BROOKS AUTOMATION INC Form 10-Q February 07, 2017 <u>Table of Contents</u>

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: December 31, 2016 OR

"Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 For the transition period from _____ to _____ Commission File Number 000-25434

BROOKS AUTOMATION, INC. (Exact name of registrant as specified in its charter)

Delaware 04-3040660 (State or other jurisdiction of (I.R.S. Employer incorporation or organization) Identification No.) 15 Elizabeth Drive Chelmsford, Massachusetts (Address of principal executive offices)

01824 (Zip Code)

Registrant's telephone number, including area code: (978) 262-2400

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 " 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 x No "

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

Large accelerated filer x

Accelerated filer

••

Non-accelerated filer "(Do not check if a smaller reporting company) Smaller reporting company" Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes "No x

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practical date, January 30, 2017: common stock, \$0.01 par value and 69,521,108 shares outstanding.

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PART I. FINANCIAL INFORMATION Item 1. Consolidated Financial Statements BROOKS AUTOMATION, INC. CONSOLIDATED BALANCE SHEETS (unaudited) (In thousands, except share and per share data)

(in thousands, except share and per share data)		~
		, September 30,
	2016	2016
Assets		
Current assets		
Cash and cash equivalents	\$ 82,945	\$ 85,086
Marketable securities	866	39
Accounts receivable, net	114,429	106,372
Inventories	92,519	92,572
Prepaid expenses and other current assets	15,431	15,265
Total current assets	306,190	299,334
Property, plant and equipment, net	54,439	54,885
Long-term marketable securities	5,217	6,096
Long-term deferred tax assets	1,683	1,982
Goodwill	210,587	202,138
Intangible assets, net	83,432	81,843
Equity method investments	25,295	27,273
Other assets	5,464	12,354
Total assets	\$ 692,307	\$ 685,905
Liabilities and Stockholders' Equity	·	·
Current liabilities		
Accounts payable	\$ 52,090	\$ 41,128
Deferred revenue	24,759	14,966
Accrued warranty and retrofit costs	6,217	6,324
Accrued compensation and benefits	14,255	21,254
Accrued restructuring costs	3,227	5,939
Accrued income taxes payable	7,775	7,554
Accrued expenses and other current liabilities	19,941	22,628
Total current liabilities	128,264	119,793
Long-term tax reserves	2,087	2,681
Long-term deferred tax liabilities	2,307	2,913
Long-term pension liabilities	2,281	2,557
Other long-term liabilities	4,466	4,271
Total liabilities	139,405	132,215
Commitments and contingencies (Note 18)	159,405	152,215
Stockholders' Equity		
Preferred stock, \$0.01 par value, 1,000,000 shares authorized, no shares issued or		
outstanding		
Common stock, \$0.01 par value, 125,000,000 shares authorized, 82,982,977 shares		
-	830	821
issued and 69,521,108 shares outstanding at December 31, 2016; 82,220,270 shares	030	021
issued and 68,758,401 shares outstanding at September 30, 2016	1 050 102	1 955 702
Additional paid-in capital	1,858,103	1,855,703
Accumulated other comprehensive income	5,063	15,166

Treasury stock at cost - 13,461,869 shares Accumulated deficit) (200,956) (1,117,044))
Total stockholders' equity	552,902	553,690	
Total liabilities and stockholders' equity	\$ 692,307	\$ 685,905	

The accompanying notes are an integral part of these unaudited consolidated financial statements. 3

BROOKS AUTOMATION, INC. CONSOLIDATED STATEMENTS OF OPERATIONS (unaudited) (In thousands, except per share data)

(in mousands, except per share data)		
	Three Mor	nths Ended
	December	31,
	2016	2015
Revenue		
Products	\$122,114	\$89,180
Services	37,841	30,775
Total revenue	159,955	119,955
Cost of revenue		
Products	75,679	58,032
Services	27,333	21,369
Total cost of revenue	103,012	79,401
Gross profit	56,943	40,554
Operating expenses		
Research and development	10,845	13,278
Selling, general and administrative	31,962	34,121
Restructuring and other charges	975	1,475
Total operating expenses	43,782	48,874
Operating income (loss)	13,161	(8,320)
Interest income	68	205
Interest expense	(96)) (3)
Gain on settlement of equity method investment	1,847	
Other loss, net	(251)) (59)
Income (loss) before income taxes and equity in earnings of equity method investments	14,729	(8,177)
Income tax provision (benefit)	2,800	(3,370)
Income (loss) before equity in earnings of equity method investments	11,929	(4,807)
Equity in earnings of equity method investments	1,942	159
Net income (loss)	\$13,871	\$(4,648)
Basic net income (loss) per share	\$0.20	\$(0.07)
Diluted net income (loss) per share	\$0.20	\$(0.07)
Dividend declared per share	\$0.10	\$0.10
Weighted average shares outstanding used in computing net income (loss) per share:		
Basic	69,181	68,130
Diluted	69,870	68,130

The accompanying notes are an integral part of these unaudited consolidated financial statements. 4

BROOKS AUTOMATION, INC. CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS) (unaudited) (In thousands)

	Three Mo Ended Decembe 2016	er 31, 2015	
Net income (loss)	\$13,871	\$(4,64	18)
Other comprehensive income (loss), net of tax:			
Cumulative foreign translation adjustments	(10,103)) (713)
Unrealized losses on marketable securities, net of tax effects of \$0 and (\$48) during the three months ended December 31, 2016 and 2015	(11) (119)
Actuarial gain, net of tax effects of \$2 and (\$2) during the three months ended December 31, 2010 and 2015	⁵ 11	8	
Total other comprehensive loss, net of tax Comprehensive income (loss), net of tax	(10,103) \$3,768) (824 \$(5,47) 72)

The accompanying notes are an integral part of these unaudited consolidated financial statements. 5

BROOKS AUTOMATION, INC. CONSOLIDATED STATEMENTS OF CASH FLOWS (unaudited) (In thousands)

Cash flows from operating activities\$13,871\$(4,648)Net income (loss)Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:\$13,871\$(4,648)Depreciation and amortization6,7526,445Gain on settlement of equity method investment(1,847)—Stock-based compensation2,4984,714Amortization of premium on marketable securities and deferred financing costs79274
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:Depreciation and amortization6,7526,445Gain on settlement of equity method investment(1,847)Stock-based compensation2,4984,714
Depreciation and amortization6,7526,445Gain on settlement of equity method investment(1,847)—Stock-based compensation2,4984,714
Depreciation and amortization6,7526,445Gain on settlement of equity method investment(1,847)—Stock-based compensation2,4984,714
Gain on settlement of equity method investment(1,847)Stock-based compensation2,4984,714
Stock-based compensation2,4984,714
*
Undistributed earnings of equity method investments (1,942) (159)
Deferred income tax benefit (421) (3,797)
Gain on disposal of long-lived assets (109) —
Changes in operating assets and liabilities, net of acquisitions:
Accounts receivable (11,137) 218
Inventories (2,930) 119
Prepaid expenses and other current assets (3,516) (1,697)
Accounts payable 13,040 (7,639)
Deferred revenue 10,737 8,872
Accrued warranty and retrofit costs (4) (305)
Accrued compensation and tax withholdings (6,884) (10,059)
Accrued restructuring costs (2,538) (407)
Accrued expenses and other current liabilities 3,061 (4,308)
Net cash provided by (used in) operating activities 18,710 (12,377)
Cash flows from investing activities
Purchases of property, plant and equipment (3,768) (2,486)
Purchases of marketable securities $-$ (12,901)
Sales and maturities of marketable securities — 135,873
Disbursement for a loan receivable — (300)
Acquisitions, net of cash acquired (5,346) (125,498)
Purchases of other investments (170) —
Net cash used in investing activities (9,284) (5,312)
Cash flows from financing activities
Payment of deferred financing costs (27) —
Common stock dividends paid (6,966) (6,844)
Net cash used in financing activities(6,993)(6,844)
Effects of exchange rate changes on cash and cash equivalents (4,574) (617)
Net decrease in cash and cash equivalents(2,141)(25,150)
Cash and cash equivalents, beginning of period 85,086 80,722
Cash and cash equivalents, end of period \$82,945 \$55,572
Supplemental disclosure of non-cash investing activities:
Purchases of property, plant and equipment included in accounts payable\$424\$955

Fair value of non-cash consideration for the acquisition of Cool Lab, LLC

10,348 -

The accompanying notes are an integral part of these unaudited consolidated financial statements. $\boldsymbol{6}$

BROOKS AUTOMATION, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (unaudited)

1. Basis of Presentation

The unaudited consolidated financial statements of Brooks Automation, Inc. and its subsidiaries ("Brooks" or the "Company") included herein have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). All intercompany accounts and transactions have been eliminated in consolidation. In the opinion of management, all material adjustments, which are of a normal and recurring nature and necessary for a fair statement of the financial position and results of operations and cash flows for the periods presented, have been reflected in the accompanying unaudited consolidated financial statements. The results of operations for the interim periods are not necessarily indicative of the results of operations to be expected for the full fiscal year. Certain information and footnote disclosures normally included in the Company's annual consolidated financial statements have been condensed or omitted and, accordingly, the accompanying financial information should be read in conjunction with the audited consolidated financial statements and notes thereto contained in the Company's Annual Report in Form 10-K filed with the United States Securities and Exchange Commission (the "SEC") for the fiscal year ended September 30, 2016 (the "2016 Annual Report on Form 10-K"). The accompanying Consolidated Balance Sheet as of September 30, 2016 was derived from the audited annual consolidated financial statements as of the period then ended.

Revision of Prior Period Financial Statements

During fiscal year 2016, the Company identified a classification error related to a presentation of cost of product and service revenue in the Company's Consolidated Statements of Operations for the quarterly and annual periods beginning in the fourth quarter of fiscal year 2014 through the quarterly period ended March 31, 2016. The classification error had no impact on the total cost of revenue, gross profit, operating income (loss), net income (loss), as well as basic and diluted net income (loss) per share during any of the periods presented. Additionally, the classification error had no impact on the Company's Consolidated Balance Sheets and Consolidated Statements of Cash Flows during any of the prior periods. The Company considered the guidance in Accounting Standard Codification (ASC) Topic 250, "Accounting Changes and Error Corrections," ASC Topic 250-10-S99-1, "Assessing Materiality," and ASC Topic 250-10-S99-2, "Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements" in evaluating whether the Company's previously issued consolidated financial statements were materially misstated. The Company concluded this classification error was not material individually or in the aggregate to the financial statements presented during any of the prior reporting periods, and therefore, amendments of previously filed reports were not required. The revisions for these corrections to the applicable prior periods are reflected in the financial information herein and will be reflected in future filings containing such financial information.

The following table summarizes the effects of the classification error on the interim prior period financial statements (in thousands):

December 31, 2015	
As	۸c
PreviouslAdjustment	As
Reported	Reviseu
\$58,150 \$ (118)	\$58,032
21,251 118	21,369
\$79,401 \$ —	\$79,401
	As PreviouslAdjustment Reported \$58,150 \$ (118) 21,251 118

2. Summary of Significant Accounting Policies

Foreign Currency Translation

Certain transactions of the Company and its subsidiaries are denominated in currencies other than their functional currency.

Foreign currency exchange gains (losses) generated from the settlement and remeasurement of these transactions are recognized in earnings and presented within "Other loss, net" in the Company's unaudited Consolidated Statements of Operations. Net foreign currency transaction and remeasurement losses totaled \$0.5 million each during the three months ended December 31, 2016 and 2015.

Use of Estimates

The preparation of unaudited consolidated financial statements in conformity with GAAP requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets

and liabilities at the date of the unaudited consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Significant estimates are associated with accounts receivable, inventories, goodwill, intangible assets other than goodwill, long-lived assets, derivative financial instruments, deferred income taxes, warranty obligations, revenue recognized using the percentage of completion method, pension obligations and stock-based compensation expense. The Company bases its estimates on historical experience and various other assumptions, including in certain circumstances, future projections that management believes to be reasonable under the circumstances. Although the Company regularly assesses these estimates, actual results could differ from those estimates. Changes in estimates are recorded in the period in which they occur and become known. Recently Issued Accounting Pronouncements

In February 2016, the FASB, issued new accounting guidance for reporting lease transactions. In accordance with provisions of the newly issued guidance, a lessee should recognize at the inception of the arrangement a right-of-use asset and a corresponding lease liability initially measured at the present value of lease payments over the lease term. For finance leases, interest on a lease liability should be recognized separately from the amortization of the right-of-use asset, while for operating leases, total lease costs are recorded on a straight-line basis over the lease term. For leases with a term of twelve months or less, a lessee is permitted to make an accounting policy election by class of underlying assets to forgo a recognition of right-of-use assets and corresponding lease liabilities and record a lease expense on a straight-line basis. Entities should determine at the inception of the arrangement whether a contract represents a lease or contains a lease which is defined as a right to control the use of identified property for a period of time in exchange for consideration. Additionally, entities should separate the lease components from the non-lease components and allocate the contract consideration on a relative standalone price basis in accordance with provisions of ASC Topic 606, Revenue from Contracts with Customers. The guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018 and should be adopted via a modified retrospective approach with certain optional practical expedients that entities may elect to apply. The Company expects to adopt the guidance during the first quarter of fiscal year 2020 and is currently evaluating the impact of this guidance on its financial position and results of operations.

In February 2015, the FASB issued an amendment to the accounting guidance for consolidations of financial statements by changing the analysis that a reporting entity must perform to determine whether it should consolidate certain types of variable interest entities. The guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2015. The guidance can be adopted either via a full retrospective approach or a modified retrospective approach by recording a cumulative-effect adjustment to beginning equity in the period of adoption. The Company adopted the guidance during the first quarter of fiscal year 2017. The adoption of the guidance did not have an impact on the Company's financial position or results of operations. Please refer to Note 9, "Other Balance Sheet Information" for further discussion.

In May 2014, the FASB issued new accounting guidance for reporting revenue recognition. The guidance provides for the recognition of revenue when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. A five-step process set forth in the guidance may require more judgment and estimation within the revenue recognition process than the current GAAP, including identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. The guidance was initially effective for fiscal years, and interim periods within those years, beginning after December 15, 2016. In August 2015, the FASB issued an amendment deferring the effective date of the guidance by one year. The guidance should be adopted retrospectively either for each reporting period presented or via recognizing the cumulative effect at the date of the initial application. Early adoption is permitted only as of annual reporting periods, including the interim periods, beginning after December 15, 2016. The Company expects to adopt the guidance during the first quarter of fiscal year 2019 and is currently evaluating the impact of this guidance on its financial position and results of operations.

Other

For further information with regard to the Company's Significant Accounting Policies, please refer to Note 2 "Summary of Significant Accounting Policies" to the Company's consolidated financial statements included in the 2016 Annual Report in Form 10-K.

3. Marketable Securities

The Company invests in marketable securities that are classified as available-for-sale and records them at fair value in the Company's unaudited Consolidated Balance Sheets. Marketable securities reported as current assets represent investments that mature within one year from the balance sheet date. Long-term marketable securities represent investments with maturity dates greater than one year from the balance sheet date.

Unrealized gains and losses are excluded from earnings and reported as a separate component of accumulated other comprehensive income until the security is sold or matures. Gains or losses realized from sales of marketable securities are computed based on the specific identification method and recognized as a component of "Other loss, net" in the accompanying unaudited Consolidated Statements of Operations. There were no sales of marketable securities during the three months ended December 31, 2016. During the three months ended December 31, 2015, the Company sold marketable securities with a fair value of \$124.0 million and amortized cost of \$124.2 million and recognized net losses of \$0.1 million. Gross gains reported as a component of net losses recognized on the sale of marketable securities during the three months ended December 31, 2015 were insignificant. The Company collected cash proceeds of \$123.5 million from the sale of marketable securities and reclassified unrealized net holding losses of \$0.1 million from the sale of marketable securities and reclassified unrealized net holding losses of \$0.1 million from the sale of marketable securities and reclassified unrealized net holding losses of \$0.1 million from the sale of marketable securities and reclassified unrealized net holding losses of \$0.1 million from the sale of marketable securities and reclassified unrealized net holding losses of \$0.1 million from the sale of marketable securities and reclassified unrealized net holding losses of \$0.1 million from accumulated other comprehensive income into "Other loss, net" in the accompanying unaudited Consolidated Statements of Operations as a result of these transactions. Net unrealized holding gains on available for sale securities recorded as a component of other comprehensive income (loss) before the impact of reclassifications were insignificant during the three months ended December 31, 2015.

