

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-Q

(MARK ONE)

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

For the quarterly period ended September 30, 2009

or

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

For the transition period from _____ to _____

Commission file number 0-23621

MKS INSTRUMENTS, INC.

(Exact name of registrant as specified in its charter)

Massachusetts

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

As of November 1, 2009 the registrant had 49,507,619 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 data)
(unaudited)

	September 30, 2009	December 31, 2008
ASSETS		
Current assets:		
Cash and cash equivalents	\$140,072	\$119,261
Short-term investments	125,146	159,608
Trade accounts receivable, net	72,166	85,350
Inventories	116,156	131,519
Income tax receivable	31,366	4,057
Deferred income taxes	19,511	19,058
Other current assets	12,136	9,875
Total current assets	516,553	528,728
Property, plant and equipment, net	70,193	82,017
Goodwill	144,511	337,765
Acquired intangible assets, net	5,835	21,069
Other assets	13,333	15,360
Total assets	\$750,425	\$984,939
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Short-term borrowings	\$ 10,118	\$ 17,808
Current portion of capital lease obligations	445	870
Accounts payable	22,148	19,320
Accrued compensation	9,391	13,768
Other accrued expenses	22,414	24,169
Total current liabilities	64,516	75,935
Long-term portion of capital lease obligations	118	396
Other liabilities	18,704	21,910
Commitments and contingencies (Note 15)		
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; 49,493,983 and 49,275,975 shares issued and outstanding at September 30, 2009 and December 31, 2008, respectively	113	113
Additional paid-in capital	642,987	637,938
Retained earnings	13,822	241,428
Accumulated other comprehensive income	10,165	7,219
Total stockholders' equity	667,087	886,698
Total liabilities and stockholders' equity	\$750,425	\$984,939

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 September 30,		Nine Months Ended September 30,	
	2009	2008	2009	2008
Net revenues				
Products	\$ 87,255	\$135,890	\$ 212,601	\$455,732
Services	19,007	21,474	49,535	66,082
Total net revenues	106,262	157,364	262,136	521,814
Cost of revenues				
Cost of products	55,635	81,027	155,600	264,341
Cost of services	11,148	13,398	31,180	42,139
Total cost of revenues	66,783	94,425	186,780	306,480
Gross profit	39,479	62,939	75,356	215,334
Research and development	12,114	19,228	39,862	59,263
Selling, general and administrative	24,385	33,760	78,516	100,282
Amortization of acquired intangible assets	871	1,963	3,535	7,052
Goodwill and asset impairment charges	—	—	208,497	—
Restructuring	168	—	5,856	—
Income (loss) from operations	1,941	7,988	(260,910)	48,737
Interest expense	53	86	154	608
Interest income	316	1,412	1,639	5,746
Gain (impairment) of investments	—	506	—	(906)
Income (loss) before income taxes	2,204	9,820	(259,425)	52,969
Provision (benefit) for income taxes	6,177	3,029	(31,819)	16,562
Net income (loss)	\$ (3,973)	\$ 6,791	\$(227,606)	\$ 36,407
Net income (loss) per share:				
Basic	\$ (0.08)	\$ 0.14	\$ (4.62)	\$ 0.73
Diluted	\$ (0.08)	\$ 0.14	\$ (4.62)	\$ 0.71
Weighted average common shares outstanding:				
Basic	49,461	48,730	49,254	50,051
Diluted	49,461	49,898	49,254	51,112

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

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

	Nine Months Ended September 30,	
	2009	2008
Cash flows from operating activities:		
Net income (loss)	\$(227,606)	\$ 36,407
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation and amortization	14,452	17,803
Stock-based compensation	6,406	11,758
Tax expense from stock-based compensation	(1,233)	(12)
Excess tax expense (benefit) from stock-based compensation	3,174	(2,202)
Deferred income taxes	2,030	1,731
Provision for excess or obsolete inventory	17,692	4,898
Impairment of goodwill	193,254	—
Impairment of intangibles and other long-lived assets	15,243	—
Impairment of investments	—	906
Other	940	211
Changes in operating assets and liabilities:		
Trade accounts receivable	12,137	1,022
Inventories	1,656	1,178
Income taxes receivable	(27,156)	(3,236)
Other current assets	(1,997)	(6,408)
Accrued expenses and other current liabilities	(11,153)	268
Accounts payable	1,014	(2,985)
Net cash provided by (used in) operating activities	(1,147)	61,339
Cash flows from investing activities:		
Purchases of short-term and long-term available for sale investments	(176,250)	(221,361)
Maturities, sales and settlements of short-term and long-term available for sale investments	210,534	208,209
Purchases of property, plant and equipment	(3,044)	(8,413)
Other	504	(59)
Net cash provided by (used in) investing activities	31,744	(21,624)
Cash flows from financing activities:		
Proceeds from short-term borrowings	120,012	106,094
Payments on short-term borrowings	(127,509)	(108,768)
Repurchases of common stock	—	(115,723)
Principal payments on capital lease obligations	(895)	(6,021)
Proceeds from (taxes paid for) exercise of stock options and employee stock purchase plan	(124)	7,020
Excess tax benefit (expense) from stock-based compensation	(3,174)	2,202
Net cash used in financing activities	(11,690)	(115,196)
Effect of exchange rate changes on cash and cash equivalents	1,904	(3,055)
Increase (decrease) in cash and cash equivalents	20,811	(78,536)
Cash and cash equivalents at beginning of period	119,261	223,968
Cash and cash equivalents at end of period	\$ 140,072	\$ 145,432

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 September 30, 2009 and for the three and nine months ended September 30, 2009 and 2008 is 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, 2008 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, 2008 filed with the Securities and Exchange Commission on February 27, 2009.

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, in-process research and development expenses, merger expenses, income taxes and investments. Management bases its estimates and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

2) Recently Issued Accounting Pronouncements

In April 2009, the Financial Accounting Standards Board (“FASB”) issued additional guidance for estimating fair value when the volume and level of activity for the asset or liability being measured have significantly decreased and identifying circumstances that indicate a transaction is not orderly. The Company adopted the new guidance in the second quarter of 2009 and the adoption did not have an impact on the Company’s financial position, results of operations, or cash flows.

In April 2009, the FASB amended the existing guidance on the initial recognition and measurement, subsequent measurement and accounting, and disclosures for assets and liabilities arising from contingencies in business combinations. The new guidance eliminates the distinction between contractual and non-contractual contingencies, including the initial recognition and measurement criteria and instead carries forward most of the previous provisions for acquired contingencies. The Company adopted the new guidance effective as of January 1, 2009 and the adoption did not have an impact on the Company’s financial position, results of operations, or cash flows.

In May 2009, the FASB issued guidance that modified the definition of what qualifies as a subsequent event—those events or transactions that occur following the balance sheet date, but before the financial statements are issued, or are available to be issued—and required companies to disclose the date through which it has evaluated subsequent events and the basis for determining that date. The Company adopted the provisions of the new guidance in the second quarter of 2009.

