primarily 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 $6,500,000, excluding interest and penalties, would impact the Company's effective tax rate. The Company accrues interest expense and, if applicable, penalties for any uncertain tax positions. Interest and penalties are classified as a component of income tax expense. At June 30, 2010 and December 31, 2009, the Company had accrued interest on unrecognized tax benefits of approximately $863,000 and $651,000, respectively.

The Company and its subsidiaries are subject to examination by federal, state and foreign tax authorities. The statute of limitations for the Company's tax filings varies by tax jurisdiction between fiscal years 2001 through present.

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(Tables in thousands, except share and per share data)

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 could record additional provisions 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.

12) Discontinued Operations

During the second quarter of 2010, the Company committed to a plan to divest two product lines, as their growth potential no longer met the Company's long-term strategic objectives. The Company completed the sale of Ion on May 17, 2010 for $15,097,000 of net cash proceeds after expenses and recorded a pre-tax gain on the sale of $4,228,000. As a result of committing to a plan to divest a second product line and, therefore, meeting the asset held for sale criteria, during the second quarter of 2010, the Company performed a fair value analysis of the business in order to measure it at the lower of its carrying value or fair value less cost to dispose. Based on the analysis, it was determined that the carrying value was less than the fair value, less costs to dispose, and therefore, no impairment charge was required. This product line is considered held for sale as of June 30, 2010.

The two product lines have been accounted for as discontinued operations. Accordingly, their results of operations have been reclassified to discontinued operations in the consolidated statements of operations for all periods presented. The assets and liabilities of these discontinued businesses have not been reclassified or segregated in the consolidated balance sheets or consolidated statements of cash flows due to their immaterial amounts. Net revenues and income (loss) from discontinued operations for the three and six months ended June 30, 2010 and 2009 are below:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009
Net revenues	$3,881	$ 3,532	$9,784	$ 7,986
Income (loss) from discontinued operations before income taxes	$ 786	$(66,695)	$1,219	$(68,651)
Gain from disposal of discontinued operations before income taxes	4,228	—	4,228	—
Income tax benefit	(619)	(5,909)	(413)	(6,339)
Income (loss) from discontinued operations	$5,633	$(60,786)	$5,860	$(62,312)

For the three and six month periods ended June 30, 2009, the loss from discontinued operations before income taxes includes $65,539,000 of goodwill and intangible asset impairment charges. These charges were a result of the interim impairment assessment performed on April 30, 2009.

13) Net Income (Loss) Per Share

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009
Numerator:				
Income (loss) from continuing operations	$ 33,144	$ (146,348)	$ 62,142	$ (161,321)
Income (loss) from discontinued operations, net of tax	5,633	(60,786)	5,860	(62,312)
Net income (loss)	$ 38,777	$ (207,134)	$ 68,002	$ (223,633)
Denominator:				
Shares used in net income (loss) per common share — basic	50,067,000	49,307,000	49,834,000	49,151,000
Effect of dilutive securities:				
Stock options, restricted stock and employee stock purchase plan	803,000	—	901,000	—
Shares used in net income (loss) per common share — diluted	50,870,000	49,307,000	50,735,000	49,151,000
Basic income (loss) per common share:				

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(Tables in thousands, except share and per share data)

Continuing operations	$0.66	$(2.97)	$1.24	$(3.28)
Discontinued operations	0.11	(1.23)	0.12	(1.27)
Net income (loss)	$0.77	$(4.20)	$1.36	$(4.55)
Diluted income (loss) per common share:				
Continuing operations	$0.65	$(2.97)	$1.22	$(3.28)
Discontinued operations	0.11	(1.23)	0.12	(1.27)
Net income (loss)	$0.76	$(4.20)	$1.24	$(4.55)

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 June 30, 2010, stock options and restricted stock units relating to an aggregate of approximately 3,637,000 shares were outstanding. For the three and six months ended June 30, 2010, 1,201,000 and 1,295,000 shares, respectively, were not included in the computation of diluted EPS because the exercise price of the option exceeded the average price per share during the period.

As of June 30, 2009, stock options and restricted stock units relating to an aggregate of approximately 5,639,000 shares were outstanding. For the three and six months ended June 30, 2009, 4,004,000 and 4,311,000 shares, respectively, were not included in the computation of diluted EPS as the effect of including such securities in the computation would be anti-dilutive due to the Company's net loss for the period.