Unrealized losses on available for sale securities presented as a component of accumulated other comprehensive income were insignificant at December 31, 2016 and September 30, 2016.

The following is a summary of the amortized cost and the fair value, including accrued interest receivable, as well as unrealized holding gains (losses) on the short-term and long-term marketable securities as of December 31, 2016 and September 30, 2016 (in thousands):

	Amortized	Gros	S	Gross		
	Cost	Unre	alized	Unrealiz	ed	Fair Value
	Cost	Gain	s	Losses		
December 31, 2016:						
Corporate securities	\$ 2,398	\$		\$ —		\$ 2,398
Other debt securities	27					27
Municipal securities	3,671			(13)	3,658
Total marketable securities	\$ 6,096	\$		\$ (13)	\$ 6,083
September 30, 2016:						
Corporate securities	\$ 2,394	\$		\$ —		\$ 2,394
Other debt securities	39					39
Municipal securities	3,704	1		(3)	3,702
-	\$ 6,137	\$	1	\$ (3)	\$ 6,135

The fair values of the marketable securities by contractual maturities at December 31, 2016 are presented below (in thousands):

thousands).	
	Fair Value
Due in one year or less	\$ 866
Due after one year through five years	2,819
Due after ten years	2,398
Total marketable securities	\$ 6,083
T 1 11 1100 0	

Expected maturities could differ from contractual maturities because the security issuers may have the right to prepay obligations without prepayment penalties.

The Company reviews the marketable securities for impairment at each reporting period to determine if any of the securities have experienced an other-than-temporary decline in fair value. The Company considers factors, such as the length of time and extent to which the market value has been less than the cost, the financial condition and near-term prospects of the issuer, the Company's intent to sell, or whether it is more likely than not it will be required to sell the investment before recovery of its amortized cost basis. If the Company believes that an other-than-temporary decline in fair value has occurred, it writes down the investment to fair value and recognizes the credit loss in earnings and the non-credit loss in accumulated other comprehensive income. As of December 31, 2016 and September 30, 2016,

aggregate fair value of the marketable securities in an unrealized loss position was \$3.7 million and \$2.5 million, respectively, and was comprised entirely of municipal securities. Aggregate unrealized losses for these securities were insignificant as of December 31, 2016 and September 30, 2016 and are presented in the table above. These securities were not considered other-than-temporarily impaired and, as such, the Company did not recognize impairment losses during the periods then ended. The unrealized losses are attributable to changes in interest rates which impact the value of the investments.

4. Acquisitions

Acquisitions Completed in Fiscal Year 2017

Acquisition of Cool Lab, LLC

On November 28, 2016, the Company acquired 100% of the equity of Cool Lab, LLC ("Cool Lab") from BioCision, LLC ("BioCision"). The Company held a 20% equity ownership interest in BioCision prior to the acquisition. Cool Lab was established as a subsidiary of BioCision on November 28, 2016 upon a transfer of certain assets related to cell cryopreservation solutions with net carrying values of \$0.9 million. Cool Lab provides a range of patented and/or patent-pending offerings for sample cooling and freezing, controlled rate freezing, portable cryogenic transport and archival storage solutions for customers with temperature-sensitive workflow process. Cool Lab's offerings assist in managing the temperature stability of therapeutics, biological samples, and related biomaterials in ultra-cold and cryogenic environments. The acquisition of Cool Lab is expected to allow the Company to extend its comprehensive sample management solutions across the cold chain of custody, which is consistent with the other offerings it brings to its life sciences customers. Please refer to Note 6, "Equity Method Investments" for further information on the equity interest in BioCision held by the Company immediately before the acquisition date.

The aggregate purchase price of \$15.2 million consisted of a cash payment of \$4.8 million, a liability to the seller of \$0.1 million and the settlement of certain preexisting relationships with Cool Lab and BioCision, disclosed as non-cash consideration of \$10.3 million, which has been measured at fair value on the acquisition date. The non-cash consideration of \$10.3 million consisted of financial instruments of BioCision held by the Company prior to the acquisition of Cool Lab that were subsequently measured at fair value on the acquisition date and delineated as non-cash consideration paid for Cool Lab. Such non-cash consideration was comprised of: (i) the redeemable fair value of the existing 20% equity ownership interest in BioCision of \$3.1 million, (ii) convertible debt securities of BioCision and warrants of \$5.6 million to purchase BioCision's preferred units, and (iii) term notes of BioCision of \$1.6 million including accrued interest. Such pre-acquisition financial instruments had an aggregate carrying value of \$8.6 million and were measured at an aggregated fair value of \$10.3 million on the acquisition date. As a result of such measurement, the Company recognized a net gain of \$1.6 million in its unaudited Consolidated Statements of Operations during the three months ended December 31, 2016. Please refer to Note 6, "Equity Method Investments" and Note 17, "Fair Value Measurements" for further information on the financial instruments included in the non-cash consideration and the valuation techniques and inputs used in fair value measurements. The Company used a market participant approach to record the assets acquired and liabilities assumed in the Cool Lab acquisition. The purchase price allocation is based on a preliminary valuation and subject to further adjustments within the measurement period as additional information becomes available related to the fair value of such assets acquired and liabilities assumed. As a result of the preliminary valuation, the Company's estimates and assumptions are subject to change within the measurement period. As of December 31, 2016, the fair values of inventory, intangible assets acquired, tax-related matters and residual goodwill are preliminary. The Company will refine such fair value estimates as new information becomes available during the measurement period. Any adjustments to the purchase price allocation will be made as soon as practicable but no later than one year from the acquisition date. The preliminary amounts recorded were as follows (in thousands):

Fair Value of Assets and Liabilities Inventory \$1,283 6,100 Intangible assets Goodwill 8,527 Accrued liabilities (30) Other liabilities (686) Total purchase price \$15,194

Fair values of intangible assets acquired consisted of: (i) a customer relationship intangible asset of \$3.6 million attributable to a certain customer, (ii) completed technology of \$1.2 million and (iii) other customer relationship intangible assets of \$1.3 million. The Company used the income approach in accordance with the excess-earnings method to estimate the fair value of customer relationship intangible assets which is equal the present value of the after-tax cash flows attributable to the intangible asset only. The Company used the income approach in accordance with the relief-from-royalty method to estimate the fair value of the completed technology which is equal to the present value of the after-tax royalty savings attributable to owning that intangible asset. The weighted average amortization periods for intangible assets acquired are 3

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years for the customer relationship intangible asset attributable to a certain customer, 8 years for completed technology and 10 years for other customer relationship intangible assets. The intangible assets acquired are amortized over the total weighted average period of 5.5 years using methods that approximate the pattern in which the economic benefits are expected to be realized, including percentage of revenue expected to be generated from sales to a certain customer over the contract term.

Goodwill represents the excess of the consideration transferred over the fair value of the net assets acquired and has been assigned to the Brooks Life Science Systems segment. Goodwill is primarily the result of expected synergies from combining the operations of Cool Lab with the Company's operations and is deductible for tax purposes. The Company recorded a liability of \$0.7 million in the purchase price allocation that represented a preacquisition contingency incurred on the acquisition date. The obligation is related to a rebate that is due to a particular customer if the annual product sales volume metrics exceed threshold amount under the provisions of the contract assumed by the Company. Fair value of such liability was determined based on a probability weighted discounted cash flow model. Additionally, the Company recognized a customer relationship intangible asset of \$3.6 million related to this arrangement, as discussed above.

The operating results of Cool Lab have been reflected in the results of operations for the Brooks Life Science Systems segment from the date of the acquisition, which included approximately one month of activity during the first quarter of fiscal year 2017. During the three months ended December 31, 2016, revenue and net loss from Cool Lab recognized in the Company's results of operations were \$0.3 million and \$0.1 million, respectively. During the three months ended December 31, 2016, the net loss included charges of \$0.1 million each related to the step-up in value of the acquired inventories and amortization expense related to acquired intangible assets.

During the three months ended December 31, 2016, the Company incurred \$0.2 million in non-recurring transaction costs with respect to the Cool Lab acquisition which were recorded in "Selling, general and administrative" expenses within the accompanying unaudited Consolidated Statements of Operations.

The Company did not present a pro forma information summary for its consolidated results of operations for the three months ended December 31, 2016 and 2015 as if the acquisition of Cool Lab occurred on October 1, 2015 because such results were insignificant.

Acquisitions Completed in Fiscal Year 2016

Acquisition of BioStorage Technologies, Inc.

On November 30, 2015, the Company completed its acquisition of BioStorage Technologies, Inc., or BioStorage, an Indiana-based global provider of comprehensive sample management and integrated cold chain solutions for the biosciences industry. These solutions include collection, transportation, processing, storage, protection, retrieval and disposal of biological samples. These solutions combined with the Company's existing offerings, particularly automation for sample storage and formatting, provide customers with fully integrated sample management cold chain solutions which will help them increase productivity, efficiencies and speed to market. This acquisition will allow the Company to access a broader customer base that is storing samples at ultra cold temperatures and simultaneously provide opportunities for BioStorage to use the Company's capabilities to expand into new markets.

The Company acquired 100% of the issued and outstanding shares of BioStorage. A cash payment of \$130.7 million, net of the seller's cash of \$2.8 million, resulted in a net cash outflow of \$128.0 million, including \$125.2 million ascribed to the purchase price and \$2.5 million for retention arrangements with certain employees based on the completion of a service retention period. The cash payment included a debt repayment of \$3.2 million and transaction costs of \$2.9 million paid by the Company on behalf of BioStorage.

The Company recorded the assets acquired and liabilities assumed related to BioStorage at their preliminary fair values as of the acquisition date, from a market participant's perspective. The purchase price allocation was prepared on a preliminary basis and subject to further adjustments within the measurement period as additional information became available concerning the fair value of the assets acquired and liabilities assumed. The preliminary fair values of the tangible and intangible assets acquired were based upon preliminary valuations and the Company's estimates and assumptions that were subject to change within the measurement period. The purchase price allocation for the BioStorage acquisition was finalized within the measurement period.

During fiscal year 2016, the Company reached a settlement with the sellers of BioStorage's stock related to certain working capital adjustments and received \$0.2 million of proceeds from the sellers as a result of such settlement which was recorded as a decrease of \$0.2 million in the purchase price and goodwill.

The Company recorded the following amounts for the assets acquired and liabilities assumed related to BioStorage at

their fair values as of the acquisition date (in thousands):

	Fair value
	of Assets
	and
	Liabilities
Accounts receivable	\$16,942
Prepaid expenses and other current assets	321
Property, plant and equipment	14,345
Intangible assets	41,460
Goodwill	79,639
Other assets	53
Debt assumed	(385)
Accounts payable	(1,708)
Accrued liabilities	(9,423)
Deferred revenue	(1,766)
Long-term deferred tax liabilities	(14,169)
Other liabilities	(61)
\mathbf{T}_{1}	¢ 105 040

Total purchase price, net of cash acquired \$125,248

At the closing of the acquisition of BioStorage, a cash payment of \$5.4 million was placed into escrow which consisted of \$2.9 million ascribed to the purchase price and \$2.5 million related to retention arrangements with certain employees. The payment of \$2.9 million included \$1.9 million related to satisfaction of the sellers' indemnification obligations with respect to BioStorage's representations and warranties and other indemnities, as well as \$1.0 million related to potential purchase price adjustments which was reduced by the full amount subsequent to the acquisition date as a result of reaching a settlement with the sellers. The escrow balance of \$2.5 million was payable to certain employees upon completion of a service retention period. Such retention payments were not considered a part of the purchase price, but rather recorded as a separate asset acquired and included within "Prepaid expenses and other current assets" in the accompanying unaudited Consolidated Balance Sheets. The escrow balance related to such retention payments was reduced by the full amount of \$2.5 million and released to applicable employees subsequent to the acquisition date. Total escrow balance related to the satisfaction of the sellers' indemnification obligations was \$1.9 million as of December 31, 2016.

The fair value of customer relationship intangible assets of \$36.6 million was estimated based on the income approach in accordance with the excess-earnings method. The weighted average amortization period for the customer relationships intangible assets acquired in the BioStorage acquisition is 11.0 years. The fair value of the trademark intangible assets acquired of \$4.9 million was estimated based on the income approach in accordance with the relief-from-royalty method. The weighted average amortization period for the trademark intangible assets acquired is 8.0 years. The intangible assets acquired are amortized over the total weighted average period of 10.6 years using an accelerated depreciation method which approximates the pattern in which the economic benefits are expected to be realized.

Goodwill represents the excess of the consideration transferred over the fair value of the net assets acquired and has been assigned to Brooks Life Science Systems segment. Goodwill is primarily the result of expected synergies from combining the operations of BioStorage with the Company and is not deductible for tax purposes.

The operating results of BioStorage have been reflected in the results of operations for the Brooks Life Science Systems segment from the date of the acquisition, which included one month of activity during the first quarter of fiscal year 2016. During the three months ended December 31, 2016, revenue and net income from BioStorage recognized in the Company's results of operations were \$16.6 million and \$1.5 million, respectively. During the three months ended December 31, 2015, revenue and net loss from BioStorage recognized in the Company's results of operations, respectively. During the three months ended December 31, 2016, revenue and net loss from BioStorage recognized in the Company's results of operations were \$6.5 million and \$0.6 million, respectively. During the three months ended December 31, 2016 and 2015, the net income (loss) included amortization expense of \$1.1 million and \$0.3 million, respectively, related to

acquired intangible assets, as well as \$0.1 million of charges related to the step-up in value of the acquired fixed assets incurred during the three months ended December 31, 2015.

During the three months ended December 31, 2016 and 2015, the Company incurred \$0.1 million and \$2.9 million, respectively, in non-recurring transaction costs with respect to the BioStorage acquisition which were recorded in "Selling, general and administrative" expenses within the unaudited Consolidated Statements of Operations. The retention payment of \$2.5 million was recorded within prepaid expenses and other current assets at the acquisition date and is recognized as

compensation expense over the service period or upon a triggering event in the underlying change in control agreements. During the three months ended December 31, 2016 and 2015, the Company recorded \$0.1 million and \$0.7 million, respectively, of compensation expense related to this arrangement. The retention payment balance was \$0.1 million at September 30, 2016. There was no balance related to the retention payment at December 31, 2016. The following unaudited proforma financial information represents a summary of the consolidated results of operations for the Company and BioStorage for the three months ended December 31, 2015 as if the acquisition of BioStorage occurred on October 1, 2014 (in thousands):

	Three
	Months
	Ended,
	December
	31, 2015
Revenue	\$131,001
Net loss	(71)
Basic loss per share	\$—
Diluted loss per share	\$—

Weighted average shares outstanding used in computing net loss per share:

Basic	68,130
Diluted	68,130

The unaudited pro forma information presented above reflects historical operating results of the Company and BioStorage and includes the impact of certain adjustments directly attributable to the business combination. The unaudited pro forma financial information is presented for informational purposes only and is not necessarily indicative of the results of operations that would have been achieved if the acquisition of BioStorage had taken place on October 1, 2014. The adjustments reflected in the unaudited pro forma information included amortization expense of \$0.5 million and the related tax effects of \$0.5 million. Additionally, transaction costs of \$2.9 million and restructuring charges of \$0.8 million were excluded from the proforma net loss during the three months ended December 31, 2015. The Company did not present unaudited pro forma financial information for the three months ended December 31, 2016 since the results of BioStorage were included in the Company's consolidated results of operations during the period then ended.

5. Goodwill and Intangible Assets

Goodwill represents the excess of net book value over the estimated fair value of net tangible and identifiable intangible assets of a reporting unit. Goodwill is tested for impairment annually or more often if impairment indicators are present at the reporting unit level. The Company elected April 1 as its annual goodwill impairment assessment date and performs additional impairment tests if triggering events occur. If events occur or circumstances change that would more likely than not reduce fair values of the reporting units below their carrying values, goodwill will be evaluated for impairment between annual tests. No triggering events indicating goodwill impairment occurred during the three months ended December 31, 2016. Please refer to Note 7, "Goodwill and Intangible Assets" to the Company's consolidated financial statements included in the 2016 Annual Report in the Form 10-K for further information on the goodwill impairment testing performed during fiscal year 2016 and the related testing results for the former Polycold reporting unit during the period then ended.