In June 2009, the FASB issued guidance which changed the referencing of financial standards and the Hierarchy of Generally Accepted Accounting Principles and is effective for interim or annual financial periods ending after September 15, 2009. The Company adopted the provisions of the new guidance in the third quarter of 2009 and updated its disclosures.

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

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

effects 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 application 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 application 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 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 in consolidated stockholders’ equity.

In April 2009, the FASB amended the existing guidance on other-than-temporary impairment guidance for debt securities to make the guidance more operational and to improve the presentation and disclosure of other-than-temporary impairments on debt and equity securities in the financial statements. This guidance does not amend existing recognition and measurement guidance related to other-than-temporary impairments of equity securities. The new guidance was effective for the Company’s second quarter of 2009 and the adoption did not have an impact on the Company’s financial position, results of operations, or cash flows.

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. At December 31, 2007, the Company determined that declines in the fair value of two of its investments in certain commercial paper were other-than-temporary and, as a result, recorded a \$1,457,000 impairment charge to earnings. This resulted in a new cost basis for the securities of \$4,275,000 at December 31, 2007.

During the Company’s review of its investment portfolio as of March 31, 2008, the Company determined that further declines in the value of these two investments were other-than-temporary and, as a result, recorded an additional \$1,161,000 impairment charge to earnings. This resulted in a new cost basis for the securities of \$3,114,000 at March 31, 2008.

During the second quarter of 2008, the Company recorded additional impairment charges of \$251,000 on these two investments due to further declines in value. In addition, the Company received a \$490,000 principal payment from one of these investments during the second quarter of 2008. During the third quarter of 2008, the Company liquidated its position in these two impaired investments, one by sale and the other by a structured payment, for a combined total of \$2,879,000 and, as a result, it recorded a gain from the liquidation of \$506,000. The Company did not have any other-than-temporary impaired investments at September 30, 2009.

In April 2009, the FASB amended the existing guidance on required disclosures about fair value of financial instruments for interim reporting periods of publicly traded companies as well as in annual financial statements. The Company adopted the new guidance in the second quarter of 2009 and added the required interim disclosures.

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

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

	September 30, 2009	December 31, 2008
Federal Government and Government Agency Obligations	\$105,822	\$137,981
Commercial Paper and Corporate Obligations	19,324	21,627
	<u>\$125,146</u>	<u>\$159,608</u>

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 September 30, 2009:				
Federal Government and Government Agency Obligations	\$ 99,396	\$120	\$ (11)	\$ 99,505
Commercial Paper and Corporate Obligations	4,517	58	(551)	4,024
Total	<u>\$103,913</u>	<u>\$178</u>	<u>\$(562)</u>	<u>\$103,529</u>
As of December 31, 2008:				
Federal Government and Government Agency Obligations	\$126,106	\$373	\$ (2)	\$126,477
Commercial Paper and Corporate Obligations	2,993	87	(783)	2,297
Total	<u>\$129,099</u>	<u>\$460</u>	<u>\$(785)</u>	<u>\$128,774</u>

Interest income is accrued as earned. Dividend income is recognized as income on the date the stock trades "ex-dividend." The cost of marketable securities sold is determined by the specific identification method and realized gains or losses are reflected in income and were not material for the three and nine months ended September 30, 2009 and 2008.

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 and liability occur in sufficient frequency and volume to provide pricing information on an ongoing basis. Level 1 assets and liabilities include 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 U.S. Government and Agency mortgage-backed debt securities, corporate debt securities, 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,

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

discounted cash flow methodologies, or similar techniques, as well as instruments for which the determination of fair value requires significant management judgment or estimation.

Assets and liabilities of the Company measured at fair value on a recurring basis as of September 30, 2009, are summarized as follows:

Description	September 30, 2009	Fair Value Measurements at Reporting Date Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets				
Cash equivalents	\$ 8,314	\$ 8,314	\$—	\$—
Available-for-sale-securities	125,146	125,146	—	—
Total assets	\$133,460	\$133,460	\$—	\$—

Description	September 30, 2009	Fair Value Measurements at Reporting Date Using		
		Quoted Prices in Active Markets for Identical Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Liabilities				
Derivatives — currency forward contracts	\$854	\$—	\$854	\$—
Total liabilities	\$854	\$—	\$854	\$—

Assets and liabilities of the Company measured at fair value on a recurring basis as of December 31, 2008, are summarized as follows:

Description	December 31, 2008	Fair Value Measurements at Reporting Date Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets				
Cash equivalents	\$ 13,550	\$ 13,550	\$ —	\$—
Available-for-sale-securities	159,608	159,608	—	—
Derivatives — currency forward contracts	508	—	508	—
Total assets	\$173,666	\$173,158	\$508	\$—

Cash Equivalents

As of September 30, 2009 and December 31, 2008, cash equivalents consisted of Federal Government and Government Agency Obligations, Commercial Paper, and Corporate Obligations, classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices in active markets.

Available-For-Sale Securities

As of September 30, 2009 and December 31, 2008, available-for-sale securities consisted of Federal Government and Government Agency Obligations, Commercial Paper, and Corporate Obligations, classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices in active markets.

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

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

minimizes its risks from foreign currency exchange rate fluctuations through the use of derivative financial instruments. The forward foreign currency exchange contracts are valued using broker quotations, or market transactions in either the listed or over-the-counter markets. As such, these derivative instruments are classified within Level 2.

Assets and liabilities of the Company measured at fair value on a non-recurring basis as of and for the nine months ended September 30, 2009 are summarized as follows:

Description	September 30, 2009	Fair Value Measurements at Reporting Date Using			Total Losses
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
Assets					
Goodwill	\$144,511	\$—	\$ —	\$144,511	\$193,254
Definite lived intangible assets	5,835	—	—	5,835	11,699
Long-lived assets held and used	1,297	—	1,297	—	3,544
Total assets	\$151,643	\$—	\$1,297	\$150,346	\$208,497

In accordance with the provisions of accounting for goodwill and other intangible assets, 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 the second quarter of 2009. In accordance with the provisions of accounting for the impairment of long-lived assets, definite-lived intangible assets with a carrying amount as of April 30, 2009 of \$18,866,000, were written down to its fair value of \$7,167,000, resulting in an impairment charge of \$11,699,000, which was included in earnings in the second quarter of 2009. Refer to Note 7 for the information and description used to develop the inputs and the fair value determination of the goodwill and other intangible assets.

The long-lived asset held and used with a carrying amount of \$4,841,000 was written down to its fair value of \$1,297,000, resulting in a loss of \$3,544,000, which was included in earnings in the second quarter of 2009.