14) Comprehensive Income (Loss)

Components of comprehensive income (loss) were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009
Net income (loss)	$38,777	$(207,134)	$68,002	$(223,633)
Other comprehensive income (loss):				
Changes in value of financial instruments designated as cash flow hedges (net of tax)	(905)	(1,575)	(690)	(590)
Foreign currency translation adjustment	(2,953)	5,083	(4,921)	(362)
Unrealized (loss) gain on investments (net of tax)	(40)	139	(74)	(139)
Other comprehensive (loss) income	(3,898)	3,647	(5,685)	(1,091)
Total comprehensive income (loss)	$34,879	$(203,487)	$62,317	$(224,724)

15) Geographic, Product and Significant Customer Information

The Company operates in one segment for the development, manufacturing, sales and servicing of products that measure, control, power and monitor critical parameters of advanced manufacturing processes. The Company's chief decision-maker reviews consolidated operating results to make decisions about allocating resources and assessing performance for the entire Company.

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(Tables in thousands, except share and per share data)

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 June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009
Geographic net revenues:				
United States	$128,011	$40,404	$240,813	$ 75,905
Japan	30,704	7,625	61,300	18,754
Europe	22,423	14,493	42,719	30,125
Asia (excluding Japan)	39,509	13,101	67,981	23,104
	$220,647	$75,623	$412,813	$147,888

	June 30, 2010	December 31, 2009
Long-lived assets:		
United States	$53,182	$52,143
Japan	4,241	5,886
Europe	3,969	3,621
Asia (excluding Japan)	8,035	7,838
	$69,427	$69,488

The Company groups its products into three product groups. Net product and service revenues for these product groups are as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009
Instruments and Control Systems	$114,249	$39,783	$203,345	$ 76,766
Power and Reactive Gas Products	87,693	27,681	173,464	55,655
Vacuum Products	18,705	8,159	36,004	15,467
	$220,647	$75,623	$412,813	$147,888

The Company had one customer comprising 17% of net revenues for both the three and six months ended June 30, 2010. The Company had one customer comprising 13% and 11% of net revenues for the three and six months ended June 30, 2009.

16) Commitments and Contingencies

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

The Company reviewed its contractual obligations and commercial commitments as of June 30, 2010 and determined that there were no significant changes from the ones set forth in the notes to the consolidated financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2009.

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

We believe that 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. 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, 2009 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 leading worldwide provider of instruments, subsystems and process control solutions that measure, control, power, monitor and analyze critical parameters to improve process performance and productivity of advanced manufacturing processes.

We are managed as one operating segment. We group our products into three product groups: Instruments and Control Systems, Power and Reactive Gas Products and Vacuum Products. 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, light-emitting diodes ("LEDs"), solar cells, data storage media and other advanced coatings. We also leverage our technology in other markets with advanced manufacturing applications including medical equipment, biopharm manufacturing, energy generation and environmental monitoring.

We have a diverse base of customers that includes manufacturers of semiconductor capital equipment and semiconductor devices, thin film capital equipment used in the manufacture of flat panel displays, LEDs, solar cells, data storage media, and other coating applications; and other industrial, medical, energy generation, environmental monitoring and manufacturing companies; and university, government and industrial research laboratories. For the six months ended June 30, 2010 and the full year ended December 31, 2009, we estimate that approximately 64% and 52% of our net sales, 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.

During the second quarter of 2010, we committed to a plan to divest two product lines, as their growth potential no longer met our long-term strategic objectives. We completed the sale of one product line, Ion Systems, Inc. ("Ion"), during the second quarter of 2010. The results of operations of the two product lines have been classified as discontinued operations in the consolidated statements of operations for all periods presented. The assets and liabilities of these discontinued product lines have not been reclassified and segregated in the consolidated balance sheets or consolidated statements of cash flows due to their immaterial amounts.

We have seen an improvement in the global economy in 2010 compared to 2009, which has contributed to an increase in our business, financial condition and results of operations for the six months ended June 30, 2010. As a result of the improved global economy, our shipments to semiconductor capital equipment manufacturers and semiconductor device manufacturers have increased sequentially over the past twelve months. Product revenues increased 432% for the six months ended June 30, 2010 compared to the same period for the prior year for these customers. Although our business levels have increased rapidly, 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 further increased demand or any future weakness in the semiconductor capital equipment industry.