The components of the Company's goodwill by an operating segment at December 31, 2016 and September 30, 2016 are as follows (in thousands):

	Brooks Semiconductor Solutions Group	Brooks Life Science Systems	Other	Total
Gross goodwill, at September 30, 2016	\$ 655,781	\$ 135,301	\$26,014	\$817,096
Accumulated goodwill impairments	(588,944)		(26,014)	(614,958)
Goodwill, net of accumulated impairments, at September 30, 2016	66,837	135,301		202,138
Acquisitions and adjustments	(78)	8,527		8,449
Gross goodwill, at December 31, 2016	655,703	143,828	26,014	825,545
Accumulated goodwill impairments	(588,944)		(26,014)	(614,958)
Goodwill, net of accumulated impairments, at December 31, 2016	\$ 66,759	\$ 143,828	\$—	\$210,587

During the three months ended December 31, 2016, the Company recorded a goodwill increase of \$8.4 million primarily related to the acquisition of Cool Lab which represented the excess of the consideration transferred over the fair value of the net assets acquired. Please refer to the Note 4 "Acquisitions" for further information on this transaction.

The components of the Company's identifiable intangible assets as of December 31, 2016 and September 30, 2016 are as follows (in thousands):

	December	31, 2016		September	r 30, 2016	
	Cost	Accumulated Amortization	Net Book Value	Cost	Accumulated Amortization	
Patents	\$9,028	\$ 7,523	\$1,505	\$7,808	\$ 7,486	\$322
Completed technology	60,385	51,927	8,458	60,485	51,018	9,467
Trademarks and trade names	9,139	4,392	4,747	9,142	4,204	4,938
Customer relationships	118,422	49,700	68,722	114,263	47,147	67,116
Total intangible assets	\$196,974	\$ 113,542	\$83,432	\$191,698	\$ 109,855	\$81,843

Amortization expense for intangible assets was \$4.1 million and \$3.5 million, respectively, during the three months ended December 31, 2016 and 2015.

Estimated future amortization expense for the intangible assets for the remainder of fiscal year 2017 and the subsequent four fiscal years is as follows (in thousands):

Fiscal year ended September 30,

2017	\$12,424
2018	15,300
2019	15,192
2020	13,909
2021	8,226
Thereafter	18,381
	\$83,432

6. Equity Method Investments

The Company accounts for certain of its investments using the equity method of accounting and records its proportionate share of the investee's earnings (losses) in its results of operations with a corresponding increase (decrease) in the carrying value of the investment.

BioCision, LLC

At September 30, 2016, the Company held a 20% equity interest in BioCision, a privately-held company based in Larkspur, California, which was accounted for as an equity method investment. The carrying value of the investment in BioCision was \$1.7 million at September 30, 2016. During the three months ended December 31, 2015, the Company recorded a loss associated with BioCision of approximately \$0.3 million.

At September 30, 2016, the Company held a term loan receivable from BioCision and five-year convertible debt securities with a warrant agreement to purchase BioCision's preferred units. The convertible debt securities and the warrant were recorded

at fair value during each reporting period, and the remeasurement gains and losses were recognized as a component of "Other loss, net" in the Company's unaudited Consolidated Statements of Operations. The fair value of the convertible debt securities and the warrant was \$5.8 million and less than \$0.1 million, respectively, at September 30, 2016. During the three months ended December 31, 2015, the Company recognized remeasurement gains of \$0.3 million related to these financial instruments. Please refer to Note 17, "Fair Value Measurements" for further information on the valuation techniques and inputs used in fair value measurements of the convertible debt securities and the warrant. The term loan with an aggregate principal amount of \$1.5 million bore an annual interest rate of 10% and was provided to BioCision to support its working capital requirements. At September 30, 2016, the term loan was recorded at its carrying value of \$1.5 million and included in "Other assets" in the Company's unaudited Consolidated Balance Sheets. Please refer to Note 8, "Equity Method and Other Investments" to the Company's consolidated financial statements included in the 2016 Annual Report in the Form 10-K for further information on these financial instruments.

On November 28, 2016, BioCision established Cool Lab as its subsidiary upon transferring certain assets related to cell cryopreservation solutions with net carrying values of \$0.9 million, in which the Company acquired a 100% equity interest on that date for an aggregate purchase price of \$15.2 million. The purchase price consisted of a cash payment of \$4.8 million, a liability to the seller of \$0.1 million and non-cash consideration of \$10.3 million measured at fair value on the acquisition date which was comprised of: (i) the redeemable fair value of the existing 20% equity ownership interest in BioCision of \$3.1 million, (ii) the convertible debt securities of BioCision and warrants of \$5.6 million to purchase BioCision's preferred units, and (iii) the term notes of BioCision of \$1.6 million including accrued interest.

Carrying value of the equity method investment in BioCision was \$1.2 million on November 28, 2016 and reflected BioCision's losses of \$0.5 million recorded from October 1, 2016 through the acquisition date. The Company has traditionally recorded the income and losses related to the equity method investment in BioCision one quarter in arrears. During the three months ended December 31, 2016, the Company recorded two additional months of activity in the carrying value of the investment as a result of its settlement. The Company deemed the amount of \$0.2 million related to two additional months of activity to be insignificant. The equity method investment in BioCision was measured at fair value of \$3.1 million at the acquisition date, and as a result the Company recognized a gain of \$1.8 million upon the redemption of the equity method investment in its unaudited Consolidated Statements of Operations during the three months ended December 31, 2016. On November 28, 2016, convertible debt, warrant and the term loan with carrying values of \$5.8 million, less than \$0.1 million and \$1.6 million, respectively, were measured at their fair values of \$5.6 million, less than \$0.1 million and \$1.6 million, respectively. As a result of such measurement, the Company recognized an aggregate loss of \$0.2 million upon the settlement of these financial instruments in "Other loss, net" in its unaudited Consolidated Statements of Operations during the three months ended December 31, 2016. Please refer to Note 4, "Acquisitions" and Note 17, "Fair Value Measurements" for further information on the acquisition transaction and the valuation techniques and inputs used in fair value measurements. ULVAC Cryogenics, Inc.

The Company and ULVAC Corporation of Chigasaki, Japan each own a 50% joint venture, ULVAC Cryogenics, Inc. UCI manufactures and sells cryogenic vacuum pumps, principally to ULVAC Corporation.

The carrying value of the investment in UCI was \$25.3 million and \$25.6 million, respectively, at December 31, 2016 and September 30, 2016. During the three months ended December 31, 2016 and 2015, the Company recorded income of \$2.4 million and \$0.4 million, respectively, representing its proportionate share of UCI's earnings. Management fee payments received by the Company from UCI were \$0.3 million and \$0.2 million, respectively, during the three months ended December 31, 2015, the Company incurred charges from UCI's for products or services of \$0.1 million. Such charges were insignificant during the three months ended December 31, 2016. At December 31, 2016 and September 30, 2016, the Company owed UCI \$0.1 million in connection with accounts payable for unpaid products and services.

The Company maintains a five-year senior secured revolving line of credit (the "line of credit"), with Wells Fargo Bank, N.A. ("Wells Fargo"), that provides for up to \$75 million of borrowing capacity, subject to borrowing base availability, as defined in the agreement governing the line of credit. There were no amounts outstanding under the line of credit as of December 31, 2016 and September 30, 2016. During the three months ended December 31, 2016, the Company incurred less than \$0.1 million in fees related to the unused portion of the line of credit commitment amount. There were no such fees incurred during the three months ended December 31, 2015. The line of credit contains certain customary representations and warranties, a financial covenant, affirmative and negative covenants, as well as events of default. The Company was in compliance with the line of credit covenants as of December 31, 2016 and September 30, 2016. Please refer to Note 11, "Line of Credit" to the Company's consolidated financial statements included in the 2016 Annual Report in the Form 10-K for further information on the line of credit arrangement.

8. Income Taxes

The Company recorded an income tax provision of \$2.8 million and a benefit of \$3.4 million, respectively, during the three months ended December 31, 2016 and 2015. The income tax provision of \$2.8 million during the three months ended December 31, 2016 was primarily driven by foreign income generated during the quarter, partially offset by \$0.7 million of tax benefits related to the reduction of reserves for unrecognized tax benefits resulting from the expiration of statutes of limitations. The income tax benefit of \$3.4 million during the three months ended December 31, 2015 was driven by U.S. pre-tax losses incurred during the period, \$0.7 million of reductions in unrecognized tax benefits resulting from the expiration of the statute of limitations in various foreign jurisdictions and \$0.9 million of tax benefits resulting from the reinstatement of the U.S. research and development tax credit, retroactive to January 1, 2015.

The Company evaluates the realizability of its deferred tax assets by tax-paying component and assesses the need for a valuation allowance on an annual and quarterly basis. The Company evaluates the profitability of each tax-paying component on a historic cumulative basis and on a forward looking basis in the course of performing this analysis. The Company evaluated all positive and negative evidence in concluding it was appropriate to establish a full valuation allowance against U.S. net deferred tax assets during fiscal year 2016. The Company maintained such allowance at December 31, 2016 and September 30, 2016 and will continue to maintain it until there is sufficient positive evidence to support the reversal of all or some portion of these allowances. Please refer to Note 12, "Income Taxes" to the Company's consolidated financial statements included in the 2016 Annual Report in the Form 10-K for further information on the valuation allowance.

The Company is subject to U.S. federal income tax and various state, local and international income taxes in various jurisdictions. The amount of income taxes paid is subject to the Company's interpretation of applicable tax laws in the jurisdictions in which it files tax returns. In the normal course of business, the Company is subject to income tax audits in various global jurisdictions in which it operates. The years subject to examination vary for the U.S. and international jurisdictions, with the earliest tax year being 2010. Based on the outcome of these examinations or the expiration of statutes of limitations for specific jurisdictions, it is reasonably possible that the related unrecognized tax benefits could change from those recorded in the Company's unaudited Consolidated Balance Sheets. The Company currently anticipates that it is reasonably possible that the unrecognized tax benefits will be reduced by approximately \$0.7 million within the next twelve months.

9. Other Balance Sheet Information

The following is a summary of accounts receivable at December 31, 2016 and September 30, 2016 (in thousands):

	Decembe 31, 2016	r September 30, 2016
Accounts receivable	\$116,740	\$ 108,713
Less: allowance for doubtful account	ts (2,209) (2,241)
Less: allowance for sales returns	(102) (100)
Accounts receivable, net	\$114,429	\$ 106,372
The following is a summary of inven	tories at De	cember 31, 2016 and September 30, 2016 (in thousands):
3	51	eptember 30, 016
Inventories:		
Raw materials and purchased parts \$	59,775 \$	60,979
Work-in-process 1	3,899 10	5,090
Finished goods 1	8,845 1.	5,503
Total inventories	\$ 92,519 \$	92,572
Reserves for excess and obsolete inv	entory were	\$24.1 million and \$24.8 million, respectively, at December 31, 2016

and September 30, 2016.

During the three months ended December 31, 2016 and the fiscal year ended September 30, 2016, the Company had cumulative capitalized direct costs of \$4.0 million and \$3.7 million, respectively, associated with development of software for its internal use which are included within "Property, plant and equipment, net" in the accompanying unaudited Consolidated Balance Sheets. During the three months ended December 31, 2016, the Company capitalized direct costs of \$0.3 million associated with development of software for its internal use.

Deferred financing costs of \$0.7 million at December 31, 2016 and September 30, 2016 are associated with obtaining the line of credit financing and presented within "Other assets" in the accompanying unaudited Consolidated Balance Sheets.

Amortization expense incurred during the three months ended December 31, 2016 was insignificant and included in interest expense in the accompanying unaudited Consolidated Statements of Operations. There was no such expense incurred during the three months December 31, 2015. Please refer to Note 7, "Line of Credit" for further information on this arrangement.

A note receivable of \$0.2 million at December 31, 2016 and September 30, 2016 is recorded at carrying value and included in "Other assets" in the accompanying unaudited Consolidated Balance Sheets. The note had an initial value of \$3.0 million and a stated interest rate of 9% upon its origination in fiscal year 2012 and was provided by the Company to a strategic partner (the "Borrower") to support its future product development and other working capital requirements. Prior to fiscal year 2017, the Company amended the terms of the note due to the subordination of its security interest in the assets of the Borrower to the new lender and recognized cumulative impairment charges of \$3.4 million as a result of making a determination that a recovery of all amounts due from the loan was not probable. No triggering events indicating additional impairment of the note receivable occurred during the three months ended December 31, 2016. Please refer to Note 9, "Loan Receivable" to the Company's consolidated financial statements included in the 2016 Annual Report in the Form 10-K for further information on the loan.

The Company determined that the Borrower represented a variable interest entity since the level of equity investment at risk was not sufficient for the entity to finance its activities without additional financial support. However, the Company did not qualify as the primary beneficiary since it would not absorb the majority of the expected losses from the Borrower and did not have the power to direct the Borrower's product research, development and marketing activities that have the most significant impact on its economic performance. The Company has no future contractual funding commitments to the Borrower and, as a result, the Company's exposure to loss is limited to the outstanding principal and interest due on the loan. During the first quarter of fiscal year 2017, the Company adopted the Accounting Standards Update 2015-02, Consolidation (Topic 810): Amendments to the Borrower's activities that most significantly impact its economic performance. The adoption of the guidance did not have an impact on the Company's financial position and the results of operations since it concluded that it does not have a controlling financial interest in Borrower .

The Company establishes reserves for estimated cost of product warranties based on historical information. Product warranty reserves are recorded at the time product revenue is recognized, and retrofit accruals are recorded at the time retrofit programs are established. The Company's warranty obligation is affected by product failure rates, utilization levels, material usage, service delivery costs incurred in correcting a product failure and supplier warranties on parts delivered to the Company.

The following is a summary of product warranty and retrofit activity on a gross basis for the three months ended December 31, 2016 and 2015 (in thousands):

Activity - Three Months Ended December 31, 2016 Balance Balance at at Septembaccruals Costs Incurred December 30, 31. 2016 2016) \$ 6,217 \$6,324 \$2,507 \$ (2,614 Activity - Three Months Ended December 31, 2015 Balance Balance at at Septembaccruals Costs Incurred December 30, 31. 2015 2015

\$6,089 \$2,124 \$ (2,446) \$ 5,767

10. Derivative Instruments

The Company has transactions and balances denominated in currencies other than the U.S. dollar. Most of these transactions or balances are denominated in Euros, British Pounds and a variety of Asian currencies. These transactions and balances, including short-term advances between the Company and its subsidiaries, subject the Company's operations to exposure from exchange rate fluctuations. The impact of currency exchange rate movement can be positive or negative in any period. The Company mitigates the impact of potential currency transaction gains and losses on short-term intercompany advances through timely settlement of each transaction, generally within 30 days.

The Company also enters into foreign exchange contracts to reduce its exposure to currency fluctuations. Under forward contract arrangements, the Company typically agrees to purchase a fixed amount of U.S. dollars in exchange for a fixed amount of a foreign currency on specified dates with maturities of three months or less. These transactions do not qualify for hedge accounting. Net gains and losses related to these contracts are recorded as a component of "Other loss, net" in the accompanying unaudited Consolidated Statements of Operations and are as follows for the three months ended December 31, 2016 and 2015 (in thousands):

	Three M Decemb 2016	Months Ended ber 31,		2015	
Realized (losses)					
gains on derivative					
instruments not	\$	(1,003)	\$	275
designated as					
hedging instruments					
The Commony had the follow	uina natia	nol omounto o	utaton din a un	dan fanai an arrange	

The Company had the following notional amounts outstanding under foreign currency contracts that do not qualify for hedge accounting at December 31, 2016 and September 30, 2016 (in thousands): December 31, 2016:

Buy Currency	Notional Amore of Buy Current	unt cy Sell Currency	У	Maturity	7	Notional An of Sell Curre		Faiı Ass				r Valu bilitie	
British Pound	115	Norwegian K	Krone	January	2017			\$			\$ ·		
Japanese Yen	691	U.S. Dollar		January	2017	81,000					(2)
British Pound	936	Swedish Kro	na	January	2017	8,600		2					
Korean Won	1,711	U.S. Dollar		January	2017	2,062,000					(9)
U.S. Dollar	22	Taiwan Dolla	ar	January	2017	700							
U.S. Dollar	5,823	Chinese Yua	n	January	2017	41,000					(70)
Euro	12,386	U.S. Dollar		January	2017	11,900		32					
U.S. Dollar	2,338	British Poun	d	January	2017	1,910					(2)
Singapore Dol	lar 261	U.S. Dollar		January	2017	380							
U.S. Dollar	350	Israeli Sheke	1	January	2017	1,350							
Euro	11,465	British Poun	d	January	2017	9,359					(3)
								\$	34		\$	(86)
September 30,	2016:												
Buy Currency	Notional Amount of Buy Currency	Sell Currency	Matu	rity		onal Amount		Valu	ie of				
	of Duy Currency			•		J		ts		Liabi	litie	es	
British Pound	246	Swedish Krona					\$	1		\$ —	-		
U.S. Dollar	6,107	British Pound	Octo	ber 2016	4,71	0	2			—			
Euro	14,976	U.S. Dollar	Octo	ber 2016	13,3	00				(40)	
U.S. Dollar	5,815	Chinese Yuan	Octo	ber 2016	39,0	00				(33)	
Korean Won	2,255	U.S. Dollar	Octo	ber 2016	2,48	8,000	1						
Euro	8,403	British Pound	Octo	ber 2016	6,50	0				(23)	
U.S. Dollar	311	Israeli Shekel	Octo	ber 2016	1,16	9	1			—			
							\$	5		\$ (9	6)	

The fair values of the forward contracts described above are recorded in the Company's accompanying unaudited Consolidated Balance Sheets as "Prepaid expenses and other current assets" and "Accrued expenses and other current liabilities".

