AFFYMETRIX INC
Form 10-Q
August 05, 2010

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

(MARK ONE)

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

FOR THE QUARTERLY PERIOD ENDED JUNE 30, 2010

OR

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

FOR THE TRANSITION PERIOD FROM TO .

COMMISSION FILE NO. 0-28218

AFFYMETRIX, INC.
(Exact name of Registrant as specified in its charter)

DELAWARE	77-0319159
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
3420 CENTRAL EXPRESSWAY SANTA CLARA, CALIFORNIA	95051
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (408) 731-5000

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 x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required

to submit and post such files). Yes o No o

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

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

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

COMMON SHARES OUTSTANDING ON JULY 31, 2010: 70,760,740

AFFYMETRIX, INC.

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PART I. FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS

AFFYMETRIX, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands)
(Unaudited)

	June 30, 2010	December 31, 2009
ASSETS:		
Current assets:		
Cash and cash equivalents	$77,184	$65,642
Restricted cash—short-term portion	2,564	1,686
Available-for-sale securities—short-term portion	223,877	213,377
Accounts receivable, net	52,435	64,933
Inventories	55,311	54,490
Deferred tax assets—short-term portion	1,256	1,172
Prepaid expenses and other current assets	12,475	15,903
Total current assets	425,102	417,203
Available-for-sale securities—long-term portion	30,440	64,760
Property and equipment, net	64,017	68,182
Acquired technology rights, net	43,928	49,855
Deferred tax assets—long-term portion	4,673	4,720
Restricted cash—long-term portion	109	1,109
Other assets	14,185	25,121
Total assets	$582,454	$630,950
LIABILITIES AND STOCKHOLDERS' EQUITY:		
Current liabilities:		
Accounts payable and accrued liabilities	$50,210	$57,183
Deferred revenue—short-term portion	13,731	14,534
Total current liabilities	63,941	71,717
Deferred revenue—long-term portion	3,694	3,898
Other long-term liabilities	10,792	10,295
Convertible notes	220,499	247,201
Stockholders' equity:		
Common stock	708	710
Additional paid-in capital	737,486	733,378
Accumulated other comprehensive income	795	4,051
Accumulated deficit	(455,461)	(440,300)
Total stockholders' equity	283,528	297,839
Total liabilities and stockholders' equity	$582,454	$630,950

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AFFYMETRIX, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009
REVENUE:				
Product sales	$65,103	$67,156	$138,546	$132,026
Services	4,742	12,221	9,205	23,777
Royalties and other revenue	1,833	2,177	4,114	4,312
Total revenue	71,678	81,554	151,865	160,115
COSTS AND EXPENSES:				
Cost of product sales	27,535	29,885	55,994	64,319
Cost of services and other	3,554	7,567	8,143	15,157
Research and development	17,815	20,361	36,294	41,644
Selling, general and administrative	28,428	31,686	59,807	65,668
Restructuring charges	-	226	-	2,193
Total costs and expenses	77,332	89,725	160,238	188,981
Loss from operations	(5,654)	(8,171)	(8,373)	(28,866)
Interest income and other, net	738	1,356	(2,860)	516
Interest expense	2,340	2,903	4,772	6,080
Gain on repurchase of convertible notes	1,744	17,447	1,744	17,447
(Loss) income before income taxes	(5,512)	7,729	(14,261)	(16,983)
Income tax provision	29	409	900	902
Net (loss) income	$(5,541)	$7,320	$(15,161)	$(17,885)
Basic net (loss) income per common share	$(0.08)	$0.11	$(0.22)	$(0.26)
Diluted net (loss) income per common share	$(0.08)	$0.11	$(0.22)	$(0.26)
Shares used in computing basic net (loss) income per common share	69,030	68,651	68,981	68,527
Shares used in computing diluted net (loss) income per common share	69,030	68,939	68,981	68,527

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AFFYMETRIX, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	Six Months Ended June 30,	
	2010	2009
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$(15,161)	$(17,885)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation and amortization	17,472	26,224
Stock-based compensation	5,032	4,438
Realized losses on investments	4,665	1,082
Deferred tax assets	(37)	(77)
Amortization of debt offering costs	520	677
Impairment and loss (gain) on disposal of property and equipment	348	(520)
Gain from repurchase of convertible notes	(1,744)	(17,447)
Changes in operating assets and liabilities:		
Accounts receivable, net	12,445	5,618
Inventories	(821)	(470)
Prepaid expenses and other assets	6,848	7,766
Accounts payable and accrued liabilities	(6,973)	1,811
Deferred revenue	(1,007)	(92)
Other long-term liabilities	(607)	241
Net cash provided by operating activities	20,980	11,366
CASH FLOWS FROM INVESTING ACTIVITIES:		
Capital expenditures	(5,631)	(4,985)
Purchases of available-for-sale securities	(268,648)	(274,164)
Proceeds from sales and maturities of available-for-sale securities	291,159	279,113
Purchase of technology rights	(250)	-
Net cash provided by (used in) investing activities	16,630	(36)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Issuance of common stock, net	(926)	(613)
Repurchase of convertible notes	(24,676)	(50,669)
Net cash used in financing activities	(25,602)	(51,282)
Effect of exchange rate changes on cash and cash equivalents	(466)	(73)
Net increase (decrease) in cash and cash equivalents	11,542	(40,025)
Cash and cash equivalents at beginning of period	65,642	113,292
Cash and cash equivalents at end of period	$77,184	$73,267

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AFFYMETRIX, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
JUNE 30, 2010
(UNAUDITED)

NOTE 1—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by U.S. generally accepted accounting principles ("GAAP") for complete financial statements. The condensed consolidated financial statements include the accounts of Affymetrix, Inc. and its wholly owned subsidiaries ("Affymetrix" or the "Company"). All significant intercompany accounts and transactions have been eliminated in consolidation. In the opinion of management, all adjustments (consisting of normal recurring entries) considered necessary for a fair presentation have been included.

Results for any interim period are not necessarily indicative of results for any future interim period or for the entire year. The accompanying condensed consolidated financial statements should be read in conjunction with the financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2009, as filed with the Securities and Exchange Commission on March 1, 2010.

Use of Estimates

The preparation of the consolidated financial statements is in conformity with GAAP, which requires management to make estimates and assumptions that affect amounts reported in the financial statements and accompanying notes. Actual results could differ materially from those estimates.

Revenue Recognition

Overview

The Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable, and collectability is reasonably assured. In instances where final acceptance of the product or system is required or performance obligations remain, revenue is deferred until all the acceptance criteria or performance obligations have been met.

The Company derives the majority of its revenue from product sales of probe arrays, reagents, and related instrumentation that may be sold individually or combined with any of the products, services or other sources of revenue listed below. When a sale combines multiple elements upon delivery or performance of multiple products, services and/or rights to use assets, the Company allocates revenue for transactions or collaborations that include multiple elements to each unit of accounting based on its relative fair value, and recognizes revenue for each unit of accounting when the revenue recognition criteria have been met. The price charged when the element is sold separately generally determines fair value.

Effective January 1, 2010, the Company early adopted the recently revised accounting guidance related to revenue recognition for multiple element arrangements on a prospective basis, which establishes the relative selling price method whereby the Company is required to allocate consideration to all deliverables at the inception of the

arrangement based on their relative selling prices. In order to determine the selling price of a deliverable, the Company applies the following hierarchy: 1) vendor-specific objective evidence ("VSOE"); 2) third-party evidence if VSOE is not available; and 3) the Company's best estimate of selling price for the deliverable if neither VSOE nor third-party evidence is available.

The Company primarily expects to utilize VSOE in determining the selling price of each deliverable in a multiple element arrangement as the Company historically has been able to establish fair value of a deliverable based on the price charged when it is sold separately. In the event that VSOE is not determinable, and where no third-party evidence is available, the Company will use estimated selling price in its allocation of arrangement consideration. Several factors are considered when determining the estimated selling price of a deliverable, including, but not limited to, the cost to produce the deliverable, the expected margin on that deliverable, the Company's ongoing pricing strategy and policies and the value-added components of differentiated deliverables, if determinable.

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The revised accounting guidance also refined the criteria for determining when a deliverable should be accounted for as a separate unit of accounting. Both of the following criteria must be met in order to be considered a separate unit of accounting: 1) the delivered item or items have value to the customer on a standalone basis; and 2) when a general right of return exists, the delivery or performance of an undelivered item is considered probable and under the control of the Company. The Company has determined that a deliverable has standalone value when the item is sold separately by the Company or another vendor or can be resold by the customer. The Company's revenue arrangements generally do not have a general right of return. When a deliverable does not meet the criteria to be considered a separate unit of accounting, the Company groups it with other deliverables that, when combined, meet the criteria, and the appropriate allocation of arrangement consideration and revenue recognition is determined.

Product Sales

Product sales include sales of probe arrays, reagents and related instrumentation. Probe array, reagent and instrumentation revenues are recognized when earned, which is generally upon shipment and transfer of title to the customer and fulfillment of any significant post-delivery obligations. Accruals are provided for anticipated warranty expenses at the time the associated revenue is recognized.

Services

Services revenue includes equipment service revenue; scientific services revenue, which includes associated consumables; and revenue from custom probe array design fees.

Revenue related to extended warranty arrangements is deferred and recognized ratably over the applicable periods. Revenue from custom probe array design fees associated with the Company's GeneChip® CustomExpress™ and CustomSeq™ products are recognized when the associated products are shipped.

Revenue from scientific and DNA analysis services are recognized upon shipment of the required data to the customer.

Royalties and Other Revenue

Royalties and other revenue include license revenue; royalties earned from third party license agreements; milestones and royalties earned from collaborative product development and supply agreements; subscription fees earned under GeneChip® array access programs; research revenue which mainly consists of amounts earned under government grants; and non-recurring intellectual property payments.

License revenues are generally recognized upon execution of the agreement unless the Company has continuing performance obligations, in which case the license revenue is recognized ratably over the period of expected performance.

Royalty revenues are earned from the sale of products by third parties who have been licensed under the Company's intellectual property portfolio. Revenue from minimum royalties is amortized over the term of the creditable royalty period. Any royalties received in excess of minimum royalty payments are recognized under the terms of the related agreement, generally upon notification of manufacture or shipment of a product by a licensee.

The Company enters into collaborative arrangements which generally include a research and product development phase and a manufacturing and product supply phase. These arrangements may include up-front nonrefundable license fees, milestones, the rights to royalties based on the sale of final product by the partner, product supply agreements and distribution arrangements.

Any up-front, nonrefundable payments from collaborative product development agreements are recognized ratably over the research and product development period, and at-risk substantive based milestones are recognized when earned. Any payments received which are not yet earned are included in deferred revenue.

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Research revenues result primarily from research grants received from U.S. Government entities or from subcontracts with other life science research-based companies which receive their research grant funding from the U.S. Government. Revenues from research contracts are generated from the efforts of the Company's technical staff and include the costs for material and subcontract efforts. The Company's research grant contracts generally provide for the payment of negotiated fixed hourly rates for labor hours incurred plus reimbursement of other allowable costs. Research revenue is recorded in the period in which the associated costs are incurred, up to the limit of the prior approval funding amounts contained in each agreement. The costs associated with these grants are reported as research and development expense.

Transactions with Distributors

The Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the seller's price is fixed or determinable, and collectability is reasonably assured. The Company's agreements with distributors do not include rights of return.