Our product revenues sold to other markets, which exclude semiconductor capital equipment and semiconductor device product applications, increased 82% for the six months ended June 30, 2010 compared to the same period for the prior year. These advanced and growing markets include LED, medical, biopharm, environmental, thin films, solar and other markets.

A significant portion of our net sales is to operations in international markets. International net sales include sales by our foreign subsidiaries, but exclude direct export sales. For the six months ended June 30, 2010 and the year ended December 31, 2009, international net sales accounted for approximately 42% and 46% of our net sales, respectively. A significant portion of our international net sales were sales in Japan. We expect that international net sales will continue to represent a significant percentage of our total net sales.

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, 2009. 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, 2009 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 data.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009
Net revenues				
Product	90.2%	79.0%	89.6%	79.9%
Services	9.8	21.0	10.4	20.1
Total net revenues	100.0	100.0	100.0	100.0
Cost of revenues				
Cost of product revenues	50.4	55.3	49.7	64.6
Cost of service revenues	5.5	12.6	6.0	13.2
Total cost of revenues	55.9	67.9	55.7	77.8
Gross profit	44.1	32.1	44.3	22.2
Research and development	7.3	15.2	7.7	17.6
Selling, general and administrative	14.0	32.6	14.2	34.7
Amortization of acquired intangible assets	0.1	0.9	0.2	0.9
Goodwill and asset impairment	—	189.0	—	96.7
Gain on sale of asset	—	—	(0.2)	—
Restructuring	—	—	—	3.6
Income (loss) from operations	22.7	(205.6)	22.4	(131.3)
Interest income, net	0.1	0.3	0.1	0.8
Income (loss) from continuing operations before income taxes	22.8	(205.3)	22.5	(130.5)
Provision (benefit) for income taxes	7.7	(11.9)	7.4	(21.4)
Income (loss) from continuing operations	15.1	(193.4)	15.1	(109.1)
Income (loss) from discontinued operations, net of taxes	2.6	(80.4)	1.4	(42.1)
Net income (loss)	17.7%	(273.8)%	16.5%	(151.2)%

Net Revenues (dollars in millions)

	Three Months Ended June 30,			Six Months Ended June 30,		
	2010	2009	% Change	2010	2009	% Change
Net Revenues						
Product	$198.9	$59.7	233.0%	$370.0	$118.2	212.9%
Service	21.7	15.9	36.7	42.8	29.7	44.4
Total net revenues	$220.6	$75.6	191.8%	$412.8	$147.9	179.1%

Product revenues increased $139.2 million and $251.8 million during the three and six months ended June 30, 2010, respectively, compared to the same periods for the prior year. During 2010, we have seen a recovery in the global economy which has contributed to an increase in demand for our products in all of the markets we serve. Our increase in overall product revenues is primarily due to the increase in worldwide demand from our semiconductor capital equipment manufacturer and semiconductor device manufacturer customers. The product revenues to these customers increased by $105.9 million or 467.3% and $190.6 million or 432.1% during the three and six months ended June 30, 2010, respectively, compared to the same periods for the prior year. The product revenues related to other markets increased by $33.3 million or 89.8% and $61.1 million or 82.5% during the three and six months ended June 30, 2010, respectively, compared to the same periods for the prior year. The increase in demand in our other markets included the LED, medical, biopharm, environmental, thin films, solar and other markets.

Service revenues consist mainly of fees for services relating to the maintenance and repair of our products, software maintenance, installation services and training. Service revenue increased $5.8 million and $13.1 million during the three and six months ended June 30, 2010, respectively, compared to the same periods for the prior year. The increase is a result of the improvement in the global economy in 2010 as compared to 2009.

Total international net revenues, including product and service, were $92.6 million and $172.0 million for the three and six months ended June 30, 2010, or 42% of net revenues for both periods, compared to $35.2 million and $72.0 million or 46.6% and 48.7% of net revenues, for the three and six months ended June 30, 2009, respectively. The increases are mainly due to an increase in worldwide demand from our semiconductor capital equipment manufacturer and semiconductor device manufacturer customers as a result of an improvement in the global economy. The international net revenues related to other markets also increased compared to the same periods for the prior year.