Stock Warrant

The stock warrant was less than \$0.1 million at September 30, 2016. The BioCision warrant agreement contained net share settlement provisions, which permitted the Company to pay the warrant exercise price using shares issuable under the warrant ("cashless exercise"). The value of the stock warrant fluctuated primarily in relation to the value of BioCision's underlying securities, either providing an appreciation in value or potentially expiring with no value. Gains and losses on the revaluation of the stock warrant were recognized as a component of "Other loss, net" in the accompanying unaudited Consolidated Statements of Operations.

During the first quarter of fiscal year 2017, the Company canceled the stock warrant as a portion of the non-cash consideration transferred for the acquisition of Cool Lab which was measured at fair value on the acquisition date.

There were no stock warrants held by the Company at December 31, 2016. Please refer to Note 4, "Acquisitions"; Note 6, "Equity Method Investments" and Note 17 "Fair Value Measurements" for further information on the the acquisition of Cool Lab and the stock warrant.

11. Stock-Based Compensation

The Company may issue restricted stock units and restricted stock awards (collectively "restricted stock units") and stock options which vest upon the satisfaction of a performance condition and/or a service condition. In addition, the Company issues shares to participating employees pursuant to an employee stock purchase plan and unrestricted stock awards to its directors in accordance with its director compensation program.

The following table reflects stock-based compensation expense recorded during the three months ended December 31, 2016 and 2015 (in thousands):

	Three Months Ende				
	December 31,				
	2016	2015			
Restricted stock units	\$ 2,365	\$ 4,577			
Employee stock purchase plan	133	137			
Total stock-based compensation	n \$ 2,498	\$ 4,714			

The fair value of restricted stock units is determined based on the number of shares granted and the closing price of the Company's common stock quoted on NASDAQ on the date of grant. The Company recognizes stock-based compensation expense on a straight-line basis, net of estimated forfeitures, over the requisite service period. Additionally, the Company assesses the likelihood of achieving the performance goals against previously established performance targets in accordance with the Company's long-term equity incentive plan for stock-based awards that vest upon or after the satisfaction of these goals.

The Company grants restricted stock units that vest over a required service period and/or achievement of certain operating performance goals. Restricted stock units granted with performance goals may also have a required service period following the achievement of all or a portion of the goals. The following table reflects restricted stock units granted during the three months ended December 31, 2016 and 2015:

	Total	Time-Based Stock		Performance-Based
	Units	Units	Grants	Units
Three months ended December 31, 2016	951,266	362,113	815	588,338
Three months ended December 31, 2015	1,208,954	424,250	954	783,750
Time Recod Grants				

Time-Based Grants

Restricted stock units granted with a required service period typically have three year vesting schedules in which one-third of awards vest at the first anniversary of the grant date, one-third vest at the second anniversary of the grant date and one-third vest at the third anniversary of the grant date, subject to the award holders meeting service requirements.

Stock Grants

During the three months ended December 31, 2016 and 2015, the Company granted 815 and 954 units to the members of the Company's Board of Directors. Certain members of its Board of Directors previously elected to defer receiving their annual awards of unrestricted shares of the Company stock and quarterly dividends until a future date. During the three months ended December 31, 2016 and 2015, the Company issued 815 and 954 units, respectively, related to deferred quarterly dividends in an amount equal to the value of cash dividends that would be paid on the number of deferred shares based on the closing price of the Company's stock on the dividend record date. These units vested upon issuance, but receipt of the Company shares is deferred until the holders attain a certain age or cease to provide services to the Company in their capacity as Board members. There were no annual awards of unrestricted shares of the Company stock and compensation-related restricted stock units granted to the members of the Company's Board of Directors during the three months ended December 31, 2016 and 2015, respectively.

Performance-Based Grants

Performance-based restricted stock units are earned based on the achievement of performance criteria established by the Human Resources and Compensation Committee of the Board of Directors. The criteria for performance-based awards are weighted and have threshold, target and maximum performance goals.

Performance-based awards granted in fiscal year 2017 allow participants to earn 100% of a targeted number of restricted stock units if the Company's performance meets its target for each applicable financial metric, and up to a maximum of 200% of the restricted stock units if the Company's performance for such metrics meets the maximum threshold. Performance below the minimum threshold for each financial metric results in award forfeitures. Performance goals will be measured over a three

year period at the end of fiscal year 2019 to determine the number of units earned by recipients who continue to meet a service requirement. Units held by recipients who fail to meet the continued service requirement are forfeited. Earned units for recipients who continue to meet the service requirements vest on the date the Company's Board of Directors determines the number of units earned, which will be approximately the third anniversary of the grant date. Performance-based awards granted in fiscal year 2016 also include provisions that allow participants to earn threshold, target and maximum awards ranging from 0% of the award for performance below the minimum threshold, 100% of the award for performance at target, and up to a maximum of 200% of the award if the Company achieves the maximum performance goals.

Restricted Stock Unit Activity

The following table summarizes restricted stock unit activity for the three months ended December 31, 2016:

		Weighted
	Shares	Average
		Grant-Date
		Fair Value
Outstanding at September 30, 2016	2,489,076	\$ 10.79
Granted	951,266	13.93
Vested	(769,227)	10.26
Forfeited	(43,758)	11.84
Outstanding at December 31, 2016	2,627,357	\$ 12.07

The weighted average grant date fair value of restricted stock units granted during the three months ended December 31, 2016 and 2015 was \$13.93 and \$11.36, respectively. The fair value of restricted stock units vested during the three months ended December 31, 2016 and 2015 was \$11.3 million and \$13.4 million, respectively. During the three months ended December 31, 2016 and 2015, the Company remitted \$3.8 million and \$4.3 million, respectively, for withholding taxes on vested restricted stock units, of which \$0.1 million and \$4.2 million, respectively, was paid by the Company. During the three months ended December 31, 2016 and 2015 stock units, of which \$0.1 million and \$4.2 million, respectively, was paid by the Company. During the three months ended December 31, 2016 and 2015, the Company received \$3.7 million and \$0.1 million, respectively, in cash proceeds from employees to satisfy their tax obligations as a result of share issuances.

As of December 31, 2016, the unrecognized compensation cost related to restricted stock units that are expected to vest is \$25.2 million and will be recognized over an estimated weighted average service period of approximately 2.1 years.

Employee Stock Purchase Plan

The Company maintains an Employee Stock Purchase Plan that allows its employees to purchase shares of common stock at a price equal to 85% of the fair market value of the Company's stock at the beginning or the end of the semi-annual period, whichever is lower. There were no shares purchased by employees or issued by the Company under the Plan during the three months ended December 31, 2016 and 2015.

12. Earnings per Share

The calculations of basic and diluted net income (loss) per share and basic and diluted weighted average shares outstanding are as follows for the three months ended December 31, 2016 and 2015 (in thousands, except per share data):

	Three Months Ended				
	December 31,				
	2016	2015			
Net income (loss)	\$13,871	\$ (4,648)		
Weighted average common shares outstanding used in computing basic earnings (losses) per	69,181	68,130			
share	689	,			
Dilutive restricted stock units					
Weighted average common shares outstanding used in computing diluted earnings (losses) per	69,870	68,130			
share	0,010	00,120			
Deris and income (leas) and there	¢ 0 20	¢ (0 07	`		
Basic net income (loss) per share	\$0.20	\$ (0.07)		
Diluted net income (loss) per share	\$0.20	\$(0.07)		
There were no anti-dilutive restricted stock units during the three months ended December 31, 2016 based on the					
treasury stock method. Restricted stock units of 1,113,000 during the three months ended December 31, 2015 were					
excluded from the computation of diluted earnings per share as a result of a net loss incurred during the period.					

13. Restructuring and Other Charges

Three Months Ended December 31, 2016

The Company recorded restructuring charges of \$1.0 million during the three months ended December 31, 2016. These charges consisted primarily of severance costs, of which \$0.7 million were attributable to the company-wide restructuring action initiated prior to fiscal year 2017, \$0.2 million were attributable to the Brooks Semiconductor Solutions Group segment for actions initiated prior to fiscal year 2017 and \$0.1 million of costs attributable to the Brooks Life Science Systems segment for the action initiated during the current period.

Prior to fiscal year 2017, the Company initiated a restructuring action to streamline its business operations as part of a company-wide initiative to improve profitability and competitiveness which is expected to benefit all segments. Total severance costs incurred in connection with this action were \$6.5 million, of which \$5.8 million were recognized prior to the first quarter of fiscal year 2017 and \$0.7 million were recognized during the three months ended December 31, 2016 as a result of a change in the restructuring liability estimate. Severance costs were attributable to the elimination of positions across the Company, including certain senior management positions. This restructuring action was substantially completed by December 31, 2016 and is not expected to result in any additional restructuring charges in future periods. Accrued restructuring costs of \$1.3 million at December 31, 2016 from these actions are expected to be paid within the next twelve months with cash flows generated from operating activities.

Prior to fiscal year 2017, the Company also initiated a restructuring action within the Brooks Semiconductor Solutions Group segment which was related to the integration of Contact Co., Ltd. ("Contact") after its acquisition by the Company, the closure and transfer of the Mistelgau, Germany manufacturing operations to a contract manufacturer, as well as other cost reductions to improve profitability and competitiveness. Total restructuring costs incurred in connection with this action are approximately \$3.1 million, of which approximately \$3.0 million were recognized prior to the first quarter of fiscal year 2017 and \$0.2 million were recognized during the three months ended December 31, 2016. This restructuring action was substantially completed as of December 31, 2016 and is not expected to result in any significant additional restructuring charges in future periods. Accrued restructuring costs of \$0.2 million at December 31, 2016 from these actions are expected to be paid within the next twelve months with cash flows generated from operating activities.

Restructuring initiatives within the Brooks Life Science Systems segment are primarily related to streamlining the segment's management structure, integrating acquisitions and improving profitability. During the first quarter of fiscal year 2017, the Company initiated an action within the Brooks Life Science Systems segment to consolidate certain positions in order to further streamline the management structure, reduce costs and improve profitability. The restructuring initiatives within the Brooks Life Science Systems segment included several actions initiated prior to fiscal year 2017 and during the three months ended December 31, 2016. These actions were completed by the end of the first quarter of fiscal year 2017 and are not expected to result in additional restructuring charges in future periods. Total severance costs incurred in connection with these initiatives

are \$3.2 million, of which \$3.1 million were recognized prior to the first quarter of fiscal year 2017 and \$0.1 million were recognized during the three months ended December 31, 2016. Accrued restructuring costs of \$0.1 million at December 31, 2016 from these initiatives are expected to be paid within the next twelve months with cash flows generated from operating activities.

At December 31, 2016, accrued restructuring costs included \$1.7 million related to a restructuring action initiated within the Brooks Semiconductor Solutions Group segment prior to fiscal year 2017 to consolidate the Company's Jena, Germany repair facility into the Chelmsford, Massachusetts repair operation as a part of the Company's strategy to reduce global footprint and streamline the cost structure. Total severance costs incurred in connection with this action are \$1.8 million which were recognized prior to the first quarter of fiscal year 2017. No restructuring charges related to this initiative were incurred during the three months ended December 31, 2016. Accrued restructuring costs related to this initiative are expected to be paid within the next twelve months with cash flows generated from operating activities. Please refer to Note 17, "Restructuring and Other Charges" to the Company's consolidated financial statements included in the 2016 Annual Report in the Form 10-K for further information on this restructuring initiative.

Three Months Ended December 31, 2015

The Company recorded restructuring charges of \$1.5 million during the three months ended December 31, 2015, which included severance costs of \$1.6 million and reductions of facility-related costs of \$0.1 million. The charges consisted of \$0.9 million attributable to actions initiated during the three months ended December 31, 2015 and \$0.7 million attributable to actions initiated in prior periods.

Severance costs of \$1.6 million consisted of \$0.7 million of charges incurred within the Brooks Semiconductor Solutions Group segment and \$0.9 million of charges incurred within the Brooks Life Science Systems segment. The restructuring action within the Brooks Semiconductor Solutions Group segment was initiated prior to the first quarter of fiscal year 2016, as described above. The restructuring action within the Brooks Life Science Systems segment initiated during the first quarter of fiscal year 2016 was attributable to the restructuring initiatives described above and related primarily to integrating BioStorage with the Company's operations. Total restructuring costs incurred in connection with this action were \$0.9 million which were recognized entirely during fiscal year 2016. Facility-related cost reductions of \$0.1 million were primarily attributable to lower operating costs paid throughout the termination of the facility lease on October 27, 2015.

The following is a summary of activity related to the Company's restructuring and other charges for the three months ended December 31, 2016 and 2015 (in thousands):

Activity — Three	Months Ended
December 31, 201	6
Balance	Balance
at	at
Septemberpenses	Payments December
30,	31,
2016	2016
\$5,939 \$975	\$(3,687) \$ 3,227
	December 31, 201 Balance at September penses 30, 2016

Activity — Three Months Ended					
Decem	ber 31, 2	201	5		
Balance	e				Balance
at					at
Septem	berpens	es	Paymer	its	December
30,					31,
2015					2015
\$433	\$(135)	\$(298)	\$ —
1,640	1,610		(1,596)	1,654

Facilities and other contract termination costs Workforce-related termination benefits

Total restructuring liabilities

\$2,073 \$1,475 \$(1,894) \$1,654

Accrued restructuring costs of \$3.2 million at December 31, 2016 are expected to be paid within the next twelve months.

14. Employee Benefit Plans

The Company has two active defined benefit pension plans (collectively, the "Plans"). The Plans cover substantially all of the Company's employees in Switzerland and Taiwan. Retirement benefits are generally earned based on the years of service and the level of compensation during active employment, but the level of benefits varies within the Plans. Eligibility is determined in accordance with local statutory requirements.

The components of the Company's net pension cost for the three months ended December 31, 2016 and 2015 are as follows (in thousands):

	Three Mo	onths Ended
	December	r 31,
	2016	2015
Service cost	\$ 67	\$ 136
Interest cost	7	18
Amortization of losses	2	4
Expected return on assets	(33)	(40)
Net periodic pension cost	\$ 43	\$ 118
15 0		

15. Segment Information

Operating segments are defined as components of an enterprise that engage in business activities for which discrete financial information is available and regularly reviewed by the chief operating decision maker in deciding how to allocate resources and assess performance. The Company's Chief Executive Officer is the Company's chief operating decision maker.

Prior to the third quarter of fiscal year 2016, the Company had three operating and reportable segments that consisted of Brooks Product Solutions, Brooks Global Services and Brooks Life Science Systems. During the third quarter of fiscal year 2016, the Company reorganized its previous reporting structure into two operating and reportable segments consisting of: (i) Brooks Semiconductor Solutions Group; and (ii) Brooks Life Science Systems and reported its financial results for the periods then ended based on the revised segment structure. Please refer to Note 20, "Segment and Geographic Information" to the Company's Consolidated Financial Statements included in the 2016 Annual Report in the Form 10-K for further information on the segments realignment, operating segments' description and accounting policies.

