

IDEXX LABORATORIES INC /DE
Form 10-Q
November 01, 2018

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 September 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 NUMBER: 000-19271

IDEXX LABORATORIES, INC.
(Exact name of registrant as specified in its charter)

DELAWARE 01-0393723
(State or other jurisdiction of incorporation (IRS Employer Identification No.)
or organization)

ONE IDEXX DRIVE, WESTBROOK, MAINE 04092
(Address of principal executive offices) (ZIP Code)

207-556-0300
(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 Accelerated filer

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

If an emerging growth company, indicate by 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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date. The number of shares outstanding of the registrant's Common Stock, \$0.10 par value per share, was 86,233,649 on October 29, 2018.

GLOSSARY OF TERMS AND SELECTED ABBREVIATIONS

In order to aid the reader, we have included certain terms and abbreviations used throughout this Quarterly Report on Form 10-Q below:

Term/ Abbreviation	Definition
AOCI	Accumulated other comprehensive income or loss
ASU 2014-09	Accounting Standards Update (“ASU”) 2014-09, Revenue from Contracts with Customers (Topic 606); also referred to as the “New Revenue Standard”
ASU 2016-02	ASU 2016-02, Leases (Topic 842); also referred to as the “New Leasing Standard”
ASU 2016-16	ASU 2016-16, Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory
ASU 2018-05	ASU 2018-05, Income Taxes (Topic 740): Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118
CAG	Companion Animal Group, a reporting segment that provides veterinarians diagnostic products and services and information management solutions that enhance the health and well-being of pets
Credit Facility	Our \$850 million five-year unsecured revolving credit facility under an amended and restated credit agreement that was executed in December 2015, also referred to as line of credit
FASB	U.S. Financial Accounting Standards Board
LPD	Livestock, Poultry and Dairy, a reporting segment that provides diagnostic products and services for livestock and poultry health and to ensure the quality and safety of milk and improve dairy efficiency
OPTI Medical	OPTI Medical Systems, Inc., a wholly-owned subsidiary of IDEXX Laboratories Inc., located in Roswell, Georgia. This business manufactures and supplies blood gas analyzers and consumables worldwide for the human point-of-care medical diagnostics market. The Roswell facility also manufactures electrolytes slides (instrument consumables) to run Catalyst One [®] , Catalyst Dx [®] , and blood gas analyzers and consumables for the veterinary market; also referred to as OPTI.
Organic revenue growth	A non-GAAP financial measure and represents the percentage change in revenue, as compared to the same period for the prior year, net of the effect of changes in foreign currency exchange rates, business acquisitions and divestitures
R&D	Research and Development
Reported revenue growth	Represents the percentage change in revenue reported in accordance with U.S. GAAP, as compared to the same period in the prior year
SaaS	Software-as-a-service
SEC	U.S. Securities and Exchange Commission
Senior Note Agreements	Note purchase agreements for the private placement senior notes having an aggregate principal amount of approximately \$600 million, referred to as senior notes and long-term debt
2017 Tax Act	The Tax Cuts and Jobs Act enacted on December 22, 2017, which includes significant changes to the U.S. corporate tax system
U.S. GAAP	Accounting principles generally accepted in the United States of America
Water	Water, a reporting segment that provides water microbiology testing products

IDEXX LABORATORIES, INC.
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PART I— FINANCIAL INFORMATION

Item 1. Financial Statements.

IDEXX LABORATORIES, INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED BALANCE SHEETS

(in thousands, except per share amounts)

(Unaudited)

	September 30, 2018	December 31, 2017
ASSETS		
Current Assets:		
Cash and cash equivalents	\$ 146,877	\$ 187,675
Marketable securities	—	284,255
Accounts receivable, net of reserves of \$4,874 in 2018 and \$4,576 in 2017	264,563	234,597
Inventories	179,684	164,318
Other current assets	113,073	101,140
Total current assets	704,197	971,985
Long-Term Assets:		
Property and equipment, net	409,980	379,096
Goodwill	216,046	199,873
Intangible assets, net	42,420	43,846
Other long-term assets	171,887	118,616
Total long-term assets	840,333	741,431
TOTAL ASSETS	\$ 1,544,530	\$ 1,713,416
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current Liabilities:		
Accounts payable	\$ 65,457	\$ 66,968
Accrued liabilities	238,431	253,418
Line of credit	414,500	655,000
Current portion of deferred revenue	41,149	29,181
Total current liabilities	759,537	1,004,567
Long-Term Liabilities:		
Deferred income tax liabilities	39,899	25,353
Long-term debt	602,416	606,075
Long-term deferred revenue, net of current portion	62,547	35,545
Other long-term liabilities	81,494	95,718
Total long-term liabilities	786,356	762,691
Total liabilities	1,545,893	1,767,258
Commitments and Contingencies (Note 15)		
Stockholders' Deficit:		
Common stock, \$0.10 par value: Authorized: 120,000 shares; Issued: 105,042 shares in 2018 and 104,275 shares in 2017; Outstanding: 86,546 shares in 2018 and 87,104 shares in 2017	10,504	10,428
Additional paid-in capital	1,128,484	1,073,931

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Deferred stock units: Outstanding: 162 units in 2018 and 229 units in 2017	4,455	5,988
Retained earnings	1,082,292	803,545
Accumulated other comprehensive loss	(42,187)	(36,470)
Treasury stock, at cost: 18,497 shares in 2018 and 17,171 shares in 2017	(2,185,152)	(1,911,528)
Total IDEXX Laboratories, Inc. stockholders' deficit	(1,604)	(54,106)
Noncontrolling interest	241	264
Total stockholders' deficit	(1,363)	(53,842)
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	\$ 1,544,530	\$ 1,713,416

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

IDEXX LABORATORIES, INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share amounts)

(Unaudited)

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2018	2017	2018	2017
Revenue:				
Product revenue	\$324,303	\$291,031	\$990,364	\$867,087
Service revenue	221,145	200,945	673,492	595,850
Total revenue	545,448	491,976	1,663,856	1,462,937
Cost of Revenue:				
Cost of product revenue	120,294	109,848	365,810	323,205
Cost of service revenue	119,511	108,126	356,865	314,824
Total cost of revenue	239,805	217,974	722,675	638,029
Gross profit	305,643	274,002	941,181	824,908
Expenses:				
Sales and marketing	95,146	88,818	291,502	263,755
General and administrative	63,955	57,186	185,966	165,560
Research and development	29,192	27,585	87,725	80,373
Income from operations	117,350	100,413	375,988	315,220
Interest expense	(8,453)	(9,764)	(26,184)	(27,508)
Interest income	142	1,400	893	3,659
Income before provision for income taxes	109,039	92,049	350,697	291,371
Provision for income taxes	15,825	21,535	59,327	66,392
Net income	93,214	70,514	291,370	224,979
Less: Net (loss) income attributable to noncontrolling interest	(37)	3	(23)	92
Net income attributable to IDEXX Laboratories, Inc. stockholders	\$93,251	\$70,511	\$291,393	\$224,887
Earnings per Share:				
Basic	\$1.07	\$0.81	\$3.35	\$2.56
Diluted	\$1.05	\$0.79	\$3.29	\$2.51
Weighted Average Shares Outstanding:				
Basic	86,756	87,537	87,029	87,884
Diluted	88,453	89,256	88,687	89,735