Gross Profit

	Three Months Ended June 30,			Six Months Ended June 30,		
	2010	2009	% Points Change	2010	2009	% Points Change
Gross profit as percentage of net revenues						
Product	44.1%	30.0%	14.1%	44.5%	19.2%	25.3%
Service	43.8	39.9	3.9	42.2	34.0	8.2
Total gross profit percentage	44.1%	32.1%	12.0%	44.3%	22.2%	22.1%

Gross profit on product revenues increased 14.1 percentage points for the three months ended June 30, 2010 compared to the same period for the prior year. The increase is mainly due to an increase in product revenue volumes which accounted for 10.3 percentage points of the overall increase since a portion of our overhead costs are fixed, an increase of 3.9 percentage points due to favorable product mix and an increase of 1.1 percentage points due to lower excess and obsolete inventory related net charges. These increases were partially offset by a decrease of 1.2 percentage points from increased warranty costs, unfavorable foreign currency fluctuations and higher overhead spending.

Gross profit on product revenues increased 25.3 percentage points for the six months ended June 30, 2010 compared to the same period for the prior year. The increase is mainly due to an increase in product revenue volumes which accounted for 18.2 percentage points of the overall increase and an increase of 3.2 percentage points due to favorable product mix. In addition, our gross profit increased by 4.4 percentage points due to lower excess and obsolete inventory related net charges. This was primarily due to the $12.9 million of special charges we recorded during the first quarter of 2009 for excess, obsolete and committed inventory purchases primarily due to a lower future production plan during the first quarter of 2009 in response to the continued weakness in the markets we serve. These increases were partially offset by a net decrease of 0.5 percentage points from increased warranty costs, unfavorable foreign currency fluctuations and lower overhead spending.

Cost of service revenues consists primarily of costs of providing services for repair and training which includes salaries and related expenses and other fixed costs. Service gross profit increased by 3.9 percentage points and 8.2 percentage points for the three and six months ended June 30, 2010, compared to the same periods for the prior year. The increases are mainly a result of higher service revenues since a portion of our overhead costs are fixed, as well as lower compensation expense.

Research and Development (dollars in millions)

	Three Months Ended June 30,			Six Months Ended June 30,		
	2010	2009	% Change	2010	2009	% Change
Research and development expenses	$16.2	$11.5	40.3%	$31.8	$26.0	22.6%

Research and development expense increased $4.7 million during the three months ended June 30, 2010 compared to the same period for the prior year. The increase includes a $2.6 million increase in compensation expense, a $1.0 million increase in spending on project materials and a $0.6 million increase in consulting costs. The increase in compensation expense is primarily due to the restoration of certain employee benefits suspended as part of cost control measures in 2009 and an increase in incentive compensation

Research and development expense increased $5.8 million during the six months ended June 30, 2010 compared to the same period for the prior year. The increase includes a $2.3 million increase in compensation expense, a $1.8 million increase in spending on project materials, a $1.3 million increase in consulting and other costs and a $0.6 million increase in patent and other legal related costs. The increase in compensation expense is primarily due to an increase in incentive compensation.

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 hundreds 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 a duration 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 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. 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 June 30,			Six Months Ended June 30,		
	2010	2009	% Change	2010	2009	% Change
Selling, general and administrative expenses	$30.9	$24.6	25.5%	$58.7	$51.3	14.5%

Selling, general and administrative expenses increased $6.3 million for the three months ended June 30, 2010 compared to the same period for the prior year. The increase includes a $5.3 million increase in compensation expense, a $1.2 million unfavorable impact from foreign exchange fluctuations and a $1.1 million increase in consulting, travel and professional fees partially offset by a $0.9 million decrease in the provision for uncollectable accounts and a $0.7 decrease in facility and depreciation expenses. The increase in compensation expense is primarily due to the restoration of certain employee benefits suspended as part of cost control measures in 2009 and an increase in incentive compensation.

Selling, general and administrative expenses increased $7.4 million for the six months ended June 30, 2010 compared to the same period for the prior year. The increase includes a $7.9 million increase in compensation expense, a $1.4 million unfavorable impact from foreign exchange fluctuations and a $1.1 million increase in consulting, travel and professional fees partially offset by a $1.9 million decrease in the provision for uncollectable accounts and a $0.9 million decrease in facility and depreciation expenses. The increase in compensation expense is primarily due to an increase in incentive compensation.

Amortization of Acquired Intangible Assets (dollars in millions)

	Three Months Ended June 30,			Six Months Ended June 30,		
	2010	2009	% Change	2010	2009	% Change
Amortization of acquired intangible assets	$0.3	$0.7	(54.5)%	$0.8	$1.4	(43.3)%

Amortization expense for the three and six months ended June 30, 2010 decreased $0.4 million and $0.6 million, respectively, compared to the same periods for the prior year. The decrease is a result of certain acquired intangible assets that became fully amortized during 2009 as well as the write-down of certain intangibles of $11.7 million recorded in the second quarter of 2009.