The following is the summary of the financial information for the Company's operating and reportable segments for the three months ended December 31, 2016 and 2015 (in thousands):

	Brooks Semiconductor Solutions Group	Brooks Life Science Systems	Total
Three Months Ended December 31, 2016:	•		
Revenue			
Products	\$ 109,395	\$ 12,719	\$122,114
Services	17,221	20,620	37,841
Total revenue	\$ 126,616	\$ 33,339	\$159,955
Gross profit	\$ 45,468	\$ 11,475	\$56,943
Segment operating income	17,371	112	17,483
Depreciation expense	1,275	1,090	2,365
Three Months Ended December 31, 2015:			
Revenue			
Products	\$ 79,179	\$ 10,001	\$89,180
Services	19,897	10,878	30,775
Total revenue	\$ 99,076	\$ 20,879	\$119,955
Gross profit	\$ 34,659	\$ 5,895	\$40,554
Segment operating income (loss)	2,940	(4,602)	(1,662)
Depreciation expense	886	488	1,374

Assets:

December 31, 2016	\$ 310,894	\$ 265,431	\$576,325
September 30, 2016	317,717	247,735	565,452

The following is a reconciliation of the Company's operating and reportable segments' operating income (loss) and segment assets to the corresponding amounts presented in the accompanying unaudited Consolidated Balance Sheets and Consolidated Statements of Operations for the three months ended December 31, 2016 and 2015 (in thousands):

	Three	Months	
	Endec	1	
	Decer	nber 31,	
	2016	2015	
Segment operating income (loss)	\$17,4	83 \$(1,662	2)
Amortization of acquired intangible assets	3,064	2,211	
Restructuring and other charges	975	1,475	
Other unallocated corporate expenses	283	2,972	
Total operating income (loss)	\$13,1	61 \$(8,320))
		December 31, 2016	September 30, 2016
Segment assets		\$576,325	\$ 565,452
Cash, cash equivalents and marketable sec	urities	89,028	91,221
Deferred tax assets		1,683	1,982
Equity method investments		25,271	27,250
Total assets		\$692,307	\$ 685,905

16. Significant Customers

The Company had one customer that accounted for 10% or more of its consolidated revenue, at 11% and 10%, respectively, during the three months ended December 31, 2016 and 2015. The Company did not have any customers that accounted for more than 10% of its accounts receivable balance at December 31, 2016 or September 30, 2016. For purposes of determining the percentage of revenue generated from any of the Company's original equipment manufacturer (the "OEM") customers, the Company does not include revenue from products sold to contract manufacturer customers who in turn sell to the OEM's. If the Company included revenue from products sold to contract manufacturer customers supporting the Company's OEM customers, the percentage of the Company's total revenue derived from certain OEM customers would be higher.

17. Fair Value Measurements

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

Level 1 Inputs: Quoted prices in active markets for identical assets or liabilities as of the reporting date. Active markets are those in which transactions for the asset and liability occur in sufficient frequency and volume to provide pricing information on an ongoing basis.

Level 2 Inputs: Observable inputs other than prices included in Level 1, including quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 Inputs: Unobservable inputs that are significant to the fair value of the assets or liabilities and reflect an entity's own assumptions in pricing assets or liabilities since they are supported by little or no market activity.

The following tables summarize assets and liabilities measured and recorded at fair value on a recurring basis in the accompanying unaudited Consolidated Balance Sheets as of December 31, 2016 and September 30, 2016 (in thousands):

		Fair Value Measurements at Reporting				
		Date U	sin	g		
		Quoteo	l Pr	ices in		
		Active	Mş	grkietsato trOther	Significant	
Description	December	Identic	aDt	oservable	Unobservab	ole
Description	31, 2016	Assets	Inț	outs	Inputs	
		(Level	(Le	evel 2)	(Level 3)	
		1)				
Assets:						
Cash equivalents	\$ 185	\$ 140	\$	45	\$	
Available-for-sale securities	6,083		6,0	083		
Foreign exchange contracts	34		34			
Total Assets	\$ 6,302	\$140	\$	6,162	\$	—
Liabilities:						
Foreign exchange contracts	\$86	\$ —	\$	86	\$	—
Total Liabilities	\$86	\$ —	\$	86	\$	

The convertible debt securities and the stock warrant were included in "Other assets" in the accompanying Consolidated Balance Sheets at September 30, 2016. During the first quarter of fiscal year 2017, the Company settled the convertible debt securities and the stock warrant as a part of the non-cash consideration for the Company's acquisition of Cool Lab acquired on November 28, 2016. The convertible debt securities and the stock warrant were measured at fair value on the acquisition date as a portion of the consideration transferred to the seller. A loss of \$0.2 million on settlement of these financial instruments was recorded in the "Other loss, net" in the Company's unaudited Consolidated Statements of Operations during the three months ended December 31, 2016. Please refer to Note 6, "Equity Method Investments" for further information on the convertible debt securities and the stock warrant and Note 4 "Acquisitions" for the acquisition of Cool Lab.

		Fair Value Measuremer Using	nts at Reporting Date
Description	September 30, 2016	Quoted Prices in Active Markets for Significant Other Identical	Significant Unobservable Inputs (Level 3)
Assets:			
Cash equivalents	\$ 143	\$98 \$ 45	\$ —
Available-for-sale securities	6,135	— 6,135	
Foreign exchange contracts	5	— 5	_
Convertible debt securities	5,774		5,774
Stock warrant	45		45
Total Assets	\$ 12,102	\$98 \$ 6,185	\$ 5,819
Liabilities:			
Contingent consideration	\$ 500	\$— \$ —	\$ 500
Foreign exchange contracts	97	— 97	_
Total Liabilities	\$ 597	\$— \$ 97	\$ 500
Cash Equivalents			

Cash equivalents of \$0.1 million at December 31, 2016 and September 30, 2016 consist of Money Market Funds and are classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices in active markets. Cash equivalents of less than \$0.1 million at December 31, 2016 and September 30, 2016 consist primarily of Bank Certificate of Deposits and are classified within Level 2 of the fair value hierarchy because they are not actively traded.

Available-For-Sale Securities

Available-for-sale securities of \$6.1 million at December 31, 2016 and September 30, 2016 consist of Municipal Securities, U.S. Corporate Securities and Other Debt Securities. The securities are valued using matrix pricing and benchmarking and classified within Level 2 of the fair value hierarchy because they are not actively traded. Matrix pricing is a mathematical technique used to value securities by relying on the securities' relationship to other benchmark quoted prices.

Foreign Exchange Contracts

Foreign exchange contract assets and liabilities amounted to less than \$0.1 million and \$0.1 million at December 31, 2016. Foreign exchange contract assets and liabilities amounted to less than \$0.1 million and \$0.1 million, respectively, at September 30, 2016. Foreign exchange contract assets and liabilities are measured and reported at fair value based on observable market inputs and classified within Level 2 of the fair value hierarchy due to a lack of an active market for these contracts.

Convertible Debt Securities

At September 30, 2016, convertible debt securities of \$5.8 million were measured at fair value and classified within Level 3 of the fair value hierarchy. During the first quarter of fiscal year 2017, the Company settled the convertible debt securities as a part of the non-cash consideration for the Company's acquisition of Cool Lab. The convertible debt securities were measured at fair value of \$5.6 million on the acquisition date which was determined based on the probability weighted average Discounted Cash Flow (the "DCF") approach and a Monte Carlo simulation model. The DCF approach was utilized for the instrument's variable conversion price scenarios for which fair value was determined based on probability weighted average method utilizing various outcomes for the instrument's expected payout. The fair value for each outcome was computed based on the present value of cash flows associated with the expected payout discounted at the risk-adjusted discount rate. The key inputs used in the DCF approach included a risk-adjusted discount rate of 23% and the time of the instrument's payout, which ranged between 1.5 years and 3.2 years. The Monte Carlo simulation model was utilized for the instrument's fixed conversion price scenarios. The fair value of the instrument was computed for the period from the valuation date through the expected payoff date based on multiple scenarios. The key inputs used in the Monte-Carlo approach consisted of: (i) risk free rate, which was used for the scenarios in which the instrument's conversion value was greater than its fixed payoff value, and ranged between 0.96% and 1.39%, (ii) risk-adjusted discount rate of 23%, which was used for the scenarios in which the instrument's conversion value was less than its fixed payoff value, (iii) expected payoff period, which ranged between 1.50 years and 3.06 years, (iv) underlying stock price estimated at \$1.76, and (v) underlying stock volatility of 55%, which was calculated based on security-specific volatility. A loss of \$0.2 million on the settlement of convertible debt securities with a fair value of \$5.6 million and a carrying value of \$5.8 million on November 28, 2016 was recognized within "Other loss, net" in the Company's unaudited Consolidated Statements of Operations during the three months ended December 31, 2016. Please refer to Note 6, "Equity Method Investments" for further information on the convertible debt securities and Note 4 "Acquisitions" for the acquisition of Cool Lab. Stock Warrant

Stock warrant valued at less than \$0.1 million at September 30, 2016 was classified within Level 3 of the fair value hierarchy and measured at fair value based on the Black-Scholes model. The Black-Scholes model applied to the warrant incorporated the constant price variation of the underlying asset, the time value of money, the warrant's strike price and the time until the warrant's expiration date. The fair value of the warrant was determined utilizing a five year equity volatility percentage based on an average equity volatility derived from comparable public companies. During the first quarter of fiscal year 2017, the Company canceled the stock warrant as part of the non-cash consideration for the Company's acquisition of Cool Lab and measured the stock warrant at fair value of less than \$0.1 million on the acquisition date. The fair value of the warrant was determined based on the option pricing approach which treats various classes of securities in a company's capital structure as call options on the total equity value of the company.

Contingent Consideration

Contingent consideration liability of \$0.5 million at September 30, 2016 was classified within Level 3 of the fair value hierarchy and measured at fair value based on the probability-weighted average discounted cash flow model utilizing potential outcomes related to achievement of certain specified targets and events. The fair value measurement of the contingent consideration was based on probabilities assigned to each potential outcome and the discount rate. During the first quarter of fiscal year 2017, the Company settled the liability and remitted a cash payment of \$0.5 million to the sellers of Contact as a remaining part of the acquisition purchase price. Please refer to Note 4 "Acquisitions" to the Company's consolidated financial statements included in the 2016 Annual Report in the Form 10-K for further

information on the contingent consideration liability.

The carrying amounts of accounts receivable and accounts payable approximate their fair value due to their short-term nature.

The following table presents the reconciliation of the assets measured and recorded at fair value on a recurring basis using significant unobservable inputs (Level 3) (in thousands):

	Convertible Debt Securities	Stock Warrants	Contingent Consideration	Total
Balance at September 30, 2016	\$ 5,774	\$ 45	\$ 500	\$6,319
Change in fair value	(194)	(37)		(231)
Settlements	(5,580)	(8)	(500)	(6,088)
Balance at December 31, 2016	\$ —	\$ —	\$ —	\$—

Nonrecurring Fair Value Measurements

The Company holds certain assets that are measured at fair value on a nonrecurring basis in periods subsequent to initial recognition.

A note receivable of \$0.2 million at December 31, 2016 and September 30, 2016 is recorded at carrying value and included in "Other assets" in the accompanying unaudited Consolidated Balance Sheets. Please refer to Note 9, "Other Balance Sheet Information" for further information on the loan.

A loan receivable of \$1.5 million at September 30, 2016 was recorded at carrying value and included in "Other assets" in the accompanying unaudited Consolidated Balance Sheets. During the first quarter of fiscal year 2017, the Company settled the loan as part of the non-cash consideration for the Company's acquisition of Cool Lab and remeasured it at fair value of \$1.6 million on the acquisition date. Fair value of the loan was classified within Level 3 of the fair value hierarchy and determined based on the market approach utilizing a loan settlement value, including its principal and accrued interest, in a similar transaction in a non-observable market. The carrying value of the loan was \$1.6 million on the acquisition on the loan's principal and accrued interest. Please refer to Note 6, "Equity Method Investments" for further information on the loan and Note 4 "Acquisitions" for the acquisition of Cool Lab.

The equity method investment in BioCision of \$1.7 million at September 30, 2016 was recorded at carrying value in the accompanying unaudited Consolidated Balance Sheets. During the three months ended December 31, 2016, the Company redeemed the equity method investment in BioCision as part of the non-cash consideration for the Company's acquisition of Cool Lab. Fair value of the equity method investment in BioCision of \$3.1 million was classified within Level 3 of the fair value hierarchy and measured based on the option pricing approach which treats various classes of securities in a company's capital structure as call options on the total equity value of the company. The key inputs used in the option pricing approach consisted of: (i) total equity value of BioCision estimated at \$6.5 million; (ii) equity volatility estimated at 80%; (iii) time to liquidity event estimated at 1.5 years; and (iv) risk free rate of 0.96%. Please refer to Note 6, "Equity Method Investments" for further information on the convertible debt securities and Note 4 "Acquisitions" for the acquisition of Cool Lab.

Certain non-financial assets, including goodwill, finite-lived intangible assets and other long-lived assets, are measured at fair value on a non-recurring basis when there is an indication of impairment. Please refer to the Note 2, "Summary of Significant Accounting Policies" to the Company's consolidated financial statements included in the 2016 Annual Report on the Form 10-K for further information on the valuation techniques used in developing these measurements.

18. Commitments and Contingencies

Letters of Credit

At December 31, 2016 and September 30, 2016, the Company had approximately \$4.6 million and \$2.0 million of letters of credit outstanding related primarily to customer advances and other performance obligations. These arrangements guarantee the refund of advance payments received from our customers in the event that the product is not delivered or warranty obligations are not fulfilled in accordance with the contract terms. These obligations could be called by the beneficiaries at any time before the expiration date of the particular letter of credit if the Company fails to meet certain contractual requirements. None of these obligations were called during the three months ended December 31, 2016 and the fiscal year ended September 30, 2016, and the Company currently does not anticipate any of these obligations to be called in the near future. Contingencies

During fiscal year 2016, the Company discovered that it inadvertently failed to register on Form S-8 with the Securities and Exchange Commission certain shares of common stock previously authorized for issuance by the Company's Board of Directors and stockholders under the Company's 1995 Employee Stock Purchase Plan, as amended (the "ESPP"). As a result, certain purchasers of common stock under the ESPP may have the right to rescind their purchases for an amount equal to the purchase price paid for the shares, plus interest from the date of purchase, limited to the shares purchased in the last twelve months, which is the applicable federal statute of limitations, and still held by the original purchasers. These shares have been treated as issued and outstanding for financial reporting purposes.

As of December 31, 2016, there were approximately 90,358 shares of common stock issued under the ESPP and held by the original purchasers of such shares which may be subject to these rescission rights. Of these, 43,968 shares were originally purchased for \$8.00 per share and 46,390 shares were originally purchased for \$8.02 per share. If holders of all of these shares seek to rescind their purchases, the Company could be required to make aggregate payments of up to approximately \$0.8 million, which includes estimated statutory interest. The Company may also be subject to civil and other penalties by regulatory authorities as a result of the potential failure to register these shares. The Company does not believe that the failure to register the shares on a Form S-8 or a potential rescission offer, if any, will have a material impact on its consolidated financial statements.

The Company is subject to various legal proceedings, both asserted and unasserted, that arise in the ordinary course of business. The Company cannot predict the ultimate outcome of such legal proceedings or in certain instances provide reasonable ranges of potential losses. However, as of the date of this report, the Company believes that none of these claims will have a material adverse effect on its consolidated financial position or results of operations. In the event of unexpected subsequent developments and given the inherent unpredictability of these legal proceedings, there can be no assurance that the Company's assessment of any claim will reflect the ultimate outcome, and an adverse outcome in certain matters could, from time to time, have a material adverse effect on the Company's consolidated financial position or results of operations in particular quarterly or annual periods.

19. Subsequent Events

On January 31, 2017, the Company's Board of Directors declared a cash dividend of \$0.10 per share payable on March 24, 2017 to common stockholders of record as of March 3, 2017. Dividends are declared at the discretion of the Company's Board of Directors and depend on the Company's actual cash flows from operations, its financial condition and capital requirements and any other factors the Company's Board of Directors may consider relevant. Future dividend declarations, as well as the record and payment dates for such dividends, will be determined by the Company's Board of Directors on a quarterly basis.