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

IDEXX LABORATORIES, INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(in thousands)

(Unaudited)

	For the Three Months Ended September 30, 2018		For the Nine Months Ended September 30, 2018	
	2017		2017	
Net income	\$93,214	\$70,514	\$291,370	\$224,979
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	(1,845)	8,282	(18,172)	24,250
Unrealized gain (loss) on net investment hedge	555	(2,035)	2,818	(6,895)
Unrealized gain on investments, net of tax expense of \$12 and \$61 in 2018 and \$12 and \$35 in 2017	37	23	187	109
Unrealized gain (loss) on derivative instruments:				
Unrealized gain (loss), net of tax expense (benefit) of \$62 and \$1,846 in 2018 and \$(1,836) and \$(5,035) in 2017	1,728	(3,090)	7,514	(8,472)
Reclassification adjustment for (gains) losses included in net income, net of tax (expense) benefit of \$(153) and \$476 in 2018 and \$333 and \$(348) in 2017	(103)	560	1,936	(587)
Unrealized gain (loss) on derivative instruments	1,625	(2,530)	9,450	(9,059)
Other comprehensive gain (loss), net of tax	372	3,740	(5,717)	8,405
Comprehensive income	93,586	74,254	285,653	233,384
Less: Comprehensive (loss) income attributable to noncontrolling interest	(37)	3	(23)	92
Comprehensive income attributable to IDEXX Laboratories, Inc.	\$93,623	\$74,251	\$285,676	\$233,292

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

IDEXX LABORATORIES, INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)

(Unaudited)

	For the Nine Months Ended September 30,	
	2018	2017
Cash Flows from Operating Activities:		
Net income	\$291,370	\$224,979
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	62,574	61,620
Impairment charge	2,629	—
Benefit of (provision for) deferred income taxes	12,850	(438)
Share-based compensation expense	18,948	17,762
Other	2,385	1,912
Changes in assets and liabilities:		
Accounts receivable	(33,041)	(18,724)
Inventories	(27,415)	(22,966)
Other assets and liabilities	(58,214)	(10,734)
Accounts payable	(1,336)	(3,540)
Deferred revenue	(6,314)	2,279
Net cash provided by operating activities	264,436	252,150
Cash Flows from Investing Activities:		
Purchases of property and equipment	(82,642)	(54,370)
Purchase of marketable securities	(87)	(269,798)
Proceeds from the sale and maturities of marketable securities	284,125	224,816
Acquisitions of intangible assets	(450)	(320)
Acquisitions of a business, net of cash acquired	(22,500)	(14,529)
Net cash provided (used) by investing activities	178,446	(114,201)
Cash Flows from Financing Activities:		
(Repayments) borrowings on revolving credit facilities, net	(240,500)	75,250
Payment of acquisition-related contingent consideration	(1,266)	—
Repurchases of common stock	(263,712)	(228,693)
Proceeds from exercises of stock options and employee stock purchase plans	34,595	31,314
Shares withheld for statutory tax withholding on restricted stock	(9,110)	(7,829)
Net cash used by financing activities	(479,993)	(129,958)
Net effect of changes in exchange rates on cash	(3,687)	6,127
Net (decrease) increase in cash and cash equivalents	(40,798)	14,118
Cash and cash equivalents at beginning of period	187,675	154,901
Cash and cash equivalents at end of period	\$146,877	\$169,019

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

IDEXX LABORATORIES, INC. AND SUBSIDIARIES

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(Unaudited)

NOTE 1. BASIS OF PRESENTATION AND PRINCIPLES OF CONSOLIDATION

The accompanying unaudited condensed consolidated financial statements of IDEXX Laboratories, Inc. and its subsidiaries have been prepared in accordance with U.S. GAAP for interim financial information and with the requirements of Regulation S-X, Rule 10-01 for financial statements required to be filed as a part of this Quarterly Report on Form 10-Q. Unless the context requires otherwise, references in this Quarterly Report on Form 10-Q to “IDEXX,” the “Company,” “we,” “our,” or “us” refer to IDEXX Laboratories, Inc. and its subsidiaries.

The accompanying unaudited condensed consolidated financial statements include the accounts of IDEXX Laboratories, Inc. and our wholly-owned and majority-owned subsidiaries. We do not have any variable interest entities for which we are the primary beneficiary. All intercompany transactions and balances have been eliminated in consolidation.

The accompanying unaudited condensed consolidated financial statements reflect, in the opinion of our management, all adjustments necessary for a fair statement of our financial position and results of operations. All such adjustments are of a recurring nature. The consolidated balance sheet data at December 31, 2017, was derived from audited financial statements, but does not include all disclosures required by U.S. GAAP. The results of operations for the three and nine months ended September 30, 2018, are not necessarily indicative of the results to be expected for the full year or any future period. These unaudited condensed consolidated financial statements should be read in conjunction with this Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, and our Annual Report on Form 10-K for the year ended December 31, 2017, (the “2017 Annual Report”) filed with the SEC.

For the nine months ended September 30, 2018, changes in stockholders’ equity included (i) changes in other comprehensive income reflected in the unaudited condensed consolidated statements of comprehensive income; (ii) changes in common stock and additional paid-in capital reflected in the unaudited condensed consolidated statements of cash flows (including share-based compensation expense, proceeds from exercise of stock options and employee stock purchase plans and repurchases of common stock); (iii) changes in noncontrolling interest; (iv) changes in net income and (v) adjustments to retained earnings in connection with the adoption of ASU 2014-09 and ASU 2016-16. The cumulative effect of applying these standards was an adjustment of \$12.6 million to the opening balance of retained earnings. See “Note 2. Accounting Policies” for the impact of new accounting pronouncements adopted.