Net (Loss) Income Per Common Share

Basic net (loss) income per common share is calculated using the weighted-average number of common shares outstanding during the period less the weighted-average shares subject to repurchase. Diluted (loss) income per common share gives effect to dilutive common stock subject to repurchase, stock options (calculated based on the treasury stock method), and convertible debt (calculated using an as-if-converted method).

The following table sets forth a reconciliation of basic and diluted net (loss) income per common share (in thousands except per diluted share amounts):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009
Numerator:				
Net (loss) income	$(5,541)	$7,320	$(15,161)	$(17,885)
Denominator:				
Shares used in computing basic net (loss) income per common share	69,030	68,651	68,981	68,527
Add effect of dilutive securities:				
Employee stock options	-	210	-	-
Common stock subject to repurchase	-	78	-	-
Shares used in computing diluted net (loss) income per common share	69,030	68,939	68,981	68,527
Basic net (loss) income per common share	$(0.08)	$0.11	$(0.22)	$(0.26)
Diluted net (loss) income per common share	$(0.08)	$0.11	$(0.22)	$(0.26)

Diluted earnings per common share include certain potential dilutive securities from outstanding stock options (on the treasury stock method), common stock subject to repurchase and convertible notes (on the as-if-converted basis). The securities excluded from diluted earnings per common share, on an actual outstanding basis, were as follows (in thousands):

	Three Months Ended	Six Months Ended

	June 30,		June 30,	
	2010	2009	2010	2009
Employee stock options	5,717	4,990	5,717	5,984
Restricted stock subject to repurchase	1,642	1,027	1,642	1,829
Convertible notes	7,320	8,207	7,320	8,207
Total	14,679	14,224	14,679	16,020

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Cash Equivalents, Available-for-Sale Securities and Investments

Marketable Securities

The Company's investments consist of marketable equity and debt securities including U.S. government notes and bonds; corporate notes, bonds and asset-backed securities; mortgage-backed securities, municipal notes and bonds; and publicly traded equity securities. The Company reports all securities with maturities at the date of purchase of 90 days or less that are readily convertible into cash and have insignificant interest rate risk as cash equivalents. The Company's investments are carried at fair value with unrealized gains and losses reported in accumulated other comprehensive income (loss) in stockholders' equity. The cost of its marketable securities is adjusted for amortization of premiums and discounts to maturity. This amortization is included in interest income and other, net. Realized gains and losses, as well as interest income, on available-for-sale securities are also included in interest income and other, net. The cost of securities sold is based on the specific identification method. The fair values of securities are based on quoted market prices. The Company includes its available-for-sale securities that have an effective maturity of less than twelve months as of the balance sheet date in current assets and those with an effective maturity greater than twelve months as of the balance sheet date in non-current assets.

The Company conducts a review of investment securities on a quarterly basis for the presence of impairment that is deemed to be other-than-temporary ("OTTI"). As part of its review, the Company is required to take into consideration current market conditions, fair value in relationship to cost, extent and nature of change in fair value, issuer rating changes and trends, volatility of earnings, current analysts' evaluations, all available information relevant to the collectability of debt securities, its ability to hold until, and whether it will more likely than not be required to sell prior to, a recovery of fair value, which may be maturity, and other factors when evaluating for the existence of OTTI in its securities portfolio. Under these circumstances, OTTI is considered to have occurred if (1) the Company intends to sell the security; (2) it is "more likely than not" that the Company will be required to sell the security before recovery of its amortized cost basis or (3) the present value of expected cash flows is not expected to recover the entire amortized cost basis. Any credit-related OTTI is to be recognized in earnings while noncredit-related OTTI on securities not expected to be sold is to be recognized in other comprehensive income ("OCI"). Noncredit-related OTTI is based on other factors, including illiquidity. Presentation of OTTI is made in the Condensed Consolidated Statements of Operations on a gross basis with an offset for the amount of OTTI recognized in OCI.

Non-marketable Securities

As part of the Company's strategic efforts to gain access to potential new products and technologies, it invests in equity securities of certain private biotechnology companies. These investments are included in other assets in the Condensed Consolidated Balance Sheets and are carried at cost. The Company also invests in a limited partnership investment fund that is accounted for under the equity method. The Company periodically monitors the liquidity and financing activities of the respective investments to determine if any impairment exists and accordingly writes down to the extent necessary, the carrying value of the non-marketable equity securities to their estimated fair values. In order to determine whether a decline in value is other-than-temporary, the Company evaluates, among other factors: the duration and extent to which the fair value has been less than the carrying value; the financial condition of and business outlook of the issuer for the company, including key operational and cash flow metrics, current market conditions; and the Company's intent and ability to retain the investment for a period of time sufficient to allow for any anticipated recovery in estimated fair value. The Company recognized $4.9 million of OTTI expense on an investment in a private biotechnology company in interest income and other, net in the Condensed Consolidated Statements of Operations for the six months ended June 30, 2010. Refer to Note 2. "Fair Value of Financial Instruments" for further information.

Restructuring

The Company has in recent years engaged in restructuring actions, which require management to utilize significant estimates related to expenses for severance and other employee separation costs, lease cancellation, realizable values of assets that may become duplicative or obsolete, and other exit costs. If the actual amounts differ from the Company's estimates, the amount of the restructuring charges could be materially impacted. Refer to Note 4. "Restructuring" for further information.

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NOTE 2—FAIR VALUE OF FINANCIAL INSTRUMENTS

Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required to be recorded at fair value, the Company considers the principal or most advantageous market in which it would transact and consider assumptions that market participants would use when pricing the asset or liability, such as inherent risk, transfer restrictions and risk of nonperformance.

A fair value hierarchy was established which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The three levels of inputs that may be used to measure fair value are as follows:

- Level 1: quoted prices in active markets for identical assets or liabilities;
- Level 2: inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities 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; or
- 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.

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following table represents the Company's fair value hierarchy for its financial assets and liabilities measured at fair value on a recurring basis as of June 30, 2010 and December 31, 2009 (in thousands):

	Quoted Prices In Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Total
June 30, 2010:			
Assets:			
U.S. government obligations and agencies*	$-	$10,747	$10,747
U.S. corporate debt	-	43,390	43,390
U.S. money markets	-	10,652	10,652
Non-U.S. government obligations and agencies	-	76,001	76,001
Non-U.S. corporate debt	796	98,854	99,650
Non-U.S. money markets	-	19,546	19,546
Total financial assets	$796	$259,190	$259,986
Liabilities:			
Convertible notes	$200,655	$-	$200,655
December 31, 2009:			
Assets:			
U.S. government obligations and agencies*	$-	$14,224	$14,224
U.S. corporate debt	-	18,524	18,524
U.S. and Non-U.S. money markets	-	2,525	2,525

Non-U.S. government obligations and agencies	-	127,809	127,809
Non-U.S. corporate debt	1,512	100,229	101,741
Non-U.S. money markets	-	39,094	39,094
Total financial assets	$1,512	$302,405	$303,917
Liabilities:			
Convertible notes	$217,537	$-	$217,537

* Included in “U.S. Government obligations and agency securities” were the Company’s mortgage-backed and state municipal investments which were approximately 2% of the total portfolio.

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The fair value estimates provided above for the Company's convertible notes were based on quoted market prices available at June 30, 2010 and December 31, 2009, respectively. The Company's convertible notes are not marked-to-market and are shown in the accompanying Condensed Consolidated Balance Sheets at their original issuance value, net of amortized discount.

As of June 30, 2010 and December 31, 2009, the Company had no financial assets or liabilities using Level 3 inputs.

Investments in Debt and Equity Securities

The fair values of all available-for-sale securities are based on quoted market prices and are included in cash and cash equivalents, available-for-sale securities—short-term and available-for-sale securities—long-term on the Company's Consolidated Balance Sheets based on the securities maturity. The following is a summary of available-for-sale securities as of June 30, 2010 (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. government obligations and agency securities	$10,746	$10	$(9)	$10,747
U.S. corporate debt securities	43,336	106	(52)	43,390
U.S. money markets	10,652	3	(3)	10,652
Non-U.S. government obligations and agency securities	75,883	182	(64)	76,001
Non-U.S. corporate debt securities	99,861	346	(557)	99,650
Non-U.S. money markets	19,577	16	(47)	19,546
Total securities	$260,055	$663	$(732)	$259,986
Amounts included in:				
Cash equivalents	$5,669	$1	$(1)	$5,669
Available-for-sale securities	254,386	662	(731)	254,317
Total securities	$260,055	$663	$(732)	$259,986
Amounts mature in:				
Less than one year	$229,705	$477	$(636)	$229,546
One to two years	26,549	120	(96)	26,573
More than two years	3,801	66	-	3,867
Total securities	$260,055	$663	$(732)	$259,986

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The following is a summary of available-for-sale securities as of December 31, 2009 (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. government obligations and agency securities	$14,150	$75	$(1)	$14,224
U.S. corporate debt securities	18,496	56	(28)	18,524
U.S. money markets	2,512	13	-	2,525
Non-U.S. government obligations and agency securities	127,275	560	(26)	127,809
Non-U.S. corporate debt securities	101,051	1,080	(390)	101,741
Non-U.S. money markets	39,078	18	(2)	39,094
Total securities	$302,562	$1,802	$(447)	$303,917
Amounts included in:				
Cash equivalents	$25,791	$6	$(17)	$25,780
Available-for-sale securities	276,771	1,796	(430)	278,137
Total securities	$302,562	$1,802	$(447)	$303,917
Amounts mature in:				
Less than one year	$237,061	$1,315	$(438)	$237,938
One to two years	59,638	442	(9)	60,071
More than two years	5,863	45	-	5,908
Total securities	$302,562	$1,802	$(447)	$303,917

Realized gains for the six months ended June 30, 2010 and 2009 were both approximately $0.2 million. Realized losses for the six months ended June 30, 2010 and 2009 were $0.2 million and $0.1 million, respectively. Realized gains and losses are included in interest income and other, net in the accompanying Condensed Consolidated Statements of Operations.

The gross unrealized losses as of June 30, 2010 and 2009, respectively, were primarily related to the mortgage-backed securities that were impacted by the weakening of the global economy caused by a lack of liquidity in the credit markets, which continued through the six months ended June 30, 2010. No significant facts or circumstances have arisen to indicate that there has been any deterioration in the creditworthiness of the issuers of the Company's securities. Based on its review of these securities, including the assessment of the severity of the related unrealized losses, the Company has not recorded any other-than-temporary impairments on these securities for the six months ended June 30, 2010 and 2009, respectively.

Additionally, the Company did not have any noncredit-related OTTI that was recognized in OCI on its securities during the six months ended June 30, 2010 and 2009, respectively, as it is more likely than not the Company will hold the securities until maturity or a recovery of their amortized cost basis. The Company did not record any cumulative effect adjustments for noncredit-related portion of OTTI losses previously recognized in earnings.

Derivative Financial Instruments

The Company derives a portion of its revenues in foreign currencies, predominantly in Europe and Japan. In addition, a portion of its assets are held in nonfunctional currencies of its subsidiaries. As of June 30, 2010 and December 31, 2009, the Company had no open hedging contracts.

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Non-Marketable Securities

As of June 30, 2010 and December 31, 2009, the carrying amounts of the Company's non-marketable securities, totaling $7.1 million and $13.1 million, respectively, equaled the estimated fair values. The estimated fair values were based on current market rates, liquidation and net realizable values. During the six months ended June 30, 2010, the Company determined that the decline in the estimated fair value of an investment in a private biotechnology company was other-than-temporary as a result of the most recent round of financing approved by the company's board of directors at a value per share that is significantly lower than the value per share the Company initially invested at. Accordingly, the Company recorded an impairment charge on the investment of approximately $4.9 million. During the six months ended June 30, 2009, the Company determined that the declines in estimated fair values of certain investments in the non-marketable equity securities portfolio were other-than-temporary and recognized an impairment loss of $0.9 million. Net investment losses are included in interest income and other, net in the Condensed Consolidated Statements of Operations. Depending on market conditions, the Company may incur additional charges on this investment portfolio in the future.

