UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

☑ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE QUARTERLY PERIOD ENDED JUNE 30, 2018

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 No. 001-15943



CHARLES RIVER LABORATORIES INTERNATIONAL, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization) 251 Ballardvale Street Wilmington, Massachusetts (Address of Principal Executive Offices) 06-1397316 (I.R.S. Employer Identification No.)

> 01887 (Zip Code)

(Registrant's telephone number, including area code): (781) 222-6000

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 \square No \square

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, 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 \square No \square

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer \blacksquare

Accelerated filer \Box

Non-accelerated filer □ (Do not check if smaller reporting company)

Smaller reporting company \Box

Emerging growth company \Box

If an emerging growth company, indicate by a check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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

As of July 27, 2018, there were 48,032,375 shares of the Registrant's common stock outstanding.

CHARLES RIVER LABORATORIES INTERNATIONAL, INC.

QUARTERLY REPORT ON FORM 10-Q FOR THE QUARTERLY PERIOD ENDED JUNE 30, 2018

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Special Note on Factors Affecting Future Results

This Quarterly Report on Form 10-Q contains forward-looking statements regarding future events and the future results of Charles River Laboratories International, Inc. that are based on our current expectations, estimates, forecasts and projections about the industries in which we operate and the beliefs and assumptions of our management. Words such as "expect," "anticipate," "target," "goal," "project," "intend," "plan," "believe," "seek," "estimate," "will," "likely," "may," "designed," "would," "future," "can," "could," and other similar expressions which are predictions of, indicate future events and trends or which do not relate to historical matters, are intended to identify such forward-looking statements. These statements are based on our current expectations and beliefs and involve a number of risks, uncertainties and assumptions that are difficult to predict.

For example, we may use forward-looking statements when addressing topics such as: goodwill and asset impairments still under review; future demand for drug discovery and development products and services, including the outsourcing of these services; our expectations regarding stock repurchases, including the number of shares to be repurchased, expected timing and duration, the amount of capital that may be expended and the treatment of repurchased shares; present spending trends and other cost reduction activities by our clients; future actions by our management; the outcome of contingencies; changes in our business strategy, business practices and methods of generating revenue; the development and performance of our services and products; market and industry conditions, including competitive and pricing trends; our strategic relationships with leading pharmaceutical companies and venture capital investments and opportunities for future similar arrangements; our cost structure; the impact of acquisitions; our expectations intended to improve overall operating efficiencies and profitability (and our ability to accommodate future demand with our infrastructure), including gains and losses attributable to businesses we plan to close, consolidate, divest or repurpose (including our Maryland research model production site); changes in our expectations regarding future stock option, restricted stock, performance share units, and other equity grants to employees and directors; expectations with respect to foreign currency exchange; assessing (or changing our assessment of) our tax positions for financial statement purpose; and our liquidity. In addition, these statements include the impact of economic and market conditions on us and our clients; the effects of our cost saving actions and the steps to optimize returns to shareholders on an effective and timely basis; and our ability to withstand the current market conditions.

You should not rely on forward-looking statements because they are predictions and are subject to risks, uncertainties, and assumptions that are difficult to predict. Therefore, actual results may differ materially and adversely from those expressed in any forward-looking statements. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this document, or in the case of statements incorporated by reference, on the date of the document incorporated by reference.

Factors that might cause or contribute to such differences include, but are not limited to, those discussed in our Annual Report on Form 10-K for the year ended December 30, 2017, under the sections entitled "Our Strategy," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations," in our press releases, and other financial filings with the Securities and Exchange Commission. We have no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events, or risks. New information, future events, or risks may cause the forward-looking events we discuss in this report not to occur.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

CHARLES RIVER LABORATORIES INTERNATIONAL, INC. CONDENSED CONSOLIDATED STATEMENTS OF INCOME (UNAUDITED) (in thousands, except per share amounts)

Service revenue Product revenue Total revenue Costs and expenses: Cost of services provided (excluding amortization of intangible assets) Cost of products sold (excluding amortization of intangible assets) Selling, general and administrative	Ju \$	ne 30, 2018 438,456		fuly 1, 2017	J	20 2010		
Product revenue Total revenue Costs and expenses: Cost of services provided (excluding amortization of intangible assets) Cost of products sold (excluding amortization of intangible assets)	\$,	Φ	, , , , , , , , , , , , , , , , , , , ,		une 30, 2018	J	uly 1, 2017
Total revenue Costs and expenses: Cost of services provided (excluding amortization of intangible assets) Cost of products sold (excluding amortization of intangible assets)			\$	329,398	\$	783,910	\$	633,929
Costs and expenses: Cost of services provided (excluding amortization of intangible assets) Cost of products sold (excluding amortization of intangible assets)		146,845		139,731		295,361		280,963
Cost of services provided (excluding amortization of intangible assets) Cost of products sold (excluding amortization of intangible assets)		585,301		469,129		1,079,271		914,892
Cost of products sold (excluding amortization of intangible assets)								
		302,304		215,053		546,112		422,220
Selling general and administrative		67,016		68,751		135,709		135,995
Sening, general and administrative		120,531		93,820		223,903		184,729
Amortization of intangible assets		18,740		9,819		29,008		20,556
Operating income		76,710		81,686		144,539		151,392
Other income (expense):								
Interest income		182		161		464		363
Interest expense		(18,643)		(7,403)		(29,834)		(14,386)
Other income, net		12,039		2,472		18,159		17,594
Income from continuing operations, before income taxes		70,288		76,916		133,328		154,963
Provision for income taxes		17,438		22,243		27,210		53,327
Income from continuing operations, net of income taxes		52,850		54,673		106,118		101,636
Income (loss) from discontinued operations, net of income taxes		1,529		(71)		1,506		(75)
Net income		54,379		54,602		107,624		101,561
Less: Net income attributable to noncontrolling interests		670		650		1,284		831
Net income attributable to common shareholders	\$	53,709	\$	53,952	\$	106,340	\$	100,730
Earnings per common share								
Basic:								
Continuing operations attributable to common shareholders	\$	1.08	\$	1.14	\$	2.18	\$	2.12
Discontinued operations	\$	0.03	\$		\$	0.03	\$	_
Net income attributable to common shareholders	\$	1.11	\$	1.13	\$	2.22	\$	2.12
Diluted:								
Continuing operations attributable to common shareholders	\$	1.06	\$	1.12	\$	2.14	\$	2.08
Discontinued operations	\$	0.03	\$		\$	0.03	\$	
Net income attributable to common shareholders	\$	1.10	\$	1.12	\$	2.17	\$	2.08

See Notes to Unaudited Condensed Consolidated Financial Statements.

CHARLES RIVER LABORATORIES INTERNATIONAL, INC. CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (UNAUDITED) (in thousands)

	Three Months Ended			Six Mon			ded	
	June 30, 2018 July 1, 2017		June 30, 2018		July 1, 2017			
Net income	\$	54,379	\$	54,602	\$	107,624	\$	101,561
Other comprehensive income:								
Foreign currency translation adjustment and other		(33,150)		33,451		(7,719)		44,672
Amortization of net loss and prior service benefit included in net periodic cost for pension and other post-retirement benefit plans		790		901		1,249		1,755
Comprehensive income, before income taxes		22,019		88,954		101,154		147,988
Less: Income tax (benefit) expense related to items of other comprehensive income		(2,320)		397		(598)		623
Comprehensive income, net of income taxes		24,339		88,557		101,752		147,365
Less: Comprehensive (loss) income related to noncontrolling interest, net of income taxes		(218)		900		960		1,198
Comprehensive income attributable to common shareholders	\$	24,557	\$	87,657	\$	100,792	\$	146,167

See Notes to Unaudited Condensed Consolidated Financial Statements.

CHARLES RIVER LABORATORIES INTERNATIONAL, INC. CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED) (in thousands, except per share amounts)

	June 30, 2018]	December 30, 2017
Assets			
Current assets:			
Cash and cash equivalents	\$ 192,300	\$	163,794
Trade receivables, net	478,735		430,016
Inventories	124,131		114,956
Prepaid assets	44,531		36,544
Other current assets	49,833		81,315
Total current assets	889,530		826,625
Property, plant and equipment, net	896,273		781,973
Goodwill	1,254,444		804,906
Client relationships, net	553,277		301,891
Other intangible assets, net	95,859		67,871
Deferred tax assets	27,230		22,654
Other assets	 149,270		124,002
Total assets	\$ 3,865,883	\$	2,929,922
Liabilities, Redeemable Noncontrolling Interest and Equity			
Current liabilities:			
Current portion of long-term debt and capital leases	\$ 31,346	\$	30,998
Accounts payable	67,481		77,838
Accrued compensation	104,547		101,044
Deferred revenue	130,393		117,569
Accrued liabilities	110,770		89,780
Other current liabilities	73,603		44,460
Current liabilities of discontinued operations	_		1,815
Total current liabilities	518,140		463,504
Long-term debt, net and capital leases	1,796,451		1,114,105
Deferred tax liabilities	152,785		89,540
Other long-term liabilities	196,640		194,815
Long-term liabilities of discontinued operations			3,942
Total liabilities	 2,664,016		1,865,906
Commitments and contingencies (Note 15)			
Redeemable noncontrolling interest	16,662		16,609
Equity:			
Preferred stock, \$0.01 par value; 20,000 shares authorized; no shares issued and outstanding	_		_
Common stock, \$0.01 par value; 120,000 shares authorized; 88,221 shares issued and 48,001 shares outstanding as of June 30, 2018, and 87,495 shares issued and 47,402 shares outstanding as of December 30, 2017	882		875
Additional paid-in capital	2,608,522		2,560,192
Retained earnings	399,752		288,658
Treasury stock, at cost, 40,220 shares and 40,093 shares as of June 30, 2018 and December 30, 2017, respectively	(1,673,582)		(1,659,914)
Accumulated other comprehensive loss	(153,608)		(144,731)
Total equity attributable to common shareholders	1,181,966		1,045,080
Noncontrolling interest	3,239		2,327
Total equity	1,185,205		1,047,407
Total liabilities, redeemable noncontrolling interest and equity	\$ 3,865,883	\$	2,929,922
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See Notes to Unaudited Condensed Consolidated Financial Statements.

CHARLES RIVER LABORATORIES INTERNATIONAL, INC. CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED) (in thousands)

	Six Months Ended			
	Jı	ine 30, 2018	July 1, 2017	
Cash flows relating to operating activities				
Net income	\$	107,624	\$ 101,5	561
Less: Income (loss) from discontinued operations, net of income taxes		1,506		(75)
Income from continuing operations, net of income taxes		106,118	101,	636
Adjustments to reconcile net income from continuing operations to net cash provided by operating activities:				
Depreciation and amortization		76,606	64,2	210
Stock-based compensation		24,088	21,	376
Deferred income taxes		(6,212)	22,	951
Gain on venture capital investments		(17,385)	(6,	690)
Gain on divestiture		_	(10,	577)
Other, net		6,961	1,	164
Changes in assets and liabilities:				
Trade receivables, net		(19,375)	(26,	596)
Inventories		(7,444)	(7,	746)
Accounts payable		(12,608)	(6,	828)
Accrued compensation		(2,417)	(10,	715)
Deferred revenue		(4,331)		260)
Customer contract deposits		37,543		_
Other assets and liabilities, net		2,379	(1,:	572)
Net cash provided by operating activities		183,923	134,	
Cash flows relating to investing activities		,	- ,	
Acquisitions of businesses and assets, net of cash acquired		(821,350)		_
Capital expenditures		(48,939)	(31.9	917)
Purchases of investments and contributions to venture capital investments		(11,097)		976)
Proceeds from sale of investments		30,406	× ·	479
Proceeds from divestiture				462
Other, net		(56)		(22)
Net cash (used in) provided by investing activities		(851,036)		026
Cash flows relating to financing activities		(001,000)	1.,	020
Proceeds from long-term debt and revolving credit facility		2,392,568	136,	224
Proceeds from exercises of stock options		24,196		955
Payments on long-term debt, revolving credit facility, and capital lease obligations		(1,680,207)	(249,	
Payments on debt financing costs		(18,314)	(21),	
Purchase of treasury stock		(13,668)	(70)	820)
Other, net		(15,000)		450)
Net cash provided by (used in) financing activities		704,575	(155,	
Discontinued operations		704,373	(155,	004)
Net cash used in operating activities from discontinued operations		(2.721)	(007)
		(3,731)		997) 202
Effect of exchange rate changes on cash, cash equivalents, and restricted cash		(4,697)		808
Net change in cash, cash equivalents, and restricted cash		29,034		874)
Cash, cash equivalents, and restricted cash, beginning of period	¢	166,331	119,1 ©	
Cash, cash equivalents, and restricted cash, end of period	\$	195,365	\$ 119,	020

	Six Months Ended			
	June 30, 2018		uly 1, 2017	
Supplemental cash flow information:				
Cash and cash equivalents	\$ 192,300	\$	116,466	
Restricted cash included in Other current assets	593		568	
Restricted cash included in Other assets	2,472		1,986	
Cash, cash equivalents, and restricted cash, end of period	\$ 195,365	\$	119,020	

See Notes to Unaudited Condensed Consolidated Financial Statements.

1. BASIS OF PRESENTATION

The accompanying condensed consolidated financial statements are unaudited and have been prepared by Charles River Laboratories International, Inc. (the Company) in accordance with accounting principles generally accepted in the United States (U.S. GAAP) and pursuant to the rules and regulations of the Securities and Exchange Commission (SEC). The year-end condensed consolidated balance sheet data was derived from the Company's audited consolidated financial statements, but does not include all disclosures required by U.S. GAAP. These unaudited condensed consolidated financial statements should be read in conjunction with the Company's Annual Report on Form 10-K for fiscal year 2017. The unaudited condensed consolidated financial statements, in the opinion of management, reflect all normal and recurring adjustments necessary for a fair statement of the Company's financial position and results of operations.

The Company has reclassified certain amounts in the unaudited condensed consolidated statements of income for prior periods to conform to the current year presentation. See "Newly Adopted Accounting Pronouncements" below for further discussion and impact on the condensed consolidated financial statements.

Use of Estimates

The preparation of unaudited condensed consolidated financial statements in accordance with U.S. GAAP requires that the Company make estimates and judgments that may affect the reported amounts of assets, liabilities, redeemable noncontrolling interest, revenues, expenses and related disclosure of contingent assets and liabilities. On an on-going basis, the Company evaluates its estimates, judgments, and methodologies. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ from these estimates under different assumptions or conditions. Changes in estimates are reflected in reported results in the period in which they become known.

Consolidation

The Company's unaudited condensed consolidated financial statements reflect its financial statements and those of its subsidiaries in which the Company holds a controlling financial interest. For consolidated entities in which the Company owns or is exposed to less than 100% of the economics, the Company records net income (loss) attributable to noncontrolling interests in its consolidated statements of income equal to the percentage of the economic or ownership interest retained in such entities by the respective noncontrolling parties. Intercompany balances and transactions are eliminated in consolidation.