NOTE 2. ACCOUNTING POLICIES

Significant Accounting Policies

The significant accounting policies used in preparation of these unaudited condensed consolidated financial statements for the three and nine months ended September 30, 2018, are consistent with those discussed in Note 2 to the consolidated financial statements in our 2017 Annual Report, except as noted below.

New Accounting Pronouncements Adopted

Effective January 1, 2018, we adopted the New Revenue Standard using the modified retrospective method for all contracts not completed as of the date of adoption.

We recognized the cumulative effect of initially applying the New Revenue Standard as an adjustment to the opening balance of retained earnings. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods presented. As a result of the adoption of ASU 2014-09, we have changed our accounting policy for revenue recognition and the details of the significant changes and quantitative impact of the changes are set out below.

Up-Front Customer Loyalty Programs. Our up-front loyalty programs provide customers with incentives in the form of cash or IDEXX Points upon entering into multi-year agreements to purchase annual minimum amounts of future products or services. Under previous U.S. GAAP, if up-front incentives were subsequently utilized to purchase instruments, we limited instrument revenue to the amount of consideration received from the customer at the time of placement that was not contingent on future purchases and consequently deferred instrument revenue and costs at the time of placement. The New Revenue

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Standard permits revenue recognition at the time of instrument placement when the consideration is committed, but contingent on the purchase of future goods and services. As a result, we have accelerated our recognition of instrument revenues and costs when up-front incentives are used to purchase instruments. The New Revenue Standard did not change our accounting for up-front payments to customers, which continue to be capitalized as customer acquisition costs, within other assets, and subsequently recognized as a reduction to revenue over the term of the agreement. We previously reported deferred instrument revenues and costs within net customer acquisition cost, and upon transition to the New Revenue Standard the decrease in deferred revenue and costs resulted in an increase in our reported customer acquisition costs.

Volume Commitment Programs. Our volume commitment programs provide customers with a free or discounted instrument or system upon entering into multi-year agreements to purchase annual minimum amounts of future products or services and includes our IDEXX 360 program introduced in the first quarter of 2018. Under previous U.S. GAAP, we limited instrument revenue to the amount of consideration received from the customer at the time of placement that was not contingent on future purchases and consequently instrument revenue and cost were recognized over the term of the customer agreement. The New Revenue Standard permits revenue recognition at the time of instrument placement when the consideration is committed, but contingent on the purchase of future goods and services. As a result, we have accelerated recognition on instrument revenues and costs placed through our volume commitment programs. This change resulted in a net increase in current and long-term other assets upon transition to the New Revenue Standard as we recognized contract assets related to instrument revenue recognized in advance of billings, offset by a reduction in previously deferred instrument costs.

Instrument Rebate Programs. Our instrument rebate programs, previously referred to as IDEXX Instrument Marketing Programs, require an instrument purchase and provide customers the opportunity to earn future rebates based on the volume of products and services they purchase over the term of the program. Under previous U.S. GAAP, the total consideration in the contract, including an estimate of future optional purchases, was allocated to all products and services based on their standalone selling prices. This resulted in deferring a portion of instrument revenue related to our obligation to provide future rebate incentives, which was included in accrued liabilities. Under the New Revenue Standard, the total consideration in the contract is limited to only goods and services that the customer is presently obligated to purchase and does not include future purchases that are optional. The customer's right to earn rebates on future purchases is accounted for as a separate performance obligation. The exclusion of optional future purchases resulted in the instrument absorbing a higher relative allocation of future rebates. Therefore, we defer an increased portion of instrument revenue upon placement, which is realized as higher recurring revenue when customers buy future products and services, offsetting future rebates as they are earned. This change resulted in an increase in current and long-term deferred revenue upon transition to the New Revenue Standard and a reduction to accrued and other long-term liabilities for rebate obligations that are now reported as deferred revenues.

Reagent Rental Programs. Our reagent rental programs provide customers the right to use our instruments upon entering into multi-year agreements to purchase annual minimum amounts of consumables. These types of agreements include an embedded operating lease for the right to use our instrument and no instrument revenue is recognized at the time of instrument installation. Under the New Revenue Standard, we continue to recognize a portion of the revenue allocated to the embedded lease concurrent with the future sale of consumables over the term of the agreement. We determine the amount of revenue allocated from the consumable to the embedded lease based on standalone selling prices and determine the rate of lease revenue recognition in proportion to the customer's minimum volume commitment. There was no impact to our consolidated financial statements upon transition to the New Revenue Standard, as a result of our reagent rental programs.

Other Customer Incentive Programs. Certain agreements with customers include discounts or rebates on the sale of products and services applied retrospectively, such as volume rebates achieved by purchasing a specified threshold of goods and services. Under the New Revenue Standard, we continue to record revenue reductions related to these

customer incentive programs and record the related refund obligations in accrued liabilities based on the actual issuance of incentives, incentives earned but not yet issued and estimates of incentives to be earned in the future. There was no impact to our consolidated financial statements upon transition to the New Revenue Standard, as a result of our other customer incentive programs.

IDEXX Points. IDEXX Points may be applied to trade receivables due to us, converted to cash, or applied against the purchase price of IDEXX products and services. Under the New Revenue Standard, we continue to consider IDEXX Points equivalent to cash and IDEXX Points that have not yet been used by customers are included in accrued liabilities until utilized or expired. There was no impact to our consolidated financial statements upon transition to the New Revenue Standard, as a result of IDEXX Points.

Shipping and Delivery. Under previous U.S. GAAP, we recognized revenue and cost from the sales of diagnostic products and accessories upon delivery to the customer because our typical business practice is to cover losses incurred while in transit. Under the New Revenue Standard, revenue and costs are recognized when a customer obtains control of the product based on legal title transfer and our right to payment, which generally occurs at the time of shipment. This resulted in an

acceleration of revenue and cost recognition and an increase in accounts receivable and a reduction in inventories upon transition to the New Revenue Standard.

Costs to Obtain a Contract. Under previous U.S. GAAP, we recognized sales commissions incurred to obtain long-term product and service contracts as sales and marketing expenses as incurred. Under the New Revenue Standard, we defer commissions incurred to obtain long-term contracts, when considered incremental and recoverable. Sales commissions are amortized as sales and marketing expenses consistently with the pattern of transfer for the product or service to which the asset relates. If the expected amortization period is one year or less, the sales commission is expensed when incurred. This change resulted in an increase to other current and long-term assets upon transition to the New Revenue Standard.

Income Taxes. The adoption of the New Revenue Standard primarily resulted in an acceleration of revenues under up-front customer loyalty programs and an increase in deferred revenue under instrument rebate programs, which in turn generated additional deferred tax assets within other long-term assets.