NOTE 3—STOCKHOLDERS' EQUITY

Stock-Based Compensation Plans

The Company has a stock-based compensation program that provides the Board of Directors broad discretion in creating equity incentives for employees, officers, directors and consultants. This program includes incentive and non-qualified stock options and non-vested stock awards (also known as restricted stock) granted under various stock plans. Stock options are generally time-based, vesting 25% on each annual anniversary of the grant date over four years and expire 7 to 10 years from the grant date. Non-vested restricted stock awards are generally time-based, vesting 25% per year beginning on the date of hire and on each of the second, third and fourth anniversaries of the grant date. In the three months ended June 30, 2010, 4.5 million shares of common stock were added under the Affymetrix, Inc. Amended and Restated 2000 Equity Incentive Plan. As of June 30, 2010, the Company had approximately 7.2 million shares of common stock reserved for future issuance under its stock-based compensation plans. New shares are issued as a result of stock option exercises and non-vested restricted stock awards.

The Company recognized stock-based compensation as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009
Costs of product sales	$268	$434	$432	$839
Research and development	548	434	1,101	827
Selling, general and administrative	1,887	1,487	3,499	2,772
Total stock-based compensation expense	$2,703	$2,355	$5,032	$4,438

As of June 30, 2010, $17.2 million of total unrecognized stock-based compensation expense related to non-vested awards is expected to be recognized over the respective vesting terms of each award through 2014. The weighted-average term of the unrecognized stock-based compensation expense is 2.5 years.

Stock Options

The fair value of options was estimated at the date of grant using a Black-Scholes option pricing model with the following weighted-average assumptions:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009
Risk free interest rate	1.4%	2.1%	1.8%	1.6%
Expected dividend yield	0.0%	0.0%	0.0%	0.0%
Expected volatility	76%	70%	76%	70%
Expected option term (in years)	4.1	4.1	4.1	4.1

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The risk free interest rate for periods within the contractual life of the Company's stock options is based on the U.S. Treasury yield curve in effect at the time of grant. The expected term is derived from an analysis of the Company's historical exercise trends over ten years. The expected volatility for the three months ended June 30, 2010 and 2009 is based on a blend of historical and market-based implied volatility. Using the assumptions above, the weighted-average grant date fair value of options granted during the three months ended June 30, 2010 and 2009 was $3.83 and $2.88, respectively, and for the six months ended June 30, 2010 and 2009 was $4.13 and $1.88, respectively.

NOTE 4—RESTRUCTURING

Since fiscal 2006, the Company has undertaken several restructuring plans that are summarized as follows:

In 2008, the Company closed its West Sacramento manufacturing facility, moving its probe array manufacturing to its Singapore facility, consolidating its reagent manufacturing to its Cleveland facility and outsourcing its instrument manufacturing operations to third parties (the "2008 Plan"). The Company made total cash payments of $8.2 million related to employee termination benefits and incurred noncash charges of $36.9 million related to the abandonment and impairment of certain manufacturing assets which were presented as a component of "Restructuring charges" in the Company's Condensed Consolidated Statements of Operations. The Company completed the closure of the West Sacramento facility during the second quarter of 2009 and no expense was recognized during the six months ended June 30, 2010 compared to $2.7 million of employee termination benefits expense recognized during the six months ended June 30, 2009. The Company does not expect to incur additional expense in connection with the 2008 Plan.

In 2007, the Company consolidated an administrative facility located in Sunnyvale, California into its main campus in Santa Clara, California and terminated certain employees in the research and development and selling, general and administrative functions (the "2007 Plan"). The Sunnyvale, California facility was vacated during the fourth quarter of 2007. Additionally, in 2006, the Company initiated a restructuring plan (the "2006 Plan") intended to better align certain of its expenses with the Company's business outlook which primarily consisted of the reorganization of the general and administrative functions and the rationalization of its facilities. Total cash payments made in connection with the 2007 Plan and 2006 Plan were approximately $4.6 million and $16.6 million, respectively. The Company also recognized $8.5 million in noncash charges in connection with the 2006 Plan. These costs were included as a component of "Restructuring charges" in the Company's Condensed Consolidated Statements of Operations. As of June 30, 2010, the Company had fulfilled all obligations under the 2007 Plan while the 2006 Plan had an accrual of $1.0 million related to contract termination costs. During the six months ended June 30, 2010 and 2009, the expense recorded in association with these two plans was not material. The Company does not expect to incur additional expense other than the remaining contract termination costs of $1.0 million in connection with these plans.

NOTE 5—INVENTORIES

Inventories consist of the following (in thousands):

	June 30, 2010	December 31, 2009
Raw materials	$21,395	$20,012
Work-in-process	10,473	9,456
Finished goods	23,443	25,022
Total	$55,311	$54,490

NOTE 6—ACQUIRED TECHNOLOGY RIGHTS

Acquired technology rights are comprised of licenses to technology covered by patents owned by third parties or patents acquired by the Company and are amortized over the expected useful lives of these assets, which range from one to fifteen years. Accumulated amortization of these rights amounted to $65.4 million and $59.2 million at June 30, 2010 and December 31, 2009, respectively.

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The expected future annual amortization expense of the Company's acquired technology rights is as follows (in thousands):

For the Year Ending December 31,	Amortization Expense
2010, remainder thereof	$ 6,171
2011	12,172
2012	10,398
2013	7,890
2014	6,174
Thereafter	1,123
Total	$ 43,928

NOTE 7—SENIOR CONVERTIBLE NOTES

During the six month periods ended June 30, 2010 and 2009, the Company partially repurchased its 3.50% senior convertible notes due in 2038 in private transactions:

In 2009, the Company repurchased approximately $69.1 million of aggregate principal amount for total cash consideration of $50.6 million, including accrued interest of $0.9 million. The recognized gain on debt repurchase of $17.4 million is net of transaction costs of $0.9 million and accelerated amortization of deferred financing costs of $1.0 million.

In 2010, the Company repurchased approximately $26.7 million of aggregate principal amount for total cash consideration of $24.6 million, including accrued interest of $0.3 million. The recognized gain on debt repurchase of $1.7 million is net of transaction costs of less than $0.1 million and accelerated amortization of deferred financing costs of $0.3 million.

Subsequent to June 30, 2010, the Company repurchased an additional $69.1 million of aggregate principal amount for total cash consideration of $64.3 million, including accrued interest of $1.1 million. The gain on sale was approximately $4.0 million, net of transaction costs of $0.2 million and accelerated amortization of deferred financing costs of $0.7 million.

NOTE 8—COMPREHENSIVE (LOSS) INCOME

The components of comprehensive (loss) income are as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009
Net loss (income)	$(5,541)	$7,320	$(15,161)	$(17,885)
Foreign currency translation adjustment	(201)	312	(466)	(73)
Unrealized (loss) gain on securities	(920)	2,703	(2,790)	4,304
Comprehensive loss (income)	$(6,662)	$10,335	$(18,417)	$(13,654)

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NOTE 9—COMMITMENTS AND CONTINGENCIES

Legal Proceedings

The Company has been in the past, and continues to be, a party to litigation which has consumed, and may continue to consume, substantial financial and managerial resources. The following are material legal proceedings to which the Company or one or more of its subsidiaries is a party:

Illumina Lawsuit

On May 4, 2009 and November 3, 2009, the Company was named as a defendant in two separate complaints filed by plaintiff, Illumina, Inc., in the U.S. District Court for the Western District of Wisconsin. In the complaints, plaintiff alleges that the Company is infringing Patent Nos. 7,510,841 and 7,612,020 by making and selling certain of the Company's new peg-based array formats and instruments that run these peg-based arrays (including the GeneTitan® and GeneAtlas™ systems). Plaintiff seeks a permanent injunction enjoining the Company from further infringement and unspecified monetary damages. The two separate complaints have been consolidated into a single case. On June 4, 2010, the court conducted its Markman (claims construction) hearing, and on July 14, 2010, the court issued its claims construction ruling. The case is set for trial beginning on March 14, 2011. The Company will vigorously defend against all of plaintiff's claims.

Massachusetts Institute of Technology

On July 1, 2008, the Company was named as a defendant in a complaint filed by plaintiffs E8 Pharmaceuticals LLC ("E8") and Massachusetts Institute of Technology ("MIT") in the United States District Court of Massachusetts. In the complaint, the plaintiffs allege that the Company is infringing Patent No. 6,703,228 that is owned by MIT and licensed to E8 by making and selling certain of the Company's GeneChip® products to customers and teaching its customers how to use the products. Plaintiffs seek a permanent injunction enjoining the Company from further infringement and unspecified monetary damages. On January 13, 2010 the Court granted the Company's motion to dismiss plaintiff E8, leaving MIT as the sole remaining plaintiff. There is no trial date set in this action. The Company will vigorously defend against all of the plaintiff's claims.

Enzo Litigation

On October 28, 2003, Enzo Life Sciences, Inc., a wholly-owned subsidiary of Enzo Biochem, Inc. (collectively "Enzo"), filed a complaint against the Company that is now pending in the United States District Court for the Southern District of New York for breach of contract, injunctive relief and declaratory judgment. The Enzo complaint relates to a 1998 distributorship agreement with Enzo under which the Company served as a non-exclusive distributor of certain reagent labeling kits supplied by Enzo. In its complaint, Enzo seeks monetary damages and an injunction against the Company from using, manufacturing or selling Enzo products and from inducing collaborators and customers to use Enzo products in violation of the 1998 agreement. Enzo also seeks the transfer of certain Affymetrix patents to Enzo. In connection with its complaint, Enzo provided the Company with a notice of termination of the 1998 agreement effective on November 12, 2003.

On November 10, 2003, the Company filed a complaint against Enzo in the United States District Court for the Southern District of New York for declaratory judgment, breach of contract and injunctive relief relating to the 1998 agreement. In its complaint, the Company alleges that Enzo has engaged in a pattern of wrongful conduct against it and other Enzo labeling reagent customers by, among other things, asserting improperly broad rights in its patent portfolio, improperly using the 1998 agreement and distributorship agreements with others in order to corner the market for non-radioactive labeling reagents, and improperly using the 1998 agreement to claim ownership rights to

the Company's proprietary technology. The Company seeks declarations that it has not breached the 1998 agreement and that nine Enzo patents that are identified in the 1998 agreement are invalid and/or not infringed by it. The Company also seeks damages and injunctive relief to redress Enzo's alleged breaches of the 1998 agreement, its alleged tortuous interference with the Company's business relationships and prospective economic advantage, and Enzo's alleged unfair competition. The Company filed a notice of related case stating that its complaint against Enzo is related to the complaints already pending in the Southern District of New York against eight other former Enzo distributors. The U.S. District Court for the Southern District of New York has related the Company's case. There is no trial date in the actions between Enzo and the Company.

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Administrative Proceedings

The Company's intellectual property is subject to a number of significant administrative actions. These proceedings could result in the Company's patent protection being significantly modified or reduced, and the incurrence of significant costs and the consumption of substantial managerial resources.

NOTE 10—INCOME TAXES

The provision for income tax for the three and six month period ended June 30, 2010 was less than $0.1 million and $0.9 million, respectively. The reduction in the second quarter provision is principally driven by lower profitability during the three months ended June 30, 2010. The provision for income tax consists of foreign income and withholding taxes and state minimum taxes.