The Company's fiscal year is typically based on 52-weeks, with each quarter composed of 13 weeks ending on the last Saturday on, or closest to, March 31, June 30, September 30, and December 31.

Summary of Significant Accounting Policies

The Company's significant accounting policies are described in Note 1, "Description of Business and Summary of Significant Accounting Policies," in the Company's Annual Report on Form 10-K for fiscal year 2017.

Newly Adopted Accounting Pronouncements

In March 2018, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2018-05, "Income Taxes (Topic 740) -Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118 (SAB 118)." This standard amends Accounting Standards Codification 740, Income Taxes (ASC 740) to provide guidance on accounting for the tax effects of U.S. Tax Reform pursuant to SAB 118, which allows companies to complete the accounting under ASC 740 within a one-year measurement period from the enactment date of U.S. Tax Reform. This standard is effective upon issuance and the Company has complied with the amendments. See Note 11, "Income Taxes" for further discussion.

In February 2018, the FASB issued ASU 2018-02, "Income Statement - Reporting Comprehensive Income (Topic 220) Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income." The standard allows for reclassification from accumulated other comprehensive income to retained earnings for the stranded tax effects arising from the change in the reduction of the U.S. federal statutory income tax rate to 21% from 35%. The Company elected to early adopt this standard in fiscal year 2018 as permitted on a prospective basis, resulting in a reclassification of \$3.3 million from Accumulated other comprehensive income to Retained earnings as a result of remeasuring the Company's deferred tax liabilities related to its pension and other post-retirement benefit plan gains and losses. The Company's policy is to release material stranded tax effects on a specific identification basis.

In March 2017, the FASB issued ASU 2017-07, "Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost." The standard requires an employer to disaggregate the service cost component from the other components of net benefit cost and provides explicit guidance on the presentation of the service cost component and the other components of net benefit cost in the statements of income. The Company adopted this standard in fiscal year 2018 and applied the changes retrospectively to the presentation of the service cost component and the other components of net periodic pension cost in the statements of income for all periods presented as required. The adoption of this standard increased Operating income by \$0.4 million and \$0.6 million during the three and six months ended July 1, 2017, respectively. In connection with the



impact of Operating income to the Company's reportable segments for the three months ended July 1, 2017, Research Models and Services (RMS) increased by less than \$0.1 million, Discovery and Safety Assessment (DSA) decreased by \$0.4 million, Manufacturing Support (Manufacturing) increased by less than \$0.1 million, and Unallocated corporate increased by \$0.7 million. For the six months ended July 1, 2017, Operating income for RMS decreased by less than \$0.1 million, DSA decreased by \$0.7 million. Manufacturing increased by \$1.3 million.

In January 2017, the FASB issued ASU 2017-01, "Clarifying the Definition of a Business." The standard clarifies the definition of a business by adding guidance to assist entities in evaluating whether transactions should be accounted for as acquisitions of assets or businesses. The Company's adoption of this standard in fiscal year 2018 did not have a significant impact on the consolidated financial statements and related disclosures.

In October 2016, the FASB issued ASU 2016-16, "Intra-Entity Transfers of Assets Other Than Inventory." The standard requires the immediate recognition of tax effects for an intra-entity asset transfer other than inventory. The Company's adoption of this standard in fiscal year 2018 did not have a significant impact on the consolidated financial statements and related disclosures.

In January 2016, the FASB issued ASU 2016-01, "Recognition and Measurement of Financial Assets and Liabilities." This standard, including a subsequently issued amendment under ASU 2018-03, "Technical Corrections and Improvements to Financial Instruments - Recognition and Measurement of Financial Assets and Financial Liabilities", requires equity investments that are not accounted for under the equity method of accounting to be measured at fair value with changes recognized in net income, simplifies the impairment assessment of certain equity investments, and updates certain presentation and disclosure requirements. The Company adopted this standard in fiscal year 2018, resulting in an increase of \$1.9 million to Other assets with a corresponding increase to Retained earnings and Deferred taxes of \$1.4 million and \$0.5 million, respectively.

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers." The standard, including subsequently issued amendments, replaced most existing revenue recognition guidance in U.S. GAAP and permits the use of either a modified retrospective or cumulative effect transition method. The Company elected the modified retrospective transition method. The standard requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The Company adopted this standard in fiscal year 2018. See Note 3, "Revenue From Contracts With Customers" for a discussion of the Company's adoption of this standard and its impact on the consolidated financial statements and related disclosures.

Newly Issued Accounting Pronouncements

In June 2018, the FASB issued ASU 2018-07, "Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting." ASU 2018-07 aligns the accounting for share-based payment awards issued to employees and nonemployees as well as improves financial reporting for share-based payments to nonemployees. The ASU is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years and will be applied to all new option awards granted after the date of adoption. Early adoption is permitted. The Company is still evaluating the impact this standard will have on its consolidated financial statements and related disclosures.

In August 2017, the FASB issued ASU 2017-12, "Derivatives and Hedging (Topic 815) Targeted Improvements to Accounting for Hedging Activities." ASU 2017-12 refines and expands hedge accounting for both financial and commodity risks. It also creates more transparency around how economic results are presented, both on the face of the financial statements and in the disclosures. In addition, this ASU makes certain targeted improvements to simplify the application of hedge accounting guidance. This ASU is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years, and requires the modified retrospective approach. Early adoption is permitted. This update applies to all existing hedging relationships on the date of adoption with the cumulative effect of adoption being reflected as of the beginning of the fiscal year of adoption. The Company is still evaluating the impact this standard will have on its consolidated financial statements and related disclosures.

In January 2017, the FASB issued ASU 2017-04, "Simplifying the Test for Goodwill Impairment." The standard simplifies the accounting for goodwill impairment by removing Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. This standard is effective for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019, and will be applied on a prospective basis. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The adoption of this standard is not expected to have a material impact on the Company's consolidated financial statements and related disclosures.

In February 2016, the FASB issued ASU 2016-02, "Leases." The standard, including subsequently issued amendments, established the principles that lessees and lessors will apply to report useful information to users of financial statements about the amount, timing and uncertainty of cash flows arising from a lease. This ASU is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted. The Company formed an implementation team during fiscal year 2017 to oversee adoption of the new standard. The implementation team has completed



its initial assessment of the new standard, including a detailed review of the Company's lease portfolio. The Company continues to assess the impact on the existing lease accounting policies, newly required financial statement disclosures, and executing on the project plan. Currently, the Company is performing contract reviews, working through anticipated changes to systems and business processes, and internal controls to support the adoption of the new standard. The Company is still evaluating the full impact this standard will have on its consolidated financial statements and related disclosures, but expects to recognize substantially all of its leases on the balance sheet by recording a right-to-use asset and a corresponding lease liability.

2. BUSINESS ACQUISITIONS AND DIVESTITURE

MPI Research

On April 3, 2018, the Company acquired MPI Research, a non-clinical contract research organization (CRO) providing comprehensive testing services to biopharmaceutical and medical device companies worldwide. The acquisition enhances the Company's position as a leading global early-stage CRO by strengthening its ability to partner with clients across the drug discovery and development continuum. The purchase price for MPI Research was \$829.7 million in cash, subject to certain post-closing adjustments that may change the purchase price. The acquisition was funded by borrowings on the Company's \$2.3B Credit Facility as well as the issuance of the Company's Senior Notes. See Note 9, "Long-Term Debt and Capital Lease Obligations." This business is reported as part of the Company's DSA reportable segment.

The preliminary purchase allocation of \$800.2 million, net of \$27.7 million of cash acquired and a preliminary net working capital adjustment of \$1.7 million, was as follows:

	А	pril 3, 2018
	(ii	n thousands)
Trade receivables (contractual amount of \$35,073)	\$	35,073
Inventories		4,463
Other current assets (excluding cash)		5,627
Property, plant and equipment		128,403
Goodwill		440,372
Definite-lived intangible assets		309,200
Other long-term assets		1,081
Deferred revenue		(22,600)
Current liabilities		(32,788)
Deferred tax liabilities		(66,379)
Other long-term liabilities		(2,213)
Total purchase price allocation	\$	800,239

The purchase price allocation is subject to change as additional information becomes available concerning the fair value and tax basis of the assets acquired and liabilities assumed, including certain contracts and obligations. Any additional adjustments to the purchase price allocation will be made as soon as practicable but no later than one year from the date of acquisition.

The breakout of definite-lived intangible assets acquired was as follows:

	Defin	ite-Lived Intangible Assets	Weighted Average Amortization Life
		(in thousands)	(in years)
Client relationships	\$	264,900	13
Developed technology		23,400	3
Backlog		20,900	2
Total definite-lived intangible assets	\$	309,200	12

The goodwill resulting from the transaction, \$4.1 million of which is deductible for tax purposes due to a prior asset acquisition, is primarily attributable to the potential growth of the Company's DSA business from customers introduced through MPI Research and the assembled workforce of the acquired business.



The Company incurred transaction and integration costs in connection with the acquisition of \$11.7 million and \$14.5 million for the three and six months ended June 30, 2018, respectively, which were primarily included in Selling, general and administrative expenses.

MPI Research revenue and operating income for both the three and six months ended June 30, 2018 were \$66.6 million and \$8.2 million, respectively, since MPI Research was acquired on April 3, 2018.

The following selected pro forma consolidated results of operations are presented as if the MPI Research acquisition had occurred as of the beginning of the period immediately preceding the period of acquisition after giving effect to certain adjustments. For the six months ended June 30, 2018, these adjustments included additional amortization of intangible assets and depreciation of fixed assets of \$9.4 million, additional interest expense on borrowings of \$2.8 million, elimination of intercompany activity and other one-time costs, and the tax impacts of these adjustments. For the six months ended July 1, 2017, these adjustments included additional amortization of intangible assets and depreciation of fixed assets of \$11.4 million, additional interest expense on borrowings of \$13.5 million, elimination of intercompany activity and other one-time costs, and the tax impacts of these adjustments.

		Three Mo	onths	Ended		Six Mon	ths E	Inded
	Ju	ine 30, 2018		July 1, 2017		June 30, 2018		July 1, 2017
	(in thousands)							
Revenue	\$	585,297	\$	504,710	\$	1,141,388	\$	1,031,198
Net income attributable to common shareholders		60,161		43,113		109,575		90,968
Earnings per common share								
Basic	\$	1.25	\$	0.91	\$	2.28	\$	1.91
Diluted	\$	1.23	\$	0.89	\$	2.24	\$	1.88

These pro forma results of operations have been prepared for comparative purposes only, and they do not purport to be indicative of the results of operations that actually would have resulted had the acquisition occurred on the dates indicated or that may result in the future. No effect has been given for synergies, if any, that may be realized through the acquisition.

KWS BioTest Limited

On January 11, 2018, the Company acquired KWS BioTest Limited (KWS BioTest), a CRO specializing in *in vitro* and *in vivo* discovery testing services for immuno-oncology, inflammatory and infectious diseases. The acquisition enhances the Company's discovery expertise, with complementary offerings that provide the Company's customers with additional tools in the active therapeutic research areas of oncology and immunology. The purchase price for KWS BioTest was \$20.3 million in cash, subject to certain post-closing adjustments that may change the purchase price, and was funded by the Company's various borrowings. In addition to the initial purchase price, the transaction includes aggregate, undiscounted contingent payments of up to £3.0 million (approximately \$4.0 million based on recent exchange rates), based on future performance. The KWS BioTest business is reported as part of the Company's DSA reportable segment.

The contingent payments become payable based on the achievement of certain revenue and earnings targets. If achieved, the payments become due in the first quarter of fiscal year 2019. The Company estimated the fair value of this contingent consideration based on a probability-weighted set of outcomes.

The preliminary purchase price allocation of \$22.0 million, net of \$1.0 million of cash acquired, was as follows:

	Janu	ary 11, 2018
	(in	thousands)
Trade receivables (contractual amount of \$1,309)	\$	1,309
Other current assets (excluding cash)		99
Property, plant and equipment		1,136
Definite-lived intangible assets - client relationships		3,647
Goodwill		18,165
Current liabilities		(1,575)
Deferred revenue		(151)
Long-term liabilities		(596)
Total purchase price allocation	\$	22,034

The purchase price allocation is subject to change as additional information becomes available concerning the fair value and tax basis of the assets acquired and liabilities assumed, including certain contracts and obligations. Any additional adjustments to the purchase price allocation will be made as soon as practicable but no later than one year from the date of acquisition.

The only definite-lived intangible asset relates to client relationships, which will be amortized over a weighted average life of 12 years.

The goodwill resulting from the transaction is primarily attributable to the potential growth of the Company's DSA businesses from customers introduced through KWS BioTest and the assembled workforce of the acquired business. The goodwill attributable to KWS BioTest is not deductible for tax purposes.

The Company incurred transaction and integration costs of \$0.1 million and \$0.5 million in connection with the acquisition for the three and six months ended June 30, 2018, respectively, which were included in Selling, general and administrative expenses, within the unaudited condensed consolidated statements of income.

Pro forma financial information as well as actual revenue and operating income have not been included because KWS BioTest's financial results are not significant when compared to the Company's consolidated financial results.

Brains On-Line

On August 4, 2017, the Company acquired Brains On-Line, a CRO providing critical data that advances novel therapeutics for the treatment of central nervous system (CNS) diseases. Brains On-Line strategically expands the Company's existing CNS capabilities and establishes the Company as a single-source provider for a broad portfolio of discovery CNS services. The purchase price for Brains On-Line was \$21.3 million in cash, subject to certain post-closing adjustments, was funded by the Company's various borrowings. In addition to the initial purchase price, the transaction includes aggregate, undiscounted contingent payments of up to ϵ 6.7 million (approximately \$7.8 million based on recent exchange rates), based on future performance. The Brains On-Line business is reported as part of the Company's DSA reportable segment.

The contingent payments become payable based on the achievement of certain revenue and earnings targets. If achieved, the payments become due in the first quarter of fiscal year 2019. The Company estimated the fair value of this contingent consideration based on a probability-weighted set of outcomes.

The purchase price allocation of \$20.1 million, net of \$0.6 million of cash acquired, was as follows:

	August 4, 2017		
	(iı	1 thousands)	
Trade receivables (contractual amount of \$1,146)	\$	1,146	
Other current assets (excluding cash)		640	
Property, plant and equipment		664	
Other long-term assets		29	
Definite-lived intangible assets		9,300	
Goodwill		12,582	
Current liabilities		(1,683)	
Deferred revenue		(405)	
Long-term liabilities		(2,151)	
Total purchase price allocation	\$	20,122	

From the date of acquisition through June 30, 2018, the Company recorded measurement-period adjustments related to the acquisition that resulted in an immaterial change to the purchase price allocation on a consolidated basis. No further adjustments will be made to the purchase price allocation.

The breakout of definite-lived intangible assets acquired was as follows:

		ived Intangible Assets	Weighted Average Amortization Life
	(in tl	housands)	(in years)
Client relationships	\$	7,000	13
Other intangible assets		2,300	10
Total definite-lived intangible assets	\$	9,300	12

The goodwill resulting from the transaction is primarily attributable to the potential growth of the Company's DSA businesses from customers and technology introduced through Brains On-Line and the assembled workforce of the acquired business. The goodwill attributable to Brains On-Line is not deductible for tax purposes.