Assets and liabilities of the Company measured at fair value on a non-recurring basis as of and for the twelve months ended December 31, 2008 are summarized as follows:

Description	December 31, 2008	Fair Value Measurements at Reporting Date Using			Total Losses
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
Assets					
Goodwill	\$337,765	\$—	\$—	\$337,765	\$ —
Definite lived intangible assets	21,069	—	—	21,069	6,069
Total assets	\$358,834	\$—	\$—	\$358,834	\$6,069

During the fourth quarter of 2008, the adverse economic climate was a significant factor that indicated that the carrying amount of certain long-lived asset groups were not recoverable. A review of future cash flows identified asset groups within Yield Dynamics (“YDI”) which had carrying values in excess of future cash flows. The Company reviewed the fair value of the long-lived assets for these asset groups and determined that intangible assets related to customer technologies, relationships and patents and trademarks had carrying values that exceeded their estimated fair values. As a result, an impairment charge of \$6,069,000 was recorded in the fourth quarter of 2008.

5) Derivatives

In March 2008, the FASB amended existing guidance to provide enhanced disclosure about how and why the entity uses derivative instruments, how the instruments and related hedged items are accounted for and how the instruments and related hedged items

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

affect the financial position, results of operations, and cash flows of the entity. The Company adopted this new guidance effective January 1, 2009.

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

As of September 30, 2009 and December 31, 2008, the Company had outstanding forward foreign exchange contracts with gross notional values of \$25,453,000 and \$30,556,000, respectively. The following table provides a summary of the primary net hedging positions and corresponding fair values held as of September 30, 2009:

Currency Hedged (Buy/Sell)	Gross Notional Value	Fair Value (1)
U.S. Dollar/Japanese Yen	\$14,926	\$ (51)
U.S. Dollar/South Korean Won	5,708	(524)
U.S. Dollar/Euro	3,964	(269)
U.S. Dollar/U.K. Pound Sterling	855	(10)
Total	<u>\$25,453</u>	<u>\$(854)</u>

(1) Represents the net receivable (payable) amount included in the consolidated balance sheet as of September 30, 2009.

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

Derivatives Designated as Hedging Instruments	September 30, 2009	December 31, 2008
Derivative assets		
Forward exchange contracts	\$ 88	\$2,645
Derivative liabilities		
Forward exchange contracts	942	2,137
Total net derivative assets (liabilities) designated as hedging instruments (1)	<u>\$(854)</u>	<u>\$ 508</u>

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

- (1) The net liability of \$854,000 is classified in other accrued expenses and the net asset of \$508,000 is classified in other current assets on the consolidated balance sheets as of September 30, 2009 and December 31, 2008, respectively.

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

Derivatives Designated as Cash Flow Hedging Relationships	Three Months Ended September 30,		Nine Months Ended September 30,	
	2009	2008	2009	2008
Forward exchange contracts - forwards				
Net gain (loss) recognized in OCI (1)	\$(547)	\$2,327	\$ (648)	\$ 3,166
Net gain (loss) reclassified from accumulated OCI into income (2)	(39)	(95)	1,546	(2,435)
Net gain (loss) recognized in income (3)	(691)	—	248	—

- (1) Net change in the fair value of the effective portion classified in other comprehensive income (“OCI”).
 (2) Effective portion classified as cost of products.
 (3) Ineffective portion and amount excluded from effectiveness testing, classified in selling, general and administrative.

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

Derivatives Not Designated as Hedging Instruments	Three Months Ended September 30,		Nine Months Ended September 30,	
	2009	2008	2009	2008
Forward exchange contracts - forwards				
Net gain recognized in income (1)	\$41	\$—	\$41	\$2,669

- (1) Classified in selling, general and administrative.

The \$2,669,000 gain was primarily attributable to the settlement of cash and intercompany loans at different foreign exchange rates related to a legal entity consolidation among some of the Company’s foreign subsidiaries.

6) Inventories

Inventories consist of the following:

	September 30, 2009	December 31, 2008
Raw material	\$ 52,590	\$ 58,542
Work in process	14,509	22,072
Finished goods	49,057	50,905
	\$116,156	\$131,519

During the nine months ended September 30, 2009, the Company recorded charges of \$17,692,000 for excess and obsolete inventory. Of this amount, \$14,373,000 was recorded in the three months ended March 31, 2009, primarily as 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. Due to various factors, including current market and economic conditions that have 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, the Company concluded an interim assessment for impairment should be conducted for its goodwill as of April 30, 2009, the date of the triggering event.

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

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 is derived from a group of comparable companies. The cash flows employed in the DCF analysis are 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.

In the 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.

The changes in the carrying amount of goodwill during the nine months ended September 30, 2009 and twelve months ended December 31, 2008 were as follows:

	2009	2008
Balance at January 1		
Goodwill	\$ 337,765	\$337,473
Accumulated impairment losses	—	—
	337,765	337,473
Goodwill acquired	—	—
Impairment losses	(193,254)	—
Adjustments to deferred tax assets	—	292
Balance at September 30, 2009 and December 31, 2008		
Goodwill	337,765	337,765
Accumulated impairment losses	(193,254)	—
	<u>\$ 144,511</u>	<u>\$337,765</u>

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 current market and economic conditions that have 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.

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

During the fourth quarter of 2008, the adverse economic climate was a significant factor that indicated that the carrying amount of certain long-lived asset groups were not recoverable. A review of future cash flows identified asset groups within YDI which had carrying values in excess of future cash flows. The Company reviewed the fair value of the long-lived assets for these asset groups and determined that intangible assets related to customer technologies, relationships, and patents and trademarks had carrying values that exceeded their estimated fair values. As a result, an impairment charge of \$6,069,000 was recorded in the fourth quarter of 2008.

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

As of September 30, 2009:

	Gross	Impairment Charges	Accumulated Amortization	Net
Completed technology	\$ 88,855	\$ (3,812)	\$ (82,292)	\$2,751
Customer relationships	21,879	(7,113)	(13,156)	1,610
Patents, trademarks, trade names and other	29,672	(774)	(27,424)	1,474
	<u>\$140,406</u>	<u>\$(11,699)</u>	<u>\$(122,872)</u>	<u>\$5,835</u>

For the year ended December 31, 2008:

	Gross	Impairment Charges	Accumulated Amortization	Net
Completed technology	\$ 93,204	\$(4,349)	\$ (80,685)	\$ 8,170
Customer relationships	23,542	(1,663)	(12,152)	9,727
Patents, trademarks, trade names and other	29,729	(57)	(26,500)	3,172
	<u>\$146,475</u>	<u>\$(6,069)</u>	<u>\$(119,337)</u>	<u>\$21,069</u>

Aggregate amortization expense related to acquired intangibles for the three and nine months ended September 30, 2009 was \$871,000 and \$3,535,000, respectively. Aggregate amortization expense related to acquired intangibles for the three and nine months ended September 30, 2008 was \$1,963,000 and \$7,052,000, respectively. Estimated amortization expense for each of the five succeeding fiscal years is as follows:

Year	Amount
2009 (remaining)	\$ 869
2010	2,134
2011	1,588
2012	634
2013	610

Long-lived tangible assets

As a result of a facility consolidation in Asia, the Company recorded an asset impairment charge of \$3,544,000 in the second quarter of 2009 resulting from the write down of the value of a building to its estimated fair value.