Table of Contents

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations The Management's Discussion and Analysis of Financial Condition and Results of Operations, or MD&A, describes principal factors affecting the results of our operations, financial condition and liquidity, as well as our critical accounting policies and estimates that require significant judgment and thus have the most significant potential impact on our unaudited Consolidated Financial Statements. Our MD&A is organized as follows:

Overview. This section provides a general description of our business and operating segments, as well as a brief discussion and overall analysis of our business and financial performance, including key developments affecting the Company during the three months ended December 31, 2016 and 2015.

Critical Accounting Policies and Estimates. This section discusses accounting policies and estimates that require us to exercise subjective or complex judgments in their application. We believe these accounting policies and estimates are important to understanding the assumptions and judgments incorporated in our reported financial results.

Results of Operations. This section provides an analysis of our financial results for the three months ended December 31, 2016 compared to the three months ended December 31, 2015.

Liquidity and Capital Resources. This section provides an analysis of our liquidity and changes in cash flows, as well as a discussion of available borrowings and contractual commitments.

You should read the MD&A in conjunction with our unaudited Consolidated Financial Statements and related notes beginning on page 3. In addition to historical information, the MD&A contains forward-looking statements that involve risks and uncertainties. You should read "Information Related to Forward-Looking Statements" included below for a discussion of important factors that could cause our actual results to differ materially from our expectations. Information Related to Forward Looking Statements

This Ouarterly Report on Form 10-Q contains statements that are, or may be considered to be, forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995, as amended, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements that are not historical facts, including statements about our beliefs or expectations, are forward-looking statements. These statements may be identified by such forward-looking terminology as "expect," "estimate," "intend," "believe," "anticipate," "may," "will," "should," "could," "continue," "likely" or similar statements or variations of such terms Forward-looking statements include, but are not limited to, statements that relate to our future revenue, margin, costs, earnings, profitability, product development, demand, acceptance and market share, competitiveness, market opportunities and performance, levels of research and development, the success of our marketing, sales and service efforts, outsourced activities, operating expenses, anticipated manufacturing, customer and technical requirements, the ongoing viability of the solutions that we offer and our customers' success, tax expenses, our management's plans and objectives for our current and future operations and business focus, our adoption of the newly issued accounting guidance, the levels of customer spending, general economic conditions, the sufficiency of financial resources to support future operations, capital expenditures and future acquisitions. Such statements are based on current expectations and involve risks, uncertainties and other factors which may cause the actual results, our performance or our achievements to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such factors include the Risk Factors which are set forth in our 2016 Annual Report in Form 10-K for the fiscal year ended September 30, 2016 and which are incorporated herein by reference. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof and are based on information currently and reasonably known to us. We do not undertake any obligation to release revisions to these forward-looking statements, which may be made to reflect events or circumstances that occur after the date of this Quarterly Report in Form 10-Q or to reflect the occurrence or effect of anticipated or unanticipated events. Precautionary statements made herein should be read as being applicable to all related forward-looking statements wherever they appear in this Quarterly Report in Form 10-Q. Any additional precautionary statements made in our 2016 Annual Report in Form 10-K should be read as being applicable to all related forward-looking statements whenever they appear in this Quarterly Report in Form 10-Q. Unless the context indicates otherwise, references in this Quarterly Report on Form 10-Q to "we", "us", "our" and "the Company" refer to Brooks Automation, Inc. and its subsidiaries.

OVERVIEW

We are a leading global provider of automation and cryogenic solutions for multiple applications and markets. We primarily serve the semiconductor capital equipment market and the sample management market for life sciences. We believe our leadership position and global support structure in each of these markets makes us a valued business partner to

the largest semiconductor capital equipment and device makers and pharmaceutical and life science research institutions in the world. Our offerings are also applied to industrial capital equipment and other adjacent technology markets.

In the semiconductor capital equipment market, equipment productivity and availability are critical factors for our customers, who typically operate equipment under demanding temperature and/or pressure environments. Our automation and cryogenics capabilities are demonstrated in our various robotic automation and cryogenic vacuum pump offerings, both of which are used by semiconductor manufacturers in the processing of silicon wafers into integrated circuits. In the life sciences sample management market, we utilize our core competencies and capabilities in automation and cryogenics to provide comprehensive bio-sample management solutions to a broad range of end markets within the life sciences industry. Our offerings include automated ultra-cold storage freezers, consumable sample storage containers, instruments which assist in the workflow of sample management and both on-site and off-site full sample management services. In the recent years, we have made significant investments in research and development and acquisitions to strengthen and grow our product and service offerings for the markets we serve. Our life sciences acquisitions and research and development initiatives over the past several years developed essential capabilities required to strategically address the sample management needs across multiple end markets within the life sciences industry. In fiscal year 2016, we acquired BioStorage Technologies, Inc., or BioStorage, based in Indianapolis, Indiana for a total purchase price of \$125.2 million, net of cash acquired. BioStorage is a global provider of comprehensive sample management services, including outsourced storage, cold chain logistics and relocation, bio-processing solutions, project management, consulting and related technology solutions that provide sample intelligence, virtualization, and visualization capabilities through an informatics platform.

Since entering the life sciences industry, we have also strengthened and broadened our product portfolio and market reach by investing in internal product development. During fiscal years 2016 and 2015, approximately 25% of our research and development spending was focused on innovating and advancing solutions in the life sciences sample management market. In fiscal year 2014, we installed our first system from the modular TwinBank platform, an internally-developed automated sample management system designed for high reliability and maximum flexibility. In fiscal year 2016, we launched BiostoreTM III Cryo, an automated system which incorporates sample retrieval, archiving, monitoring, tracking, inventory control, and related enterprise systems connectivity with the industry's leading cryogenic sample storage freezers. We expect to continue investing in research and development and making strategic acquisitions with the objective of expanding our offerings in the life sciences sample management market. On November 28, 2016, we acquired Cool Lab, LLC, or Cool Lab, a newly established subsidiary of BioCision, LLC, or BioCision, which provides a range of cryogenic solutions that assist in managing the temperature stability of therapeutics, biological samples and related biomaterials in ultra-cold and cryogenic environments. We held an equity interest in BioCision prior to the acquisition and collaborated in the development of advanced solutions in temperature controlled environments. The acquisition of Cool Lab is expected to allow us to extend our comprehensive sample management solutions across the cold chain of custody, which is consistent with the other offerings we bring to our life sciences customers. The aggregate purchase price of \$15.2 million consisted of a cash payment of \$4.8 million, a liability to the seller of \$0.1 million and a non-cash consideration of \$10.3 million measured at fair value on the acquisition date. Please refer to Note 17, "Fair Value Measurements" in the Notes to the unaudited Consolidated Financial Statements included in Item 1 "Consolidated Financial Statements" of this Form 10-O for further information on the valuation techniques and inputs used in fair value measurements of the financial instruments included in the non-cash consideration.

Segments Realignment

Prior to the third quarter of fiscal year 2016, we had three operating and reportable segments that consisted of Brooks Product Solutions, Brooks Global Services and Brooks Life Science Systems. During the third quarter of fiscal year 2016, we reorganized our previous reporting structure into two operating and reportable segments consisting of: (i) Brooks Semiconductor Solutions Group; and (ii) Brooks Life Science Systems and reported our financial results for the periods then ended based on the revised segment structure. Please refer to Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in the 2016 Annual Report in the Form 10-K for

further information on the segments realignment, operating segments' description and accounting policies. For additional information on segment revenues and their operating results, please refer to Note 15, "Segment Information" in the Notes to the unaudited Consolidated Financial Statements included in Item 1, "Consolidated Financial Statements" of this Form 10-Q. Our prior period reportable segment information has been reclassified to reflect the current segment structure and conform to the current period presentation.

Business and Financial Performance

Three Months Ended December 31, 2016 Compared to Three Months Ended December 31, 2015 Results of Operations- revenue for the three months ended December 31, 2016 increased to \$160.0 million, or by 33%, as compared to the corresponding period of the prior fiscal year due to increased revenue in both Brooks

Semiconductor Solutions Group Segment and Brooks Life Science Systems Segment. Gross margin was 35.6% for the first quarter of fiscal year 2017 as compared to 33.8% for the first quarter of fiscal year 2016, which resulted in an increase in gross profit of \$16.4 million. Operating expenses were \$43.8 million for the first quarter of fiscal year 2017 as compared to \$48.9 million for the first quarter of fiscal year 2016, a reduction of \$5.1 million. Operating income was \$13.2 million for the first quarter of fiscal year 2017 as compared to an operating loss of \$8.3 million for the corresponding period of the prior fiscal year due to the increase in gross profit and a reduction in operating expenses. Net income was \$13.9 million for the three months ended December 31, 2016 as compared to a net loss of \$4.6 million for the corresponding period of the prior fiscal year. The increase of \$18.5 million was primarily attributable to higher operating income of \$21.5 million, higher income of \$1.8 million generated from our equity method investments, as well as a gain of \$1.6 million recognized on the settlement of financial instruments included as a part of the non-cash consideration for an acquisition of Cool Lab. These increases were partially offset by higher income tax provision of \$6.2 million driven primarily by an increase in foreign income generated during the three months ended December 31, 2016 as compared to the corresponding period of the prior fiscal year. Please refer to "Results of Operations" section below for a detailed discussion of our financial results for the three months ended December 31, 2016 compared during the three months ended December 31, 2016 compared to the three months ended December 31, 2016.

Cash Flows and Liquidity- Cash and cash equivalents and marketable securities were \$89.0 million at December 31, 2016 as compared to \$91.2 million at September 30, 2016. The decrease in cash and cash equivalents and marketable securities of \$2.2 million was primarily attributable to a dividend payment of \$7.0 million made to our shareholders during the first quarter of fiscal year 2017, a cash payment of \$5.3 million which included \$4.8 million for the acquisition of Cool Lab and \$0.5 million for the settlement of Contact consideration, capital expenditure payments of \$3.8 million, as well as a decrease of \$4.6 million related to a negative impact of foreign currency exchange rates. These decreases were partially offset by cash inflows of \$18.7 million generated from our operating activities. Please refer to "Liquidity and Capital Resources" section below for a detailed discussion of our liquidity and changes in cash flows for the three months ended December 31, 2016 compared to the three months ended December 31, 2015. CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our unaudited consolidated financial statements are prepared in accordance with Generally Accepted Accounting Principles, or GAAP. The preparation of the interim consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. We evaluate our estimates on an ongoing basis, including those related to revenue, bad debts, inventories, long-lived assets, derivative instruments, intangible assets other than goodwill, goodwill, income taxes, warranty obligations, pensions and stock-based compensation. We base our estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances. We evaluate current and anticipated worldwide economic conditions, both in general and specifically in relation to the semiconductor and life science industries, that serve as a basis for making judgments about the carrying values of assets and liabilities that are not readily determinable based on information from other sources. Actual results may differ from these estimates under different assumptions or conditions which could have a material impact on our financial condition and results of operations.

For further information with regard to our significant accounting policies and estimates, please refer to Note 2, "Summary of Significant Accounting Policies" in the Notes to the unaudited Consolidated Financial Statements included in Item 1 "Consolidated Financial Statements" of this Form 10-Q and in the Notes to our audited Consolidated Financial Statements included in Part II, Item 8 "Financial Statements and Supplementary Data" in our Annual Report on Form 10-K for the fiscal year ended September 30, 2016.

Recently Issued Accounting Pronouncements

For a summary of recently issued accounting pronouncements applicable to our unaudited Consolidated Financial Statements, please refer to Note 2, "Summary of Significant Accounting Policies" in the Notes to the unaudited Consolidated Financial Statements included in Item 1 "Consolidated Financial Statements" on this Form 10-Q. RESULTS OF OPERATIONS

Three Months Ended December 31, 2016 Compared to Three Months Ended December 31, 2015 Revenue

We reported revenue of \$160.0 million for the three months ended December 31, 2016, compared to \$120.0 million for the corresponding period of the prior fiscal year, an increase of \$40.0 million, or 33%. We reported revenue growth in both the Brooks Semiconductor Solutions Group segment and the Brooks Life Science Systems segment. The impact of

changes in foreign currency exchange rates adversely affected revenue by \$1.0 million during the three months ended December 31, 2016 when compared to the corresponding period of the prior fiscal year.

Our Brooks Semiconductor Solutions Group segment reported revenue of \$126.6 million for the three months ended December 31, 2016 compared to \$99.1 million for the corresponding period of the prior fiscal year. The increase of \$27.5 million, or 28%, reflects an increase of \$16.0 million in contamination controls systems, \$10.6 million in revenue from our robotic automation products and \$3.8 million from cryogenic pump products, partially offset by a decline of \$2.9 million in service and repair offerings. This increase includes the favorable impact of changes in foreign currency exchange rates of \$0.5 million during the three months ended December 31, 2016.

The increase in revenue of \$10.6 million from our robotic automation products for the three months ended December 31, 2016 reflects a \$16.7 million increase in vacuum systems and robots partially offset by a decline of \$1.9 million attributable to the expiration of certain patents that we licensed to third parties in exchange for agreed upon royalties, and a decline of approximately \$5.0 million resulting from the exiting an atmospheric robot distribution arrangement during the fourth quarter of fiscal year 2016 that we determined did not support our strategic objectives. The expiration of patents and the exiting of the robot distribution agreement is expected to have an impact of approximately \$8.6 million and \$13.0 million, respectively, on our fiscal year 2017 revenue as compared to fiscal year 2016.

Our Brooks Life Science Systems segment reported revenue of \$33.3 million for the three months ended December 31, 2016 compared to \$20.9 million for the corresponding period of the prior fiscal year. The increase of \$12.5 million, or 60%, was primarily attributable to higher revenue of \$8.2 million from the acquisition of BioStorage, which was acquired on November 30, 2015, and growth in revenue from automated stores and BioCision since the acquisition date. Brooks' revenue was adversely affected by foreign currency exchange rates which reduced revenue by \$1.5 million during the three months ended December 31, 2016 as compared to the corresponding period of the prior fiscal year.

We continue seeking opportunities to expand our market share in the semiconductor and adjacent technology markets served by our Brooks Semiconductor Solutions Group segment. These markets are cyclical, and often fluctuate significantly from quarter to quarter. Demand for our Brooks Semiconductor Solution Group products is affected by these cycles. We anticipate continued growth in revenue from our Brooks Life Science Systems segment through our internally-developed products and services, including our Twin-bank and Biostore III automated sample management systems, and through our acquired businesses.

Revenue generated outside the United States amounted to \$106.8 million, or 66.8% of total revenue, for the three months ended December 31, 2016 compared to \$72.5 million, or 60.4% of total revenue, for the corresponding period of the prior fiscal year.

Gross Margin

We reported gross margins of 35.6% for the three months ended December 31, 2016, an improvement compared to 33.8% for the corresponding period of the prior fiscal year. The increase was attributable to increased gross margins of the Brooks Life Science Systems segment and Brooks Semiconductor Solutions Group segment by 6.2 points and 0.9 percentage points, respectively. Cost of revenue for the three months ended December 31, 2016 included \$1.0 million of charges for amortization related to completed technology as compared to \$1.3 million incurred during the corresponding period of the prior fiscal year. Cost of revenue for the three months ended December 31, 2016 and 2015 also included \$0.1 million of charges related to the sale of inventory obtained in acquisitions to which a step-up in value was applied in purchase accounting.

Our Brooks Semiconductor Solutions Group segment reported gross margins of 35.9% for the three months ended December 31, 2016 as compared to 35.0% for the corresponding period of the prior fiscal year. Product margins increased 1.8 percentage points driven by volume leverage of fixed costs on higher revenue, partially offset by unfavorable mix of revenue. Service margins declined 7.4 percentage points driven by reduced revenue volumes over a fixed cost base, partially offset by savings from restructuring actions initiated prior to fiscal year 2017 to reduce the cost structure. The change in mix of revenue between products and services was favorable to segment margins by 0.4 percentage points. Cost of revenue during the three months ended December 31, 2016 included \$0.6 million of

amortization related to completed technology compared to \$0.9 million for the corresponding period of the prior fiscal year. Cost of revenue for the three months ended December 31, 2015 also included \$0.1 million of charges related to the sale of inventories obtained in acquisitions to which a step-up in value was applied in purchase accounting. Restructuring actions initiated prior to fiscal year 2017 are expected to result in aggregate cost of revenue reductions of approximately \$5.8 million on an annual pretax basis when the savings fully take effect. We began realizing a portion of the cost savings in fiscal year 2016, and such savings amounted to a cumulative aggregate amount of approximately \$2.9 million from inception through December 31, 2016, of which \$1.1 million was realized during the first quarter of fiscal year 2017. Based on revenue levels from fiscal year 2016, these savings are expected to improve gross margins by approximately 1.3 percentage points for the Brooks Semiconductor Solutions Group segment once the full savings are realized. Please refer to the

"Restructuring and Other Charges" section below for further information on the restructuring actions initiated prior to fiscal year 2017.