No significant integration costs were incurred in connection with the acquisition for the three and six months ended June 30, 2018.

Pro forma financial information as well as actual revenue and operating income have not been included because Brains On-Line's financial results are not significant when compared to the Company's consolidated financial results.

Contract Manufacturing

On February 10, 2017, the Company sold its CDMO business to Quotient Clinical Ltd., based in London, England, for \$75.0 million in proceeds, net of \$0.6 million in cash and cash equivalents transferred in conjunction with the sale and \$0.3 million of working capital adjustments.

The CDMO business was acquired in April 2016 as part of the acquisition of WIL Research and was reported in the Company's Manufacturing reportable segment. The Company determined that the CDMO business was not optimized within the Company's portfolio at its current scale, and that the capital could be better deployed in other long-term growth opportunities.

During the three months ended April 1, 2017, the Company recorded a gain on the divestiture of the CDMO business of \$10.6 million, which was included in Other income, net within the Company's unaudited condensed consolidated statements of income. As of February 10, 2017, the carrying amounts of the major classes of assets and liabilities associated with the divestiture of the CDMO business were as follows (in thousands):

Assets	
Current assets	\$ 5,505
Property, plant and equipment, net	11,174
Goodwill	35,857
Long-term assets	17,154
Total assets	\$ 69,690
Liabilities	
Deferred revenue	\$ 4,878
Other current liabilities	1,158
Total liabilities	\$ 6,036

3. REVENUE FROM CONTRACTS WITH CUSTOMERS

Adoption of ASC Topic 606, "Revenue from Contracts with Customers" (ASC 606)

ASC 606 became effective for the Company on December 31, 2017 and was adopted using the modified retrospective method for all contracts not completed as of the date of adoption. For contracts that were modified before the effective date, the Company reflected the aggregate effect of all modifications when identifying performance obligations and allocating transaction price in accordance with the practical expedient, which did not have a material effect on the cumulative impact of adopting ASC 606. The reported results for 2018 reflect the application of ASC 606 guidance while the historical results for 2017 were prepared under the guidance of ASC 605, "Revenue Recognition" (ASC 605).

The cumulative effect of applying ASC 606 to all contracts with customers that were not completed as of December 30, 2017 was immaterial. There is no material difference in the reporting of revenue for the three and six months ended June 30, 2018 in accordance with ASC 606 when compared to ASC 605.

Revenue Recognition

Revenue is recognized when, or as, obligations under the terms of a contract are satisfied, which occurs when control of the promised products or services is transferred to customers. Revenue is measured as the amount of consideration the Company expects to receive in exchange for transferring products or services to a customer ("transaction price").

To the extent the transaction price includes variable consideration, the Company estimates the amount of variable consideration that should be included in the transaction price utilizing the amount to which the Company expects to be entitled. Variable consideration is included in the transaction price if, in the Company's judgment, it is probable that a significant future reversal of cumulative revenue under the contract will not occur. Estimates of variable consideration of whether to include estimated amounts in the transaction price are based largely on an assessment of the Company's anticipated performance and all information (historical, current and forecasted) that is reasonably available. Sales, value add, and other taxes collected on behalf of third parties are excluded from revenue.

When determining the transaction price of a contract, an adjustment is made if payment from a customer occurs either significantly before or significantly after performance, resulting in a significant financing component. Generally, the Company does not extend payment terms beyond one year. Applying the practical expedient, the Company does not assess whether a significant financing component exists if the period between when the Company performs its obligations under the contract and when the customer pays is one year or less. None of the Company's contracts contained a significant financing component for the three and six months ended June 30, 2018.

Contracts with customers may contain multiple performance obligations. For such arrangements, the transaction price is allocated to each performance obligation based on the estimated relative standalone selling prices of the promised products or services underlying each performance obligation. The Company determines standalone selling prices based on the price at which the performance obligation is sold separately. If the standalone selling price is not observable through past transactions, the Company estimates the standalone selling price taking into account available information such as market conditions and internally approved pricing guidelines related to the performance obligations.

Contracts are often modified to account for changes in contract specifications and requirements. Contract modifications exist when the modification either creates new, or changes existing, enforceable rights and obligations. Generally, when contract



modifications create new performance obligations, the modification is considered to be a separate contract and revenue is recognized prospectively. When contract modifications change existing performance obligations, the existing transaction price and measure of progress for the performance obligation to which it relates is recognized as an adjustment to revenue (either as an increase in or a reduction of revenue) on a cumulative catch-up basis.

Product revenue is generally recognized when the customer obtains control of the Company's product, which occurs at a point in time, and may be upon shipment or upon delivery based on the contractual shipping terms of a contract. Service revenue is generally recognized over time as the services are delivered to the customer based on the extent of progress towards completion of the performance obligation. The selection of the method to measure progress towards completion requires judgment and is based on the nature of the products or services to be provided. Depending on which better depicts the transfer of value to the customer, the Company generally measures its progress using either cost-to-cost (input method) or right-to-invoice (output method). The Company uses the cost-to-cost measure of progress when it best depicts the transfer of value to the customer which occurs as the Company incurs costs on its contract, generally related to fixed fee service contracts. Under the cost-to-cost measure of progress, the extent of progress towards completion is measured based on the ratio of costs incurred to date to the total estimated costs, and subcontractor costs. Revenue is recorded proportionally as costs are incurred. The right to invoice measure of progress is generally related to rate per unit contracts, as the extent of progress towards completion is measured based on discrete service or time-based increments, such as samples tested or labor hour incurred. Revenue is recorded in the amount invoiced since that amount corresponds directly to the value of the Company's performance to date.

Disaggregation of Revenue

The following tables disaggregate the Company's revenue by major business line and timing of transfer of products or services for the three and six months ended June 30, 2018 (in thousands):

Major Products/Service Lines:	ths Ended June , 2018	Six Montl	18 Ended June 30, 2018
RMS	\$ 130,426	\$	264,384
DSA	346,416		606,408
Manufacturing	108,459		208,479
Total revenue	\$ 585,301	\$	1,079,271
Timing of Revenue Recognition:	 ths Ended June , 2018	Six Montl	ns Ended June 30, 2018
RMS			
Services and products transferred over time	\$ 48,804	\$	97,530
Services and products transferred at a point in time	81,622		166,854
DSA			
Services and products transferred over time	346,226		605,970
Services and products transferred at a point in time	190		438
Manufacturing			
Services and products transferred over time	32,987		61,558
Services and products transferred at a point in time	75,472		146,921
Total revenue	\$ 585,301	\$	1,079,271

RMS

The RMS business generates revenue through the commercial production and sale of research models and the provision of services related to the maintenance and monitoring of research models and management of clients' research operations. Revenue from the sale of research models is recognized at a point in time when the customer obtains control of the product, which may be upon shipment or upon delivery based on the contractual shipping terms of a contract. Revenue generated from research models services is recognized over time and is typically based on a right-to-invoice measure of progress (output method) as invoiced amounts correspond directly to the value of the Company's performance to date.

DSA

The Discovery and Safety Assessment business provides a full suite of integrated drug discovery services directed at the identification, screening and selection of a lead compound for drug development and offers a full range of safety assessment



services including bioanalysis, drug metabolism, pharmacokinetics, toxicology and pathology. Discovery and Safety Assessment services revenue is generally recognized over time using the cost-to-cost or right to invoice measures of progress, primarily representing fixed fee service contracts and per unit service contracts, respectively.

Manufacturing

The Manufacturing business includes Microbial Solutions, which provides *in vitro* (non-animal) lot-release testing products, microbial detection products, and species identification services; Biologics Testing Services (Biologics), which performs specialized testing of biologics; and Avian Vaccine Services (Avian), which supplies specific-pathogen-free chicken eggs and chickens. Species identification service revenue is generally recognized at a point in time as identifications are completed by the Company. Biologics service revenue is generally recognized over time using the cost-to-cost measure of progress. Microbial Solutions and Avian product sales are generally recognized at a point in time when the customer obtains control of the product, which may be upon shipment or upon delivery based on the contractual shipping terms of a contract.

Transaction Price Allocated to Future Performance Obligations

ASC 606 requires that the Company disclose the aggregate amount of transaction price that is allocated to performance obligations that have not yet been satisfied as of June 30, 2018. The guidance provides certain practical expedients that limit this requirement and, therefore, the Company does not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which revenue is recognized at the amount to which the Company has the right to invoice for services performed.

The following table includes estimated revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially satisfied) as of June 30, 2018:

		Revenues Expected to be Recognized in Future Periods											
	Less	than 1 Year		1 to 3 Years		4 to 5 Years		Beyond 5 Years		Total			
						(in thousands)							
DSA	\$	116,399	\$	81,946	\$	2,497	\$	491	\$	201,333			
Manufacturing		599		293		126		115		1,133			
Total	\$	116,998	\$	82,239	\$	2,623	\$	606	\$	202,466			

Contract Balances from Contracts with Customers

The timing of revenue recognition, billings and cash collections results in billed receivables (client receivables), contract assets (unbilled revenue), contract liabilities (current and non-current deferred revenue), and customer deposits on the unaudited condensed consolidated balance sheets. The Company's payment terms are generally 30 days in the United States and consistent with prevailing practice in international markets. When consideration is received, or such consideration is unconditionally due, from a customer prior to transferring goods or services to the customer under the terms of a contract, a contract liabilities are recognized as revenue after control of the products or services is transferred to the customer and all revenue recognition criteria have been met. The following table provides information about client receivables, contract assets, and contract liabilities from contracts with customers:

	June 30, 2018	D	ecember 30, 2017 (1)			
	 (in thousands)					
Balances from contracts with customers only:						
Client receivables	\$ 372,360	\$	335,839			
Contract assets (unbilled revenue)	108,580		96,297			
Contract liabilities (current and long-term deferred revenue)	141,720		125,882			
Contract liabilities (customer contract deposits)	37,543		—			

⁽¹⁾ The beginning balance as of December 30, 2017 is presented under the guidance of ASC 605.

Under ASC 606, when the Company does not have the unconditional right to advanced billings, both advanced client payments and unpaid advanced client billings are excluded from deferred revenue, with the advanced billings also being excluded from client receivables. As of June 30, 2018, the Company excluded approximately \$20 million of unpaid advanced client billings from both client receivables and deferred revenue and approximately \$38 million of advanced client payments have been presented as customer contract deposits within other current liabilities in the accompanying unaudited condensed consolidated financial statements.

Other changes in the contract asset and the contract liability balances during the six months ended June 30, 2018 were as

follows:

(i) Changes due to business combinations:

See Note 2. "Business Acquisitions and Divestiture" for client receivables and deferred revenue that were acquired as part of the MPI Research acquisition occurring on April 3, 2018 and the KWS BioTest acquisition occurring on January 11, 2018.

(ii) Cumulative catch-up adjustments to revenue that affect the corresponding contract asset or contract liability, including adjustments arising from a change in the measure of progress, a change in an estimate of the transaction price (including any changes in the assessment of whether an estimate of variable consideration is constrained), or a contract modification:

During the six month period ended June 30, 2018, an immaterial cumulative catch-up adjustment to revenue was recorded.

(iii) A change in the time frame for a right to consideration to become unconditional (that is, for a contract asset to be recorded as a client receivable):

Approximately \$79 million of unbilled revenue as of December 30, 2017 was billed during the six month period ended June 30, 2018.

(iv) A change in the time frame for a performance obligation to be satisfied (that is, for the recognition of revenue arising from a contract liability):

Approximately \$103 million of contract liabilities as of December 30, 2017 were recognized as revenue during the six month period ended June 30, 2018.

4. SEGMENT INFORMATION

The Company retrospectively adopted ASU 2017-07 in fiscal year 2018, which impacted segment information. Service cost is reflected in operating income within the unaudited condensed consolidated statements of income while all other components of net periodic cost are recorded in Other income, net within the unaudited condensed consolidated statements of income. See Note 1, "Basis of Presentation." The Company's three reportable segments are Research Models and Services (RMS), Discovery and Safety Assessment (DSA), and Manufacturing Support (Manufacturing).

The following table presents revenue and other financial information by reportable segment:

	Three Months Ended					Six Mon	ths E	nded
	June 30, 2018			July 1, 2017		June 30, 2018		July 1, 2017
				(in the	ousai	nds)		
RMS								
Revenue	\$	130,426	\$	124,002	\$	264,384	\$	251,163
Operating income		34,245		33,594		72,772		71,284
Depreciation and amortization		4,901		4,945		9,754		10,037
Capital expenditures		5,314		4,404		9,939		7,007
DSA								
Revenue	\$	346,416	\$	252,092	\$	606,408	\$	479,850
Operating income		56,623		51,335		97,482		89,670
Depreciation and amortization		31,042		18,965		51,829		38,334
Capital expenditures		10,894		7,102		23,696		15,425
Manufacturing								
Revenue	\$	108,459	\$	93,035	\$	208,479	\$	183,879
Operating income		34,115		29,043		62,638		55,643
Depreciation and amortization		5,868		5,787		11,604		11,749
Capital expenditures		3,188		1,939		10,022		4,231

For the three months ended June 30, 2018 and July 1, 2017, reconciliations of segment operating income, depreciation and amortization, and capital expenditures to the respective consolidated amounts are as follows:

	Operating Income			Depreciation and Amortization					Capital Expenditures			
	June 30, 2018 Ju		uly 1, 2017	Ju	June 30, 2018 July 1,		uly 1, 2017	Jı	ine 30, 2018	J	uly 1, 2017	
						(in the	usanc	ls)				
Total reportable segments	\$	124,983	\$	113,972	\$	41,811	\$	29,697	\$	19,396	\$	13,445
Unallocated corporate		(48,273)		(32,286)		1,585		2,102		1,817		2,552
Total consolidated	\$	76,710	\$	81,686	\$	43,396	\$	31,799	\$	21,213	\$	15,997

For the six months ended June 30, 2018 and July 1, 2017, reconciliations of segment operating income, depreciation and amortization, and capital expenditures to the respective consolidated amounts are as follows:

	Operating Income			Ι	Depreciation a	ortization	Capital Expenditures					
	June 30, 2018 July 1, 2017		uly 1, 2017	June 30, 2018 July 1, 2017					ne 30, 2018	July 1, 2017		
						(in the	usand	s)				
Total reportable segments	\$	232,892	\$	216,597	\$	73,187	\$	60,120	\$	43,657	\$	26,663
Unallocated corporate		(88,353)		(65,205)		3,419		4,090		5,282		5,254
Total consolidated	\$	144,539	\$	151,392	\$	76,606	\$	64,210	\$	48,939	\$	31,917

Revenue for each significant product or service offering is as follows:

		Three Mont	led		Six Mon	ths Ended		
	Jun	e 30, 2018	J	uly 1, 2017	J	une 30, 2018		July 1, 2017
				(in the	usands))		
RMS	\$	130,426	\$	124,002	\$	264,384	\$	251,163
DSA		346,416		252,092		606,408		479,850
Manufacturing		108,459		93,035		208,479		183,879
Total revenue	\$	585,301	\$	469,129	\$	1,079,271	\$	914,892

A summary of unallocated corporate expense consists of the following:

		Three Mo	onths]	Ended		Six Mon	ths Ended		
	Jur	ie 30, 2018		July 1, 2017	,	June 30, 2018		July 1, 2017	
				(in the	usands)			
Stock-based compensation	\$	9,616	\$	7,421	\$	16,607	\$	13,004	
Compensation, benefits, and other employee-related expenses		15,315		10,365		35,911		24,746	
External consulting and other service expenses		5,010		4,085		7,944		9,852	
Information technology		3,190		3,617		5,654		6,010	
Depreciation		1,585		2,102		3,419		4,090	
Acquisition and integration		11,692		1,191		14,556		1,212	
Other general unallocated corporate		1,865		3,505		4,262		6,291	
Total unallocated corporate expense	\$	48,273	\$	32,286	\$	88,353	\$	65,205	

Other general unallocated corporate expense consists of costs associated with departments such as senior executives, corporate accounting, legal, tax, human resources, treasury, and investor relations.