8) Debt

On March 18, 2009, the Company entered into an amendment to the Optional Advance Demand Grid Note dated August 3, 2004. The unsecured short-term LIBOR based loan agreement with HSBC Bank USA is utilized primarily by the Company's Japanese subsidiary for short-term liquidity purposes. The credit line as amended (a) decreased the maximum amount of the note from \$35,000,000 to \$5,000,000, (b) decreased the limit for standby letters of credit under the note from \$750,000 to \$650,000, and (c) established an annual facility fee of 0.0375% of the maximum amount of the note. The Company believes the reduced amount of the note more accurately reflects its anticipated utilization of this line, and minimizes the cost of the new facility fee. The Company had outstanding borrowings under this line of credit of \$1,101,000 at December 31, 2008 and no outstanding borrowings under this line of credit at September 30, 2009.

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NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS — (continued)
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On August 10, 2009, the Company entered into an amendment to the Optional Advance Demand Grid Note Dated August 3, 2004, to extend its maturity date to January 31, 2010.

Additionally, the Company's Japanese subsidiary has credit and short term borrowing arrangements with two financial institutions. Total borrowings outstanding under these arrangements were \$10,118,000 and \$16,707,000 at September 30, 2009 and December 31, 2008, respectively.

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.

Product warranty activities were as follows:

	Nine Months Ended September 30,	
	2009	2008
Balance at January 1	\$ 8,334	\$ 9,497
Provision for product warranties	617	4,481
Direct charges to warranty liability	(2,730)	(4,970)
Balance at September 30	<u>\$ 6,221</u>	<u>\$ 9,008</u>

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 \$168,000 and \$5,856,000 during the three and nine months ended September 30, 2009, respectively. The restructuring charges were primarily for severance and other charges associated with the reductions in workforce. As of September 30, 2009, the accrued restructuring costs totaled \$593,000 and were included in accrued compensation in the consolidated balance sheets. These costs will be substantially paid by December 31, 2009.

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

	Nine Months Ended September 30, 2009
Beginning balance	\$ —
Charged to expense	5,856
Payments	(5,263)
Ending balance	<u>\$ 593</u>

11) Income Taxes

The Company's effective tax rate for the three and nine months ended September 30, 2009 was 280.0% and 12.3%, respectively. The effective tax rate for the three months ended September 30, 2009 is higher than the statutory rate primarily due to increases in the actual and projected taxable income for 2009. The effective tax rate for the nine months ended September 30, 2009 and the related tax benefit are lower than the statutory tax rate. The decreased benefit is primarily due to a non-deductible goodwill impairment charge of \$190,705,000 during the second quarter. The Company's effective tax rate for the three and nine months ended September 30, 2008 was 30.9% and 31.3%, respectively. The effective tax rate for the three and nine months ended

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September 30, 2008 was less than the statutory tax rate primarily due to the profits of the Company's international subsidiaries being taxed at rates lower than the U.S. statutory tax rate.

The Company and its subsidiaries are subject to U.S. federal income tax as well as the income tax of multiple state and foreign jurisdictions. With the close of a federal tax audit in the first quarter of 2009, the Company has concluded all U.S. federal income tax matters for years through 2006. As of September 30, 2009, there were ongoing audits in various other tax jurisdictions.

The total amount of gross unrecognized tax benefits at September 30, 2009 was approximately \$8,174,000. At December 31, 2008, the total amount of gross unrecognized tax benefits, which excludes interest and penalties discussed below, was approximately \$14,678,000. If these benefits were recognized in a future period, the timing of which is not estimable, the net unrecognized tax benefit of approximately \$11,784,000 would impact the Company's effective tax rate. The net decrease from December 31, 2008 was primarily attributable to the release of reserves from the years 2003 to 2006 as a result of the close of the federal tax audit on the 2005 and 2006 tax years.

Within the next 12 months, it is reasonably possible that the Company may recognize \$1,600,000 to \$1,900,000 of previously unrecognized tax benefits related to various state and foreign tax positions as a result of the conclusion of various audits and the expiration of the statute of limitations. The following tax years, in the major tax jurisdictions noted, are open for assessment or refund: U.S. Federal: 2007 and 2008, Germany: 2001 to 2008, Korea: 2004 to 2008, Japan: 2004 to 2008, and the United Kingdom: 2007 and 2008.

The Company accrues interest expense and, if applicable, penalties, for any uncertain tax positions. This interest and penalty expense is a component of income tax expense. At September 30, 2009 and December 31, 2008, the Company had approximately \$600,000 and \$1,730,000, respectively, accrued for interest on unrecognized tax benefits.

12) Net Income (Loss) Per Share

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2009	2008	2009	2008
Numerator:				
Net income (loss)	\$ (3,973)	\$ 6,791	\$ (227,606)	\$ 36,407
Denominator:				
Shares used in net income (loss) per common share — basic	49,461	48,730	49,254	50,051
Effect of dilutive securities:				
Stock options, restricted stock and employee stock purchase plan	—	1,168	—	1,061
Shares used in net income (loss) per common share — diluted	49,461	49,898	49,254	51,112
Net income (loss) per common share:				
Basic	\$ (0.08)	\$ 0.14	\$ (4.62)	\$ 0.73
Diluted	\$ (0.08)	\$ 0.14	\$ (4.62)	\$ 0.71

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

As of September 30, 2009, stock options and restricted stock units relating to an aggregate of approximately 4,209,000 shares were outstanding. For the three and nine months ended September 30, 2009, all potentially dilutive common shares were

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excluded from the dilutive computation as the effect of including such securities in the computation would be anti-dilutive due to our net loss for the periods.

As of September 30, 2008, stock options and restricted stock units relating to an aggregate of approximately 6,506,000 shares were outstanding. For the three and nine months ended September 30, 2008, 3,117,000 and 3,173,000 shares, respectively, were not included in the computation of diluted earnings per share because the exercise price exceeded the average price per share for the period.

Stock Option Exchange Program

Pursuant to the Company's tender offer to exchange outstanding stock options, during the three months ended September 30, 2009, options to purchase 1,330,000 shares of common stock were exchanged for 189,000 restricted stock units with a one year vesting period. Participants exchanged their eligible option awards for restricted stock units of an approximate equal fair value and, as such, no incremental compensation expense was recognized as a result of the exchange.