Goodwill and Asset Impairment Charges (dollars in millions)

	Three Months Ended June 30,			Six Months Ended June 30,		
	2010	2009	% Change	2010	2009	% Change
Goodwill and asset impairment charges	$—	$143.0	(100.0)%	$—	$143.0	(100.0)%

During the second quarter of 2009, we reviewed our goodwill and long-lived assets for potential impairment as a result of current market and economic conditions that contributed to a decline in our forecasted business levels, and the excess of our consolidated net assets over our market capitalization for a sustained period of time. As a result of this impairment assessment, we recorded non-cash goodwill impairment charges of $139.5 million to continuing operations. In addition, as a result of a facility consolidation in Asia in the second quarter of 2009, we recorded a non-cash impairment charge of $3.5 million to continuing operations resulting from the write-down of the value of a building to its estimated fair value.

Gain on Sale of Asset (dollars in millions)

	Three Months Ended June 30,			Six Months Ended June 30,		
	2010	2009	% Change	2010	2009	% Change
Gain on sale of asset	$—	$—	—%	$0.7	$—	100.0%

During the first quarter of 2010, we sold two vacated facilities for proceeds of $2.1 million and recorded a $0.7 million net gain on the sale.

Restructuring (dollars in millions)

	Three Months Ended June 30,			Six Months Ended June 30,		
	2010	2009	% Change	2010	2009	% Change
Restructuring	$—	$—	—%	$—	$5.4	(100.0)%

In the first quarter of 2009, we initiated a restructuring plan as a result of the global financial crisis and its impact on our semiconductor equipment OEM customers and the other markets we serve. The plan included a reduction in our worldwide headcount of approximately 630 people, which represented approximately 24% of our global workforce. The restructuring charges of $5.4 million for the six months ended June 30, 2009 were primarily for severance and other charges associated with the reductions in workforce.

Interest Income, Net (dollars in millions)

	Three Months Ended June 30,			Six Months Ended June 30,		
	2010	2009	% Change	2010	2009	% Change
Interest income, net	$0.3	$0.2	19.2%	$0.6	$1.2	(52.6)%

Interest income, net increased $0.1 million in the three months ended June 30, 2010 compared to the same period in 2009, and decreased $0.6 million in the six months ended June 30, 2010 compared to the same period for the prior year. The $0.6 million decrease is related to lower interest rates and a change in the mix of the investment portfolio in the six months ended June 30, 2010 compared to the same period for the prior year.

Provision (Benefit) for Income Taxes (dollars in millions)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009
Provision (benefit) for income taxes	$17.1	$(9.0)	$30.6	$(31.7)

Our effective tax rate for the three and six months ended June 30, 2010 was 34% and 33%, respectively. The effective tax rate for the six months ended June 30, 2010 and the related income tax provision was lower than the U.S. statutory tax rate primarily due to geographic mix of income and profits earned by our international subsidiaries being taxed at rates lower than the U.S. statutory rate. Our effective tax rate for the three and six months ended June 30, 2009 was 5.8% and 16.4%, respectively. The effective tax rate for the six months ended June 30, 2009 and the related tax benefit are lower than the U.S. statutory tax rate primarily due to non-deductible goodwill impairment charges of $139.4 million during the second quarter of 2009.

At June 30, 2010, the total amount of gross unrecognized tax benefits, which excludes interest and penalties, was approximately $10.7 million. At December 31, 2009, the total amount of gross unrecognized tax benefits, which excludes interest and penalties, was approximately $9.1 million. The net increase from December 31, 2009 was primarily 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 $6.5 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 June 30, 2010 and December 31, 2009, we had accrued interest on unrecognized tax benefits of approximately $0.9 million and $0.7 million, respectively.

We and our subsidiaries are subject to examination by federal, state and foreign tax authorities. The statute of limitations for our tax filings varies by tax jurisdiction between fiscal years 2001 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 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.