Revenue by geographic area is as follows:

	 U.S.	Europe	Canada	A	Asia Pacific	Other	Consolidated
			(in tho	usanc	ds)		
Three Months Ended:							
June 30, 2018	\$ 334,016	\$ 161,656	\$ 51,559	\$	36,235	\$ 1,835	\$ 585,301
July 1, 2017	244,923	139,620	53,242		31,046	298	469,129
Six Months Ended:							
June 30, 2018	\$ 582,996	\$ 322,482	\$ 100,137	\$	70,755	\$ 2,901	\$ 1,079,271
July 1, 2017	476,234	276,501	100,429		61,141	587	914,892

Included in the Asia Pacific category above are operations located in China, Japan, Korea, Australia, Singapore, and India. Included in the Other category above are operations located in Brazil and Israel. Revenue represents sales originating in entities physically located in the identified geographic area.

5. SUPPLEMENTAL BALANCE SHEET INFORMATION

The composition of trade receivables, net is as follows:

	Ju	ne 30, 2018	Dee	cember 30, 2017
Client receivables	\$	372,360	\$	335,839
Unbilled revenue		108,580		96,297
Total		480,940		432,136
Less: Allowance for doubtful accounts		(2,205)		(2,120)
Trade receivables, net	\$	478,735	\$	430,016

The composition of inventories is as follows:

	Ju	ne 30, 2018	Dec	ember 30, 2017
		(in tho	usands)	
Raw materials and supplies	\$	21,160	\$	19,858
Work in process		20,084		18,200
Finished products		82,887		76,898
Inventories	\$	124,131	\$	114,956

The composition of other current assets is as follows:

	 June 30, 2018	Dec	ember 30, 2017
	(in the	ousands)	
Investments	\$ 903	\$	28,489
Prepaid income taxes	48,037		52,234
Restricted cash	593		592
Other	300		_
Other current assets	\$ 49,833	\$	81,315

The composition of other assets is as follows:

	Jı	ine 30, 2018	Dec	ember 30, 2017		
	(in thousands)					
Life insurance policies	\$	34,919	\$	34,008		
Venture capital investments		91,323		71,101		
Restricted cash		2,472		1,945		
Other		20,556		16,948		
Other assets	\$	149,270	\$	124,002		

The composition of other current liabilities is as follows:

	June 30, 2018	December 30, 2017		
	 (in the	ousands)		
Accrued income taxes	\$ 26,915	\$	43,250	
Customer contract deposits	37,543		_	
Other	9,145		1,210	
Other current liabilities	\$ 73,603	\$	44,460	

The composition of other long-term liabilities is as follows:

		June 30, 2018	D	ecember 30, 2017			
	(in thousands)						
U.S. Transition Tax	\$	61,038	\$	61,038			
Long-term pension liability		47,803		52,364			
Accrued executive supplemental life insurance retirement plan	n						
and deferred compensation plan		38,215		37,582			
Other		49,584		43,831			
Other long-term liabilities	\$	196,640	\$	194,815			

6. VENTURE CAPITAL INVESTMENTS

The Company invests in several venture capital funds that invest in start-up companies, primarily in the life sciences industry. The Company's ownership interest in these funds ranges from less than 1% to 12.0%. The Company accounts for the investments in limited partnerships (LPs), which are variable interest entities, under the equity method of accounting. The Company is not the primary beneficiary because it has no power to direct the activities that most significantly affect the LPs' economic performance. The Company accounts for the investments in limited liability companies, which are not variable interest entities, under the equity method of accounting.

The Company's total commitment to the venture capital funds as of June 30, 2018 was \$109.1 million, of which the Company funded \$60.7 million through that date. The Company received dividends totaling \$1.5 million and zero for the three months ended June 30, 2018 and July 1, 2017, respectively. The Company received dividends totaling \$8.5 million and \$4.4 million for the six months ended June 30, 2018 and July 1, 2017, respectively. The Company recognized gains of \$10.9 million and \$2.5 million related to the venture capital investments for the three months ended June 30, 2018 and July 1, 2017, respectively. The Company recognized gains of \$17.4 million and \$6.7 million related to the venture capital investments for the six months ended June 30, 2018 and July 1, 2017, respectively. The Company recognized gains of \$17.4 million and \$6.7 million related to the venture capital investments for the six months ended June 30, 2018 and July 1, 2017, respectively.

7. FAIR VALUE

The Company has certain assets and liabilities recorded at fair value, which have been classified as Level 1, 2, or 3 within the fair value hierarchy:

- Level 1 Fair values are determined utilizing prices (unadjusted) in active markets for identical assets or liabilities that the Company has the ability to access,
- Level 2 Fair values are determined by utilizing quoted prices for identical or similar assets and liabilities in active markets or other market observable inputs such as interest rates, yield curves, and foreign currency spot rates,
- Level 3 Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable.

The fair value hierarchy level is determined by asset and liability class based on the lowest level of significant input. The observability of inputs may change for certain assets or liabilities. This condition could cause an asset or liability to be reclassified between levels. The Company recognizes transfers between levels within the fair value hierarchy, if any, at the end of each quarter. During the six months ended June 30, 2018 and July 1, 2017, there were no transfers between levels.

Valuation methodologies used for assets and liabilities measured or disclosed at fair value are as follows:

- · Cash equivalents Valued at market prices determined through third-party pricing services;
- Mutual funds Valued at the unadjusted quoted net asset value of shares held by the Company;
- · Foreign currency forward contracts Valued using market observable inputs, such as forward foreign exchange points and foreign exchanges rates;
- Life insurance policies Valued at cash surrender value based on the fair value of underlying investments;
- Debt instruments The book value of the Company's term and revolving loans, which are variable rate loans carried at amortized cost, approximates the fair value based on current market pricing of similar debt. The book value of the Company's 5.5% Senior Notes (Senior Notes) due in 2026, which are fixed rate debt carried at amortized cost, approximates fair value based on quoted market prices and on borrowing rates available to the Company; and



· Contingent consideration - Valued based on a probability weighting of the future cash flows associated with the potential outcomes.

Assets and liabilities measured at fair value on a recurring basis are summarized below:

		June 30, 2018									
	L	evel 1		Level 2		Level 3		Total			
				(in tho	usands)					
Cash equivalents	\$	—	\$	532	\$	—	\$	532			
Other assets:											
Life insurance policies		—		26,976		—		26,976			
Total assets measured at fair value	\$		\$	27,508	\$		\$	27,508			
Other current liabilities:											
Contingent consideration	\$	—	\$	—	\$	2,880	\$	2,880			
Total liabilities measured at fair value	\$		\$	—	\$	2,880	\$	2,880			
		December 30, 2017									
	-										
	L	evel 1		Level 2		Level 3		Total			
	L	evel 1		Level 2 (in tho	usands			Total			
Cash equivalents	<u> </u>	evel 1 	\$		usands \$		\$	Total 21			
Cash equivalents Other assets:		evel 1 —	\$	(in tho			\$				
		evel 1 	\$	(in tho			\$				
Other assets:		evel 1 	\$	(in tho 21			\$	21			
Other assets: Life insurance policies	\$	evel 1 		(in tho 21 26,358	\$		\$	21 26,358			
Other assets: Life insurance policies Total assets measured at fair value	\$	evel 1 		(in tho 21 26,358	\$		\$	21 26,358			

Contingent Consideration

The following table provides a rollforward of the contingent consideration related to previous business acquisitions. See Note 2, "Business Acquisitions and Divestiture."

	Six Months Ended						
	Ju	ine 30, 2018		July 1, 2017			
		(in tho	usands)				
Beginning balance	\$	298	\$	3,621			
Additions		2,746		_			
Payments		—		(406)			
Foreign Currency Translation		(164)		_			
Reversal of previously recorded contingent liability		_		(14)			
Ending balance	\$	2,880	\$	3,201			

The unobservable inputs used in the fair value measurement of the Company's contingent consideration are the probabilities of successful achievement of certain financial targets and a discount rate. Increases or decreases in any of the probabilities of success would result in a higher or lower fair value measurement, respectively. Increases or decreases in the discount rate would result in a lower or higher fair value measurement, respectively.

Debt Instruments

The book value of the Company's term and revolving loans, which are variable rate loans carried at amortized cost, approximates the fair value based on current market pricing of similar debt. As the fair value is based on significant other observable inputs, including current interest and foreign currency exchange rates, it is deemed to be Level 2 within the fair value hierarchy.

The book value of the Company's Senior Notes, which are a fixed rate obligation carried at amortized cost, approximates the fair value at quoted market prices as well as borrowing rates available to the Company. As the fair value is based on significant other observable outputs, it is deemed to be Level 2 within the fair value hierarchy.

8. GOODWILL AND INTANGIBLE ASSETS

Goodwill

The following table provides a rollforward of the Company's goodwill:

				Adjustment				
	Decer	December 30, 2017		Acquisitions	eign Exchange		June 30, 2018	
		(in thousands)						
RMS	\$	58,122	\$	—	\$	(446)	\$	57,676
DSA		605,176		458,903		(6,565)		1,057,514
Manufacturing		141,608				(2,354)		139,254
Total	\$	804,906	\$	458,903	\$	(9,365)	\$	1,254,444

The increase in goodwill during the six months ended June 30, 2018 related primarily to the acquisitions of MPI Research and KWS BioTest in the DSA reportable segment, and the impact of foreign exchange.

Intangible Assets, Net

The following table displays intangible assets, net by major class:

	June 30, 2018						December 30, 2017						
	 Accumulated Gross Amortization Net			Accumulated Gross Amortization					Net				
	 (in tho						nds)						
Backlog	\$ 20,900	\$	(6,092)	\$	14,808	\$	8,111	\$	(8,111)	\$	_		
Technology	103,361		(34,686)		68,675		81,309		(27,157)		54,152		
Trademarks and trade names	8,541		(4,579)		3,962		8,661		(4,562)		4,099		
Other	17,319		(8,905)		8,414		17,465		(7,845)		9,620		
Other intangible assets	 150,121		(54,262)		95,859		115,546		(47,675)		67,871		
Client relationships	799,352		(246,075)		553,277		540,425		(238,534)		301,891		
Intangible assets	\$ 949,473	\$	(300,337)	\$	649,136	\$	655,971	\$	(286,209)	\$	369,762		

The increase in intangible assets, net during the six months ended June 30, 2018 related primarily to the acquisitions of MPI Research and KWS BioTest in the DSA reportable segment.

9. LONG-TERM DEBT AND CAPITAL LEASE OBLIGATIONS

Long-Term Debt

Long-term debt, net consists of the following:

	 June 30, 2018	De	cember 30, 2017				
	 (in thousands)						
Term loans	\$ 750,000	\$	601,250				
Revolving facility	546,834		500,997				
Senior Notes	500,000		_				
Other long-term debt	18,221		18,292				
Total debt	 1,815,055		1,120,539				
Less: Current portion of long-term debt	(28,230)		(28,546)				
Long-term debt	 1,786,825		1,091,993				
Debt discount and debt issuance costs	(17,890)		(5,770)				
Long-term debt, net	\$ 1,768,935	\$	1,086,223				

As of June 30, 2018 and December 30, 2017, the weighted average interest rate on the Company's debt was 3.24% and 2.45%, respectively.

Term Loans and Revolving Facility

On March 26, 2018, the Company amended and restated its credit facility creating a \$2.3 billion credit facility (\$2.3B Credit Facility) which extends the maturity date for the credit facility. The \$2.3B Credit Facility provides for a \$750.0 million term loan and a \$1.55 billion multi-currency revolving facility. The amendment was accounted for as a debt modification. In connection with the transaction, the Company capitalized approximately \$6.2 million within Long-term debt, net and capital leases in the accompanying unaudited condensed consolidated balance sheets and expensed approximately \$1.0 million of debt issuance costs recorded within Interest expense in the accompanying unaudited condensed consolidated statements of income.

The term loan facility matures in 19 quarterly installments with the last installment due March 26, 2023. The revolving facility matures on March 26, 2023, and requires no scheduled payment before that date. Under specified circumstances, the Company has the ability to increase the term loan and/or revolving facility by up to \$1.0 billion in the aggregate.

The interest rates applicable to the term loan and revolving facility under the 2.3B Credit Facility are, at the Company's option, equal to either the base rate (which is the higher of (1) the prime rate, (2) the federal funds rate plus 0.50%, or (3) the one-month adjusted LIBOR rate plus 1.0%) or the adjusted LIBOR rate, plus an interest rate margin based upon the Company's leverage ratio.

The \$2.3B Credit Facility includes certain customary representations and warranties, events of default, notices of material adverse changes to the Company's business and negative and affirmative covenants. These covenants include (1) maintenance of a ratio of consolidated earnings before interest, taxes, depreciation and amortization (EBITDA) less capital expenditures to consolidated cash interest expense, for any period of four consecutive fiscal quarters, of no less than 3.50 to 1.0 as well as (2) maintenance of a ratio of consolidated indebtedness to consolidated EBITDA for any period of four consecutive fiscal quarters, of no more than 4.50 to 1.0 with step downs to 3.50 to 1.0 by the last day of the first quarter of 2020. As of June 30, 2018, the Company was compliant with all covenants.

The obligations of the Company under the \$2.3B Credit Facility are collateralized by substantially all of the assets of the Company.

Senior Notes Offering

On April 3, 2018, the Company entered into an indenture (Indenture) with MUFG Union Bank, N.A., (Trustee) in connection with the offering of \$500.0 million in aggregate principal amount of the Company's 5.5% Senior Notes (Senior Notes), due in 2026, in an unregistered offering. Under the terms of the Indenture, interest on the Senior Notes is payable semi-annually on April 1 and October 1 of each year, beginning on October 1, 2018. The Senior Notes are guaranteed fully and unconditionally, jointly and severally on a senior unsecured basis (Note Guarantees) by the Company and certain of its U.S. subsidiaries. In connection with the transaction, the Company incurred approximately \$7.4 million of debt issuance costs within Long-term debt, net and capital leases in the accompanying unaudited condensed consolidated balance sheets.