The cumulative effects of the changes made to our consolidated balance sheet as of January 1, 2018, in connection with the adoption of the New Revenue Standard were as follows (in thousands):

	Condensed Consolidated Balance Sheet		
	Previous U.S. GAAP December 31, 2017 (Reported)	New U.S. GAAP January 1, 2018	Attributed to the New Revenue Standard
ASSETS			
Cash, cash equivalents and marketable securities	\$471,930	\$471,930	\$—
Accounts receivable	234,597	237,281	2,684
Inventories	164,318	163,184	(1,134)
Property and equipment, net	379,096	379,096	—
Goodwill and intangible assets, net	243,719	243,719	—
Other assets	219,756	246,481	26,725
TOTAL ASSETS	\$1,713,416	\$1,741,691	\$28,275
LIABILITIES AND STOCKHOLDERS' DEFICIT			
Accounts payable	\$66,968	\$66,968	\$—
Accrued liabilities	253,418	254,381	963
Deferred income tax liabilities	25,353	25,087	(266)
Line of credit and long-term debt	1,261,075	1,261,075	—
Deferred revenue	64,726	110,158	45,432
Other long-term liabilities	95,718	82,840	(12,878)
Total liabilities	1,767,258	1,800,509	33,251
Stockholders' Deficit:			
Retained earnings	803,545	798,569	(4,976)

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All other stockholders' deficit and noncontrolling interest	(857,387)	(857,387)	—
Total stockholders' deficit	(53,842)	(58,818)	(4,976)
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	\$1,713,416	\$1,741,691	\$28,275

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The following tables compare the reported unaudited condensed consolidated balance sheet, statement of operations and cash flows, as of and for the three and nine months ended September 30, 2018, to the balances without the adoption of the New Revenue Standard ("previous U.S. GAAP") (in thousands):

Condensed Consolidated Balance
Sheet
As of September 30, 2018

	Previous U.S. GAAP	New U.S. GAAP (As Reported)	Attributed to the New Revenue Standard
ASSETS			
Cash and cash equivalents	\$ 146,877	\$ 146,877	\$—
Accounts receivable	260,803	264,563	3,760
Inventories	181,830	179,684	(2,146)
Property and equipment, net	409,980	409,980	—
Goodwill and intangible assets, net	258,466	258,466	—
Other assets	245,276	284,960	39,684
TOTAL ASSETS	\$ 1,503,232	\$ 1,544,530	\$ 41,298
LIABILITIES AND STOCKHOLDERS' DEFICIT			
Accounts payable	\$ 65,457	\$ 65,457	\$—
Accrued liabilities	237,904	238,431	527
Deferred income tax liabilities	38,897	39,899	1,002
Line of credit and long-term debt	1,016,916	1,016,916	—
Deferred revenue	63,764	103,696	39,932
Other long-term liabilities	90,420	81,494	(8,926)
Total liabilities	1,513,358	1,545,893	32,535
Stockholders' Deficit:			
Retained earnings	1,073,597	1,082,292	8,695
Accumulated other comprehensive (loss) income	(42,255)	(42,187)	68
All other stockholders' deficit and noncontrolling interest	(1,041,468)	(1,041,468)	—
Total stockholders' deficit	(10,126)	(1,363)	8,763
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	\$ 1,503,232	\$ 1,544,530	\$ 41,298

Condensed Consolidated Statement of Operations

For the Three Months Ended September 30, 2018

For the Nine Months Ended September 30, 2018

	Previous U.S. GAAP	New U.S. GAAP (As Reported)	Attributed to the New Revenue Standard	Previous U.S. GAAP	New U.S. GAAP (As Reported)	Attributed to the New Revenue Standard
Total revenue	\$531,525	\$545,448	\$ 13,923	\$ 1,622,773	\$ 1,663,856	\$ 41,083
Total cost of revenue	231,277	239,805	8,528	698,733	722,675	23,942
Gross profit	300,248	305,643	5,395	924,040	941,181	17,141
Total operating expense	188,725	188,293	(432)	566,672	565,193	(1,479)
Income from operations	111,523	117,350	5,827	357,368	375,988	18,620
Interest expense	(8,453)	(8,453)	—	(26,184)	(26,184)	—
Interest income	394	142	(252)	1,693	893	(800)
Income before provision for income taxes	103,464	109,039	5,575	332,877	350,697	17,820
Provision for income taxes	14,642	15,825	1,183	55,178	59,327	4,149
Net income	\$88,822	\$93,214	\$4,392	\$277,699	\$291,370	\$13,671

Condensed Consolidated
Statement of Cash Flows
For the Nine Months Ended
September 30, 2018

	Previous U.S. GAAP	New U.S. GAAP (As Reported)	Attributed to the New Revenue Standard
Cash Flows from Operating Activities:			
Net income	\$277,699	\$291,370	\$13,671
Adjustments to reconcile net income to net cash provided by operating activities:			
Benefit of deferred income taxes	9,244	12,850	3,606
All other adjustments to reconcile net income to net cash provided by operating activities	86,536	86,536	—
Changes in assets and liabilities, net	(109,043)	(126,320)	(17,277)
Net cash provided by operating activities	\$264,436	\$264,436	\$—

There were no changes to cash flows from investing and financing activities as a result of the adoption of the New Revenue Standard.

Effective January 1, 2018, we adopted FASB ASU 2016-16, Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory, which requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs, even though the pre-tax effects of that transaction

are eliminated in consolidation. We recognized the cumulative effect of applying this standard as an adjustment to the opening balance of retained earnings and a reduction to other long-term assets of \$7.7 million.

Effective January 1, 2018, we adopted FASB ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments, which provides guidance on the statement of cash flows presentation of certain transactions where diversity in practice exists on the classification of certain cash receipts and payments. We adopted this amendment on a retrospective basis. This amendment did not have an impact on our financial statements.

Effective January 1, 2018, we adopted FASB ASU 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash, to add guidance on the classification and presentation of restricted cash. These amendments require that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The adoption of this standard did not have an impact on our financial statements.

Effective January 1, 2018, we adopted FASB ASU 2017-04, Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment, to simplify the measurement of goodwill by eliminating Step 2 from the goodwill impairment test. Instead, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill. The adoption of this standard did not have an impact on our financial statements.

Effective January 1, 2018, we adopted FASB ASU 2017-09, Compensation-Stock Compensation (Topic 718): Scope of Modification Accounting, which provides clarification on accounting for modifications in share-based payment awards. The adoption of this guidance did not have an impact on our consolidated financial statements or related disclosures as there were no modifications to our share-based payment awards during the first nine months of 2018.