Discontinued Operations

	Three Months Ended June 30,			Six Months Ended June 30,		
	2010	2009	% Change	2010	2009	% Change
Income (loss) from discontinued operations, net of taxes	$5.6	$(60.8)	(109.3)%	$5.9	$(62.3)	(109.4)%

During the second quarter of 2010, we committed to a plan to divest two product lines as their growth potential no longer met our long-term strategic objectives. We completed the sale of one product line, Ion, on May 17, 2010 for $15.1 million of net cash proceeds after expenses and recorded a pre-tax gain on the sale of $4.2 million. For the three and six month periods ended June 30, 2009, the loss from discontinued operations includes $65.5 million of goodwill and intangible asset impairment charges. These charges were a result of the interim impairment assessment performed on April 30, 2009.

The two product lines have been accounted for as discontinued operations. Accordingly, their results of operations have been reclassified to discontinued operations in the consolidated statements of operations for all periods presented. The assets and liabilities of these discontinued product lines have not been reclassified or segregated in the consolidated balance sheets or consolidated statements of cash flows due to their immaterial amounts.

Liquidity and Capital Resources

Cash, cash equivalents and short-term investments totaled $323.4 million at June 30, 2010 compared to $271.8 million at December 31, 2009. This increase was mainly attributable to our net income and net proceeds from the sale of a discontinued product line.

Net cash provided by operating activities of $39.2 million for the six months ended June 30, 2010, resulted mainly from net income of $68.0 million, a $41.7 million increase in operating liabilities, non-cash charges of $11.3 million for depreciation, amortization and stock-based compensation and a $4.9 million provision for excess and obsolete inventory, partially offset by a net increase of $83.5 million in operating assets and a $4.2 million gain on the disposal of a discontinued product line. The increase in operating liabilities is caused by a $14.0 million increase in accounts payable related to inventory purchases to support our increased business levels and an increase of $27.7 million in accrued compensation related to increases in incentive compensation and accrued salaries and benefits. The $83.5 million net increase in operating assets consisted primarily of a $58.0 million increase in trade accounts receivable and an increase of $28.3 million of inventory as a result of our increased business levels.

Net cash used in operating activities of $5.9 million for the six months ended June 30, 2009, resulted mainly from a net loss of $223.6 million, a $14.3 million decrease in operating liabilities and a $5.2 million increase in net operating assets, partially offset by a $14.8 million provision for excess or obsolete inventory, non-cash charges of $208.5 million for impairment of goodwill, intangibles and other long-lived assets, $10.0 million for depreciation and amortization and $4.2 million for stock-based compensation. The net decrease in operating liabilities is due to a decrease of $5.9 million in non-current income taxes payable and a decrease of $4.2 million in accrued compensation. The decrease in accrued compensation is primarily as a result of the workforce reduction and mandatory time-off. The $5.2 million increase in operating assets consisted primarily of a $29.5 million increase in income taxes receivable due to the operating losses, partially offset by a $26.5 million decrease in accounts receivable as a result of lower revenue and improved collections.

Net cash provided by investing activities of $1.9 million for the six months ended June 30, 2010, resulted primarily from $15.1 million in net proceeds from the sale of a discontinued product line and proceeds of $2.1 million from the sale of two vacated facilities, partially offset by $7.2 million of net purchases of available-for-sale investments and by $6.6 million in purchases of property, plant and equipment. Net cash provided by investing activities of $34.6 million for the six months ended June 30, 2009, resulted primarily from net sales of $36.3 million of available-for-sale investments, offset by $2.4 million in purchases of property, plant and equipment.

Net cash provided by financing activities was $2.4 million for the six months ended June 30, 2010 and consisted primarily of $2.3 million of net proceeds related to stock-based compensation. Net cash used in financing activities was $9.3 million for the six months ended June 30, 2009 and consisted primarily of $8.0 million in net payments on short-term borrowings.

On July 31, 2010, the Optional Advance Demand Grid Note dated August 3, 2004 expired without renewal. The unsecured short-term LIBOR based loan agreement was with HSBC Bank USA and was utilized primarily by our Japanese subsidiary for short-term liquidity purposes and had a maximum borrowing amount of $5.0 million. We did not have outstanding borrowings under this line of credit at June 30, 2010 or December 31, 2009.

Additionally, our Japanese subsidiary has lines of credit and short-term borrowing arrangements with two financial institutions which provide for aggregate borrowings as of June 30, 2010 of up to an equivalent of $28.2 million, which generally expire and are renewed at three month intervals. At June 30, 2010 and December 31, 2009, total borrowings outstanding under these arrangements were $13.0

million and $12.9 million, respectively, at interest rates ranging from 0.73% to 1.47% at June 30, 2010 and at interest rates ranging from 0.76% to 1.48% at December 31, 2009.