The Company may redeem all or part of the Senior Notes at any time prior to April 1, 2021, at its option, at a redemption price equal to 100% of the principal amount of such Senior Notes plus the Applicable Premium (as defined in the Indenture). The Company may also redeem up to 40% of the Senior Notes with the proceeds of certain equity offerings completed before April 1, 2021, at a redemption price equal to 105.5% of the principal amount of such Senior Notes. On or after April 1, 2021, the Company may on any one or more occasions redeem all or a part of the Senior Notes, at the redemption price specified in the Indenture based on the applicable date of redemption. Upon the occurrence of a Change of Control Triggering Event (as defined in the Indenture), the Company will be required to offer to repurchase the Senior Notes at a purchase price equal to 101% of the aggregate principal amount of such Senior Notes. Any redemption of the Senior Notes would also require settlement of accrued and unpaid interest, if any, to but excluding the redemption date.

The Indenture contains certain covenants, including but not limited to, limitations and restrictions on the ability of the Company and its U.S. subsidiaries to (i) create certain liens, (ii) enter into any Sale and Leaseback Transaction (as defined in the Indenture) with respect to any property, and (iii) merge, consolidate, sell or otherwise dispose of all or substantially all of their assets. These covenants are subject to a number of conditions, qualifications, exceptions and limitations. Any event of default, as defined, could result in the acceleration of the repayment of the obligations.

Net proceeds from the Senior Notes of \$493.8 million were used to partially repay the outstanding revolving credit facility on April 3, 2018.

Commitment Letter

On February 12, 2018, the Company secured a \$830 million commitment under a 364-day senior unsecured bridge loan facility (the "Bridge Facility") for the purpose of financing the acquisition of MPI Research. The Bridge Facility was terminated as of April 3, 2018 upon the successful acquisition of MPI Research. Debt issuance costs of \$1.8 million, which were capitalized upon the execution of the Bridge Facility, were expensed upon termination of the agreement on April 3, 2018. In addition, the



Company incurred and expensed \$2.0 million of fees pertaining to a temporary backstop facility related to the negotiation of the Credit Facility during the three months ended March 31, 2018. These costs were included in Interest expense in the accompanying unaudited condensed consolidated statements of income.

Letters of Credit

As of June 30, 2018 and December 30, 2017, the Company had \$5.5 million and \$4.9 million, respectively, in outstanding letters of credit.

Capital Lease Obligations

The Company's capital lease obligations amounted to \$30.6 million and \$30.3 million as of June 30, 2018 and December 30, 2017, respectively.

10. EQUITY AND NONCONTROLLING INTERESTS

Earnings Per Share

The following table reconciles the numerator and denominator in the computations of basic and diluted earnings per share:

	Three Months Ended					Six Months Ended					
	June 30, 2018			July 1, 2017		June 30, 2018		July 1, 2017			
				(in tho	usar	nds)					
Numerator:											
Income from continuing operations, net of income taxes	\$	52,850	\$	54,673	\$	106,118	\$	101,636			
Income (loss) from discontinued operations, net of income taxes		1,529		(71)		1,506		(75)			
Less: Net income attributable to noncontrolling interests		670		650		1,284		831			
Net income attributable to common shareholders	\$	53,709	\$	53,952	\$	106,340	\$	100,730			
Denominator:											
Weighted-average shares outstanding - Basic		48,198		47,591		47,992		47,569			
Effect of dilutive securities:											
Stock options, restricted stock units, performance share units and restricted stock		845		751		974		835			
Weighted-average shares outstanding - Diluted	-	49,043		48,342		48,966		48,404			

Options to purchase 0.5 million and 0.6 million shares for the three months ended June 30, 2018 and July 1, 2017, respectively, as well as a non-significant number of restricted shares, restricted stock units (RSUs), and performance share units (PSUs), were not included in computing diluted earnings per share because their inclusion would have been anti-dilutive. Options to purchase 0.5 million and 0.6 million shares for the six months ended June 30, 2018 and July 1, 2017, respectively, as well as a non-significant number of restricted shares, RSUs and PSUs, were not included in computing diluted earnings per share because their inclusion would have been anti-dilutive. Basic weighted-average shares outstanding for both the six months ended June 30, 2018 and July 1, 2017 excluded the impact of 1.1 million shares of non-vested restricted stock and RSUs.

Treasury Shares

During the six months ended June 30, 2018, the Company did not repurchase any shares under its authorized stock repurchase program. During the six months ended July 1, 2017, the Company repurchased 0.6 million shares totaling \$54.6 million under its \$1.3 billion authorized stock repurchase program. As of June 30, 2018, the Company had \$129.1 million remaining on the authorized stock repurchase program.

The Company's stock-based compensation plans permit the netting of common stock upon vesting of restricted stock, RSUs, and PSUs in order to satisfy individual statutory tax withholding requirements. During the six months ended June 30, 2018 and July 1, 2017, the Company acquired 0.1 million shares for \$13.7 million and 0.2 million shares for \$16.3 million, respectively, from such netting.

Accumulated Other Comprehensive Income (Loss)

Changes to each component of accumulated other comprehensive income (loss), net of income taxes, are as follows:

	oreign Currency Islation Adjustment and Other	Adjustment Pension and Other Post-		Total
			(in thousands)	
December 30, 2017	\$ (77,545)	\$	(67,186)	\$ (144,731)
Other comprehensive loss before reclassifications	(7,394)			(7,394)
Amounts reclassified from accumulated other comprehensive loss	_		1,249	1,249
Net current period other comprehensive (loss) income	(7,394)		1,249	(6,145)
Amount reclassified from accumulated other comprehensive loss due to adoption of ASU 2018- 02 (See Note 1)	_		3,330	3,330
Income tax (benefit) expense	(906)		308	(598)
June 30, 2018	\$ (84,033)	\$	(69,575)	\$ (153,608)

Nonredeemable Noncontrolling Interest

The Company has an investment in an entity whose financial results are consolidated in the Company's financial statements, as it has the ability to exercise control over this entity. The interest of the noncontrolling party in this entity has been recorded as noncontrolling interest. The activity within the nonredeemable noncontrolling interest was immaterial during the three and six months ended June 30, 2018 and July 1, 2017.

Redeemable Noncontrolling Interest

The Company's redeemable noncontrolling interest in Vital River is 13%.

The Company has the right to purchase, and the noncontrolling interest holders have the right to sell, the remaining 13% equity interest at a contractually defined redemption value, subject to a redemption floor (embedded derivative). These rights are exercisable beginning in 2019 and are accelerated in certain events. The redeemable noncontrolling interest is measured at the greater of the amount that would be paid if settlement occurred as of the balance sheet date based on the contractually defined redemption value (\$17.1 million as of June 30, 2018) and its carrying amount adjusted for net income (loss) attributable to the noncontrolling interest holders have the ability to require the Company to purchase the remaining 13% interest, the noncontrolling interest is classified in the mezzanine section of the unaudited condensed consolidated balance sheets, which is presented above the equity section and below liabilities. The agreement does not limit the amount that the Company could be required to pay to purchase the remaining 13% equity interest.

The following table provides a rollforward of the activity related to the Company's redeemable noncontrolling interest:

		Six Months Ended					
	Jun	June 30, 2018					
		(in the	usands)			
Beginning balance	\$	16,609	\$	14,659			
Total gains or losses (realized/unrealized):							
Net income attributable to noncontrolling interest		377		291			
Foreign currency translation		(324)		367			
Ending balance	\$	16,662	\$	15,317			

11. INCOME TAXES

The Company's effective tax rates for the three months ended June 30, 2018 and July 1, 2017 were 24.8% and 28.9%, respectively. The Company's effective tax rates for the six months ended June 30, 2018 and July 1, 2017 were 20.4% and 34.4%, respectively. For the three months ended June 30, 2018, the decrease in the effective tax rate from the prior year period was primarily attributable to the net benefits of U.S. Tax Reform, partially offset with non-deductible transaction costs associated with the acquisition of MPI Research. For the six months ended June 30, 2018, the decrease in the effective tax rate from the prior year period was primarily attributable to the items previously mentioned, as well as the tax rate impact of the \$18.0 million gain on the CDMO business divestiture in the first quarter of 2017.

For the three months ended June 30, 2018, the Company's unrecognized tax benefits decreased by \$1.2 million to \$19.8 million, primarily due to settlement of prior period positions with tax authorities, offset with an additional quarter of Canadian Scientific Research and Experimental Development Credit reserves. For the three months ended June 30, 2018, the unrecognized income tax benefits that would impact the effective tax rate decreased by \$1.4 million to \$18.0 million, for the same reasons listed above. The accrued interest on unrecognized tax benefits was \$2.7 million at June 30, 2018. The Company estimates that it is reasonably possible that the unrecognized tax benefits will decrease by up to \$0.7 million over the next twelve-month period, primarily due to the outcome of pending tax audits.

The Company continues to monitor its accounting for the elements of U.S. Tax Reform enacted in December 2017. The Company has made reasonable estimates of the effects of U.S. Tax Reform to its consolidated financial statements based on guidance and regulations released by the Internal Revenue Service. The SEC has issued SAB 118, which allows for a measurement period through December 2018 to finalize the recording of the related tax impacts. The Company has not recorded any measurement period adjustments during the six months ended June 30, 2018 to the provisional amounts recorded in the fourth quarter of fiscal year 2017. The Company anticipates finalizing and recording any adjustments resulting from the release of any additional guidance and interpretations by the end of its fiscal year ending December 29, 2018.

The Company conducts business in a number of tax jurisdictions. As a result, it is subject to tax audits in jurisdictions including the U.S., U.K., China, France, Germany, and Canada. With few exceptions, the Company is no longer subject to U.S. and international income tax examinations for years before 2015.

The Company and certain of its subsidiaries have ongoing tax controversies with various tax authorities in the U.S., Canada, Germany, and France. The Company does not believe that resolution of these controversies will have a material impact on its financial position or results of operations.

12. PENSION AND OTHER POST-RETIREMENT BENEFIT PLANS

The Company retrospectively adopted ASU 2017-07 in fiscal year 2018. Service cost is reflected in Cost of services provided (excluding amortization of intangible assets) and Selling, general and administrative within the unaudited condensed consolidated statements of income. All other components of net periodic cost are recorded in Other income, net within the unaudited condensed consolidated statements of income. See Note 1, "Basis of Presentation." The following table provides the components of net periodic cost for the Company's pension, deferred compensation and executive supplemental life insurance retirement plans:

	Three Mo	Ended	Six Months Ended							
	 June 30, 2018		July 1, 2017	June 30, 2018			July 1, 2017			
	 (in thousands)									
Service cost	\$ 969	\$	774	\$	1,815	\$	1,528			
Interest cost	2,656		2,939		5,489		5,765			
Expected return on plan assets	(4,012)		(3,485)		(7,889)		(6,935)			
Amortization of prior service credit	(90)		(139)		(271)		(258)			
Amortization of net loss	886		1,047		1,531		2,013			
Net periodic cost	\$ 409	\$	1,136	\$	675	\$	2,113			

The net periodic cost for the Company's other post-retirement benefit plan for the three and six months ended June 30, 2018 and July 1, 2017 was not significant.

13. STOCK-BASED COMPENSATION

The Company has stock-based compensation plans under which employees and non-employee directors may be granted stock-based awards such as stock options, restricted stock, RSUs, and PSUs.

The following table provides stock-based compensation by the financial statement line item in which it is reflected:

		Three Mo	nths	Ended	Six Months Ended						
	Jı	une 30, 2018		July 1, 2017		June 30, 2018		July 1, 2017			
	(in thousands)										
Cost of revenue	\$	1,738	\$	1,743	\$	3,151	\$	3,289			
Selling, general and administrative		11,809		10,147		20,937		18,087			
Stock-based compensation	\$	13,547	\$	11,890	\$	24,088	\$	21,376			



During the six months ended June 30, 2018, the Company granted stock options representing 0.5 million common shares with a per-share weighted-average grant date fair value of \$24.80, RSUs representing 0.2 million common shares with a per-share weighted-average grant date fair value of \$109.09, and PSUs representing 0.2 million common shares with a per-share weighted-average grant date fair value of \$117.28. The maximum number of common shares to be issued upon vesting of PSUs granted during the six months ended June 30, 2018 is 0.4 million.

14. FOREIGN CURRENCY CONTRACTS

The Company enters into foreign exchange forward contracts to limit its foreign currency exposure related to intercompany loans that are not of a long-term investment nature. These contracts are recorded at fair value in the Company's unaudited condensed consolidated balance sheets and are not designated as hedging instruments. Any gains or losses on such contracts are immediately recognized in Other income, net, and are largely offset by the remeasurement of the underlying intercompany loan balances.

The Company did not have any foreign currency contracts open as of June 30, 2018 and December 30, 2017.

15. COMMITMENTS AND CONTINGENCIES

Litigation

Various lawsuits, claims and proceedings of a nature considered normal to its business are pending against the Company. While the outcome of any of these proceedings cannot be accurately predicted, the Company does not believe the ultimate resolution of any of these existing matters would have a material adverse effect on the Company's business or financial condition.

Lease Commitments

During the six months ended June 30, 2018, the Company assumed or entered into new lease agreements or exercised options to extend the lease terms for certain existing leases. As a result, the Company's lease obligations through 2032 increased by \$40.1 million during the six months ended June 30, 2018.

16. RESTRUCTURING AND ASSET IMPAIRMENTS

Global RMS Restructuring Initiatives

In the fourth quarter of fiscal year 2017, the Company committed to a plan to further reduce costs and improve operating efficiencies in its RMS reportable segment. The plan included ceasing production within the Company's facility in Maryland and reducing its workforce at various global RMS facilities during 2018. On August 1, 2018, the Company's Board of Directors approved a modification to the plan which repurposes the facility in Maryland to be used for alternative initiatives.

The following table presents a summary of severance and transition costs, and asset impairments (referred to as restructuring costs) related to this initiative within the unaudited condensed consolidated statements of income for the three and six months ended June 30, 2018.

		Thre	e Months Ended		Six M	lonths Ended			
				June 30	, 2018	8			
	Severance ar Transition Costs	As	sset Impairments and Other Costs	Total	Tr	verance and cansition Costs		Asset airments and ther Costs	Total
				(in thou	sands)			
Cost of services provided and products sold (excluding amortization of intangible									
assets)	\$ 20	2 \$	69	\$ 271	\$	555	\$	584	\$ 1,139
Selling, general and administrative	1	8	_	18		188		_	188
Total	\$ 22	0 \$	69	\$ 289	\$	743	\$	584	\$ 1,327

Restructuring costs incurred during the fourth quarter of 2017 were \$18.1 million, which primarily related to non-cash asset impairments and accelerated depreciation charges of \$17.7 million. The costs incurred during the three and six months ended June 30, 2018 were \$0.3 million and \$1.3 million, respectively. The remaining restructuring costs related to this initiative in 2018 are not expected to exceed \$1.5 million, all of which relate to employee separation costs and other transition costs. All of the costs are recorded in the RMS reportable segment. The cash portion of the total costs are not expected to exceed \$3 million.