In March 2018, we adopted FASB ASU 2018-05, Income Taxes (Topic 740): Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118, which updates the income tax accounting to reflect the SEC's interpretive guidance released on December 22, 2017, when the 2017 Tax Act was signed into law. See "Note 12. Income Taxes."

In April 2018, we early adopted FASB ASU 2017-12, Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities, which amends the hedge accounting recognition and presentation requirements, effective January 1, 2018. The adoption of this guidance allowed us to simplify our procedures to assess critical terms and broadens the application of hedge accounting. The early adoption of this standard did not have a material impact on our consolidated financial statements.

New Accounting Pronouncements Not Yet Adopted

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842) (the "New Leasing Standard"), to increase transparency and comparability among organizations' leasing arrangements. Since then, the FASB has issued updates to ASU 2016-02. The principal difference from previous guidance is that effective upon adoption, the lease assets and lease liabilities arising from operating leases will be recognized in the balance sheet. For public business entities, the amendments in this update are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years, with early adoption permitted. We intend to elect the optional transition method that allows for a cumulative-effect adjustment in the period of adoption and will not restate prior periods. We also intend to elect the transition package of three practical expedients permitted within the New Leasing Standard, which among other things, allows the carryforward of historical lease classifications.

We currently expect that under the New Leasing Standard as a lessee, our operating lease commitments will be recognized as operating lease liabilities and right-of-use assets upon our adoption, which will increase our total assets and total liabilities that we report relative to such amounts prior to adoption. See Note 14 to the consolidated financial statements in our 2017 Annual Report for a summary of undiscounted minimum annual rental payments under operating lease commitments. Upon adoption, we anticipate our portfolio of real estate, vehicle and equipment leases will be relatively consistent with 2017 and therefore assets and liabilities recorded upon adoption will be of a similar magnitude, except they will be recorded on a discounted basis.

While the New Leasing Standard will not impact the overall economics of our products and services sold under customer incentive programs, we currently expect that the New Leasing Standard will require us to classify new instrument placements for certain reagent rental programs as sales-type leases and thus accelerate instrument revenue and cost recognition at the time of placement. Under current U.S. GAAP, instruments placed under our reagent rental

programs are classified as operating leases and instrument revenue and cost is recognized over the term of the program. We do not expect this change to have a material impact on our financial statements. See "Note 3. Revenue Recognition" for a description of our reagent rental programs.

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, to allow a reclassification from accumulated other comprehensive income to retained earnings related to the stranded effects of the 2017 Tax Act. The amendments in this update are effective for all entities for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years with early adoption permitted. In transition, we are required to apply the amendments either in the period of adoption or retrospectively. We are currently evaluating the impact these amendments will have on our consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement ("ASU 2018-13"), which modifies the disclosure requirements of fair value measurements. ASU 2018-13 is effective for fiscal years beginning after December 15, 2019, and early adoption is permitted. The adoption of this guidance is not expected to have a material impact on our consolidated financial statements.

In August 2018, the FASB issued ASU 2018-15, Intangible-Goodwill and Other Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Cost Incurred in a Cloud Computing Arrangement That Is a Service Contract ("ASU 2018-15"), which clarifies the accounting for implementation costs in cloud computing arrangements. ASU 2018-15 is effective for fiscal years beginning after December 15, 2019, and early adoption is permitted. The adoption of this guidance is not expected to have a material impact on our consolidated financial statements.

For a discussion of other accounting standards that have been issued by the FASB but are not yet effective, refer to Note 2. Summary of Significant Accounting Policies - New Accounting Pronouncements Not Yet Adopted in our 2017 Annual Report.

NOTE 3. REVENUE RECOGNITION

Under the New Revenue Standard, revenue is recognized when, or as, performance obligations under the terms of a contract are satisfied, which occurs when control of the promised products or services is transferred to a customer. We exclude sales, use, value-added, and other taxes we collect on behalf of third parties from revenue. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring products or services to a customer. To meet the requirements of the New Revenue Standard and accurately present the consideration received in exchange for promised products or services, we applied the prescribed five-step model outlined below:

1. Identification of a contract or agreement with a customer
2. Identification of our performance obligations in the contract or agreement
3. Determination of the transaction price
4. Allocation of the transaction price to the performance obligations
5. Recognition of revenue when, or as, we satisfy a performance obligation

We enter into contracts that can include various combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations. The timing of revenue recognition, billings, and cash collections results in accounts receivable, contract assets as a result of revenue recognized in advance of billings (included within other assets), and contract liabilities or deferred revenue as a result of receiving consideration in advance of revenue recognition within our unaudited condensed consolidated balance sheet. Our general payment terms range from 30 to 60 days, with exceptions in certain geographies. Below is a listing of our major categories of revenue for our products and services:

Diagnostic Products and Accessories. Diagnostic products and accessories revenues, including IDEXX VetLab consumables and accessories, rapid assay, LPD, Water, and OPTI testing products, are recognized and invoiced at the time of shipment, which is when the customer obtains control of the product based on legal title transfer and we have the right to payment. Shipping costs reimbursed by the customer are included in revenue and cost of sales. As a practical expedient, we do not account for shipping activities as a separate performance obligation.

Reference Laboratory Diagnostic and Consulting Services. Reference laboratory revenues are recognized and invoiced when the laboratory diagnostic service is performed.

Instruments, Software and Systems. CAG Diagnostics capital instruments, veterinary software and diagnostic imaging systems revenues are recognized and invoiced when the customer obtains control of the products based on legal title transfer and we have the right to payment, which generally occurs at the time of installation and customer acceptance. Our instruments, software, and systems are often included in one of our significant customer programs, as further described below. For veterinary software systems that include multiple performance obligations, such as perpetual software licenses and computer hardware, we allocate revenue to each performance obligation based on estimates of the price that we would charge the customer for each promised product or service if it were sold on a standalone basis.

Lease Revenue. Lease revenue on instrument systems under rental agreements and reagent rental programs is recognized on a ratable basis over the term of the agreement. Customers typically pay for rental agreements in equal monthly amounts over the term of the rental agreement. See below for revenue recognition under Reagent Rental Programs.

Extended Warranties and Post-Contract Support. CAG Diagnostics capital instruments and diagnostic imaging systems extended warranties typically provide customers with continued coverage for a period of 1 to 5 years beyond the first-year standard warranty. Customers can either pay in full for the extended warranty at the time of instrument or system purchase or can be billed on a quarterly basis over the term of the contract. We recognize revenue associated with extended warranties over time on a ratable basis using a time elapsed measure of performance over the contract term, which approximates the expected timing in which applicable services are performed.