Our Brooks Life Science Systems segment reported gross margins of 34.4% for the three months ended December 31, 2016 as compared to 28.2% for the corresponding period of the prior fiscal year. The increase was driven by cost savings from the closure of our sites in Poway, CA and Spokane, WA and the resulting consolidation of our systems manufacturing into our Manchester, UK location, improved cost management on large stores projects, the acquisition of BioStorage, which contributed approximately 3.2 percentage points of expansion to the segment margins during the period, and volume leverage driven by organic revenue growth, partially offset by the adverse impact of changes in foreign currency exchange rates. Cost of revenue included \$0.4 million of amortization related to completed technology during each of the three months ended December 31, 2016 and 2015. Cost of revenue for the three months ended December 31, 2016 also included \$0.1 million of charges related to the sale of inventories obtained in acquisitions to which a step-up in value was applied in purchase accounting. Restructuring actions initiated prior to fiscal year 2017 are expected to result in aggregate cost of revenue reductions of approximately \$1.0 million on an annual pretax basis when the savings fully take effect. We began realizing a portion of the cost savings in fiscal year 2016, and such savings amounted to a cumulative aggregate amount of approximately \$0.6 million from inception through December 31, 2016, of which \$0.2 million was realized during the first quarter of fiscal year 2017. Based on revenue levels from fiscal year 2016, these savings are expected to improve gross margins by approximately 0.9 percentage points for the Brooks Life Science Systems segment once the full savings are realized. Please refer to the "Restructuring and Other Charges" section below for further information on the restructuring actions initiated prior to fiscal year 2017.

Research and Development

Research and development expenses were \$10.8 million during the three months ended December 31, 2016 as compared to \$13.3 million during the corresponding period of the prior fiscal year. The decrease of \$2.4 million reflects expense reductions of \$1.9 million within Brooks Semiconductor Solutions Group segment and \$0.5 million within the Brooks Life Sciences System segment. Expense reductions were enabled by the restructured central operations of research and development and the progression of certain projects from development to market. Restructuring actions initiated prior to fiscal year 2017 are expected to reduce research and development expenses by approximately \$4.0 million on an annual pretax cost basis once the full savings are realized. We began realizing a portion of the cost savings in fiscal year 2016, and such savings amounted to a cumulative aggregate amount of approximately \$2.3 million from inception through December 31, 2016, of which \$0.9 million was realized during the first quarter of fiscal year 2017. Please refer to the "Restructuring and Other Charges" section below for further information on the restructuring actions initiated prior to fiscal year 2017. Selling, General and Administrative

Selling, general and administrative expenses were \$32.0 million for the three months ended December 31, 2016 as compared to \$34.1 million for the corresponding period of the prior fiscal year. The decrease of \$2.2 million was primarily attributable to: (i) lower merger costs of \$2.7 million, which amounted to \$0.2 million during the first quarter of fiscal year 2017 as compared to \$2.9 million during the first quarter of fiscal year 2016 due to the acquisition of BioStorage, (ii) lower stock-based compensation expense of \$1.3 million related primarily to award forfeitures for employees that were terminated as a result of the restructuring actions initiated during the fiscal year 2016 and expense true ups recognized at the end of the awards vesting period, as well as (iii) lower depreciation expense of \$1.2 million in selling, general and administrative expenses as a result of acquisitions made since the beginning of the prior fiscal year and higher amortization expense of \$0.8 million during the first quarter of fiscal year 2017 as compared to the corresponding period of the prior fiscal year. Amortization expense was related primarily to customer relationship intangibles and amounted to \$3.1 million and \$2.2 million, respectively, during the three months ended December 31, 2016 and 2015.

Restructuring actions initiated prior to fiscal year 2017 are expected to reduce selling, general and administrative expenses by approximately \$10.4 million on an annual pretax cost basis once the full savings are realized. We began

realizing a portion of the cost savings beginning in fiscal year 2016, and such savings amounted to a cumulative aggregate amount of approximately \$7.0 million from inception through December 31, 2016, of which \$2.4 million was realized during the first quarter of fiscal year 2017.

Restructuring and Other Charges

We recorded restructuring charges of \$1.0 million during the three months ended December 31, 2016 as compared to \$1.5 million during the corresponding period of the prior fiscal year. The decrease of \$0.5 million was attributable to the restructuring actions initiated prior to fiscal year 2017 and during the three months ended December 31, 2016.

Restructuring Charges Incurred During the Three Months Ended December 31, 2016

Restructuring charges of \$1.0 million incurred during the three months ended December 31, 2016 consisted primarily of severance costs, of which \$0.7 million were attributable to the company-wide restructuring action initiated prior to fiscal year 2017, \$0.2 million were attributable to the Brooks Semiconductor Solutions Group segment for actions initiated prior to fiscal year 2017 and \$0.1 million of costs attributable to the Brooks Life Science Systems segment for the action initiated during the current period.

Prior to fiscal year 2017, we initiated a restructuring action to streamline our business operations as part of a company-wide initiative to improve profitability and competitiveness which is expected to benefit all segments. Total severance costs incurred in connection with this action were \$6.5 million, of which \$5.8 million were recognized prior to the first quarter of fiscal year 2017 and \$0.7 million were recognized during the three months ended December 31, 2016 as a result of a change in the restructuring liability estimate. Severance costs were attributable to the elimination of positions across the Company, including certain senior management positions. The action is expected to result in approximately \$13.2 million in annual pre-tax cost savings, including \$4.4 million of cost of revenue reductions, \$2.7 million of research and development cost reductions, as well as \$6.2 million of selling, general and administrative expense reductions. This action was substantially completed by December 31, 2016 and is not expected to result in any additional restructuring charges in future periods. Total cost savings realized as a result of this restructuring action amounted to \$9.1 million, of which \$5.8 million were realized prior to fiscal year 2017 and \$3.3 million were realized during the three months ended December 31, 2016. Accrued restructuring costs of \$1.3 million at December 31, 2016 from these actions are expected to be paid within the next twelve months with cash flows generated from operating activities.

Prior to fiscal year 2017, we also initiated a restructuring action within the Brooks Semiconductor Solutions Group segment which was related to the integration of Contact Co., Ltd. ("Contact") after the acquisition, the closure and transfer of the Mistelgau, Germany manufacturing operations to a contract manufacturer, as well as other cost reductions to improve profitability and competitiveness. Total restructuring costs incurred in connection with this action are approximately \$3.1 million, of which approximately \$3.0 million were recognized prior to the first quarter of fiscal year 2017 and \$0.2 million were recognized during the three months ended December 31, 2016. The action is expected to result in approximately \$2.6 million in annual pre-tax cost savings, including \$0.3 million of cost of revenue reductions, \$1.4 million of research and development cost reductions, as well as \$0.9 million of selling, general and administrative expense reductions. This action was substantially completed by December 31, 2016 and is not expected to result in any additional restructuring charges in future periods. Total cost savings realized as a result of this restructuring action amounted to \$1.4 million, of which \$1.0 million were realized prior to fiscal year 2017 and \$0.5 million at December 31, 2016 from these actions are expected to be paid within the next twelve months with cash flows generated from operating activities.

Restructuring initiatives within the Brooks Life Science Systems segment are primarily related to streamlining the segment's management structure, integrating acquisitions and improving profitability. During the first quarter of fiscal year 2017, we initiated an action within the Brooks Life Science Systems segment to consolidate certain positions in order to further streamline the management structure, reduce costs and improve profitability. The restructuring initiatives within the Brooks Life Science Systems segment included several actions initiated prior to fiscal year 2017 and during the three months ended December 31, 2016. These actions were completed by the end of the first quarter of fiscal year 2017 and are not expected to result in additional restructuring charges in future periods. Total severance costs incurred in connection with these initiatives are \$3.2 million, of which \$3.1 million were recognized prior to the first quarter of fiscal year 2017 and \$0.1 million were recognized during the three months ended December 31, 2016. These actions to date are expected to result in approximately \$3.8 million in annual pre-tax cost savings, including \$1.0 million of cost of revenue reductions and \$2.8 million of selling, general and administrative expense reductions. Total cost savings realized as a result of these restructuring initiatives amounted to \$2.2 million, of which \$1.3 million were realized prior to fiscal year 2017 and \$0.9 million were realized during the three months ended December 31, 2016. Accrued restructuring costs of \$0.1 million at December 31, 2016 from these initiatives are expected to be paid

within the next twelve months with cash flows generated from operating activities.

Prior to fiscal year 2017, we also initiated a restructuring action within the Brooks Semiconductor Solutions Group segment to consolidate our Jena, Germany repair facility into its Chelmsford, Massachusetts repair operation as a part of our strategy to reduce our global footprint and streamline the cost structure. Total severance costs incurred in connection with this action are \$1.8 million which were recognized prior to the first quarter of fiscal year 2017. No restructuring charges related to this initiative were incurred during the three months ended December 31, 2016. The action is expected to result in approximately \$1.6 million in annual pre-tax cost savings, including \$1.1 million of cost of revenue reductions and \$0.5 million of selling, general and administrative expense reductions. We expect to start realizing cost savings beginning with the second quarter of fiscal year 2017 once employees impacted by this action cease to provide their

services. Accrued restructuring costs of \$1.7 million at December 31, 2016 related to this initiative are expected to be paid within the next twelve months with cash flows generated from operating activities.

Restructuring Charges Incurred During the Three Months Ended December 31, 2015

We recorded restructuring charges of \$1.5 million during the three months ended December 31, 2015, which included severance costs of \$1.6 million and reductions of facility-related costs of \$0.1 million. The charges consisted of \$0.9 million attributable to actions initiated during the three months ended December 31, 2015 and \$0.7 million attributable to actions initiated in prior periods.

Severance costs of \$1.6 million consisted of \$0.7 million of charges incurred within the Brooks Semiconductor Solutions Group segment and \$0.9 million of charges incurred within the Brooks Life Science Systems segment. The restructuring action within the Brooks Semiconductor Solutions Group segment was initiated prior to the first quarter of fiscal year 2016, as described above. The restructuring action within the Brooks Life Science Systems segment initiated during the first quarter of fiscal year 2016 was attributable to the restructuring initiatives described above and related primarily to integrating BioStorage with our operations. Total restructuring costs incurred in connection with this action were \$0.9 million which were recognized entirely during fiscal year 2016.

Facility-related cost reductions of \$0.1 million were primarily attributable to lower operating costs paid throughout the termination of the facility lease on October 27, 2015.

Non-Operating Income

Gain on Settlement of Equity Method Investment- we recognized a gain of \$1.8 million on the settlement of the equity method investment in BioCision which was included as a part of the non-cash consideration for an acquisition of Cool Lab. For additional information on this transaction, please refer to Note 4, "Acquisitions", and Note 6, "Equity Method Investments", in the Notes to the unaudited Consolidated Financial Statements included in Item 1 "Consolidated Financial Statements" of this Form 10-Q.

Income Tax Provision (Benefit)

We recorded an income tax provision of \$2.8 million during the three months ended December 31, 2016 compared to a benefit of \$3.4 million during the corresponding period of the prior fiscal year. The income tax provision of \$2.8 million during the three months ended December 31, 2016 was primarily driven by foreign income generated during the quarter, partially offset by \$0.7 million of tax benefits related to the reduction of reserves for unrecognized tax benefits resulting from the expiration of statutes of limitations. The income tax benefit of \$3.4 million during the three months ended December 31, 2015 was driven by U.S. pre-tax losses incurred during the period, \$0.7 million of reductions in unrecognized tax benefits resulting from the expiration of the expiration of the expiration of the reinstatement of the U.S. research and development tax credit, retroactive to January 1, 2015. For additional discussion of the calculation of our tax liabilities, please refer to Note 8, "Income Taxes", in the Notes to the unaudited Consolidated Financial Statements included in Item 1 "Consolidated Financial Statements" of this Form 10-Q.

Equity in Earnings of Equity Method Investments

During the three months ended December 31, 2016 and 2015, we recorded income of \$1.9 million and \$0.2 million, respectively, from our equity method investments. The increase of \$1.8 million was primarily attributable to \$1.9 million of higher income from ULVAC Cryogenics, Inc., or UCI, which was \$2.4 million during the three months ended December 31, 2016 as compared to \$0.4 million during the corresponding period of the prior fiscal year. Additionally, we incurred losses of \$0.5 million from our investment in BioCision during the three months ended December 31, 2016 compared to \$0.3 million during the corresponding period of prior fiscal year. The investment in BioCision was settled during the first quarter of fiscal year 2017 as a part of the non-cash consideration for the acquisition of Cool Lab on November 28, 2016. We have traditionally recorded the income and losses related to the equity method investment in BioCision one quarter in arrears. During the three months ended December 31, 2016, we recorded two additional months of activity in the carrying value of the investment as a result of its settlement. We deemed the amount of \$0.2 million related to two additional months of activity to be insignificant. For additional information on this transaction, please refer to Note 4, "Acquisitions", and Note 6, "Equity Method Investments", in the Notes to the unaudited Consolidated Financial Statements included in Item 1 "Consolidated Financial Statements"

of this Form 10-Q.

LIQUIDITY AND CAPITAL RESOURCES

A considerable portion of our revenue is dependent on the demand for semiconductor capital equipment, which historically has experienced periodic downturns. We believe that we have adequate resources to fund our currently planned working capital and capital expenditure requirements for the next twelve months. The cyclical nature of our

served markets and uncertainty in the current global economic environment make it difficult for us to predict longer-term liquidity requirements with sufficient certainty. We may be unable to obtain any additional financing on terms favorable to us, if at all. If adequate funds are not available to us on acceptable terms or otherwise, we may be unable to successfully develop or enhance products and services, respond to competitive pressure or take advantage of acquisition opportunities, any of which could have a material adverse effect on our business, financial condition and operating results.

Our cash balances are held in numerous locations throughout the world, with substantial majority of those amounts located outside of the United States. As of December 31, 2016, we had cash and cash equivalents of \$82.9 million, of which \$63.2 million was held outside of the United States. If these funds are needed for our U.S. operations, we would be required to accrue tax liabilities to repatriate these funds. However, given the amount of our net operating loss carryovers in the United States, such repatriation will most likely not result in U.S. cash tax payments within the next twelve months. Our intent is to permanently reinvest these funds outside of the U.S. and our current operating plans do not demonstrate a need to repatriate these funds for our U.S. operations. At December 31, 2016, we had marketable securities of \$6.1 million which were held in the U.S. Our marketable securities are generally readily convertible to cash without an adverse impact. We believe that our current cash balance, marketable securities, access to the revolving line of credit, as well as to debt and capital markets along with cash flows from operations will satisfy working capital, financing activities, and capital expenditure requirements for the next twelve months. As of December 31, 2016, we had approximately \$55.3 million available for borrowing under our line of credit as of December 31, 2016 and September 30, 2016. The amount of funds available for borrowing under the line of credit arrangement may fluctuate each period based on our borrowing base availability.

Overview of Cash Flows and Liquidity

Our cash, cash equivalents and marketable securities as of December 31, 2016 and September 30, 2016 consist of the following (in thousands):

	December	September
	31, 2016	30, 2016
Cash and cash equivalents	\$ 82,945	\$ 85,086
Short-term marketable securities	866	39
Long-term marketable securities	5,217	6,096
	\$ 89,028	\$ 91,221

Three Months Ended December 31, 2016 Compared to Three Months Ended December 31, 2015 Overview

Cash and cash equivalents and marketable securities were \$89.0 million at December 31, 2016 as compared to \$91.2 million at September 30, 2016. The decrease in cash and cash equivalents and marketable securities of \$2.2 million was primarily attributable to a dividend payment of \$7.0 million made to our shareholders during the first quarter of fiscal year 2017, a cash payment of \$5.3 million, which included \$4.8 million for the acquisition of Cool Lab and \$0.5 million for the settlement of Contact consideration, capital expenditure payments of \$3.8 million, as well as a decrease of \$4.6 million related to a negative impact of foreign currency exchange rates. These decreases were partially offset by cash inflows of \$18.7 million generated from our operating activities.