Due to the Company's history of cumulative operating losses, management concluded that, after considering all the available objective evidence, it is not more likely than not that all the Company's net deferred tax assets will be realized. Accordingly, all of the U.S. deferred tax assets, net of reserves for uncertain tax positions, continue to be subject to a valuation allowance as of June 30, 2010.

As of June 30, 2010, there have been no material changes to the total amount of unrecognized tax benefits.

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

This Management's Discussion and Analysis of Financial Condition and Results of Operations as of June 30, 2010 and for the three and six months ended June 30, 2010 and 2009 should be read in conjunction with our financial statements and accompanying notes thereto included in this Quarterly Report on Form 10-Q and with the Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the year ended December 31, 2009.

All statements in this quarterly report that are not historical are "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act as amended, including statements regarding our "expectations," "beliefs," "intentions," "strategies" or the like. Such statements are based on our current expectations and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. Actual results or business conditions may differ materially from those projected or suggested in such forward-looking statements as a result of various factors, including, but not limited to, risks associated with our ability to offer new products and technologies; our capacity to identify and capitalize upon emerging market opportunities; market acceptance of our products versus those of our competitors; uncertainties related to cost and pricing of Affymetrix products; fluctuations in overall capital spending in the academic and biotechnology sectors; changes in government funding policies; our dependence on collaborative partners; the size and structure of our current sales, technology and technical support organizations; uncertainties relating to our suppliers and manufacturing processes; our ability to achieve and sustain higher levels of revenue, improved gross margins and reduced operating expenses; personnel retention; global and regional credit and financial market conditions; uncertainties relating to Federal and Drug Administration ("FDA") and other regulatory approvals; risks relating to intellectual property of others and the uncertainties of patent protection and litigation; volatility of the market price of our common stock; and unpredictable fluctuations in quarterly revenues.

Overview of Company

We develop, manufacture and sell products and services for genetic analysis to the life science research and clinical healthcare markets. Researchers around the world use our technology to better understand the role that genes play in disease, the effectiveness and safety of therapies and many other biological factors that affect human well-being. We sell our products to some of the world's largest pharmaceutical, diagnostic and biotechnology companies, as well as leading academic, government and not-for profit research institutions. Almost 22,000 peer-reviewed papers have been published based on work using our products. We have approximately 1,000 employees worldwide and maintain sales and distribution operations across the United States, Europe, Japan and Asia.

We offer a comprehensive line of products for three principal applications: gene expression, genotyping and copy number analysis. Our product sales consist primarily of sales of instruments and related consumables. We have three instrumentation systems, GeneTitan®, GeneChip® and GeneAtlas that employ one-time use consumables utilizing various array formats that are tailored to the needs of our customers. Our GeneChip® instruments use consumable arrays packaged in cartridges and our GeneTitan® and GeneAtlasTM instruments use consumable arrays packaged in a plate or strip format for automated high throughput processing.

In December 2008, we acquired Panomics, Inc., a life science leader with complementary technologies for use in the low-to mid-plex markets that are downstream of our whole genome arrays. We also offer a range of reagent kits that are compatible with our platforms as well as the products of other vendors.

Overview of Second Quarter 2010

During the second quarter of 2010, our business was adversely affected by three primary factors:

- Reduced capital spending by academic research customers, particularly in Europe;
- Increased sales of DNA products offset by declines in RNA sales that were related to the integration of our acquisitions and the realignment of sales territories; and
- Weaker than expected currencies in both the Euro and British Pound against the U.S. Dollar.

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At the time of this filing, we cannot assure you that these challenges will be resolved in the near future. However, we remain focused on executing our business strategy:

Expanding into new markets. Our goal is to expand our revenue base through entry into new markets and expansion of our customer base by successfully commercializing our established and acquired technologies. For example, during the second quarter we continued our expansion into the genotyping marketplace with our new AxiomTM Genotyping Solution. We believe this market will continue to be an attractive growth opportunity, in particular, driven by our ability to provide flexible array packaging and novel genetic content that can assist scientists in more fully understanding human health and disease.

In the second quarter of 2010, we launched several important new products including the introduction of our Axiom Genomic Database with over 7 million validated common and rare SNPs enabling customers to customize their own array designs rather than use pre-configured or catalog arrays for their genotyping studies. We also released two new Axiom Genotyping products and introduced our QuantiGene® ViewRNA Assay that will provide researchers with a new level of in situ gene expression analysis.

Re-engineering our technology platform. We intend to expand our product line with new products that combine automated instrumentation, powerful new biological assays, and new array designs and content. GeneTitan® System, our new mid- to high-end instrumentation platform, enables increased efficiency and throughput for researchers conducting array-based experiments. This fully automated solution produces higher data quality by removing or minimizing many of the sources of variation in the laboratory. In the first half of 2010, we commercially released our GeneAtlasTM System which targets new users of microarray technology. With the GeneTitan® and GeneAtlasTM instruments we also introduced alternative array plate and array strip formats to our cartridge-based consumables. We intend to provide an expanded menu of gene expression and genotyping applications for our peg array plates.

Improve operating leverage. We recognized positive cash flow from operating activities for the first half of 2010 and expect to do so for the second half of the year. In the first half of 2010, we began to realize cost savings and decreased expenditures as compared to the same period in 2009 as a result of our restructuring activities in 2009 that consolidated our manufacturing to our Cleveland and Singapore facilities and outsourced our instrument manufacturing operations. We believe that our new array plate formats have lower manufacturing costs than the cartridge-based formats and expect to incur lower operating expenses as we fully integrate our acquisitions of USB and Panomics. Additionally, we have significantly reduced our future interest payments through the repurchasing of a portion of our 3.50% senior convertible notes due in 2038.

Critical Accounting Policies and Estimates

Management's Discussion and Analysis of Financial Condition and Results of Operations is based upon our Condensed Consolidated Financial Statements, which we have prepared in accordance with U.S. generally accepted accounting principles ("GAAP"). The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. Management bases its estimates on historical experience and on various other assumptions that it believes 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. Management has discussed the development, selection and disclosure of significant estimates with the Audit Committee of our Board of Directors. Actual results may differ from these estimates under different assumptions or conditions.

An accounting policy is deemed to be critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made, if different estimates reasonably could have

been used, or if changes in the estimate that are reasonably likely to occur could materially impact the financial statements. Other than the following discussion related to revenue recognition for multiple element arrangements, during the six months ended June 30, 2010, there have been no significant changes in our critical accounting policies and estimates compared to the disclosures in Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2009.

Revenue Recognition

We enter into contracts to sell our products and, while the majority of our sales agreements contain standard terms and conditions, we have agreements that contain multiple elements or non-standard terms and conditions. As a result, significant contract interpretation is sometimes required to determine the appropriate accounting, including whether the deliverables specified in a multiple element arrangement should be treated as separate units of accounting for revenue recognition purposes, and if so, how the value of the arrangement should be allocated among the deliverable elements, when and how to recognize revenue for each element, and the period over which revenue should be recognized.

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Effective January 1, 2010, we early adopted the recently revised accounting guidance on revenue recognition for multiple element arrangements on a prospective basis, which requires us to allocate consideration to all deliverables at the inception of the arrangement using the relative selling price method. The relative selling price method establishes the relative selling price of a deliverable using a hierarchy, first through vendor-specific objective evidence ("VSOE"), second through third-party evidence if VSOE is not available and finally, through estimated selling prices if neither VSOE nor third-party evidence is available. Additionally, the revised accounting guidance also refined the criteria for determining when a deliverable should be accounted for as a separate unit of accounting. Based on this guidance, we identify separate units of accounting for the multiple element arrangement if the delivered item has value to the customer on a standalone basis and, when a general right of return exists, the delivery or performance of an undelivered item is considered probable and under our control. Changes in the allocation of the sales price between delivered to undelivered elements might impact the timing of revenue recognition, but would not change the total revenue recognized on any arrangement.

We generally have been able to determine the selling price of each deliverable in a multiple element arrangement based on the price for such deliverable when it is sold separately. If VSOE is not determinable and when third-party evidence is not available, we would use the estimated selling price of a deliverable which is determined based on several factors, including, but not limited to, the cost to produce the deliverable, the expected margin on that deliverable, our ongoing pricing strategy and policies, the selling price and profit margin of similar deliverables and value-added components of differentiated deliverables, if determinable.

The change in accounting principle for revenue recognition on multiple element arrangements did not have a material impact on our financial results for the six months ended June 30, 2010. We anticipate that the effect on the change in accounting principle on subsequent periods will be primarily dependent on the arrangements entered into, the ability to estimate selling prices when VSOE cannot be established and the timing of the delivery of the products and services. Additionally, had the new accounting guidance been applied for the six months ended June 30, 2009, there would have been no material impact on the revenue recognized.

Recent Accounting and Financial Reporting Developments

See Note 1. "Summary of Significant Accounting Policies" to our Condensed Consolidated Financial Statements elsewhere in this Quarterly Report on Form 10-Q for a description of accounting changes and recent accounting pronouncements, including the expected dates of adoption and anticipated effects, if any, on our consolidated results of operations and financial condition.

Results of Operations

The following discussion compares the historical results of operations for the three and six months ended June 30, 2010 and 2009.

Product Sales (in thousands, except percentage amounts)

The components of product sales are as follows:

	Three Months Ended June 30,		Dollar change from	Percentage change from	Six Months Ended June 30,		Dollar change from	Percentage change from
	2010	2009	2009	2009	2010	2009	2009	2009
Consumables	$60,632	$62,147	$(1,515)	(2)%	$126,895	$121,809	$5,086	4 %
Instruments	4,471	5,009	(538)	(11)	11,651	10,217	1,434	14

Total product sales	$65,103	$67,156	$(2,053)	(3)%	$138,546	$132,026	$6,520	5	%

Total product sales decreased in the second quarter of 2010 as compared to the same period in 2009. Consumables were down slightly primarily due to a changing mix of our products and lower reagent sales resulting from challenges in integrating recent acquisitions. Instrument sales also declined in the second quarter of 2010 as compared to 2009 as a result of reduced capital spending by academic research customers, particularly in Europe. Additionally, there were declines in the volume of sales of older products partially offset by sales of the GeneTitan® and GeneAtlasTM family of instruments that were launched in the third quarter of 2009 and in 2010, respectively.

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For the first six months of 2010, total product sales increased as compared to the first six months of 2009 primarily due to an increased volume of sales of our DNA analysis chips partially offset by a decline in the volume of sales of our RNA chips and lower average sales prices of our reagents. Instrument sales also grew in 2010 as compared to 2009 primarily due to the GeneTitan® and GeneAtlasTM family of instruments that was introduced in late 2009 and early 2010, respectively, partially offset by declines in the volume of sales of older products.

Services (in thousands, except percentage amounts)

	Three Months Ended June 30,		Dollar change from 2009	Percentage change from 2009	Six Months Ended June 30,		Dollar change from 2009	Percentage change from 2009
	2010	2009			2010	2009		
Services	$4,742	$12,221	$(7,479)	(61)%	$9,205	$23,777	$(14,572)	(61)%

Total services revenue decreased in the second quarter, and for the first six months, of 2010 as compared to 2009, primarily due to the completion of several genotyping projects, including the Wellcome Trust Case Consortium and the National Institutes of Health projects, in late 2009 that began in the fourth quarter of 2008. We currently have not entered into any other significant contracts for other projects.