Veterinary software post-contract support provides customers with access to technical support when and as needed through access to call centers and online customer assistance. Post-contract support contracts typically have a term of 12 months and customers are billed for post-contract support in equal quarterly amounts over the term. We recognize revenue for post-contract support services over time on a ratable basis using a time-elapsed measure of performance over the contract term, which approximates the expected timing in which applicable services are performed.

Upon adoption of the New Revenue Standard on January 1, 2018, our deferred revenue related to extended warranties and post-contract support was \$40.3 million, of which approximately \$2.4 million and \$16.5 million were recognized during the three and nine months ended September 30, 2018, respectively. Furthermore, as a result of new agreements, our deferred revenue related to extended warranties and post-contract support was \$41.1 million at September 30, 2018. We do not disclose information about remaining performance obligations that are part of contracts with an original expected duration of one year or less and do not adjust for the effect of the financing components when the period between customer payment and revenue recognition is one year or less, which are practical expedients provided within the New Revenue Standard. Deferred revenue related to extended warranties and post-contract support with an original duration of more than one year was \$28.0 million at September 30, 2018, of which approximately 7%, 30%, 26% and 37% are expected to be recognized during the remainder of 2018, the full year 2019, the full year 2020, and thereafter, respectively. Additionally, we have determined these agreements do not include a significant financing component.

SaaS Subscriptions. We offer a variety of veterinary software and diagnostic imaging SaaS subscriptions including Neo, Animana, Pet Health Network Pro, Petly Plans, Web PACS, rVetLink, and Smart Flow. We recognize revenue for our SaaS subscriptions over time on a ratable basis over the contract term, beginning on the date our service is made available to the customer. Our subscription contracts vary in term from monthly to 2 years. Customers typically pay for our subscription contracts in equal monthly amounts over the term of the agreement. Deferred revenue related to our SaaS subscriptions is not material.

Contracts with Multiple Performance Obligations. We enter into contracts where customers purchase a combination of IDEXX products and services. Determining whether products and services are considered distinct performance obligations that should be accounted for separately requires significant judgment. We determine the transaction price for a contract based on the consideration we expect to receive in exchange for the transferred goods or services. To the extent the transaction price includes variable consideration, such as volume rebates or expected price adjustments, we apply judgment in constraining the estimated variable consideration due to factors that may cause reversal of revenue recognized. We evaluate constraints based on our historical and projected experience with similar customer contracts.

We allocate revenue to each performance obligation in proportion to the relative standalone selling prices and recognize revenue when transfer of the related goods or services has occurred for each obligation. We utilize the observable standalone selling price when available, which represents the price charged for the performance obligation when sold separately. When standalone selling prices for our products or services are not directly observable we determine the standalone selling prices using relevant information available and apply suitable estimation methods including, but not limited to, the cost plus a margin approach. We recognize revenue as each performance obligation is satisfied, either at a point in time or over time, as described in the revenue categories above. We apply a practical

expedient provided by the New Revenue Standard and do not disclose information about remaining performance obligations that are part of contracts with an original expected duration of one year or less.

The following customer programs represent our most significant customer contracts which contain multiple performance obligations:

Customer Commitment Programs. We offer customer incentives upon entering into multi-year agreements to purchase annual minimum amounts of products and services.

Up-Front Customer Loyalty Programs. Our up-front loyalty programs provide customers with incentives in the form of cash payments or IDEXX Points upon entering into multi-year agreements to

purchase annual minimum amounts of future products or services. If a customer breaches its agreement, they are required to refund all or a portion of the up-front cash or IDEXX Points, or make other repayments, remedial actions, or both. Up-front incentives to customers in the form of cash or IDEXX Points are not made in exchange for distinct goods or services and are capitalized as customer acquisition costs within other assets, which are subsequently recognized as a reduction to revenue over the term of the customer agreement. If these up-front incentives are subsequently utilized to purchase instruments, we allocate total consideration, including future committed purchases less up-front incentives and estimates of expected price adjustments, based on relative standalone selling prices to identified performance obligations and recognize instrument revenue and cost at the time of installation and customer acceptance. We have determined these agreements do not include a significant financing component.

Upon adoption of the New Revenue Standard on January 1, 2018, our capitalized customer acquisition costs were \$107.5 million, of which approximately \$7.1 million and \$21.5 million were recognized as a reduction of revenue during the three and nine months ended September 30, 2018, respectively. Furthermore, as a result of new up-front customer loyalty payments, our capitalized customer acquisition costs were \$119.8 million at September 30, 2018. We monitor customer purchases over the term of their agreement to assess the realizability of our capitalized customer acquisition costs and review estimates of variable consideration. Impairments, revenue adjustments that relate to performance obligations satisfied in prior periods, and contract modifications during the three and nine months ended September 30, 2018, were not material.

Volume Commitment Programs. Our volume commitment programs provide customers with a free or discounted instrument or system upon entering into multi-year agreements to purchase annual minimum amounts of products and services. We allocate total consideration, including future committed purchases and expected price adjustments, based on relative standalone selling prices to identified performance obligations and recognize instrument revenue and cost in advance of billing the customer at the time of installation and customer acceptance, which is also when the customer obtains control of the instrument based on legal title transfer. Our right to future consideration related to instrument revenue is recorded as a contract asset within other current and long-term assets. The contract asset is transferred to accounts receivable when customers are billed for future products and services over the term of the contract. We have determined these agreements do not include a significant financing component.

Upon adoption of the New Revenue Standard on January 1, 2018, our volume commitment contract assets were \$5.6 million, of which approximately \$1.0 million and \$3.4 million were reclassified to accounts receivable when customers were billed for related products and services during the three and nine months ended September 30, 2018, respectively. Furthermore, as a result of new placements under volume commitment programs, our contract assets were \$29.0 million at September 30, 2018. We monitor customer purchases over the term of their agreement to assess the realizability of our contract assets and review estimates of variable consideration. Impairments, revenue adjustments that relate to performance obligations satisfied in prior periods, and contract modifications during the three and nine months ended September 30, 2018, were not material.

For our up-front customer loyalty and volume commitment programs, we estimate future revenues related to multi-year agreements to be approximately \$1.1 billion, of which approximately 7%, 26%, 21%, and 46% are expected to be recognized during the remainder of 2018, the full year 2019, the full year 2020, and thereafter, respectively. These future revenues relate to performance obligations not yet satisfied, for which customers have committed to purchase goods and services, net of the expected revenue reductions from customer acquisition costs and expected price adjustments, and as a result, are lower than stated contractual commitments by our customers.