13) Stockholders' Equity

Comprehensive Income (Loss)

Components of comprehensive income (loss) were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2009	2008	2009	2008
Net income (loss)	\$(3,973)	\$ 6,791	\$(227,606)	\$36,407
Other comprehensive income (loss):				
Changes in value of financial instruments designated as cash flow hedges, net of tax	(341)	1,137	(920)	1,911
Foreign currency translation adjustment	4,262	(6,350)	3,900	(6,951)
Unrealized gain (loss) on investments, net of tax	116	(35)	(34)	(153)
Other comprehensive income (loss)	4,037	(5,248)	2,946	(5,193)
Total comprehensive income (loss)	\$ 64	\$ 1,543	\$(224,660)	\$31,214

Stock Repurchase Program

On February 12, 2007, the Company's Board of Directors approved a share repurchase program (the "Program") for the repurchase of up to \$300,000,000 of its outstanding stock over the subsequent two years. During the three months ended September 30, 2008, the Company repurchased 616,000 shares of its common stock for \$13,785,000 for an average price of \$22.36 per share and during the nine months ended September 30, 2008, the Company repurchased 5,667,000 shares of its common stock for \$115,723,000 for an average price of \$20.42 per share. The Company did not repurchase shares in 2009 and the Program ended effective February 11, 2009.

14) 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.

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.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2009	2008	2009	2008
Geographic net revenues:				
United States	\$ 57,466	\$ 85,120	\$138,424	\$306,025
Japan	11,312	24,687	30,651	74,586
Europe	16,028	24,671	46,881	79,184
Asia (excluding Japan)	21,456	22,886	46,180	62,019
	<u>\$106,262</u>	<u>\$157,364</u>	<u>\$262,136</u>	<u>\$521,814</u>

	September 30, 2009	December 31, 2008
Long-lived assets:		
United States	\$53,882	\$60,942
Japan	6,550	11,527
Europe	3,864	3,353
Asia (excluding Japan)	8,119	8,812
	<u>\$72,415</u>	<u>\$84,634</u>

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2009	2008	2009	2008
Instruments and Control Systems	\$ 57,960	\$ 80,061	\$142,712	\$267,269
Power and Reactive Gas Products	39,240	61,677	94,895	202,463
Vacuum Products	9,062	15,626	24,529	52,082
	<u>\$106,262</u>	<u>\$157,364</u>	<u>\$262,136</u>	<u>\$521,814</u>

The Company had one customer comprising 13% and 12% of net revenues for the three and nine months ended September 30, 2009, respectively. The Company had one customer comprising 18% of net revenues for both the three and nine months ended September 30, 2008.

15) 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 September 30, 2009 and determined that there were no significant changes from the ones set forth in the notes to the financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2008.

16) Subsequent Event

The Company evaluated its events and transactions subsequent to its September 30, 2009 balance sheet date and determined that there were no significant subsequent events to report through November 6, 2009, which is the date the Company issued its financial statements.

MKS INSTRUMENTS, INC.

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, 2008 in the section entitled "Risk Factors" and 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, electrostatic charge management, control and information technology, power and reactive gas generation and vacuum technology. Our products are used in diverse markets, applications and processes. Our primary served markets are manufacturers of capital equipment for semiconductor devices, and for other thin film applications including flat panel displays, solar cells, data storage media and other advanced coatings. We also leverage our technology in other markets with advanced manufacturing applications including medical equipment, pharmaceutical manufacturing, energy generation and environmental monitoring.

We have a diverse base of customers that includes manufacturers of semiconductor capital equipment and semiconductor devices, thin film capital equipment used in the manufacture of flat panel displays, solar cells, data storage media, and other coating applications; and other industrial, medical and manufacturing companies; and university, government and industrial research laboratories. For the nine months ended September 30, 2009 and the full year ended December 31, 2008, we estimate that approximately 47% and 57% 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 significant portion of our sales.

Reductions in demand for the products manufactured by semiconductor capital equipment manufacturers and semiconductor device manufacturers in 2008 and early 2009 adversely affected our business. The global economic uncertainty prolonged a steep downturn in semiconductor capital equipment spending and adversely affected our business, financial condition and results of operations. Product revenues have decreased 65% for the nine months ended September 30, 2009 compared to the same period for the prior year for these customers. However, in the third quarter of 2009 we have seen an increase in orders and shipments compared to the two preceding quarters, primarily as a result of increased demand by semiconductor capital equipment manufacturers and semiconductor device manufacturers. As a result, we have recorded two quarters of sequential revenue growth. 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, decreased 37% for the nine months ended September 30, 2009 compared to the same period for the prior year. Although the decrease in 2009 reflects the overall weakness in the global economy and the impact from tightened credit markets on our customers' ability to invest in capital spending, our product revenues in these other markets have shown sequential growth over the last two fiscal quarters.

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 nine months ended September 30, 2009 and full year ended December 31, 2008, international net sales accounted for approximately 47% and 44%, 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, 2008. For further information, please

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see the discussion of critical accounting policies in our Annual Report on Form 10-K for the year ended December 31, 2008 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 September 30,		Nine Months Ended September 30,	
	2009	2008	2009	2008
Net revenues				
Product	82.1%	86.4%	81.1%	87.3%
Services	17.9	13.6	18.9	12.7
Total net revenues	100.0	100.0	100.0	100.0
Cost of revenues				
Cost of product revenues	52.3	51.5	59.4	50.6
Cost of service revenues	10.5	8.5	11.9	8.1
Total cost of revenues	62.8	60.0	71.3	58.7
Gross profit	37.2	40.0	28.7	41.3
Research and development	11.4	12.2	15.2	11.4
Selling, general and administrative	23.0	21.5	30.0	19.2
Amortization of acquired intangible assets	0.8	1.2	1.3	1.4
Goodwill and asset impairment charges	—	—	79.5	—
Restructuring	0.2	—	2.2	—
Income (loss) from operations	1.8	5.1	(99.5)	9.3
Interest income, net	0.3	0.8	0.6	1.0
Gain (impairment) of investments	—	0.3	—	(0.2)
Income (loss) before income taxes	2.1	6.2	(98.9)	10.1
Provision (benefit) for income taxes	5.8	1.9	(12.1)	3.2
Net income (loss)	(3.7)%	4.3%	(86.8)%	6.9%

Net Revenue (dollars in millions)

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2009	2008	% Change	2009	2008	% Change
Net Revenues						
Product	\$ 87.3	\$135.9	(35.8)%	\$212.6	\$455.7	(53.3)%
Service	19.0	21.5	(11.5)	49.5	66.1	(25.0)
Total net revenues	\$106.3	\$157.4	(32.5)%	\$262.1	\$521.8	(49.8)%

Product revenues decreased \$48.6 million and \$243.1 million during the three and nine months ended September 30, 2009, compared to the same periods for the prior year. The decreases are due to a reduction in worldwide demand from our semiconductor capital equipment manufacturer and semiconductor device manufacturer customers due to the challenging economic environment. The decrease in demand from these customers is due to the challenging global economic conditions, which resulted in a decrease in revenues of \$28.6 million or 39.2% and \$172.6 million or 65.0% during the three and nine months ended September 30, 2009 compared to the same periods for the prior year. The product revenues related to other markets decreased by \$20.0 million or 31.8% and \$70.5 million or 37.1% during the three and nine months ended September 30, 2009 compared to the same periods for the prior year as a result of the weakness in the global economy and the impact from tightened credit markets on our customers’ ability to invest in capital spending.