Operating Activities

Cash flows from operating activities can fluctuate significantly from period to period as earnings, working capital needs and the timing of payments for income taxes, restructuring activities and other charges impact reported cash flows.

Cash flows provided by operating activities were \$18.7 million during the three months ended December 31, 2016 as compared to \$12.4 million used during the corresponding period of the prior fiscal year. The increase of \$31.1 million in cash flows from operating activities was primarily attributable to the following factors:

During the three months ended December 31, 2016 and 2015, we generated net income (loss) of \$13.9 million and \$(4.6) million, respectively, adjusted for the impact of non-cash related charges of \$5.0 million and \$7.5 million,

respectively, which amounted to \$18.9 million and \$2.8 million, respectively. The non-cash charges consisted primarily of depreciation and amortization, stock-based compensation, deferred tax benefits, undistributed earnings of equity method investments, as well as a gain on settlement of equity method investments. Please refer to the "Results of Operations" section above for a detailed discussion of our operating results for the three months ended December 31, 2016 as compared to the three months ended December 31, 2015.

Our trade accounts receivable, inventories and trade accounts payable used \$1.0 million in operating cash flows during the first quarter of fiscal year 2017 as compared to \$7.3 million used during the corresponding period of the prior fiscal year. The amount of cash flow generated from or used by the aggregate of trade accounts receivable, inventories and trade accounts payable depends upon how effectively we manage our working capital and can be significantly impacted by the timing of customer billings, cash collections and vendor payments made during the period. A favorable impact of \$6.3 million was primarily attributable to the change in accounts payable, which resulted in a source of cash of \$13.0 million during the first guarter of fiscal year 2017, compared to a use of cash of \$7.6 million for the first quarter of fiscal year 2016. The favorable impact of of accounts payable is primarily attributable to improved supply chain management and the timing of vendor payments. The favorable impact of accounts payable was partially offset by an unfavorable impact of accounts receivable, which resulted in a use of cash of \$11.1 million for the first quarter of fiscal year 2017 compared to a source of cash of \$0.2 million for the first fiscal quarter of 2016. The changes in accounts receivable are primarily attributable to the timing of product shipments and the associated billings, as well as the timing of customer cash collections. Additionally, partially offsetting the benefits of accounts payable was the change in inventory balances. The change in inventory resulted in a use of cash of \$2.9 million for the first guarter of fiscal year 2017 compared to a source of cash of \$0.1 million for the first fiscal quarter of fiscal year 2016.

The timing of payments for prepaid expenses and other assets collectively with accrued expenses and other liabilities used \$9.9 million in operating cash flows during the first quarter of fiscal year 2017 as compared to \$16.8 million during the corresponding period of the prior fiscal year. The favorable impact of \$6.9 million was primarily attributable to the timing of payments for income taxes for vested restricted stock units and other operating expenses which resulted in a favorable impact of \$8.7 million, which was partially offset by a negative impact of \$2.1 million primarily due to cash payments for restructuring liabilities. Prior to fiscal year 2017, we initiated a restructuring action within the Brooks Semiconductor Solutions Group segment to consolidate our Jena, Germany repair facility into Chelmsford, Massachusetts repair operation as a part of our strategy to reduce global footprint and streamline the cost structure. Additionally, we initiated a restructuring action during fiscal year 2016 to streamline our business operations as part of a company-wide initiative to improve profitability and competitiveness which is expected to benefit all segments. Accrued restructuring liabilities of \$3.0 million at December 31, 2016 from these actions are expected to be paid within the next twelve months with cash flows generated from operating activities. These restructuring plans are expected to result in approximately \$13.0 million of reduced annual cash spending. Please refer to Note 13, "Restructuring and Other Charges" in the Notes to the unaudited Consolidated Financial Statements included in Item 1 "Consolidated Financial Statements" of this Form 10-Q, as well as "Results of Operations-Restructuring and Other Charges" section above for further information on these actions.

The timing of customer billings and the associated changes in deferred revenue provided \$10.7 million and \$8.9 million, respectively, during the three months ended December 31, 2016 and 2015. The favorable impact on our cash flows from operating activities in both periods was primarily attributable to the timing of revenue recognition on certain arrangements, as well as milestone billings and the amount of revenue recognized on percentage of completion type contracts.

Investing Activities

Cash flows from investing activities consist primarily of cash used for acquisitions, capital expenditures and purchases of marketable securities, as well as cash proceeds generated from sales and maturities of marketable securities. Cash used in investing activities was \$9.3 million during the three months ended December 31, 2016 as compared to \$5.3 million during the corresponding period of the prior fiscal year. Cash used in investing activities of \$9.3 million during the first quarter of fiscal year 2017 included a cash payment of \$5.3 million which consisted of \$4.8 million for the acquisition of Cool Lab and \$0.5 million for the settlement of Contact consideration, and \$3.8 million of capital expenditures.

Cash used in investing activities of \$5.3 million during the three months ended December 31, 2015 included primarily a cash payment of \$125.5 million for the acquisition of BioStorage and \$2.5 million of capital expenditures. These uses of cash were partially offset by \$123.0 million related to net proceeds from sales and maturities of marketable

securities.

Capital expenditures are made primarily for increasing capacity, replacing equipment, supporting new product development and improving information technology infrastructure. Capital expenditures were \$3.8 million during the first quarter of fiscal year 2017 as compared to \$2.5 million during the corresponding period of the prior fiscal year. The increase of \$1.3 million was primarily attributable to the investment in our internal capital infrastructure for manufacturing operations to optimize production cycle times. Financing Activities

Cash used in financing activities was \$7.0 million during the first quarter of fiscal year 2017 as compared to \$6.8 million during the corresponding period of the prior fiscal year. Cash used in financing activities included primarily cash dividend payments of \$7.0 million and \$6.8 million, respectively, made during the three months ended December 31, 2016 and 2015.

Capital Resources

Line of Credit Facility

We maintain a five-year senior secured revolving line of credit, or line of credit, with Wells Fargo Bank, N.A., or Wells Fargo, that provides for up to \$75.0 million of borrowing capacity, subject to borrowing base availability, as defined in the agreement governing the line of credit. As of December 31, 2016, we had approximately \$55.3 million available for borrowing under the line of credit. There were no amounts outstanding under the line of credit as of December 31, 2016 and September 30, 2016. During the three months ended December 31, 2016, we incurred less than \$0.1 million in fees related to the unused portion of the line of credit commitment amount. There were no such fees incurred during the three months ended December 31, 2015. The line of credit contains certain customary representations and warranties, a financial covenant, affirmative and negative covenants, as well as events of default. The Company was in compliance with the line of credit covenants as of December 31, 2016 and September 30, 2016. We believe we will be able to generate sufficient cash in the United States and foreign jurisdictions to fund our future operating costs. We secured the revolving line of credit as an additional assurance for maintaining liquidity in the United States during potentially severe downturns of the cyclical semiconductor market, as well as for strategic investments and acquisitions. Please refer to Note 11, "Line of Credit" in the Notes to our audited Consolidated Financial Statements included in Part II, Item 8 "Financial Statements and Supplementary Data" in our Annual Report on Form 10-K for the fiscal year ended September 30, 2016 for further information on the line of credit arrangement. Shelf Registration Statement

On July 27, 2016, we filed a registration statement on Form S-3 with the SEC to sell securities, including common stock, preferred stock, warrants, debt securities, depository shares, purchase contracts and purchase units in amounts to be determined at the time of an offering. Any such offering, if it does occur, may happen in one or more transactions. The specific terms of any securities to be sold will be described in supplemental filings with the SEC. This registration statement will expire on July 27, 2019.

Employee Stock Purchase Plan

Approximately 877,427 shares of common stock issued under our 1995 Employee Stock Purchase Plan, or ESPP, for the purchases made between January 2013 and July 2016, at purchase prices ranging from \$7.79 to \$9.01 per share, were inadvertently not registered under federal securities laws. Based on our current stock price, we do not expect any ESPP participants who still hold shares purchased within the last year to seek rescission. However if we determine that ESPP participants are likely to seek rescission in the future, we may make a registered rescission offer to repurchase the shares issued under the ESPP during fiscal 2016 to the extent they continue to be held by the original purchasers. If holders of all of these shares seek to rescind their purchases, we could be required to make aggregate payments of up to approximately \$0.8 million, which includes estimated statutory interest. As of December 31, 2016, there were approximately 90,358 shares of common stock issued under the ESPP and held by the original purchasers of such shares which may be subject to these rescission rights.

On January 31, 2017, our Board of Directors approved a cash dividend of \$0.10 per share of our common stock. The total dividend of approximately \$7.0 million will be paid on March 24, 2017 to shareholders of record at the close of business on March 3, 2017. Dividends are declared at the discretion of our Board of Directors and depend on actual cash flow from operations, our financial condition, capital requirements and any other factors our Board of Directors may consider relevant. We intend to pay quarterly cash dividends in the future; however, the amount and timing of these dividends may be impacted by the cyclical nature of certain markets we serve. We may reduce, delay or cancel a quarterly cash dividend based on the severity of a cyclical downturn.

Share Repurchase Program

On September 29, 2015, our Board of Directors approved a share repurchase program for up to \$50 million worth of our common stock. The timing and amount of any shares repurchased will be based on market and business conditions, legal requirements and other factors and may be commenced or suspended at any time at our discretion. There were no shares repurchased under this program during the three months ended December 31, 2016. Contractual Obligations and Requirements

Except as disclosed below regarding letters of credit, there have been no material changes to our contractual obligations set forth under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources" in the 2016 Annual Report in Form 10-K.

At December 31, 2016 we had approximately \$4.6 million of letters of credit outstanding related primarily to customer advances and other performance obligations. These arrangements guarantee the refund of advance payments received from our customers in the event that the product is not delivered or warranty obligations are not fulfilled in accordance with the contract terms. These obligations could be called by the beneficiaries at any time before the expiration date of the particular letter of credit if we fail to meet certain contractual requirements. None of these obligations were called during the three months ended December 31, 2016, and we currently do not anticipate any of these obligations to be called in the near future.

Off-Balance Sheet Arrangements

As of December 31, 2016, we did not have any off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of SEC Regulation S-K.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to a variety of market risks, including changes in interest rates affecting the return on our cash and cash equivalents, short-term and long-term investments and fluctuations in foreign currency exchange rates. Interest Rate Exposure

Our cash and cash equivalents consist principally of money market securities which are short-term in nature. Our short-term and long-term investments consist mostly of highly rated corporate debt securities, U.S. Treasury securities, and obligations of U.S. Government Agencies and other municipalities. At December 31, 2016, our net unrealized loss position on marketable securities was less than \$0.1 million, which is included in "Accumulated Other Comprehensive Income" in the unaudited Consolidated Balance Sheets included elsewhere in this Quarterly Report on Form 10-Q. A hypothetical 100 basis point change in interest rates would result in a change of approximately \$0.1 million in interest income earned during each of the three months ended December 31, 2016 and 2015. Currency Rate Exposure

We have transactions and balances denominated in currencies other than the U.S. dollar. Most of these transactions or balances are denominated in Euros, British Pounds and a variety of Asian currencies. Sales in currencies other than the U.S. dollar were approximately 37% and 33% of our total sales, respectively, during the three months ended December 31, 2016 and 2015. These sales were made primarily by our foreign subsidiaries, which have cost structures that substantially align with the currency of sale.

In the normal course of our business, we have liquid assets denominated in non-functional currencies which include cash, short-term advances between our legal entities and accounts receivable which are subject to foreign currency exposure. Such balances were approximately \$36.2 million and \$34.9 million at December 31, 2016 and September 30, 2016, and related to the Euro, British Pound and a variety of Asian currencies. We mitigate the impact of potential currency translation losses on these short-term intercompany advances by the timely settlement of each transaction, generally within 30 days. We also utilize forward contracts to mitigate our exposures to currency movement. We incurred foreign currency losses of \$0.5 million during each of the three months ended December 31, 2016 and 2015, which related to the currency fluctuation on these balances between the time the transaction occurred and the ultimate settlement of the transaction. A hypothetical 10% change in foreign exchange rates at December 31, 2016 and 2015 would result in an approximate change of \$0.3 million and \$0.4 million, respectively, in our net income (loss) during the three months ended December 31, 2016 and 2015.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures. As of the end of the period covered by this report, and pursuant to Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, the Company's management, including our chief executive officer and chief financial officer, has concluded that our disclosure controls and procedures are effective.

Change in Internal Controls. There were no changes in our internal control over financial reporting that occurred during our most recent 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

We are subject to various legal proceedings, both asserted and unasserted, that arise in the ordinary course of business. We cannot predict the ultimate outcome of such legal proceedings or in certain instances provide reasonable ranges of potential losses. However, as of the date of this Quarterly Report on the Form 10-Q, we believe that none of these claims will have a material adverse effect on our consolidated financial condition or results of operations. In the event of unexpected subsequent developments and given the inherent unpredictability of these legal proceedings, there can be no assurance that our assessment of any claim will reflect the ultimate outcome and an adverse outcome in certain matters could, from time-to-time, have a material adverse effect on our consolidated financial condition or results of operations of operations in particular quarterly or annual periods.

Item 1A. Risk Factors

You should carefully review and consider the information regarding certain factors that could materially affect our business, consolidated financial condition or results of operations set forth under Item 1A. Risk Factors in the 2016 Annual Report on Form 10-K. There have been no material changes from the risk factors disclosed in our 2016 Annual Report on Form 10-K. We may disclose changes to risk factors or additional factors from time to time in our future filings with the SEC.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Share Repurchase Program

On September 29, 2015, our Board of Directors approved a share repurchase program for up to \$50 million worth of our common stock. The timing and amount of any shares repurchased are based on market and business conditions, legal requirements and other factors and may be commenced or suspended at any time at our discretion. There were no shares repurchased under this program during the three months ended December 31, 2016.

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Item 6. Exhibits The following exhibits are included herein:

Exhibit No.	Description
10.1	Amendment to Offer Letter dated November 7, 2016 between the Company and David C. Gray (incorporated herein by reference to Exhibit 10.1 to the Company's current report on Form 8-K, filed on November 11, 2016).
31.01	Certification of the Registrant's Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.02	Certification of the Registrant's Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32	Certification of the Registrant's Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following material from the Company's Quarterly Report on Form 10-Q, for the quarter ended December 31, 2016, formatted in XBRL (eXtensible Business Reporting Language): (i) the unaudited Consolidated Balance Sheets; (ii) the unaudited Consolidated Statements of Operations; (iii) the unaudited Consolidated Statements of Comprehensive Income (Loss); (iv) the unaudited Consolidated Statements of Cash Flows; and (v) the Notes to the unaudited Consolidated Financial Statements.

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.

BROOKS AUTOMATION, INC.

Date: February 7, 2017 /S/ Lindon G. Robertson Lindon G. Robertson Executive Vice President and Chief Financial Officer (Principal Financial Officer)

Date: February 7, 2017 /S/ David Pietrantoni David Pietrantoni Vice President-Finance and Corporate Controller (Principal Accounting Officer)

EXHIBIT INDEX

Exhibit Description No. Amendment to Offer Letter dated November 7, 2016 between the Company and David C. Gray (incorporated 10.1 herein by reference to Exhibit 10.1 to the Company's current report on Form 8-K, filed on November 11, 2016). Certification of the Registrant's Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act 31.01 of 2002. Certification of the Registrant's Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 31.02 2002. Certification of the Registrant's Chief Executive Officer and Chief Financial Officer pursuant to Section 906 32 of the Sarbanes-Oxley Act of 2002. The following material from the Company's Quarterly Report on Form 10-Q, for the quarter ended December 31, 2016, formatted in XBRL (eXtensible Business Reporting Language): (i) the unaudited Consolidated 101 Balance Sheets; (ii) the unaudited Consolidated Statements of Operations; (iii) the unaudited Consolidated Statements of Comprehensive Income (Loss); (iv) the unaudited Consolidated Statements of Cash Flows; and

(v) the Notes to the unaudited Consolidated Financial Statements.