Royalties and Other Revenue (in thousands, except percentage amounts)

	Three Months Ended June 30,		Dollar change from 2009	Percentage change from 2009	Six Months Ended June 30,		Dollar change from 2009	Percentage change from 2009
	2010	2009			2010	2009		
Royalties and other revenue	$1,833	$2,177	$(344)	(16)%	$4,114	$4,312	$(198)	(5)%

Royalties and other revenue declined in the second quarter, and for the first six months, of 2010 as compared to 2009 as a result of the expiration of certain multi-year contracts.

Product and Services Gross Margin (in thousands, except percentage amounts)

	Three Months Ended June 30,		Dollar/Point change from 2009	Six Months Ended June 30,		Dollar/Point change from 2009
	2010	2009		2010	2009	
Total gross margin on product sales	$37,568	$37,271	$297	$82,552	$67,707	$14,845
Total gross margin on services	1,188	4,714	(3,526)	1,062	8,689	(7,627)
Product gross margin as a percentage of products sales	58%	55%	3	60%	51%	9
Service gross margin as a percentage of services	25%	39%	(14)	12%	37%	(25)

Product gross margin for the second quarter of 2010 increased over the second quarter of 2009 primarily due to lower plant consolidation activities that totaled $1.1 million in 2010 as compared to $4.6 million in 2009, higher volumes in chip sales in 2010 and a mix shift to higher margin products in 2010. These increases were partially offset by unfavorable absorption in 2010 compared to 2009, overall lower average selling prices, excess and obsolescence costs for products with finite lives and increased warranty costs on certain instruments.

The increase in product gross margin in the six months of 2010 as compared to the first six months of 2009 is primarily due to the reduction of plant consolidation activities of $9.4 million in 2009 as compared to $1.2 million in 2010. The increase in margin was also driven by higher volume of sales on our chips, a mix shift to higher margin instrument sales and greater absorption due to higher production levels in the first quarter of 2010 as compared to the first quarter of 2009. These increases were partially offset by a decline in overall average selling price, higher excess and obsolescence costs for products with finite lives and increased warranty costs.

Service gross margin decreased in the second quarter of 2010, and for the six months ended June 30, 2010, as compared to the same periods in 2009 primarily due to the decrease of the scientific services revenues generated from the Wellcome Trust Case Consortium and National Institutes of Health projects that were completed in late 2009.

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Research and Development Expenses (in thousands, except percentage amounts)

	Three Months Ended June 30,		Dollar change from 2009	Percentage change from 2009	Six Months Ended June 30,		Dollar change from 2009	Percentage change from 2009
	2010	2009			2010	2009		
Research and development	$17,815	$20,361	$(2,546)	(13)%	$36,294	$41,644	$(5,350)	(13)%

The decrease in research and development expenses in the second quarter, and for the first six months, of 2010 as compared to 2009 was primarily due to lower headcount-related expenses such as compensation and benefits and a net decrease in spending on masks, chips and supplies due to a shift in product focus resulting from the commercialization of certain products in 2009.

Selling, General and Administrative Expenses (in thousands, except percentage amounts)

	Three Months Ended June 30,		Dollar change from 2009	Percentage change from 2009	Six Months Ended June 30,		Dollar change from 2009	Percentage change from 2009
	2010	2009			2010	2009		
Selling, general and administrative	$28,428	$31,686	$(3,258)	(10)%	$59,807	$65,668	$(5,861)	(9)%

The decrease in selling, general and administrative expenses in the second quarter of 2010, and for the six months ended June 30, 2010 was primarily due to an overall decrease of $2.9 million and $4.9 million, respectively, in compensation and benefits expense resulting from lower headcount as compared to the same period in 2009. Additionally, there were decreases in facilities expenses as a result of site consolidation efforts and bad debt expense resulting from better collection efforts.

Restructuring (in thousands, except percentage amounts)

	Three Months Ended June 30,		Dollar change from 2009	Percentage change from 2009	Six Months Ended June 30,		Dollar change from 2009	Percentage change from 2009
	2010	2009			2010	2009		
Restructuring	$-	$226	$(226)	(100)%	$-	$2,193	$(2,193)	(100)%

In 2006, 2007 and 2008, we undertook restructuring plans designed to improve our operating leverage. We completed the restructurings in 2009. The effects of these restructuring plans on our results of operations are discussed below.

In 2008, we closed our West Sacramento manufacturing facility, moving probe array manufacturing to our Singapore facility, consolidating reagent manufacturing to our Cleveland facility and outsourcing instrument manufacturing operations to third parties. Total cash payments of $8.2 million related to employee termination benefits and noncash charges of $36.9 million related to the abandonment and impairment of certain manufacturing assets were presented as a component of “Restructuring charges” in our Condensed Consolidated Statements of Operations. We completed the closure of the West Sacramento facility during the second quarter of 2009 and no expenses were recognized during the six months ended June 30, 2010 compared to $2.7 million of expense pertaining to employee severance and relocation benefits recognized during the six months ended June 30, 2009.

In 2007, we consolidated an administrative facility located in Sunnyvale, California into our main campus in Santa Clara, California and terminated certain employees in the research and development and selling, general and administrative functions (the "2007 Plan"). The Sunnyvale, California facility was vacated during the fourth quarter of 2007. Additionally, in 2006, we initiated a restructuring plan (the "2006 Plan") intended to better align certain of our expenses our business outlook, which primarily consisted of the reorganization of the general and administrative functions as well as the rationalization of our facilities. The cash payments made in connection with the 2007 Plan and 2006 Plan were approximately $4.6 million and $16.6 million, respectively, while the 2006 Plan also had $8.5 million in noncash charges. These costs were included as a component of "Restructuring charges" in our Condensed Consolidated Statements of Operations. For the six months ended June 30, 2010 and 2009, the expense incurred on these two plans was immaterial and we have recognized all costs in association with the 2007 Plan and the majority of the costs related to the 2006 Plan, except for the remaining contract termination costs of $1.0 million.

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Interest Income and Other, Net (in thousands, except percentage amounts)

The components of interest income and other, net, are as follows:

	Three Months Ended June 30,		Dollar change from 2009	Percentage change from 2009	Six Months Ended June 30,		Dollar change from 2009	Percentage change from 2009
	2010	2009			2010	2009		
Interest income	$ 670	$ 1,258	$ (588)	(47)%	$ 1,432	$ 2,628	$ (1,196)	(46)%
Realized (loss) gain on equity investments, net	(197)	124	(321)	(259)	(4,360)	(1,082)	(3,278)	(303)
Currency (loss) gain, net	232	-	232	100	44	(1,833)	1,877	102
Other	33	(26)	59	227	24	803	(779)	(97)
Total interest income and other, net	$ 738	$ 1,356	$ (618)	(46)%	$ (2,860)	$ 516	$ (3,376)	(654)%

Interest income and other, net decreased in the second quarter of 2010 as compared to 2009 primarily due to lower interest income as a result of lower average cash balances due to the convertible notes repurchases as well as lower effective interest rates for the quarter. This decline was partially offset by currency gains in 2010 as compared to 2009.

For the six months ended June 30, 2010, interest income and other, net, decreased primarily due to a $4.9 million other-than-temporary impairment loss recognized on a non-marketable investment in the first quarter of 2010 compared to a $1.1 million impairment charge on several investments in its non-marketable equity securities portfolio in the first quarter of 2009. Additionally, interest income decreased primarily due to lower effective interest rates and lower average cash balances in 2010 as compared to 2009. These declines were partially offset by currency gains in 2010 as compared to currency losses in 2009.

Interest Expense (in thousands, except percentage amounts)

	Three Months Ended June 30,		Dollar change from 2009	Percentage change from 2009	Six Months Ended June 30,		Dollar change from 2009	Percentage change from 2009
	2010	2009			2010	2009		
Interest expense	$2,340	$2,903	$(563)	(19)%	$4,772	$6,080	$(1,308)	(22)%

Interest expense decreased in the second quarter, and for the first six months, of 2010 as compared to 2009, primarily due to the lower aggregate principal balance of the senior convertible notes resulting from the $26.7 million and the $69.1 million repurchase of aggregate principal amount in the second quarter of 2010 and June 2009, respectively.

Income Tax Provision (in thousands, except percentage amounts)

	Three Months Ended June 30,	Dollar change	Percentage change	Six Months Ended June 30,	Dollar change	Percentage change

			from	from			from	from
	2010	2009	2009	2009	2010	2009	2009	2009
Income tax provision	$29	$409	$(380)	(93)%	$900	$902	$(2)	(0)%

The provision for income tax decreased for the three months ended June 30, 2010 as compared to the same period in 2009 primarily due to lower profitability. Our provision for income tax consists of foreign income and withholding taxes and state minimum taxes. Due to our history of cumulative operating losses, management concluded that, after considering all the available objective evidence, it is not more likely than not that all our net deferred tax assets will be realized. Accordingly, all of our U.S. deferred tax assets, net of reserves for uncertain tax positions, continue to be subject to a valuation allowance as of June 30, 2010.

As of June 30, 2010, there have been no material changes to our total amount of unrecognized tax benefits.

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Liquidity and Capital Resources

Liquidity

Historically, we have primarily financed our operations through product sales; sales of equity and debt securities such as our 0.75% and 3.50% convertible notes in 2003 and 2007, respectively; the exercise of stock options and participation in our stock plans; collaborative agreements; interest income; and licensing of our technology.

Our cash outflows have generally been as follows: cash used in operating activities such as research and development programs, sales and marketing activity, procurement and growth of inventory, compensation and benefits of our employees and other working capital needs; cash paid for acquisitions; cash paid for litigation activity and settlements; cash used for our debt repurchases and repurchases of our convertible notes as well as related interest payments on our convertible notes obligations.

As of June 30, 2010, we had cash, cash equivalents, and available-for-sale securities of approximately $334.2 million. We anticipate that our existing capital resources along with the cash to be generated from operations will enable us to maintain currently planned operations, acquisitions, debt repayments or repurchases, and capital expenditures for the foreseeable future.

However, these expectations are based on our current operating and financing plans, which are subject to change, and therefore we could require additional funding. Factors that may cause us to require additional funding may include, but are not limited to, future acquisitions; our ability to maintain existing collaborative and customer arrangements and establish and maintain new collaboration and customer arrangements; the progress of our research and development programs; initiation or expansion of research programs and collaborations; the costs involved in preparing, filing, prosecuting, defending and enforcing intellectual property rights; the effectiveness of product commercialization activities and arrangements; the purchase of patent licenses; and other factors.

As of June 30, 2010, we have no credit facility or other committed sources of capital. To the extent capital resources are insufficient to meet future capital requirements, we will have to raise additional funds. There can be no assurance that such funds will be available on favorable terms, or at all. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of such securities could result in dilution to our stockholders. If adequate funds are not available, we may be required to curtail operations significantly or to obtain funds by entering into collaboration agreements on unattractive terms. Our inability to raise capital would have a material adverse effect on our business, financial condition and results of operations.

From time to time, we may seek to retire, repurchase, or exchange our convertible securities or common stock in open market purchases, privately negotiated transactions dependent on market conditions, liquidity, and contractual obligations and other factors. In the second quarter of 2010, we repurchased an aggregate of $26.7 million of the outstanding principal balance of our 3.50% convertible notes for cash payments totaling $24.6 million and recognized a gain of $1.7 million. Furthermore, in the period between July 1, 2010 and July 31, 2010, we repurchased an additional aggregate of $69.1 million of outstanding principal balance of these notes for cash payments totaling $64.3 million and expect to recognize a gain of approximately $4.0 million in the three months ended September 30, 2010.