Instrument Rebate Programs. Our instrument rebate programs, previously referred to as IDEXX Instrument Marketing Programs, require an instrument purchase and provide customers the opportunity to earn future rebates based on the volume of products and services they purchase over the term of the program. We account for the customer's right to earn rebates on future purchases as a separate performance obligation and determine the standalone selling price based

on an estimate of rebates the customer will earn over the term of the program. Total consideration allocated to identified performance obligations is limited to goods and services that the customer is presently obligated to purchase and does not include estimates of future purchases that are optional. We allocate total consideration to identified performance obligations, including customer's right to earn rebates on future purchases, which is deferred and recognized upon the purchase of future products and services, offsetting future rebates as they are earned.

Upon adoption of the New Revenue Standard on January 1, 2018, our deferred revenue related to instrument rebate programs was \$65.9 million, of which approximately \$4.5 million and \$13.7 million were recognized when customers purchased eligible products and services and earned rebates during the three and nine months ended September 30, 2018, respectively. Furthermore, as a result of new instrument purchases under rebate programs, our deferred revenue was \$58.7 million at September 30, 2018, of which approximately 8%, 30%, 24%, and 38% are expected to be recognized during the remainder of 2018, the full year 2019, the full year 2020, and thereafter, respectively.

Reagent Rental Programs. Our reagent rental programs provide our customers the right to use our instruments upon entering into multi-year agreements to purchase annual minimum amounts of consumables. These types of agreements include an embedded operating lease for the right to use our instrument and no instrument revenue is recognized at the time of instrument installation. We determine the amount of lease revenue allocated to the instrument based on relative standalone selling prices and determine the pattern of instrument revenue recognition in proportion to the customer's minimum purchase commitment. The cost of the instrument is capitalized within property and equipment, and is charged to cost of product revenue ratably over the term of the agreement.

We estimate future revenue to be recognized related to these multi-year agreements with customers of approximately \$54.8 million, of which approximately 9%, 34%, 27%, and 30% are expected to be recognized during the remainder of 2018, the full year 2019, the full year 2020, and thereafter, respectively. These future revenues relate to future performance obligations not yet satisfied for which customers have committed to future purchases, net of any expected price adjustments, and as a result, may be lower than stated contractual commitments by our customers.

Other Customer Incentive Programs. Certain agreements with customers include discounts or rebates on the sale of products and services applied retrospectively, such as volume rebates achieved by purchasing a specified purchase threshold of goods and services. We account for these discounts as variable consideration and estimate the likelihood of a customer meeting the threshold in order to determine the transaction price using the most predictive approach. We typically use the most-likely-amount method, for incentives that are offered to individual customers, and the expected-value method, for programs that are offered to a broad group of customers. Revenue adjustments that relate to performance obligations satisfied in prior periods during the three and nine months ended September 30, 2018, were not material. Refund obligations related to customer incentive programs are recorded in accrued liabilities for the actual issuance of incentives, incentives earned but not yet issued and estimates of incentives to be earned in the future.

Program Combinations. At times, we combine elements of our significant customer programs within a single customer contract. We separate each significant program element and include the contract assets, customer acquisition costs, deferred revenues and estimated future revenues within the most relevant program disclosures above. Each customer contract is presented as a net contract asset or net contract liability on our unaudited condensed consolidated balance sheet.

IDEXX Points. IDEXX Points may be applied to trade receivables due to us, converted to cash, or applied against the purchase price of IDEXX products and services. We consider IDEXX Points equivalent to cash and IDEXX Points that have not yet been used by customers are included in accrued liabilities until utilized or expired. Breakage is not material because customers can apply IDEXX Points to trade receivables at any time.

Accounts Receivable. We recognize revenue when it is probable that we will collect substantially all of the consideration to which we will be entitled, based on the customer's intent and ability to pay the promised consideration. We apply judgment in determining the customer's ability and intention to pay, which is based on a variety of factors including the customer's historical payment experience or, in the case of a new customer, published credit and financial information pertaining to the customer. We maintain allowances for doubtful accounts for potentially uncollectible receivables. We base our estimates on a detailed analysis of specific customer situations and

a percentage of our accounts receivable by aging category. Additional allowances may be required if either the financial condition of our customers were to deteriorate, or a strengthening U.S. dollar impacts the ability of foreign customers to make payments to us on their U.S. dollar denominated purchases. Account balances are charged off against the allowance when we believe it is probable the receivable will not be recovered. We do not have any off-balance sheet credit exposure related to our customers. We have no significant customers that accounted for greater than 10% of our consolidated revenues and we have no concentration of credit risk as of September 30, 2018.

Disaggregated Revenues. We present disaggregated revenue for our CAG segment based on major product and service categories. Although Water and LPD do not meet the quantitative thresholds to be reported as separate segments, we believe it is important to disaggregate these revenues as major product and service categories within our Other reportable segment given their distinct markets, and therefore we have elected to report Water and LPD as reportable segments. The following table presents disaggregated revenue by major product and service categories for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2018	2017	2018	2017
CAG segment revenue:				
CAG Diagnostics recurring revenue:	\$409,162	\$364,937	\$1,252,876	\$1,091,936
IDEXX VetLab consumables	152,509	129,434	460,642	385,081
Rapid assay products	53,821	50,924	169,200	159,085
Reference laboratory diagnostic and consulting services	184,103	167,851	568,308	498,218
CAG Diagnostics service and accessories	18,729	16,728	54,726	49,552
CAG Diagnostics capital - instruments	31,561	29,119	97,000	83,018
Veterinary software, services and diagnostic imaging systems	37,374	32,630	106,541	94,907
CAG segment revenue	478,097	426,686	1,456,417	1,269,861
Water segment revenue	33,108	31,030	94,909	85,531
LPD segment revenue	29,420	28,396	96,658	91,266
Other segment revenue	4,823	5,864	15,872	16,279
Total revenue	\$545,448	\$491,976	\$1,663,856	\$1,462,937

Revenue by principal geographic area, based on customers' domiciles, was as follows (in thousands):

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2018	2017	2018	2017
United States	\$340,692	\$301,457	\$1,024,889	\$905,765
Europe, the Middle East and Africa	112,466	106,548	355,310	305,458
Asia Pacific Region	56,954	51,161	175,498	156,198
Canada	22,459	20,654	71,410	62,480
Latin America	12,877	12,156	36,749	33,036
Total	\$545,448	\$491,976	\$1,663,856	\$1,462,937

Costs to Obtain a Contract. We capitalize sales commissions and the related fringe benefits earned by our sales force when considered incremental and recoverable costs of obtaining a contract. Our contracts include performance obligations related to various goods and services, some of which are satisfied at a point in time and others over time. Commission costs related to performance obligations satisfied at a point in time are expensed at the time of sale, which is when revenue is recognized. Commission costs related to long-term service contracts and performance obligations satisfied over time, including extended warranties and SaaS subscriptions are deferred and recognized on a systematic basis that is consistent with the transfer of the goods or services to which the asset relates. We apply judgment in estimating the amortization period, which ranges from 3 to 7 years, by taking into consideration our

customer contract terms, history of renewals, expected length of customer relationship, as well as the useful life of the underlying technology and products. Amortization expense is included in sales and marketing expenses in the accompanying unaudited condensed consolidated statements of operations. Deferred commission costs are periodically reviewed for impairment.