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 at least 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 January 2010, the Financial Accounting Standards Board ("FASB") issued updated guidance to amend the disclosure requirements related to recurring and nonrecurring fair value measurements. This update requires new disclosures on significant transfers of assets and liabilities in and out of Level 1 and Level 2 of the fair value hierarchy (including the reasons for these transfers) and also requires a reconciliation of recurring Level 3 measurements about purchases, sales, issuances and settlements on a gross basis. In addition to these new disclosure requirements, this update clarifies certain existing disclosure requirements. For example, this update clarifies that reporting entities are required to provide fair value measurement disclosures for each class of assets and liabilities rather than each major category of assets and liabilities. This update also clarifies the requirement for entities to disclose information about both the valuation techniques and inputs used in estimating Level 2 and Level 3 fair value measurements. This update is effective for companies with interim and annual reporting periods after December 15, 2009, except for the requirement to provide the Level 3 activity of purchases, sales, issuances, and settlements on a gross basis, which will become effective for interim and annual reporting periods beginning after December 15, 2010. We adopted the updated guidance in the first quarter of 2010 and the adoption did not have an impact on our financial position, results of operations, or cash flows.

In October 2009, the FASB issued guidance that establishes the accounting and reporting provisions for arrangements including multiple revenue-generating activities. This guidance provides amendments to the criteria for separating deliverables, measuring and allocating arrangement consideration to one or more units of accounting. The amendments in this guidance also establish a selling price hierarchy for determining the selling price of a deliverable. Significantly enhanced disclosures are also required to provide information about a vendor's multiple-deliverable revenue arrangements, including information about the nature and terms, significant deliverables, and its performance within arrangements. The amendments also require providing information about the significant judgments made and changes to those judgments and about how the application of the relative selling-price method affects the timing or amount of revenue recognition. The amendments in this guidance are effective prospectively for revenue arrangements entered into or materially modified in the fiscal years beginning on or after June 15, 2010. Early adoption is permitted. We are currently evaluating the potential impact of this new guidance on our consolidated financial statements.

In October 2009, the FASB issued guidance that changes the accounting model for revenue arrangements that include both tangible products and software elements that are "essential to the functionality," and scopes these products out of current software revenue guidance. The new guidance will include factors to help companies determine what software elements are considered "essential to the functionality." The amendments will now subject software-enabled products to other revenue guidance and disclosure requirements, such as guidance surrounding revenue arrangements with multiple-deliverables. The amendments in this guidance are effective prospectively for revenue arrangements entered into or materially modified in the fiscal years beginning on or after June 15, 2010. Early adoption is permitted. We are currently evaluating the potential impact of this new guidance 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, 2009 filed with the Securities and Exchange Commission on February 26, 2010. There were no material changes in our exposure to market risk from December 31, 2009.

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 June 30, 2010. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), means controls and other procedures of an issuer that are designed to ensure that information required to be disclosed by the issuer in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Exchange Act is accumulated and communicated to the issuer's management, including its principal executive and principal financial officers, 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 June 30, 2010, 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 June 30, 2010 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, 2009 in the section entitled "Risk Factors." There have been no material changes from the risks disclosed therein.

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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
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	The following materials from MKS Instruments, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2010, formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations, (iii) the Consolidated Statements of Cash Flows, and (iv) Notes to Unaudited Consolidated Financial Statements, tagged as blocks of text.

(1) Incorporated by reference to the Registration Statement on Form S-4 (File No. 333-49738) filed with the Securities and Exchange Commission on November 13, 2000.

(2) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001.

(3) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2002.

(4) Incorporated by reference to the 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.

August 5, 2010

By: /s/ Seth H. Bagshaw
Seth H. Bagshaw
Vice President and Chief Financial Officer (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 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 and financial reporting.

Date: August 5, 2010

/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 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 and financial reporting.

Date: August 5, 2010

/s/ Seth H. Bagshaw
Seth H. Bagshaw
Vice President and Chief Financial Officer
(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 June 30, 2010, 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 and Chief Financial Officer 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: August 5, 2010	/s/ Leo Berlinghieri
	Leo Berlinghieri
	Chief Executive Officer and President
Dated: August 5, 2010	/s/ Seth H. Bagshaw
	Seth H. Bagshaw
	Vice President and Chief Financial Officer