Cash flows (in thousands)

	Six Months Ended June 30,	
	2010	2009
Net cash provided by operating activities	$20,980	$11,366

Net cash provided by (used in) investing activities	16,630	(36)
Net cash used in financing activities	(25,602)	(51,282)
Effect of foreign currency translation on cash and cash equivalents	(466)	(73)
Net increase (decrease) in cash and cash equivalents	$11,542	$(40,025)

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Net Cash Provided by (Used in) Operating Activities

Net cash provided by operating activities for the six months ended June 30, 2010 was comprised of a net loss of $15.2 million, net non-cash charges of $26.3 million and a $9.9 million increase in working capital. The increase in net cash provided by operating activities was primarily due to adjustments for non-cash expenses, including depreciation and amortization expense of $17.5 million, a net loss on investments of $4.7 million, which included an other-than-temporary impairment charge of $4.9 million on a non-marketable equity investment and stock-based compensation expense of $5.0 million. The increase was partially offset by a gain from repurchase of convertible notes of $1.7 million.

Net Cash Provided by (Used in) Investing Activities

Our investing activities, other than purchases, sales and maturities of available-for-sale securities, primarily consist of capital expenditures, strategic investments and purchased technology rights.

Cash used for capital expenditures was $5.6 million for the six months ended June 30, 2010. Our capital expenditures were primarily related to the purchase of manufacturing equipment and computer hardware.

Net Cash Provided by (Used in) Financing Activities

Our financing activities generally consist of stock option exercise activity under our employee stock plan. Cash used in the issuance of stock under our employee stock plan, net of treasury shares withheld for taxes, was $0.9 million for the first six months of 2010. In the second quarter of 2010, we bought back $26.7 million in aggregate principal balance of our 3.50% convertible notes for $24.6 million in cash considerations.

Off-Balance Sheet Arrangements and Aggregate Contractual Obligations

There have been no significant changes in our off-balance sheet arrangements and aggregate contractual obligations as compared to the disclosures in Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2009.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Currency Exchange Rate Risk

We derive a portion of our revenues in foreign currencies, predominantly in Europe and Japan. In addition, a portion of our assets are held in nonfunctional currencies of our subsidiaries. We use currency forward contracts to manage a portion of the currency exposures created from our activities denominated in foreign currencies. Our hedging program is designed to reduce, but does not entirely eliminate, the impact of currency exchange rate movements.

There have been no significant changes in our market risk compared to the disclosures in Item 7A of our Annual Report on Form 10-K for the year ended December 31, 2009.

ITEM 4. CONTROLS AND PROCEDURES

(a) Disclosure controls and procedures.

Affymetrix’s management carried out an evaluation, as required by Rule 13a-15(b) of the Securities Exchange Act of 1934 (the “Exchange Act”), with the participation of our Chief Executive Officer and our Chief Financial Officer, of the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e)), as of the end of

our last fiscal quarter. Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this Quarterly Report on Form 10-Q, such that the information relating to Affymetrix and its consolidated subsidiaries required to be disclosed in our Exchange Act reports filed with the SEC (i) is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and (ii) is accumulated and communicated to Affymetrix's management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

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(b) Changes in internal control over financial reporting.

Affymetrix's management carried out an evaluation, as required by Rule 13a-15(d) of the Exchange Act, with the participation of our Chief Executive Officer and our Chief Financial Officer, of changes in Affymetrix's internal control over financial reporting. Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that there were no changes in our internal control over financial reporting that occurred during our last fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Information pertaining to legal proceedings can be found in Note 8. "Commitments and Contingencies" to our Condensed Consolidated Financial Statements elsewhere in this Quarterly Report on Form 10-Q, and is incorporated by reference herein.

ITEM 1A. RISK FACTORS

In evaluating our business, you should carefully consider risks that our business may be subject to, as well as the other information contained in this Quarterly Report on Form 10-Q. If any of the risks actually occurs, our business could be harmed.

Risks Related to the Growth of Our Business

If we do not continually develop and commercialize new or enhanced products and services, our business may not grow.

Our success depends in large part on our continual, timely development and commercialization of new or enhanced products and services that address evolving market requirements and are attractive to customers. The genetic analysis tools market, including the RNA/DNA probe array field, is characterized by rapid and significant technological changes, frequent new product introductions and enhancements, evolving industry standards and changing customer needs. Standardization of tools and systems for genetic research is still ongoing and we cannot assure you that our products will emerge as the standard for genetic research. Other companies may introduce new technologies, techniques, products or services that render our products or services obsolete or uneconomical. If we do not appropriately innovate and invest in new technologies, then our technologies will become dated and our customers could move to new technologies offered by our competitors.

As a result, we are continually looking to develop, license or acquire new or enhanced technologies, products and services to further broaden and deepen our offerings. Some of the factors affecting market acceptance of our products and services include:

- availability, quality and price as compared to competitive products and services;
- the functionality of new and existing products and services;
- the timing of introduction of our products and services as compared to competitive products and services;

- the existence of product defects;
- scientists' and customers' opinions of the utility of our products and services and our ability to incorporate their feedback into future products and services;
- functionality of new products addressing market requirements;
- citation of our products in published research; and
- general trends in life science research and life science informatics software development.

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Our new or enhanced technologies, products or services may not be accepted by customers in our target markets. For example, once we have developed or obtained a new technology, we may fail to successfully commercialize new products and services based on that technology, particularly to the extent that our new products and services compete with established technologies or the products and services of more established competitors. Risks relating to product adoptions include the inability to accurately forecast demand and difficulties in managing different sales and support requirements due to the type or complexity of the new products.

Our growth depends in part on our ability to acquire new technologies and successfully integrate past acquisitions, which may absorb significant resources and may not be successful.

As part of our strategy to develop and identify new technologies, products and services, we have made and may continue to acquire new technologies. Our integration of the operations of acquired businesses requires significant efforts, including the coordination of information technologies, research and development, sales and marketing, operations, manufacturing and finance. These efforts result in additional expenses and divert significant amounts of management's time from other projects. Our failure to manage successfully and coordinate the growth of the combined company could also have an adverse impact on our business. In addition, there is no guarantee that some of the businesses we acquire will become profitable or remain so. If our acquisitions do not meet our initial expectations, we may record impairment charges, such as those recorded in 2008.

Factors that will affect the success of our acquisitions include:

- our ability to retain key employees of the acquired company;
- the performance of the acquired business, technology, product or service;
- our ability to integrate operations, financial and other systems;
- the ability of the combined company to achieve synergies among its constituent companies, such as increasing sales of the combined company's products and services, achieving expected cost savings and effectively combining technologies to develop new products and services;
- any disruption in order fulfillment or loss of sales due to integration processes;
- the presence or absence of adequate internal controls and/or significant fraud in the financial systems of acquired companies;
- any decrease in customer and distributor loyalty and product orders caused by dissatisfaction with the combined companies' product lines and sales and marketing practices, including price increases; and
- our assumption of known contingent liabilities that are realized, known liabilities that prove greater than anticipated, or unknown liabilities that come to light, to the extent that the realization of any of these liabilities increases our expenses or adversely affects our business or financial position.

Emerging market opportunities in molecular diagnostics may not develop as quickly as we expect and we depend on the efforts of our partners to be successful.

The clinical applications of our technologies for diagnosing and enabling informed disease management options in the treatment of disease is an emerging market opportunity in molecular diagnostics. At this time, we cannot be certain that molecular diagnostic markets will develop as quickly as we expect. Although we believe that there will be clinical applications of our technologies that will be utilized for diagnosing and enabling informed disease management options in the treatment of disease, there can be no certainty of the technical or commercial success our technologies will achieve in such markets.

Our success in the molecular diagnostics market depends to a large extent on our collaborative relationships and the ability of our collaborative partners to achieve regulatory approval for such products in the United States and in overseas markets, and successfully market and sell products using our technologies.

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Risks Related to Our Sales

We face significant competition, and our failure to compete effectively could adversely affect our sales and results of operations.

We compete with companies that develop, manufacture and market genetic analysis tools for the life science and clinical healthcare markets. We face significant competition as our competitors develop new, improved or more economical products and services and as new companies enter the market with new and innovative technologies.

The market for molecular diagnostics products and services is highly competitive, has high barriers to entry and has several other large companies with significant market share. For example, companies such as Illumina, Agilent Technologies and Life Technologies have products for genetic analysis that are directly competitive with certain of our products. We also face competition from established diagnostic companies such as Beckman Coulter, Becton Dickinson, bioMérieux, Celera Diagnostics, Johnson & Johnson and Roche Diagnostics, which have made strategic commitments to diagnostics, have financial and other resources to invest in new technologies, and have substantial intellectual property portfolios, substantial experience in new product development and regulatory expertise. In addition, our collaborative partners may compete with us.

Many of our current and potential competitors have significantly greater financial, technical, marketing and other resources than we do. In addition, many current and potential competitors have greater name recognition, more extensive customer bases and access to proprietary genetic content.

Reduction or delay in research and development budgets and government funding may adversely impact our sales.

We expect that our revenues in the foreseeable future will be derived primarily from products and services provided to pharmaceutical and biotechnology companies, as well as a relatively small number of academic, governmental and other research institutions. Our operating results may fluctuate substantially due to reductions and delays in research and development expenditures by these customers.

Factors that could affect the spending levels of our customers include:

- weakness in the global economy and changing market conditions that affect our customers;
- changes in the extent to which the pharmaceutical industry may use genetic information and genetic testing as a methodology for drug discovery and development;
- changes in government programs that provide funding to companies and research institutions;
- changes in the regulatory environment affecting life science companies and life science research;
- impact of consolidation within the pharmaceutical industry; and
- cost reduction initiatives of customers.

While the American Recovery and Reinvestment Act passed in 2009, increasing the funding for the NIH, this is a one-time event. Government funding of research and development is subject to the political process, which is

inherently unpredictable. Any shift away from the funding of life science research and development or delays surrounding the approval of government budget proposals may cause our customers to delay or forgo purchases of our products and services. Moreover, in the short term, our customers may delay or reduce their purchases of our products as they wait to learn whether, and to what extent, they will receive stimulus funding. Additionally, if our customers are unable to obtain stimulus funding they may reduce their research and development budgets, resulting in a decrease in demand for our products. A reduction or delay in demand will reduce our revenues and adversely affect our profitability.

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As we implement our strategy to expand into new markets, the size and structure of our current sales, marketing and technical support organizations may limit our ability to sell our products and services.

As we implement our strategy to expand into new markets, we may not be able to establish a sales, marketing or technical support organization that is sufficient to sell, market or support all of our new products, or cover all of the regions that we target globally. To assist our sales and support activities, we have entered into distribution agreements through certain distributors, principally in markets outside of North America and Europe. In addition, we may enter into distribution arrangements with respect to some of our products that we believe will be better served in such arrangements than our current sales and marketing organizations. We have less control over other third parties on whom we rely for sales, marketing and technical support. In addition, these third parties may decide to develop and sell competitive products or otherwise become our competitors, which could harm our business.

Consolidation trends in both our market and many of our customers' markets have increased competition.

There has been a trend toward industry consolidation in our markets for the past several years. We expect this trend toward industry consolidation to continue as companies attempt to strengthen or hold their market positions in an evolving industry and as companies are acquired or are unable to continue operations. We believe that industry consolidation may result in stronger competitors that are better able to compete as sole-source vendors for customers. This could lead to more variability in operating results and could harm our business.