Other Restructuring Initiatives



In recent fiscal years, the Company has undertaken productivity improvement initiatives within all reportable segments at various locations across the U.S., Europe, and Japan. This includes workforce reductions, resulting in severance and transition costs; and cost related to the consolidation of facilities, resulting in asset impairment and accelerated depreciation charges. The Company's existing lease obligations for certain facilities continue through various dates, the latest being March 2028.

The following table presents a summary of restructuring costs related to these initiatives within the unaudited condensed consolidated statements of income for the three and six months ended June 30, 2018 and July 1, 2017.

		Three Months Ended												
			June 30, 2018				Jı	uly 1, 2017						
	Severance an Transition Costs	ansition Asset Impairments				ansition Asset Impairments Transition Impairments a		Transition		Transition Impairments and		pairments and		Total
	(in thousands)													
Cost of services provided and products sold (excluding amortization														
of intangible assets)	\$ 174	\$	—	\$	174	\$	76	\$	149	\$	225			
Selling, general and administrative	1,682	2			1,682		247		_		247			
Total	\$ 1,856	\$	_	\$	1,856	\$	323	\$	149	\$	472			

	Six Months Ended												
		June 30, 2018			July 1, 2017								
	Severance and Transition Costs	Asset Impairments and Other Costs	Total	Severance and Transition Costs	Asset Impairments and Other Costs	Total							
	(in thousands)												
Cost of services provided and products sold (excluding amortization													
of intangible assets)	\$ 737	\$ 22	\$ 759	\$ 999	\$ 209	\$ 1,208							
Selling, general and administrative	1,735	—	1,735	341	—	341							
Total	\$ 2,472	\$ 22	\$ 2,494	\$ 1,340	\$ 209	\$ 1,549							

The following table presents restructuring costs by reportable segment for these productivity improvement initiatives:

		Three M	onth	s Ended		Six Mor	ths E	Inded				
	Jı	ine 30, 2018		July 1, 2017	Ju	ne 30, 2018		July 1, 2017				
		(in thousands)										
DSA	\$	1,197	\$	225	\$	965	\$	481				
Manufacturing				247		870		1,068				
Unallocated corporate		659				659		—				
Total	\$	1,856	\$	472	\$	2,494	\$	1,549				

The following table provides a rollforward for all of the Company's severance and transition costs, and lease obligation liabilities related to all restructuring activities:

	Three Mo	nths	Ended		Six Months Ended						
Ju	ne 30, 2018		July 1, 2017	June 30, 2018			July 1, 2017				
	(in thousands)										
\$	7,053	\$	6,531	\$	6,856	\$	8,102				
	2,076		323		3,215		1,340				
	(1,990)		(140)		(3,138)		(2,830)				
	(329)		296		(123)		398				
\$	6,810	\$	7,010	\$	6,810	\$	7,010				
	<u>Ju</u> \$ \$	June 30, 2018 \$ 7,053 2,076 (1,990) (329)	June 30, 2018 \$ 7,053 \$ 2,076 (1,990) (329)	(in thou \$ 7,053 \$ 6,531 2,076 323 (1,990) (140) (329) 296	June 30, 2018 July 1, 2017 (in thousands) \$ 7,053 \$ 6,531 \$ 2,076 323 (1,990) (140) (329) 296	June 30, 2018 July 1, 2017 June 30, 2018 (in thousands) \$ 7,053 \$ 6,531 \$ 6,856 2,076 323 3,215 (1,990) (140) (3,138) (329) 296 (123) (123)	June 30, 2018 July 1, 2017 June 30, 2018 (in thousands) \$ 7,053 \$ 6,531 \$ 6,856 \$ 2,076 323 3,215 (1,990) (140) (3,138) (329) 296 (123)				

As of June 30, 2018 and July 1, 2017, \$2.6 million and \$2.5 million of severance and other personnel related costs liabilities and lease obligation liabilities, respectively, were included in accrued compensation and accrued liabilities within the Company's unaudited condensed consolidated balance sheets and \$4.2 million and \$4.5 million, respectively, were included in other long-term liabilities within the Company's unaudited condensed consolidated balance sheets.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion should be read in conjunction with our unaudited condensed consolidated financial statements and related notes of this Quarterly Report on Form 10-Q and our audited consolidated financial statements and related notes included in our Annual Report on Form 10-K for fiscal year 2017. The following discussion contains forward-looking statements. Actual results may differ significantly from those projected in the forward-looking statements. Factors that might cause future results to differ materially from those projected in the forward-looking statements include, but are not limited to, those discussed in Item 1A, "Risk Factors" in our Annual Report on Form 10-K for fiscal year 2017. Certain percentage changes may not recalculate due to rounding.

Overview

We are a full service, early-stage contract research organization (CRO). For over 70 years, we have been in the business of providing the research models required in research and development of new drugs, devices, and therapies. Over this time, we have built upon our original core competency of laboratory animal medicine and science (research model technologies) to develop a diverse portfolio of discovery and safety assessment services, both Good Laboratory Practice (GLP) and non-GLP, that enable us to support our clients from target identification through non-clinical development. We also provide a suite of products and services to support our clients' manufacturing activities. Utilizing our broad portfolio of products and services enables our clients to create a more flexible drug development model, which reduces their costs, enhances their productivity and effectiveness, and increases speed to market.

Our client base includes all major global biopharmaceutical companies, many biotechnology companies, CROs, agricultural and industrial chemical companies, life science companies, veterinary medicine companies, contract manufacturing companies, medical device companies, and diagnostic and other commercial entities, as well as leading hospitals, academic institutions, and government agencies around the world.

Segment Reporting

Our three reportable segments are Research Models and Services (RMS), Discovery and Safety Assessment (DSA), and Manufacturing Support (Manufacturing). Our RMS reportable segment includes the Research Models and Research Model Services businesses. Research Models includes the commercial production and sale of small research models, as well as the supply of large research models. Research Model Services includes: Genetically Engineered Models and Services (GEMS), which performs contract breeding and other services associated with genetically engineered models; Research Animal Diagnostic Services (RADS), which provides health monitoring and diagnostics services related to research models; and Insourcing Solutions (IS), which provides colony management of our clients' research operations (including recruitment, training, staffing, and management services). Our DSA reportable segment includes services required to take a drug through the early development process including discovery services, which are non-regulated services to assist clients with the identification, screening, and selection of a lead compound for drug development, and regulated and non-regulated (GLP and non-GLP) safety assessment services. Our Manufacturing reportable segment includes Microbial Solutions, which provides *in vitro* (non-animal) lot-release testing products, microbial detection products, and species identification services; Biologics Testing Services (Biologics), which performs specialized testing of biologics; Avian Vaccine Services (Avian), which supplies specific-pathogen-free chicken eggs and chickens; and contract development, manufacturing, and analytical and stability testing for small molecules.

Recent Acquisitions and Divestiture

Our strategy is to augment internal growth of existing businesses with complementary acquisitions. Our recent acquisitions and divestiture are described below.

On April 3, 2018, we acquired MPI Research, a non-clinical CRO providing comprehensive testing services to biopharmaceutical and medical device companies worldwide. The acquisition enhances our position as a leading global early-stage CRO by strengthening our ability to partner with clients across the drug discovery and development continuum. The purchase price for MPI Research was \$829.7 million in cash, subject to certain post-closing adjustments. The acquisition was funded by borrowings on our \$2.3 billion credit facility (\$2.3B Credit Facility) as well as the issuance of \$500.0 million of our senior notes. MPI Research is reported as part of our DSA reportable segment.

On January 11, 2018, we acquired KWS BioTest Limited (KWS BioTest), a CRO specializing in *in vitro* and *in vivo* discovery testing services for immunooncology, inflammatory and infectious diseases. The acquisition enhances our discovery expertise, with complementary offerings that provide our customers with additional tools in the active therapeutic research areas of oncology and immunology. The purchase price for KWS BioTest was \$20.3 million in cash, subject to certain post-closing adjustments. In addition to the initial purchase price, the transaction includes aggregate, undiscounted contingent payments of up to £3.0 million (approximately \$4.0 million based on recent exchange rates), based on future performance. The KWS BioTest business is reported as part of our DSA reportable segment.



On August 4, 2017, we acquired Brains On-Line, a CRO providing critical data that advances novel therapeutics for the treatment of central nervous system (CNS) diseases. Brains On-Line strategically expands our existing CNS capabilities and establishes us as a single-source provider for a broad portfolio of discovery CNS services. The purchase price for Brains On-Line was 21.3 million in cash, subject to certain post-closing adjustments. In addition to the initial purchase price, the transaction includes aggregate, undiscounted contingent payments of up to 6.7 million (approximately 7.8 million based on recent exchange rates), based on future performance. The Brains On-Line business is reported as part of our DSA reportable segment.

On February 10, 2017, we completed the divestiture of our CDMO business to Quotient Clinical Ltd., based in London, England, for \$75.0 million in proceeds, net of cash, cash equivalents, and working capital adjustments. The CDMO business was acquired in April 2016 as part of the acquisition of WIL Research and was reported in our Manufacturing reportable segment.

Overview of Results of Operations and Liquidity

Revenue for the three months ended June 30, 2018 was \$585.3 million compared to \$469.1 million in the corresponding period in 2017. This increase of \$116.2 million, or 24.8%, was primarily due to the recent acquisitions of MPI Research, Brains On-Line, and KWS BioTest as well as growth in our DSA and Manufacturing segments. The positive effect of changes in foreign currency exchange rates increased revenue by \$12.1 million, or 2.6%, when compared to the corresponding period in 2017. Revenue for the six months ended June 30, 2018 was \$1.1 billion compared to \$914.9 million in the corresponding period in 2017. This increase of \$164.4 million, or 18.0%, was primarily due to both growth in our DSA and Manufacturing segments as well as the recent acquisitions of MPI Research, Brains On-Line, and KWS BioTest. The positive effect of changes in foreign currency exchange rates increased revenue by \$32.9 million, or 3.7%, when compared to the corresponding period in 2017.

In the three months ended June 30, 2018, our operating income and operating income margin were \$76.7 million and 13.1%, respectively, compared with \$81.7 million and 17.4%, respectively, in the corresponding period of 2017. In the six months ended June 30, 2018, our operating income and operating margin were \$144.5 million and 13.4%, respectively, compared with \$151.4 million and 16.5%, respectively, in the corresponding period of 2017. The decreases in operating income and operating income margin were primarily due to increased amortization expense and costs related to our recent acquisitions, as well as continued investments to support future growth of the Company, including increased investments in personnel, facility expansions, and IT and infrastructure projects; partially offset by operating income contributed by those acquisitions.

Net income attributable to common shareholders decreased to \$53.7 million in the three months ended June 30, 2018, from \$54.0 million in the corresponding period of 2017. The decrease in Net income attributable to common shareholders was primarily due to the reduction in operating income discussed above in the three months ended June 30, 2018; partially offset by gains on our venture capital investments and income tax net benefits related to U.S. Tax Reform in the three months ended June 30, 2018 as compared to the prior period. Net income attributable to common shareholders increased to \$106.3 million in the six months ended June 30, 2018, from \$100.7 million in the corresponding period of 2017. The increase in Net income attributable to common shareholders was primarily due to gains on our venture capital investments and a lower effective tax rate in the six months ended June 30, 2018 driven by net benefits of U.S. Tax Reform and the income tax gain on the divestiture of the CDMO business in 2017; partially offset by higher interest expense related to higher debt balances as well as increased amortization expense and costs related to our recent acquisitions.

During the first six months of 2018, our cash flows from operations was \$183.9 million compared with \$134.4 million for 2017. The increase was primarily driven by an increase in income from continuing operations and positive changes in working capital from improved collections of our receivables and customer contract deposits as compared to the prior year.

On March 26, 2018, we amended and restated our credit facility creating a \$2.3B Credit Facility. The \$2.3B Credit Facility provides for a \$750.0 million term loan and a \$1.55 billion multi-currency revolving facility. The term loan facility matures in 19 quarterly installments with the last installment due March 26, 2023. The revolving facility matures on March 26, 2023, and requires no scheduled payment before that date. Under specified circumstances, we have the ability to increase the term loan and/or revolving facility by up to \$1.0 billion in the aggregate.

On April 3, 2018, we issued \$500.0 million of 5.5% Senior Notes (Senior Notes) due 2026 in an unregistered offering. Interest on the Senior Notes is payable semi-annually on April 1 and October 1 of each year, beginning on October 1, 2018.

Results of Operations

Three Months Ended June 30, 2018 Compared to the Three Months Ended July 1, 2017

Revenue

The following tables present consolidated revenue by type and by reportable segment:

		Three Mo	nths	Ended					
	Jun	e 30, 2018		July 1, 2017		\$ change	% change		
			ercentages)						
Service revenue	\$	438.5	\$	329.4	\$	109.1	33.1%		
Product revenue		146.8		139.7		7.1	5.1%		
Total revenue	\$	585.3	\$	469.1	\$	116.2	24.8%		

		Three Mo	nths l	Ended				
	Jun	e 30, 2018	July 1, 2017			\$ change	% change	Impact of FX
				(in 1	millio	ns, except percenta	iges)	
RMS	\$	130.4	\$	124.0	\$	6.4	5.2%	3.2%
DSA		346.4		252.1		94.3	37.4%	2.0%
Manufacturing		108.5		93.0		15.5	16.6%	3.5%
Total revenue	\$	585.3	\$	469.1	\$	116.2	24.8%	2.6%

RMS revenue increased by \$6.4 million due primarily to the positive effect of changes in foreign currency exchange rates, higher research model product revenue in China, and higher research model services revenue attributable to the IS, GEMS, and RADS businesses; partially offset by lower research model product revenue outside of China.

DSA revenue increased \$94.3 million due primarily to the recent acquisitions of MPI Research, Brains On-Line, and KWS BioTest, which contributed \$66.6 million, \$2.7 million and \$1.7 million to service revenue growth, respectively. Additionally, service revenue increased due to demand from both biotechnology and global biopharmaceutical clients, and the positive effect of changes in foreign currency exchange rates.

Manufacturing revenue increased \$15.5 million due primarily to higher demand for endotoxin products in the Microbial Solutions business, higher service revenue in the Biologics business, higher product revenue in the Avian business, and the positive effect of changes in foreign currency exchange rates.