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 decreased \$2.5 million and \$16.6 million during the three and nine months ended September 30, 2009, compared to the same periods for the prior year, respectively. Although the decrease in 2008 through early 2009 is due to our customers delayed spending on these services due to the global economic conditions, our service revenues have shown sequential growth over the last two fiscal quarters.

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Total international net revenues, including product and service, were \$48.8 million and \$123.7 million for the three and nine months ended September 30, 2009, or 45.9% and 47.2% of net revenues, respectively, compared to \$73.3 million and \$225.4 million for the three and nine months ended September 30, 2008, or 46.6% and 43.2% of net revenues, respectively. The decreases are mainly due to a decrease in worldwide demand from our semiconductor capital equipment manufacturer and semiconductor device manufacturer customers due to the uncertain worldwide economic environment. The international net revenues related to other markets also decreased compared to the same periods for the prior year.

Gross Profit

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2009	2008	% Points Change	2009	2008	% Points Change
Gross profit as percentage of net revenues						
Product	36.2%	40.4%	(4.2)%	26.8%	42.0%	(15.2)%
Service	41.4	37.6	3.8	37.1	36.2	0.9
Total gross profit percentage	37.2%	40.0%	(2.8)%	28.7%	41.3%	(12.6)%

Gross profit on product revenues decreased 4.2 percentage points for the three months ended September 30, 2009, compared to the same period for the prior year. Our margin was negatively impacted by approximately 9.0 percentage points from lower revenue volumes since a portion of our overhead costs are fixed and 1.4 percentage points from unfavorable product mix. These decreases were partially offset by increases of 4.8 percentage points from lower overhead spending and 1.4 percentage points from reduced warranty costs and favorable foreign currency fluctuations. The decrease in overhead costs was primarily related to lower compensation expense resulting from workforce reductions associated with our restructuring plan.

Gross profit on product revenues decreased by 15.2 percentage points during the nine months ended September 30, 2009, compared to the same period for the prior year. Our margin was negatively impacted by approximately 15.4 percentage points from decreased revenue volumes since a portion of our overhead costs are fixed, 6.0 percentage points from additional excess and obsolete inventory related charges and 1.2 percentage points from unfavorable product mix. These decreases were partially offset by increases of 3.6 percentage points from lower overhead spending and 3.8 percentage points from reduced warranty costs and favorable foreign currency fluctuations. The excess and obsolete inventory related charges were primarily a result of a lower inventory consumption plan in the first quarter of 2009 that we implemented in response to the weakness in the markets we serve during that period. The decrease in overhead costs was primarily related to lower compensation expense resulting from workforce reductions associated with our restructuring plan.

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 3.8 percentage points for the three months ended September 30, 2009, compared to the same period for the prior year, primarily as a result of lower compensation expense which is partially due to the workforce reductions that occurred from the third quarter of 2008 through the first quarter of 2009. Service gross margin for the nine months ended September 20, 2009 increased modestly compared to the same period for the prior year.

Research and Development (dollars in millions)

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2009	2008	% Change	2009	2008	% Change
Research and development expenses	\$12.1	\$19.2	(37.0)%	\$39.9	\$59.3	(32.7)%

Research and development expense decreased \$7.1 million during the three months ended September 30, 2009 compared to the same period for the prior year. The decrease includes a \$4.4 million decrease in compensation expense, a \$0.8 million decrease in consulting costs, a \$1.2 million reduction in spending on project materials and a \$0.7 million decrease in patent and other legal-related costs. The decrease in compensation expense is mainly due to cost reduction measures that started in the third quarter of 2008 and continued through the third quarter of 2009, including workforce reductions that took place from the third quarter of 2008 through the first quarter of 2009.

Research and development expense decreased \$19.4 million during the nine months ended September 30, 2009 compared to the same period for the prior year. The decrease includes an \$11.2 million decrease in compensation expense, a \$4.1 million decrease in consulting costs, a \$3.0 million reduction in spending on project materials and a \$1.1 million decrease in patent and other legal-related costs. The decrease in compensation expense is mainly due to cost reduction measures that started in the third quarter of 2008 and continued through the third quarter of 2009, including workforce reductions that took place from the third quarter of 2008 through the first quarter of 2009.

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.

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We have hundreds of products and our research and development efforts primarily consist of a large number of projects focused on developing and improving our instruments, components, subsystems and process control solutions to improve process performance and productivity, none of which is individually material to us. Current projects typically have a duration of 12 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 larger wafer sizes and smaller integrated circuit geometries, which require more advanced process control technology. Research and development expenses consist primarily of salaries and related expenses for personnel engaged in research and development, fees paid to consultants, material costs for prototypes and other expenses related to the design, development, testing and enhancement of our products.

We believe that the continued investment in research and development and ongoing development of new products are essential to the expansion of our markets, and 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 September 30,			Nine Months Ended September 30,		
	2009	2008	% Change	2009	2008	% Change
Selling, general and administrative expenses	\$24.4	\$33.8	(27.8)%	\$78.5	\$100.3	(21.7)%

Selling, general and administrative expenses decreased \$9.4 million for the three months ended September 30, 2009 compared to the same period for the prior year. The decrease includes a \$6.5 million decrease in compensation expense and a decrease of \$2.9 million in consulting, professional and other fees in part related to lower information technology infrastructure costs. The decrease in compensation expense is mainly due to cost reduction measures that started in the third quarter of 2008 and continued through the third quarter of 2009, including workforce reductions that took place from the third quarter of 2008 through the first quarter of 2009.

Selling, general and administrative expenses decreased \$21.8 million for the nine months ended September 30, 2009 compared to the same period for the prior year. The decrease includes a \$16.3 million decrease in compensation expense, a decrease of \$4.4 million in consulting and professional fees in part related to lower information technology infrastructure costs and a decrease of \$1.1 million in discretionary spending and other costs. The decrease in compensation expense is mainly due to cost reduction measures that started in the third quarter of 2008 and continued through the third quarter of 2009, including workforce reductions that took place from the third quarter of 2008 through the first quarter of 2009.

Amortization of Acquired Intangible Assets (dollars in millions)

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2009	2008	% Change	2009	2008	% Change
Amortization of acquired intangible assets	\$0.9	\$2.0	(55.6)%	\$3.5	\$7.1	(49.9)%

Amortization expense for the three and nine months ended September 30, 2009 decreased \$1.1 million and \$3.6 million, respectively, as certain acquired intangible assets became fully amortized during 2008, and as a result of the write-downs of certain intangibles of \$6.1 million recorded in the fourth quarter of 2008 and \$11.7 million recorded in the second quarter of 2009.