Additionally, there has been a trend toward consolidation in many of the customer markets we sell to, in particular the pharmaceutical industry. Consolidation in our customer markets results in increased competition for important market segments and fewer available accounts, and larger consolidated customers may be able to exert increased pricing pressure on companies in our market.

If we are unable to maintain our relationships with collaborative partners, we may have difficulty developing and selling our products and services.

We believe that our success in penetrating our target markets depends in part on our ability to develop and maintain collaborative relationships with key companies as well as with key academic researchers. Relying on our collaborative relationships is risky to our future success because:

- our partners may develop technologies or components competitive with our products and services;
- our existing collaborations may preclude us from entering into additional future arrangements;
- our partners may not obtain regulatory approvals necessary to continue the collaborations in a timely manner;
- some of our agreements may terminate prematurely due to disagreements between us and our partners;
- our partners may not devote sufficient resources to the development and sale of our products and services;
- our partners may be unable to provide the resources required for us to progress in the collaboration on a timely basis;

- our collaborations may be unsuccessful; or

- some of our agreements have expired and we may not be able to negotiate future collaborative arrangements on acceptable terms.

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Risks Related to the Manufacturing of Our Products

We depend on a limited number of suppliers. We will be unable to launch or commercialize our products in a timely manner if our suppliers are unable to meet our requirements or if shipments from these suppliers are delayed or interrupted.

We outsource the manufacturing of our instruments to a limited number of suppliers. Some of our instruments and other key parts of our product lines, including components of our manufacturing equipment and certain raw materials used in the manufacture of our products are currently only available from a single supplier. Therefore, we depend on our suppliers to supply our instruments, or components of our products, in required volumes, at appropriate quality and reliability levels, and in compliance with regulatory requirements. If supplies from these vendors do not meet our requirements, or were delayed or interrupted for any reason, we would not be able to commercialize our products successfully or in a timely fashion, and our business could be adversely impacted.

Our business is dependent on our ability to forecast our needs for components and products in our product lines and our suppliers' ability to deliver such components and products in time to meet critical manufacturing and product release schedules. Our business could be adversely affected, for example, if suppliers fail to meet product release schedules, if we experience supply constraints, if we fail to negotiate favorable pricing or if we experience any other interruption or delay in the supply chain which interferes with our ability to manufacture our products or manage our inventory levels.

We may lose customers or sales if we are unable to meet customer demand for our products on a timely and cost-effective basis, or if we are unable to ensure the proper performance and quality of our products.

We produce our products in an innovative and complicated manufacturing process which has the potential for significant variability in manufacturing yields. We have encountered, and may in the future encounter, difficulties in manufacturing our products and, due to the complexity of our products and our manufacturing process, we may experience delays in the manufacture of our products or fail to ensure their proper performance or quality. As we develop new and enhanced products, we must be able to resolve in a timely, cost-effective manner manufacturing issues that may arise from time to time.

We base our manufacturing capabilities on our forecasted product mix for the quarter. If the actual product mix varies significantly from our forecast, we may not be able to fill some orders during that quarter, which could adversely impact our financial results. Difficulties in meeting customer, collaborator and internal demand could also cause us to lose customers or require us to delay new product introductions, which could in turn result in reduced demand for our products.

We rely on internal quality control procedures to verify our manufacturing processes. Due to the complexity of our products and manufacturing process, however, it is possible that products that do not meet all of our performance specifications may not be identified before they are shipped. If our products do not consistently meet our customers' performance expectations, demand for our products will decline. In addition, we do not maintain any backup manufacturing capabilities for the production of our products. Any interruption in our ability to continue operations at our existing manufacturing facilities could delay our ability to develop or sell our products, which could result in lost revenue and seriously harm our business, financial condition and results of operations.

We may need to adjust our manufacturing capacity based on business requirements or improvements made to our technological capabilities and there are risks associated with such adjustment.

If demand for our products is reduced or if we implement technologies that increase the density or yields of our wafers, our manufacturing capacity could be under-utilized and some of our long-lived assets, including facilities and equipment, may be impaired, which would increase our expenses. In addition, factory planning decisions may shorten the useful lives of long-lived assets including facilities and equipment, and cause us to accelerate depreciation. These changes in demand for our products, and changes in our customers' product needs, could have a variety of negative effects on our competitive position and our financial results, and, in certain cases, may reduce our revenue, increase our costs, lower our gross margin percentage or require us to recognize impairments of our assets. In addition, if demand for our products is reduced or we fail to accurately forecast demand, we could be required to write down inventory since certain of our products have a limited shelf life, which would have a negative impact on our gross margin.

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We have in the past, and may in the future, adjust our manufacturing capacity based on business requirements, which may include the rationalization of our facilities, including the abandonment of long-lived manufacturing assets and additional charges related to a reduction in capacity. In 2008, we implemented a restructuring plan that included the closure of our West Sacramento, California facility and the consolidation of our manufacturing. This restructuring was completed in the second quarter of 2009. Manufacturing and product quality issues may arise as we launch new products in our Singapore and Ohio facilities and rely increasingly upon manufacturing by third parties. We may lose customers if we are unable to manufacture products or if we experience delays in the manufacture of our products as a result of this transition.

We rely on internal quality control procedures to verify our manufacturing processes. Due to the complexity of our products and manufacturing process, however, it is possible that products that do not meet all of our performance specifications may not be identified before they are shipped. If our products do not consistently meet our customers' performance expectations, demand for our products will decline. In addition, we do not maintain any backup manufacturing capabilities for the production of our products. Any interruption in our ability to continue operations at our existing manufacturing facilities could delay our ability to develop or sell our products, which could result in lost revenue and seriously harm our business, financial condition and results of operations.

We may not be able to deliver acceptable products to our customers due to the rapidly evolving nature of genetic sequence information upon which our products are based.

The genetic sequence information upon which we rely to develop and manufacture our products is contained in a variety of public databases throughout the world. These databases are rapidly expanding and evolving. In addition, the accuracy of these databases and resulting genetic research is dependent on various scientific interpretations and it is not expected that global genetic research efforts will result in standardized genetic sequence databases for particular genomes in the near future.

Although we have implemented ongoing internal quality control efforts to help ensure the quality and accuracy of our products, the fundamental nature of our products requires us to rely on genetic sequence databases and scientific interpretations which are continuously evolving. As a result, these variables may cause us to develop and manufacture products that incorporate sequence errors or ambiguities. The magnitude and importance of these errors will depend upon multiple and complex factors that would be considered in determining the appropriate actions required to remedy any inaccuracies. Our inability to timely deliver acceptable products as a result of these factors would likely adversely affect our relationship with customers, and could have a material adverse effect on our business, financial condition and results of operations.

Risks Related to Our Operations

We may not achieve sustained profitability.

Prior to 2002, we incurred losses each year since our inception, and we reported losses in 2006, 2008 and 2009, as well as the first half of 2010. As a result, we had an accumulated deficit of approximately $455 million as of June 30, 2010. Our ability to achieve sustained profitability will depend, in part, on the rate of growth, if any, of our revenue and on the level of our expenses. We expect to continue incurring significant expenses related to research and development, sales and marketing efforts to commercialize our products, litigation and non-cash stock based compensation, and we expect to continue to experience fluctuations in our operating results. If our revenues grow more slowly than we anticipate, or if our operating expenses increase more than we expect or cannot be reduced in the event of lower revenues, we may not become profitable on a sustained basis, or at all.

If we do not attract and retain key employees, our business could be impaired.

To be successful, we must attract and retain qualified scientific, engineering, manufacturing, sales, marketing and management personnel. To expand our research, product development and sales efforts we need additional people skilled in areas such as bioinformatics, organic chemistry, information services, regulatory affairs, manufacturing, sales, marketing and technical support. Competition for these people is intense, and our compensation arrangements, such as our equity award programs, may not always be successful in attracting new employees and retaining and motivating our existing employees. For example, our stock price has been volatile in the past three years, resulting in a significant number of stock options granted to our employees having a strike price that is higher than the current trading price of our common stock. If we are unable to hire, train and retain a sufficient number of qualified employees, we will not be able to expand our business or our business could be adversely affected.

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We also rely on our scientific advisors and consultants to assist us in formulating our research, development and commercialization strategy. All of these individuals are engaged by other employers and have commitments to other entities that may limit their availability to us.

Due to the international nature of our business, political or economic changes or other factors could harm our business.

A significant amount of our revenue is currently generated from sales outside the United States. Although such transactions are primarily denominated in both U.S. dollars and foreign currencies, our future revenue, gross margin, expenses and financial condition are still affected by such factors as changes in foreign currency exchange rates; unexpected changes in, or impositions of, legislative or regulatory requirements, including export and trade barriers and taxes; longer payment cycles and greater difficulty in accounts receivable collection.

We also are subject to general geopolitical risks in connection with international operations, such as political, social and economic instability, potential hostilities, epidemics and changes in diplomatic and trade relationships. We cannot assure investors that one or more of the foregoing factors will not have a material adverse effect on our business, financial condition and operating results or require us to modify our current business practices.

Our effective tax rate may vary significantly.

Our operations are subject to income and transaction taxes in the United States and in multiple foreign jurisdictions. Estimates and judgments are required in determining our worldwide provision for income taxes. Some of these estimates are based on interpretations of existing tax laws or regulations. The ultimate amount of tax liability may be uncertain as a result.

Changes in overall levels and the geographic mix of pretax earnings may adversely impact our effective tax rate. Certain jurisdictions have lower tax rates, and the amount of earnings in these jurisdictions may fluctuate. If we do not have profitable operations in these jurisdictions, our effective tax rate could be adversely impacted. Changes in tax laws and regulatory requirements in the countries in which we operate could have a material impact on our tax provision. To the extent that we are unable to continue to reinvest a substantial portion of our profits in our foreign operations, we may be subject to effective income tax rate increases in the future. Tax authorities may challenge the allocation of profits between our subsidiaries and we may not prevail in any such challenge. If we were not to prevail, we could be subject to higher tax rates or double tax.

Estimates are required in determining any valuation allowance to be recorded against our net deferred tax assets. Changes in the amount of valuation allowance required may significantly impact our financial results of operations.

Risks Related to Our Investments

Our strategic equity investments may result in losses.

We periodically make strategic equity investments in various public and private companies with businesses or technologies that may complement our business. The market values of these strategic equity investments may fluctuate due to market conditions and other conditions over which we have no control. Other-than-temporary declines in the market price and valuations of the securities that we hold in other companies would require us to record losses relative to our ownership interest. This could result in future charges to our earnings. It is uncertain whether or not we will realize any long-term benefits associated with these strategic investments.

Global credit and financial market conditions could negatively impact the value of our current portfolio of cash equivalents or short-term investments and our ability to meet our financing objectives.

Our cash and cash equivalents are maintained in highly liquid investments with remaining maturities of 90 days or less at the time of purchase. Our short-term investments consist primarily of readily marketable debt securities with remaining maturities of more than 90 days at the time of purchase. While as of the date of this filing, we are not aware of any downgrades, material losses, or other significant deterioration in the fair value of our cash equivalents or short-term investments since June 30, 2010, any further deterioration in conditions of the global credit and financial markets may negatively impact our current portfolio of cash equivalents or short-term investments or our ability to meet our financing objectives. Other-than-temporary declines in the market price and valuation of any of our short-term investments would require us to adjust the carrying value of the investment through an impairment charge.

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Risks Related to Government Regulation and Litigation

We and our customers are subject to various government regulations, and we may incur significant expenses to comply with, and experience delays in our product commercialization as a result of, these regulations.