Cost of Services Provided and Products Sold (Excluding Amortization of Intangible Assets)

The following tables present consolidated Cost of services provided and products sold (excluding amortization of intangible assets) (Costs) by type and by reportable segment:

	_	Three Mo	nths E	Inded			
	June 30, 2018		J	July 1, 2017		\$ change	% change
				(in millions, ex	cept po		
Cost of services provided	\$	302.3	\$	215.0	\$	87.3	40.6 %
Cost of products sold		67.0		68.8		(1.8)	(2.5)%
Total cost of services provided and products sold (excluding amortization of intangible assets)	\$	369.3	\$	283.8	\$	85.5	30.1 %

		Three Mo	nths Er	ided							
	Jun	e 30, 2018	Ju	ıly 1, 2017	\$ change		% change				
		(in millions, except percentages)									
RMS	\$	79.4	\$	74.7	\$	4.7	6.3%				
DSA		239.2		165.9		73.3	44.2%				
Manufacturing		50.7		43.2		7.5	17.3%				
Total cost of services provided and products sold (excluding amortization of intangible assets)	\$	369.3	\$	283.8	\$	85.5	30.1%				

Costs for the three months ended June 30, 2018 increased \$85.5 million, or 30.1%, compared to the corresponding period in 2017. Costs as a percentage of revenue for the three months ended June 30, 2018 were 63.1%, an increase of 2.6% from 60.5% for the corresponding period in 2017.

RMS Costs increased \$4.7 million due primarily to the effect of changes in foreign currency exchange rates. RMS Costs as a percentage of revenue for the three months ended June 30, 2018 were 60.9%, an increase of 0.6% from 60.3% for the corresponding period in 2017.

DSA Costs increased \$73.3 million due primarily to the recent acquisitions of MPI Research, Brains On-Line, and KWS BioTest, which included a higher service cost base, and the impact of changes in foreign currency exchange rates. DSA Costs as a percentage of revenue for the three months ended June 30, 2018 were 69.0%, an increase of 3.2% from 65.8% for the corresponding period in 2017, due primarily to study mix and changes in foreign currency exchange rates as compared to the prior period.

Manufacturing Costs increased \$7.5 million due primarily to an increase in Microbial Solutions Costs resulting from higher demand for endotoxin products, increased Biologics service and Avian product revenue, and by the effect of changes in foreign currency exchange rates. Manufacturing Costs as a percentage of revenue for the three months ended June 30, 2018 were 46.8%, an increase of 0.3% from 46.5% for the corresponding period in 2017.

Selling, General and Administrative Expenses

		Three Mo	nths E	Inded								
	June	June 30, 2018 July				\$ change	% change					
		(in millions, except percentages)										
RMS	\$	16.3	\$	15.3	\$	1.0	6.8%					
DSA		34.6		28.0		6.6	23.3%					
Manufacturing		21.3		18.2		3.1	17.2%					
Unallocated corporate		48.3		32.3		16.0	49.5%					
Total selling, general and administrative	\$	120.5	\$	93.8	\$	26.7	28.5%					

Selling, general and administrative expenses (SG&A) for the three months ended June 30, 2018 increased \$26.7 million, or 28.5%, compared to the corresponding period in 2017. SG&A as a percentage of revenue for the three months ended June 30, 2018 was 20.6%, an increase of 0.6%, from 20.0% for the corresponding period in 2017.

The increase in RMS SG&A of \$1.0 million was primarily related to an increase in compensation, benefits, and other employee-related expenses to support the growth of the business. RMS SG&A as a percentage of revenue for the three months ended June 30, 2018 was 12.5%, an increase of 0.2% from 12.3% for the corresponding period in 2017.

The increase in DSA SG&A of \$6.6 million was primarily related to an increase in compensation, benefits, and other employee-related expenses to support the growth of the business and due to our recent acquisitions. DSA SG&A as a percentage of revenue for the three months ended June 30, 2018 was 10.0%, a decrease of 1.1% from 11.1% for the corresponding period in 2017.

The increase in Manufacturing SG&A of 3.1 million was primarily related to an increase in compensation, benefits, and other employee-related expenses to support the growth of the business. Manufacturing SG&A as a percentage of revenue for the three months ended June 30, 2018 was 19.7%, an increase of 0.1% from 19.6% for the corresponding period in 2017.

The increase in unallocated corporate SG&A of \$16.0 million was primarily related to an increase in costs associated with the evaluation and integration of our recent acquisitions and an increase in compensation, benefits, and other employee-related expenses.

Amortization of Intangible Assets

Amortization of intangible assets for the three months ended June 30, 2018 was \$18.7 million, an increase of \$8.9 million, or 90.9%, from \$9.8 million for the corresponding period in 2017, due primarily to the amortization of certain intangible assets acquired in connection with our recent acquisitions.

Interest Income

Interest income, which represents earnings on cash, cash equivalents, and time deposits was \$0.2 million for both the three months ended June 30, 2018 and July 1, 2017.

Interest Expense

Interest expense for the three months ended June 30, 2018 was \$18.6 million, an increase of \$11.2 million, or 151.8%, compared to \$7.4 million for the corresponding period in 2017. The increase was due primarily to higher debt to fund our recent acquisitions.

Other Income, Net

Other income, net, was \$12.0 million for the three months ended June 30, 2018, an increase of \$9.5 million, or 387.0%, compared to \$2.5 million for the corresponding period in 2017. The increase in Other income, net, was driven by an increase of \$8.4 million in gains recognized related to our venture capital investments.

Income Taxes

Income tax expense for the three months ended June 30, 2018 was \$17.4 million, a decrease of \$4.8 million compared to \$22.2 million for the corresponding period in 2017. Our effective tax rate was 24.8% for the three months ended June 30, 2018, compared to 28.9% for the corresponding period in 2017. The decrease was primarily attributable to net benefits of U.S. Tax Reform, partially offset with non-deductible transaction costs associated with the acquisition of MPI Research in the second quarter of 2018.

Six Months Ended June 30, 2018 Compared to the Six Months Ended July 1, 2017

Revenue

The following tables present consolidated revenue by type and by reportable segment:

	Six Mon	ths E	nded							
	June 30, 2018	July 1, 2017			\$ change	% change				
	 (in millions, except percentages)									
Service Revenue	\$ 783.9	\$	633.9	\$	150.0	23.7%				
Product Revenue	295.4		281.0		14.4	5.1%				
Total Revenue	\$ 1,079.3	\$	914.9	\$	164.4	18.0%				

		Six Months Ended										
	Jun	e 30, 2018		July 1, 2017		\$ change	% change	Impact of FX				
		(in millions, except percentages)										
RMS	\$	264.4	\$	251.2	\$	13.2	5.3%	4.2%				
DSA		606.4		479.8		126.6	26.4%	2.9%				
Manufacturing		208.5		183.9		24.6	13.4%	4.7%				
Total Revenue	\$	1,079.3	\$	914.9	\$	164.4	18.0%	3.7%				

RMS revenue increased \$13.2 million due primarily to the positive effect of changes in foreign currency exchange rates, higher research model product revenue in China, and higher research model services revenue attributable to the IS and GEMS businesses; partially offset by lower research model product revenue outside of China.

DSA Revenue increased \$126.6 million due primarily to the recent acquisitions of MPI Research, Brains On-Line, and KWS BioTest, which contributed \$66.6 million, \$5.0 million and \$3.7 million to service revenue growth, respectively. Additionally, service revenue increased due to demand from both biotechnology and global biopharmaceutical clients, and the positive effect of changes in foreign currency exchange rates.

Manufacturing revenue increased \$24.6 million due primarily to higher demand for endotoxin products in the Microbial Solutions business, higher service revenue in the Biologics business, higher product revenue in the Avian business, and the positive effect of changes in foreign currency exchange rates; partially offset by the absence of \$1.8 million of service revenue related to the CDMO business.

Cost of Services Provided and Products Sold (Excluding Amortization of Intangible Assets)

The following tables present consolidated Costs by type and by reportable segment:



		Six Mon	ths En	ded			
	Jun	e 30, 2018	J	uly 1, 2017	:	\$ change	% change
				(in millions, ex	cept pe	rcentages)	
Cost of services provided	\$	546.1	\$	422.2	\$	123.9	29.3 %
Cost of products sold		135.7		136.0		(0.3)	(0.2)%
Total cost of services provided and products sold (excluding amortization of intangible assets)	\$	681.8	\$	558.2	\$	123.6	22.1 %

		Six Months Ended					
	Jun	e 30, 2018	J	uly 1, 2017	\$	change	% change
				(in millions, ex	cept per	centages)	
RMS	\$	159.7	\$	149.1	\$	10.6	7.1%
DSA		422.6		321.9		100.7	31.3%
Manufacturing		99.5		87.2		12.3	14.1%
Total cost of services provided and products sold (excluding amortization of intangible assets)	\$	681.8	\$	558.2	\$	123.6	22.1%

Costs for the six months ended June 30, 2018 increased \$123.6 million, or 22.1%, compared to the corresponding period in 2017. Costs as a percentage of revenue for the six months ended June 30, 2018 were 63.2%, an increase of 2.2% from 61.0% for the corresponding period in 2017.

RMS Costs increased \$10.6 million due primarily to the effect of changes in foreign currency exchange rates and certain charges associated with the realignment of our research model production site in Maryland. RMS Costs as a percentage of revenue for the six months ended June 30, 2018 were 60.4%, an increase of 1.0% from 59.4% for the corresponding period in 2017.

DSA Costs increased \$100.7 million due primarily to the recent acquisitions of MPI Research, Brains On-Line, and KWS BioTest, which included a higher service cost base, and the impact of changes in foreign currency exchange rates. DSA Costs as a percentage of revenue for the six months ended June 30, 2018 were 69.7%, an increase of 2.6% from 67.1% for the corresponding period in 2017, due primarily to study mix and changes in foreign currency exchange rates as compared to the prior period.

Manufacturing Costs increased \$12.3 million due primarily to an increase in Microbial Solutions Costs resulting from higher demand for endotoxin products, increased Biologics service and Avian product revenue, and by the effect of changes in foreign currency exchange rates; partially offset by a decrease in CDMO Costs related to the divestiture of the CDMO business. Manufacturing Costs as a percentage of revenue for the six months ended June 30, 2018 were 47.7%, an increase of 0.2% from 47.5% for the corresponding period in 2017.

Selling, General and Administrative Expenses

		Six Months Ended						
	June	June 30, 2018		July 1, 2017		\$ change	% change	
		(in millions, except percentages)						
RMS	\$	31.1	\$	30.0	\$	1.1	3.9%	
DSA		62.7		53.8		8.9	16.5%	
Manufacturing		41.7		35.7		6.0	16.8%	
Unallocated corporate		88.4		65.2		23.2	35.5%	
Total selling, general and administrative	\$	223.9	\$	184.7	\$	39.2	21.2%	

SG&A expenses for the six months ended June 30, 2018 increased \$39.2 million, or 21.2%, compared to the corresponding period in 2017. SG&A as a percentage of revenue for the six months ended June 30, 2018 was 20.7%, an increase of 0.5%, from 20.2% for the corresponding period in 2017.

RMS SG&A remained consistent with the corresponding period in 2017. RMS SG&A as a percentage of revenue for the six months ended June 30, 2018 was 11.8%, a decrease of 0.1%, from 11.9% for the corresponding period in 2017.

The increase in DSA SG&A of \$8.9 million was primarily related to an increase in compensation, benefits, and other employee-related expenses to support the growth of the business and due to our recent acquisitions. DSA SG&A as a

percentage of revenue for the six months ended June 30, 2018 was 10.3%, a decrease of 0.9%, from 11.2% for the corresponding period in 2017.

The increase in Manufacturing SG&A of 6.0 million was primarily related to an increase in compensation, benefits, and other employee related expenses to support the growth of the business. Manufacturing SG&A as a percentage of revenue for the six months ended June 30, 2018 was 20.0%, an increase of 0.6% from 19.4% for the corresponding period in 2017.

The increase in unallocated corporate SG&A of \$23.2 million was primarily related to an increase in costs associated with the evaluation and integration of our recent acquisitions and an increase in compensation, benefits, and other employee-related expenses.

Amortization of Intangible Assets

Amortization of intangible assets for the six months ended June 30, 2018 was \$29.0 million, an increase of \$8.4 million, or 41.1%, from \$20.6 million for the corresponding period in 2017, due primarily to the amortization of certain intangible assets acquired in connection with our recent acquisitions.

Interest Income

Interest income, which represents earnings on cash, cash equivalents, and time deposits was \$0.5 million and \$0.4 million for the six months ended June 30, 2018 and July 1, 2017, respectively.

Interest Expense

Interest expense for the six months ended June 30, 2018 was \$29.8 million, an increase of \$15.4 million, or 107.4%, compared to \$14.4 million for the corresponding period in 2017. The increase was due primarily to higher debt to fund our recent acquisitions.

Other Income, Net

Other income, net, was \$18.2 million for the six months ended June 30, 2018, an increase of \$0.6 million, or 3.2%, compared to \$17.6 million for the corresponding period in 2017. The increase in Other income, net, was driven by an increase of \$10.7 million in gains recognized related to our venture capital investments, partially offset by the absence of a \$10.6 million gain recognized as a result of the CDMO business.

Income Taxes

Income tax expense for the six months ended June 30, 2018 was \$27.2 million, a decrease of \$26.1 million compared to \$53.3 million for the corresponding period in 2017. Our effective tax rate was 20.4% for the six months ended June 30, 2018, compared to 34.4% for the corresponding period in 2017. The decrease was primarily attributable to the tax on the gain on the divestiture of the CDMO business of \$18.0 million in 2017 and net tax benefits of U.S. Tax Reform, partially offset with non-deductible transaction costs associated with the acquisition of MPI Research in the second quarter of 2018.

Liquidity and Capital Resources

We currently require cash to fund our working capital needs, capital expansion, and acquisitions, and to pay our debt and pension obligations. Our principal sources of liquidity have been our cash flows from operations, supplemented by long-term borrowings. Based on our current business plan, we believe that our existing funds, when combined with cash generated from operations and our access to financing resources, are sufficient to fund our operations for the foreseeable future.

The following table presents our cash, cash equivalents and investments:

	June 30, 2018		December 30, 2017		
	(in millions)				
Cash and cash equivalents:					
Held in U.S. entities	\$	26.1	\$	30.6	
Held in non-U.S. entities		166.2		133.2	
Total cash and cash equivalents		192.3		163.8	
Investments:					
Held in non-U.S. entities		0.9		28.5	
Total cash, cash equivalents and investments	\$	193.2	\$	192.3	

Borrowings

On March 26, 2018, we amended and restated our \$1.65 billion credit facility, creating our \$2.3B Credit Facility which extended the maturity date for the credit facility. The \$2.3B Credit Facility provides for a \$750.0 million term loan and a \$1.55



billion multi-currency revolving facility. The term loan facility matures in 19 quarterly installments with the last installment due March 26, 2023. The revolving facility matures on March 26, 2023, and requires no scheduled payment before that date.

On April 3, 2018, we entered into an indenture (Indenture) with MUFG Union Bank, N.A., in connection with the offering of \$500.0 million in aggregate principal amount of the Company's 5.5% Senior Notes (Senior Notes) due in 2026 in an unregistered offering. Under the terms of the Indenture, interest on the Senior Notes is payable semi-annually on April 1 and October 1 of each year, beginning on October 1, 2018.