Goodwill and Asset Impairment Charges (dollars in millions)

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2009	2008	% Change	2009	2008	% Change
Goodwill and asset impairment charges	\$—	\$—	—%	\$208.5	\$—	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 and intangible asset impairment charges of \$193.3 million and \$11.7 million, respectively. 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 resulting from the write-down of the value of a building to its estimated fair value.

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Restructuring (dollars in millions)

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2009	2008	% Change	2009	2008	% Change
Restructuring	\$0.2	\$—	100.0%	\$5.9	\$—	100.0%

In light of the global financial crisis and its impact on our semiconductor equipment OEM customers and the other markets we serve, we initiated a restructuring plan in the first quarter of 2009. The plan included a reduction in our worldwide headcount of approximately 630 people, which represented approximately 24% of our global workforce.

In the first quarter of 2009, we recorded restructuring charges of \$5.6 million primarily for severance and other charges associated with the reductions in workforce. A total of \$5.9 million in restructuring charges have been recorded for the nine months ended September 30, 2009. As of September 30, 2009, the accrued restructuring costs, which are primarily compensation related costs, totaled \$0.6 million. These costs will be substantially paid by December 31, 2009. As a result of the workforce reductions, we expect annual compensation-related savings of approximately \$40.0 million. The savings will be reflected in costs of revenues, research and development expenses and selling, general and administrative expenses.

Interest Income, Net (dollars in millions)

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2009	2008	% Change	2009	2008	% Change
Interest income, net	\$0.3	\$1.3	(80.2)%	\$1.5	\$5.1	(71.1)%

Interest income, net decreased \$1.0 million and \$3.6 million during the three and nine months ended September 30, 2009 compared to the same periods for the prior year, respectively, mainly related to lower interest rates on lower average cash and cash equivalent balances in 2009 compared to the same periods for the prior year.

Gain (impairment) of Investments (dollars in millions)

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2009	2008	% Change	2009	2008	% Change
Gain (impairment) of investments	\$—	\$0.5	(100.0)%	\$—	\$(0.9)	100.0%

We review our investment portfolio on a monthly basis to identify and evaluate individual investments that have indications of potential 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 our ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in fair value. At December 31, 2007, we determined that declines in the fair value of two of our investments in certain commercial paper were other-than-temporary and as a result, we recorded a \$1.5 million impairment charge to earnings. This resulted in a new cost basis for the securities of \$4.3 million at December 31, 2007.

During the review of our investment portfolio as of March 31, 2008, we determined that further declines in the value of these two investments were other-than-temporary and as a result, we recorded an additional \$1.2 million impairment charge to earnings. This resulted in a new cost basis for the securities of \$3.1 million at March 31, 2008.

During the second quarter of 2008, we recorded additional impairment charges of \$0.3 million on these two investments due to further declines in value. In addition, we received a \$0.5 million principal payment from one of these investments during the second quarter of 2008. During the third quarter of 2008, we liquidated our position in these two impaired investments, one by sale and the other by a structured payment, for a combined total of \$2.9 million and as a result, we recorded a gain from the liquidation of \$0.5 million. We did not have any other-than-temporary impaired investments at September 30, 2009.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2009	2008	2009	2008
Provision (benefit) for income taxes	\$6.2	\$3.0	\$(31.8)	\$16.6

Our effective tax rate for the three and nine months ended September 30, 2009 was 280.0% and 12.3%, respectively. The effective tax rate for the three months ended September 30, 2009 is higher than the statutory rate primarily due to increases in the actual and projected taxable income for 2009. The effective tax rate for the nine months ended September 30, 2009 and the related tax benefit are lower than the statutory tax rate. The decreased benefit is primarily due to a non-deductible goodwill impairment charge of \$190.7 million taken during the second quarter. Our effective tax rate for the three and nine months ended September 30, 2008 was 30.9% and 31.3%, respectively. The

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effective tax rate for the three and nine months ended September 30, 2008 is less than the statutory tax rate primarily due to the profits of our international subsidiaries being taxed at rates lower than the U.S. statutory tax rate.

At December 31, 2008, the total amount of gross unrecognized tax benefits, which excludes interest and penalties discussed below, was approximately \$14.7 million. If these benefits were recognized in a future period, the timing of which is not estimable, the net unrecognized tax benefit of approximately \$11.8 million would impact our effective tax rate. The total amount of gross unrecognized tax benefits at September 30, 2009 was approximately \$8.2 million. The net decrease from December 31, 2008 was primarily attributable to the release of reserves from the years 2003 to 2006 as a result of the close of the federal tax audit on the 2005 and 2006 tax years.

We and our subsidiaries are subject to U.S. federal income tax as well as the income tax of multiple state and foreign jurisdictions. As a result of the close of a federal tax audit in the first quarter 2009, we have concluded all U.S. federal income tax matters for years through 2006. As of September 30, 2009, there were ongoing audits in various other tax jurisdictions.

Within the next 12 months, it is reasonably possible that we may recognize \$1.6 million to \$1.9 million of previously unrecognized tax benefits related to various state and foreign tax positions as a result of the conclusion of various audits and the expiration of the statute of limitations. The following tax years, in the major tax jurisdictions noted, are open for assessment or refund: U.S. Federal: 2007 and 2008, Germany: 2001 to 2008, Korea: 2004 to 2008, Japan: 2004 to 2008, and the United Kingdom: 2007 and 2008.

We accrue interest expense and, if applicable, penalties, for any uncertain tax positions. This interest and penalty expense is a component of income tax expense. At September 30, 2009 and December 31, 2008, we had \$0.6 million and \$1.7 million, respectively, accrued for interest on unrecognized tax benefits.

Our effective tax rate in the future 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.

Liquidity and Capital Resources

Cash, cash equivalents and short-term investments totaled \$265.2 million at September 30, 2009 compared to \$278.9 million at December 31, 2008. This decrease was mainly attributable to our net loss and net cash used in financing activities for payments on short-term borrowings, partially offset by non-cash charges related to the impairment of goodwill and cash provided by investing activities for maturities, sales and settlements of short-term and long-term available for sale investments.

Net cash used in operating activities of \$1.1 million for the nine months ended September 30, 2009, resulted mainly from a net loss of \$227.6 million, a \$10.1 million net decrease in operating liabilities and a \$15.4 million net increase in operating assets, offset by a \$17.7 million provision for excess or obsolete inventory, non-cash charges of \$208.5 million for impairment of goodwill, intangibles and other long-lived assets, \$14.5 million for depreciation and amortization and \$8.3 million for stock-based compensation and related tax benefits. The net decrease in operating liabilities is mainly caused by a decrease of \$6.0 million in non-current income taxes payable, a decrease of \$1.9 million in accrued compensation and a decrease of \$2.1 million in the product warranty reserve. The decrease in accrued compensation is primarily as a result of the workforce reduction and mandatory time-off. The \$15.4 million increase in operating assets consisted primarily of a \$27.2 million increase in income taxes receivable as we expect to receive an income tax refund due to current operating losses, offset by a \$12.1 million decrease in accounts receivable as a result of lower revenue and improved collections.