The FDA must approve certain in-vitro diagnostic products before they can be marketed in the United States. Certain in-vitro diagnostic products must also be approved by the regulatory agencies of foreign governments or jurisdictions before the product can be sold outside the United States. Commercialization of our and our collaborative partners' in-vitro diagnostic products outside of the research environment may depend upon successful completion of clinical trials. Clinical development is a long, expensive and uncertain process and we do not know whether we, or any of our collaborative partners, will be permitted to undertake clinical trials of any potential in-vitro diagnostic products. It may take us or our collaborative partners many years to complete any such testing, and failure can occur at any stage. Delays or rejections of potential products may be encountered based on changes in regulatory policy for product approval during the period of product development and regulatory agency review. Moreover, if and when our projects reach clinical trials, we, or our collaborative partners, may decide to discontinue development of any or all of these projects at any time for commercial, scientific or other reasons. Any of the foregoing matters could have a material adverse effect on our business, financial condition and results of operations.

Many of our products are labeled for "research use only". Even when a product is exempted from FDA clearance or approval, the FDA may impose restrictions as to the types of customers to which we can market and sell our products. Such restrictions may materially and adversely affect our business, financial condition and results of operations.

The FDA, the U.S. Department of Health and Human Services and foreign government regulators are increasingly focused on genetic analysis tools, including the use of arrays that are labeled for research use only by cytogenetics labs, including labs certified under the Clinical Laboratory Improvement Amendments ("CLIA"). We cannot predict the extent of the FDA's future efforts in regulation and policies with respect to the sale and use of arrays for the development of assays by CLIA laboratories, which are referred to as laboratory developed tests ("LDTs"). If new regulations restrict our customers' development of LDTs using our products labeled for research use only, or if we otherwise are required to obtain FDA premarket clearance or approval prior to commercializing these products, our ability to generate revenue from the sale of our products may be delayed or otherwise adversely affected. Moreover, our failure to comply with governmental rules and regulations related to our products could cause us to incur significant adverse publicity, subject us to investigations and notices of non-compliance or lead to fines or restrictions upon our ability to sell our products.

Medical device laws and regulations are also in effect in many countries, ranging from comprehensive device approval requirements to requests for product data or certifications. The number and scope of these requirements are increasing. We may not be able to obtain regulatory approvals in such countries or may incur significant costs in obtaining or maintaining our foreign regulatory approvals. In addition, the export by us of certain of our products which have not yet been cleared for domestic commercial distribution may be subject to FDA or other export restrictions.

We have agreements relating to the sale of our products to government entities and, as a result, we are subject to various statutes and regulations that apply to companies doing business with the government. A failure to comply with these regulations might result in suspension of these contracts or administrative penalties, and could have a material adverse effect on our ability to compete for future government grants, contracts and programs.

Healthcare reform and restrictions on reimbursements may limit our returns on molecular diagnostic products that we may develop with our collaborators.

We are currently collaborating with our partners to develop diagnostic and therapeutic products. The ability of our collaborators to commercialize such products may depend, in part, on the extent to which reimbursement for the cost of these products will be available under U.S. and foreign regulations that govern reimbursement for clinical testing services by government authorities, private health insurers and other organizations. In the United States, third-party payer price resistance, the trend towards managed health care and the implementation of the Patient Protection and Affordable Care Act of 2010 could reduce prices for health care products and services, adversely affecting the profits of our customers and collaborative partners and reduce our future royalties.

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We face risks related to handling of hazardous materials and other regulations governing environmental safety.

Our operations are subject to complex and stringent environmental, health, safety and other governmental laws and regulations that both public officials and private individuals may seek to enforce. Our activities that are subject to these regulations include, among other things, our use of hazardous and radioactive materials and the generation, transportation and storage of waste. We could discover that we or an acquired business is not in material compliance. Existing laws and regulations may also be revised or reinterpreted, or new laws and regulations may become applicable to us, whether retroactively or prospectively, that may have a negative effect on our business and results of operations. It is also impossible to eliminate completely the risk of accidental environmental contamination or injury to individuals. In such an event, we could be liable for any damages that result, which could adversely affect our business.

We may be exposed to liability due to product defects.

The risk of product liability claims is inherent in the testing, manufacturing, marketing and sale of human diagnostic and therapeutic products and we may be subjected to such claims. We may seek to acquire additional insurance for clinical or product liability risks. We may not be able to obtain such insurance or general product liability insurance on acceptable terms or in sufficient amounts. A product liability claim or recall could have a serious adverse effect on our business, financial condition and results of operations.

Ethical, legal and social concerns surrounding the use of genetic information could reduce demand for our products.

Genetic testing has raised ethical issues regarding privacy and the appropriate uses of the resulting information. For these reasons, governmental authorities may call for limits on or regulation of the use of genetic testing or prohibit testing for genetic predisposition to certain conditions, particularly for those that have no known cure. Similarly, such concerns may lead individuals to refuse to use genetics tests even if permissible. Any of these scenarios could reduce the potential markets for our molecular diagnostic products, which could have a material adverse effect on our business, financial condition and results of operations.

Risks Related to Our Intellectual Property

We may be unable to effectively protect or enforce our intellectual property, which could harm our competitive position.

Maintaining a strong patent position is critical to our business. Patent law relating to the scope of claims in the technology fields in which we operate is uncertain, so we cannot be assured the patent rights we have or may obtain will be valuable. Others have filed, and in the future are likely to file, patent applications that are similar or identical to ours or those of our licensors. To determine the priority of inventions, we may have to participate in interference proceedings declared by the United States Patent and Trademark Office that could result in substantial costs in legal fees and could substantially affect the scope of our patent protection. We cannot be assured our patent applications will have priority over those filed by others. Also, our intellectual property may be subject to significant administrative and litigation proceedings such as opposition proceedings against our patents in Europe, Japan and other jurisdictions.

Legal actions to enforce our patent rights can be expensive and may involve the diversion of significant management time. In addition, these legal actions could be unsuccessful and could also result in the invalidation of our patents or a finding that they are unenforceable. We may or may not choose to pursue litigation or interferences against those that have infringed on our patents, or used them without authorization, due to the associated expense and time commitment of monitoring these activities. If we fail to protect or to enforce our intellectual property rights successfully, our

competitive position could suffer, which could harm our results of operations.

In addition to patent protection, we also rely upon copyright and trade secret protection, as well as non-disclosure agreements with our employees, consultants and third-parties, to protect our confidential and proprietary information. Such measures may not provide adequate protection for our proprietary information.

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Litigation or other proceedings or third party claims of intellectual property infringement could require us to spend significant time and money and could prevent us from selling our products or services or impact our stock price.

Third parties have asserted and may in the future assert that we are employing their proprietary technology without authorization. As we launch new products and enter new markets, we expect that competitors will claim that our products infringe their intellectual property rights as part of business strategies designed to impede our successful commercialization and entry into new markets. We are currently engaged in litigation with third parties who allege that we have infringed their intellectual property rights, including a lawsuit in which our competitor Illumina alleges that the manufacture and sale of certain of our new peg-based arrays and related instruments infringe two of their patents. See Note 8. “Commitments and Contingencies” to our Condensed Consolidated Financial Statements elsewhere in this Quarterly Report on Form 10-Q for further information. In addition, we are aware of third-party patents that may relate to our technology. We routinely receive notices claiming infringement from third parties as well as invitations to take licenses under third party patents. Third parties may have obtained, and may in the future obtain, patents allowing them to claim that the use of our technologies infringes these patents.

We could incur substantial costs and divert the attention of our management and technical personnel in defending ourselves against any of these claims. Any adverse ruling or perception of an adverse ruling in defending ourselves against these claims could have a material adverse impact on our stock price, which may be disproportionate to the actual import of the ruling itself. Furthermore, parties making claims against us may be able to obtain injunctive or other relief, which could block our ability to develop, commercialize and sell products, and could result in the award of substantial damages against us. In the event of a successful claim of infringement against us, we may be required to pay damages and obtain one or more licenses from third parties, or be prohibited from selling certain products. In addition, we may be unable to obtain these licenses at a reasonable cost, if at all. We could therefore incur substantial costs related to royalty payments for licenses obtained from third parties, which could negatively affect our gross margins. Moreover, we could encounter delays in product introductions while we attempt to develop alternative methods or products. Defense of any lawsuit or failure to obtain any of these licenses on favorable terms could prevent us from commercializing products, and the prohibition of sale of any of our products could materially affect our ability to grow and maintain profitability.

Risks Related to Our Common Stock

The market price of our common stock has been volatile.

The market price of our common stock is volatile. During the twelve-month period ending June 30, 2010, the daily volume of our common stock fluctuated from 278,900 to 15,386,500 shares. Moreover, during that period, our common stock traded as low as $4.56 per share and as high as $10.06 per share. Our stock price may be affected by a number of factors, including those listed in these “Risk Factors” and other, unknown factors. Our stock price also may be affected by: comments by securities analysts regarding our business or prospects; our inability to meet analysts’ expectations; general fluctuations in the stock market or in the stock prices of our industry peers or our customers; and, general conditions and publicity regarding the genomics, biotechnology, pharmaceutical or life science industries.

Volatility in the stock price of other companies often has led to securities class action litigation against those companies. Any future securities litigation against us could result in substantial costs and divert management’s attention and resources, which could seriously harm our business, financial condition and results of operations.

Our quarterly results have historically fluctuated significantly and may continue to do so. Failure to meet financial expectations may disappoint securities analysts or investors and result in a decline in our stock price.

Our revenues and operating results may fluctuate significantly due in part to factors that are beyond our control and which we cannot predict. The timing of our customers' orders may fluctuate from quarter to quarter. Historically, we have experienced customer ordering patterns for instrumentation and consumables where the majority of the shipments occur in the last month of the quarter. These ordering patterns may limit management's ability to accurately forecast our future revenues or product mix. Additionally, license revenue may also be unpredictable and may fluctuate due to the timing of payments of non-recurring licensing fees. Because our expenses are largely fixed in the short to medium term, any material shortfall in revenues may cause us to experience material losses.

Because of this difficulty in predicting future performance, our operating results may fall below our own expectations and the expectations of securities analysts or investors in some future quarter or quarters. Our failure in the past to meet these expectations has adversely affected the market price of our common stock and may continue to do so.

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In addition to factors that affect the spending levels of our customers described above, additional factors could cause our operating results to fluctuate, including:

- competition;
- our inability to produce products in sufficient quantities and with appropriate quality;
- the frequency of experiments conducted by our customers;
- our customers' inventory of products;
- the receipt of relatively large orders with short lead times; and
- our customers' expectations as to how long it takes us to fill future orders.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit Number	Description of Document
10.17(1)	Affymetrix, Inc. Amended and Restated 2000 Equity Incentive Plan, as adopted effective March 9, 2000 and amended through May 14, 2010.
10.29(2)	Change of Control Policy.
10.43(2)	Executive Severance Policy.
31.1	Certification of Chief Executive Officer Pursuant to Section 302 of Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer Pursuant to Section 302 of Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer and Chief Financial Officer Pursuant to Section 906 of Sarbanes-Oxley Act of 2002.

(1) Incorporated by reference to Exhibit 99.1 to Registrant's Form S-8 as filed on May 17, 2010 (File No. 333-166894).

(2) Incorporated by reference to Registrant's Form 8-K as filed on May 18, 2010.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

By: /s/ TIMOTHY C. BARABE
Name: Timothy C. Barabe
Title: Executive Vice President and Chief Financial Officer

August 5, 2010

Duly Authorized Officer and Principal Financial
And Accounting Officer

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AFFYMETRIX, INC.
EXHIBIT INDEX
June 30, 2010

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