Amounts outstanding under our credit facilities and Senior Notes were as follows:

	Jı	ine 30, 2018	Dec	ember 30, 2017	
		(in millions)			
Term loans	\$	750.0	\$	601.3	
Revolving facility		546.8		501.0	
Senior Notes		500.0		—	
Total	\$	1,796.8	\$	1,102.3	

Under specified circumstances, we have the ability to increase the term loan and/or revolving facility by up to 1.0 billion in the aggregate. The interest rates applicable to the term loan and revolving facility under the 2.3B Credit Facility are, at our option, equal to either the base rate (which is the higher of (1) the prime rate, (2) the federal funds rate plus 0.50%, or (3) the one-month adjusted LIBOR rate plus 1.0%) or the adjusted LIBOR rate, plus an interest rate margin based upon our leverage ratio.

Repurchases of Common Stock

During the six months ended June 30, 2018, we did not repurchase any shares under our authorized stock repurchase program. As of June 30, 2018, we had \$129.1 million remaining on the authorized \$1.3 billion stock repurchase program. Our stock-based compensation plans permit the netting of common stock upon vesting of restricted stock, restricted stock units, and performance share units in order to satisfy individual statutory tax withholding requirements. During the six months ended June 30, 2018, we acquired 0.1 million shares for \$13.7 million through such netting.

Cash Flows

The following table presents our net cash provided by operating activities:

	Six Months Ended				
	June 30, 2018 July 1, 2017				
	(in millions)				
Income from continuing operations	\$	106.1 \$	101.6		
Adjustments to reconcile net income from continuing operations to net cash provided by operating activities		84.1	92.4		
Changes in assets and liabilities		(6.3)	(59.6)		
Net cash provided by operating activities	\$	183.9 \$	134.4		

Net cash provided by cash flows from operating activities represents the cash receipts and disbursements related to all of our activities other than investing and financing activities. Operating cash flow is derived by adjusting our income from continuing operations for (1) non-cash operating items such as depreciation and amortization, stock-based compensation, deferred income taxes, and gains on venture capital investments and divestiture, as well as (2) changes in assets and liabilities, which reflect timing differences between the receipt and payment of cash associated with transactions and when they are recognized in our results of operations. For the six months ended June 30, 2018, compared to the six months ended July 1, 2017, the increase in cash provided by operating activities was primarily driven by an increase in income from continuing operations and positive changes in working capital resulting from improved collections of our receivables and customer contract deposits.

The following table presents our net cash (used in) provided by investing activities:

		Six Months Ended				
	Jur	June 30, 2018 July 1, 2017				
		is)				
Acquisitions of businesses and assets, net of cash acquired	\$	(821.4) \$	_			
Capital expenditures		(48.9)	(31.9)			
Investments, net		19.4	(26.6)			
Proceeds from divestiture			72.5			
Other, net		(0.1)	_			
Net cash (used in) provided by investing activities	\$	(851.0) \$	14.0			

For the six months ended June 30, 2018, the primary use of cash used in investing activities related primarily to our acquisitions of MPI Research and KWS BioTest, and our capital expenditures to support the growth of the business; partially offset by proceeds from net investments, which primarily relate to short-term investments held by our U.K. operations. The primary source of cash provided by investing activities in the six months ended July 1, 2017 related to the proceeds from the divestiture of the CDMO business.

The following table presents our net cash provided by (used in) financing activities:

	Six Months Ended				
		June 30, 2018		July 1, 2017	
		(in mil	lions)		
Proceeds from long-term debt and revolving credit facility	\$	2,392.6	\$	136.2	
Proceeds from exercises of stock options		24.2		30.0	
Payments on long-term debt, revolving credit facility and capital lease obligations		(1,680.2)		(250.0)	
Payments on debt financing costs		(18.3)		—	
Purchase of treasury stock		(13.7)		(70.8)	
Other, net				(0.5)	
Net cash provided by (used in) financing activities	\$	704.6	\$	(155.1)	

For the six months ended June 30, 2018, net cash provided by financing activities reflected the incremental proceeds from the refinancing of our previous \$1.65 Billion Credit Facility to the \$2.3 Billion Credit Facility and the proceeds from our \$500.0 million Senior Notes; payments on debt financing costs of \$18.3 million, treasury stock purchases of \$13.7 million made due to the netting of common stock upon vesting of stock-based awards in order to satisfy individual statutory tax withholding requirements; partially offset by proceeds from exercises of employee stock options of \$24.2 million. For the six months ended July 1, 2017, cash used in financing activities reflected net payments of \$113.8 million on our long-term debt, revolving credit facility, and capital lease obligations, treasury stock purchases of \$70.8 million made pursuant to our authorized stock repurchase program and the netting of common stock upon vesting of stock-based awards in order to satisfy individual statutory tax withholding requirements; partially individual statutory tax withholding requirements; partially offset by proceeds from exercises of employee stock options of \$30.0 million.

Contractual Commitments and Obligations

The disclosure of our contractual commitments and obligations was reported in our Annual Report on Form 10-K for fiscal 2017. There have been no material changes from the contractual commitments and obligations previously disclosed in our Annual Report on Form 10-K for fiscal 2017 other than the changes described in Note 7, "Fair Value," Note 9, "Long-Term Debt and Capital Lease Obligations," and Note 15, "Commitments and Contingencies" in our notes to unaudited condensed consolidated financial statements in this Quarterly Report on Form 10-Q.

Off-Balance Sheet Arrangements

As of June 30, 2018, we did not have any significant off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of SEC Regulation S-K promulgated under the Exchange Act, except as disclosed below.

Venture Capital Investments

We invest in several venture capital funds that invest in start-up companies, primarily in the life sciences industry. Our total commitment to the funds as of June 30, 2018 was \$109.1 million, of which we funded \$60.7 million through June 30, 2018.



Refer to Note 6, "Venture Capital Investments" in our notes to the unaudited condensed consolidated financial statements in this Quarterly Report on Form 10-Q for additional information.

Letters of Credit

Our off-balance sheet commitments related to our outstanding letters of credit as of June 30, 2018 were \$5.5 million with the increase related to the new MPI Research letter of credit.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements prepared in accordance with generally accepted accounting principles in the U.S. The preparation of these financial statements requires us to make certain estimates and assumptions that may affect the reported amounts of assets and liabilities, the reported amounts of revenues and expenses during the reported periods and related disclosures. These estimates and assumptions are monitored and analyzed by us for changes in facts and circumstances, and material changes in these estimates could occur in the future. We base our estimates on our historical experience, trends in the industry, and various other factors that are believed to be reasonable under the circumstances. Actual results may differ from our estimates under different assumptions or conditions.

We believe that our application of the following accounting policies, each of which require significant judgments and estimates on the part of management, are the most critical to aid in fully understanding and evaluating our reported financial results: (1) revenue recognition, (2) income taxes, (3) goodwill and intangible assets, (4) valuation and impairment of long-lived assets, (5) pension and other retirement benefit plans, and (6) stock-based compensation. Our significant accounting policies are described in our Annual Report on Form 10-K for fiscal year 2017, with the exception of revenue recognition, which was updated upon the adoption of ASC 606 in the three month period ended March 31, 2018. Refer to Note 3, "Revenue From Contracts With Customers" in our notes to the unaudited condensed consolidated financial statements in this Quarterly Report on Form 10-Q for our revenue recognition accounting policy.

Recent Accounting Pronouncements

For a discussion of recent accounting pronouncements please refer to Note 1, "Basis of Presentation," in our notes to the unaudited condensed consolidated financial statements in this Quarterly Report on Form 10-Q. Other than as discussed in Note 1, "Basis of Presentation," we did not adopt any other new accounting pronouncements during the six months ended June 30, 2018 that had a significant effect on our unaudited condensed consolidated financial statements included in this Quarterly Report on Form 10-Q.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risk from changes in interest rates and currency exchange rates, which could affect our future results of operations and financial condition. We manage our exposure to these risks through our regular operating and financing activities.

Interest Rate Risk

We are exposed to changes in interest rates while conducting normal business operations as a result of ongoing financing activities. As of June 30, 2018, our debt portfolio was comprised primarily of floating interest rate borrowings. A 100-basis point increase in interest rates would increase our annual pre-tax interest expense by \$13.0 million.

Foreign Currency Exchange Rate Risk

We operate on a global basis and have exposure to some foreign currency exchange rate fluctuations for our financial position, results of operations, and cash flows.

While the financial results of our global activities are reported in U.S. dollars, our foreign subsidiaries typically conduct their operations in their respective local currency. The principal functional currencies of the Company's foreign subsidiaries are the Euro, British Pound, Canadian Dollar, Chinese Yuan Renminbi, and Japanese Yen. During the six months ended June 30, 2018, the most significant drivers of foreign currency translation adjustment the Company recorded as part of Other comprehensive income (loss) were the Euro, British Pound, Canadian Dollar, Chinese Yuan Renminbi, and Japanese Yen.

Fluctuations in the foreign currency exchange rates of the countries in which we do business will affect our financial position, results of operations, and cash flows. As the U.S. dollar strengthens against other currencies, the value of our non-U.S. revenue, expenses, assets, liabilities, and cash flows will generally decline when reported in U.S. dollars. The impact to net income as a result of a U.S. dollar strengthening will be partially mitigated by the value of non-U.S. expenses, which will decline when reported in U.S. dollars. As the U.S. dollar weakens versus other currencies, the value of the non-U.S. revenue, expenses, assets, liabilities, and cash flows will generally increase when reported in U.S. dollars. For the six months ended June 30, 2018,



our revenue would have decreased by approximately \$41.0 million and our operating income would have decreased by approximately \$2.9 million, if the U.S. dollar exchange rate had strengthened by 10.0%, with all other variables held constant.

We attempt to minimize this exposure by using certain financial instruments in accordance with our overall risk management and our hedge policy. We do not enter into speculative derivative agreements.

During the six months ended June 30, 2018, we utilized foreign exchange contracts, principally to hedge certain balance sheet exposures resulting from foreign currency fluctuations. No foreign currency contracts were open as of June 30, 2018.

Item 4. Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures

Based on their evaluation, required by paragraph (b) of Rules 13a-15 or 15d-15, promulgated by the Securities Exchange Act of 1934, as amended (Exchange Act), the Company's principal executive officer and principal financial officer have concluded that the Company's disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act, are effective, at a reasonable assurance level, as of June 30, 2018, to ensure that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by the Company's management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, on matter how well designed and operated, can provide only reasonable assurances of achieving the desired control objectives, and management necessarily was required to apply its judgment in designing and evaluating the controls and procedures.

(b) Changes in Internal Controls

The Company continued to execute a plan to centralize certain accounting transaction processing functions to internal shared service centers during the three months ended June 30, 2018. There were no other material changes in the Company's internal control over financial reporting identified in connection with the evaluation required by paragraph (d) of the Exchange Act Rules 13a-15 or 15d-15 that occurred during the quarter ended June 30, 2018 that materially affected, or were reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

Please refer to Note 15, "Commitments and Contingencies" in our notes to the unaudited condensed consolidated financial statements in this Quarterly Report on Form 10-Q.

Item 1A. Risk Factors

In addition to the other information set forth in this report, you should carefully consider the factors discussed in Part I, "Item 1A. Risk Factors" in our Annual Report on Form 10-K for fiscal year 2017, which could materially affect our business, financial condition, and/or future results. The risks described in our Annual Report on Form 10-K are not the only risks we face. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition, and/or operating results. There have been no material changes to the risk factors set forth in our Annual Report on Form 10-K for fiscal year 2017.

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

The following table provides information relating to the purchases of shares of our common stock during the three months ended June 30, 2018.

	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	r T	proximate Dollar Value of Shares Chat May Yet Be Purchased Under the Plans or Programs
					(in thousands)
April 1, 2018 to April 28, 2018	—	\$ —	—	\$	115,545
April 29, 2018 to May 26, 2018	1,139	104.97	—		115,426
May 27, 2018 to June 30, 2018	—	—	—		115,426
Total	1,139				

Our Board of Directors authorized up to an aggregate amount of \$1.3 billion for our stock repurchase program. As of June 30, 2018, we had \$129.1 million remaining on the authorized stock repurchase program.

Additionally, our stock-based compensation plans permit the netting of common stock upon vesting of restricted stock, restricted stock units, and performance share units in order to satisfy individual statutory tax withholding requirements.

Item 6. Exhibits

(a) Exhibits	Description of Exhibits
31.1+	Rule 13a-14(a)/15d-14(a) Certification of Chief Executive Officer.
31.2+	Rule 13a-14(a)/15d-14(a) Certification of Chief Financial Officer.
32.1+	Certification of the Principal Executive Officer and the Principal Financial Officer required by Rule 13a-14(a) of 15d-14(a) of the Exchange Act.
101.INS	eXtensible Business Reporting Language (XBRL) Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Definition Linkbase Document.
101.LAB	XBRL Taxonomy Label Linkbase Document.
101.PRE	XBRL Taxonomy Presentation Linkbase Document.

+ Furnished herein.

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.

CHARLES RIVER LABORATORIES INTERNATIONAL, INC.

August 8, 2018

/s/ JAMES C. FOSTER

James C. Foster Chairman, President and Chief Executive Officer

August 8, 2018

/s/ DAVID R. SMITH

David R. Smith Corporate Executive Vice President and Chief Financial Officer

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002 AND RULE 13a-14(a)/15d-14(a) OF THE EXCHANGE ACT OF 1934

I, James C. Foster, Chairman, President and Chief Executive Officer of Charles River Laboratories International, Inc. (the registrant) certify that:

- 1. I have reviewed this quarterly report on Form 10-Q for the quarter ended June 30, 2018 of the registrant;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ James C. Foster

August 8, 2018

James C. Foster Chairman, President and Chief Executive Officer Charles River Laboratories International, Inc.

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002 AND RULE 13a-14(a)/15d-14(a) OF THE EXCHANGE ACT OF 1934

I, David R. Smith, Corporate Executive Vice President and Chief Financial Officer of Charles River Laboratories International, Inc. (the registrant) certify that:

- 1. I have reviewed this quarterly report on Form 10-Q for the quarter ended June 30, 2018 of the registrant;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ David R. Smith

David R. Smith Corporate Executive Vice President and Chief Financial Officer Charles River Laboratories International, Inc.

August 8, 2018

Exhibit 32.1

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

In connection with the quarterly report on Form 10-Q for the quarter ended June 30, 2018 of Charles River Laboratories International, Inc. (the "Company") as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, James C. Foster, Chairman, President and Chief Executive Officer of the Company, and David R. Smith, Corporate Executive Vice President and Chief Financial Officer of the Company, each hereby certifies, to the best of his knowledge and pursuant to 18 U.S.C. Section 1350, that:

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

/s/ James C. Foster

August 8, 2018

August 8, 2018

James C. Foster Chairman, President and Chief Executive Officer Charles River Laboratories International, Inc.

/s/ David R. Smith

David R. Smith Corporate Executive Vice President and Chief Financial Officer Charles River Laboratories International, Inc.

This certification shall not be deemed "filed" for any purpose, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act.