Net cash provided by operating activities of \$61.3 million for the nine months ended September 30, 2008, resulted mainly from net income of \$36.4 million, non-cash charges of \$17.8 million for depreciation and amortization, \$9.5 million for stock-based compensation and related tax benefits, \$1.7 million for decreases in deferred income taxes and by an increase in net operating assets of \$0.7 million. The net increase in operating assets is primarily due to a \$6.1 million decrease in inventory and \$1.0 million in trade accounts receivable, offset by an increase in other current assets of \$6.4 million. The increase in other current assets of \$6.4 million related to the timing of value-added tax payments and the increase in our net receivable for unrealized gains and losses on foreign exchange forward contracts. These increases were offset by a decrease in net operating liabilities of \$6.0 million, mainly caused by a decrease of \$3.0 million in accounts payable and \$3.2 million in income taxes payable.

Net cash provided by investing activities of \$31.7 million for the nine months ended September 30, 2009, resulted primarily from net sales of \$34.3 million of available for sale investments, offset by \$3.0 million in purchases of property, plant and equipment. Net cash used in investing activities of \$21.6 million for the nine months ended September 30, 2008, resulted primarily from net purchases of \$13.2 million of available for sale investments and \$8.4 million in purchases of property, plant and equipment.

Net cash used in financing activities was \$11.7 million for the nine months ended September 30, 2009 and consisted primarily of \$7.5 million in net payments on short-term borrowings and \$3.3 million related to stock-based compensation. Net cash used in financing

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activities of \$115.2 million for the nine months ended September 30, 2008, consisted primarily of repurchases of common stock of \$115.7 million and \$2.7 million in net payments on short-term borrowings and \$6.0 million in principal payments on capital lease obligations and long-term debt primarily to retire a \$5.0 million industrial development revenue bond, offset by \$7.0 million in proceeds from the exercise of stock options and purchases under our employee stock purchase plan.

On February 12, 2007, our Board of Directors approved a share repurchase program for the repurchase of up to \$300.0 million of our outstanding stock over two years. During the nine months ended September 30, 2008, we repurchased 5.7 million shares of common stock for \$115.7 million for an average price of \$20.42 per share. We did not repurchase any shares in 2009 and the share repurchase program ended effective February 11, 2009.

On March 18, 2009, MKS Instruments, Inc., MKS Japan, Inc. and HSBC Bank USA, entered into an amendment to the Optional Advance Demand Grid Note dated August 3, 2004 among such parties, as amended. This amendment (a) decreased the maximum amount of the note from \$35.0 million to \$5.0 million, (b) decreased the limit for standby letters of credit under the note from \$0.7 million to \$0.6 million, and (c) established an annual facility fee of 0.0375% of the maximum amount of the note. MKS believes the reduced amount of the note more accurately reflects MKS' anticipated utilization of this line, and minimizes the cost of the new facility fee. On August 10, 2009, the note was amended to extend the maturity date to January 31, 2010.

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.

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 March of 2008, the Financial Accounting Standards Board ("FASB") amended existing guidance to provide enhanced disclosure about how and why the entity uses derivative instruments, how the instruments and related hedged items are accounted for and how the instruments and related hedged items affect the financial position, results of operations, and cash flows of the entity. We adopted this new guidance effective January 1, 2009 and provided the new required disclosure.

In April 2009, the FASB amended the existing guidance on required disclosures about fair value of financial instruments for interim reporting periods of publicly traded companies as well as in annual financial statements. We adopted the new guidance in the second quarter of 2009 and added the required interim disclosures.

In April 2009, the FASB amended the existing guidance on other-than-temporary impairment guidance for debt securities to make the guidance more operational and to improve the presentation and disclosure of other-than-temporary impairments on debt and equity securities in the financial statements. This guidance does not amend existing recognition and measurement guidance related to other-than-temporary impairments of equity securities. The new guidance was effective for our second quarter of 2009 and the adoption did not have an impact on our financial position, results of operations, or cash flows.

In April 2009, the FASB amended the existing guidance on the initial recognition and measurement, subsequent measurement and accounting, and disclosures for assets and liabilities arising from contingencies in business combinations. The new guidance eliminates the distinction between contractual and non-contractual contingencies, including the initial recognition and measurement criteria and instead carries forward most of the previous provisions for acquired contingencies. We adopted the new guidance effective as of January 1, 2009 and the adoption did not have an impact on our financial position, results of operations, or cash flows.

In May 2009, the FASB issued guidance that modified the definition of what qualifies as a subsequent event—those events or transactions that occur following the balance sheet date, but before the financial statements are issued, or are available to be issued—and required companies to disclose the date through which it has evaluated subsequent events and the basis for determining that date. We adopted the provisions of the new guidance in the second quarter of 2009.

In June 2009, the FASB issued guidance which changed the referencing of financial standards and the Hierarchy of Generally Accepted Accounting Principles and is effective for interim or annual financial periods ending after September 15, 2009. We adopted the provisions of the new guidance in the third quarter of 2009 and updated our disclosures.

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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 application 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 application 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, 2008 filed with the Securities and Exchange Commission on February 27, 2009. There were no material changes in our exposure to market risk from December 31, 2008.

ITEM 4. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of September 30, 2009. 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 September 30, 2009, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms and is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended September 30, 2009 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS.

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

ITEM 1A. RISK FACTORS.

Information regarding risk factors affecting the Company's business are discussed in the Company's Annual Report on Form 10-K for the year ended December 31, 2008 and in the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2009 in the section entitled "Risk Factors." There have been no material changes from the risks disclosed therein.

ITEM 6. EXHIBITS.

<u>Exhibit No.</u>	<u>Exhibit Description</u>
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

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- (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.

November 6, 2009

By: /s/ Ronald C. Weigner
Ronald C. Weigner
Vice President, Chief Financial Officer and Treasurer
(Principal Financial Officer)

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 15(d)-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: November 6, 2009

/s/ Leo Berlinghieri

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

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

I, Ronald C. Weigner, 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 15(d)-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: November 6, 2009

/s/ Ronald C. Weigner

Ronald C. Weigner

Vice President, Chief Financial Officer and Treasurer
(Principal Financial Officer)

CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of MKS Instruments, Inc. (the "Company") for the period ended September 30, 2009, 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 Ronald C. Weigner, Vice President, Chief Financial Officer and Treasurer of the Company, each hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, based on his knowledge:

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

Dated: November 6, 2009

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

Dated: November 6, 2009

/s/ Ronald C. Weigner
Ronald C. Weigner
Vice President, Chief Financial Officer and Treasurer