Upon adoption of the New Revenue Standard on January 1, 2018, our deferred commissions costs, included within other assets, were \$11.8 million, of which approximately \$0.8 million and \$2.7 million of commissions expense were recognized during the three and nine months ended September 30, 2018, respectively. Furthermore, as a result of commissions related to new extended warranties and SaaS subscriptions, our deferred commission costs were \$13.3 million at September 30, 2018. Impairments of deferred commission costs during the three and nine months ended September 30, 2018, were not material.

NOTE 4. ACQUISITIONS

We believe that our acquisitions of businesses and other assets enhance our existing businesses by either expanding our geographic range and customer base or expanding our existing product lines.

During the third quarter of 2018, we acquired substantially all of the assets of a software company for \$25.0 million, including a holdback payment of \$1.0 million, to offset possible pre-acquisition indemnity claims and a contingent payment of \$1.5 million. The holdback payment, less settlement of any indemnity claims, will be paid on the second anniversary of the acquisition date, while the contingent payment will be paid within 36 months if certain commercial goals are achieved. This acquisition expands the IDEXX suite of veterinary software offerings and further underscores our commitment to investing in software innovations that advance the veterinary profession. This acquisition was accounted for as a business combination. The preliminary fair value estimate of the assets acquired consist of approximately \$20.3 million of goodwill, representing synergies with our current software product offerings, approximately \$2.6 million in technology intangible assets, approximately \$2.4 million in customer relationship intangible assets, and approximately \$0.3 million of net tangible liabilities. We are still in the process of reviewing our estimates and expect to have the valuation finalized before the end of the fourth quarter of 2018. The goodwill is expected to be deductible for income tax purposes. Pro forma information has not been presented for this acquisition because such information is not material to our financial statements. The results of operations have been included in our CAG segment since the acquisition date. The acquisition expenses incurred were not material.

During the third quarter of 2018, we also acquired a reference laboratory customer list in the United States for approximately \$0.5 million and recorded this transaction as an asset acquisition. The results of operations for this reference laboratory has been included in our CAG segment since the acquisition date.

During the third quarter of 2017, we acquired three reference laboratory customer lists in the United States for approximately \$1.3 million and recorded these transactions as asset acquisitions. The results of operations for these reference laboratories have been included in our CAG segment since the acquisition dates.

During the second quarter of 2017, we acquired the assets of two software companies that expand our suite of technology applications for the veterinary profession, specifically related to patient referral management and other connectivity needs between practices and other parties. The combined purchase price of \$15.0 million consists of \$12.0 million paid at closing and a \$3.0 million contingent payment to be paid within 36 months if certain commercial goals are achieved. The fair value estimate of the assets acquired consists of \$13.3 million of goodwill, representing synergies within our broader CAG portfolio, \$1.0 million of customer relationship intangible assets and \$0.6 million of technology intangible assets. Goodwill related to these acquisitions is expected to be deductible for income tax purposes. The amount of net tangible assets acquired was immaterial. Pro forma information has not been presented for these acquisitions because such information is not material to our financial statements. The results of operations have been included in our CAG segment since the acquisition date.

During the first quarter of 2017, we acquired a reference laboratory in Austria for approximately €1.3 million, with the majority of the acquisition price valued as an intangible asset. This acquisition was accounted for as an acquisition of a business and the results of operations of this reference laboratory have been included in our CAG segment since the acquisition date. Pro forma information has not been presented for this business acquisition because such information is not material to our financial statements.

NOTE 5. SHARE-BASED COMPENSATION

The fair value of options, restricted stock units, deferred stock units, and employee stock purchase rights awarded during the three and nine months ended September 30, 2018, totaled \$0.7 million and \$33.5 million, respectively, as

compared to \$1.5 million and \$31.0 million for the three and nine months ended September 30, 2017, respectively. The total unrecognized compensation expense, net of estimated forfeitures, for unvested share-based compensation awards outstanding at September 30, 2018, was \$57.0 million, which will be recognized over a weighted average period of approximately 1.9 years. During the three and nine months ended September 30, 2018, we recognized expense of \$6.5 million and \$18.9 million, respectively, as compared to \$6.1 million and \$17.8 million for the three and nine months ended September 30, 2017, respectively, related to share-based compensation.

We determine the assumptions used in the valuation of option awards as of the date of grant. Differences in the expected stock price volatility, expected term or risk-free interest rate may necessitate distinct valuation assumptions at each grant date. As such, we may use different assumptions for options granted throughout the year. Option awards are granted with an exercise price equal to the closing market price of our common stock at the date of grant. We have never paid any cash

dividends on our common stock, and we have no intention to pay such a dividend at this time; therefore, we assume that no dividends will be paid over the expected terms of option awards.

The weighted averages of the valuation assumptions used to determine the fair value of each option award on the date of grant and the weighted average estimated fair values were as follows:

	For the Nine Months Ended September 30, 2018 2017			
Share price at grant	\$ 179.56		\$ 142.89	
Expected stock price volatility	24	%	26	%
Expected term, in years	5.8		5.8	
Risk-free interest rate	2.7	%	2.0	%
Weighted average fair value of options granted	\$ 52.99		\$ 40.83	

NOTE 6. MARKETABLE SECURITIES

As a result of the passage of the 2017 Tax Act during the fourth quarter of 2017, we liquidated our marketable securities held outside the U.S. during the first quarter of 2018 and recognized a loss of approximately \$0.3 million. We repatriated these funds and reduced our revolving debt balance during the first quarter of 2018.

The amortized cost and fair value of marketable securities as of December 31, 2017, were as follows (in thousands):

As of December 31, 2017	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Corporate bonds	\$ 140,969	\$ 96	\$ (179)	\$ 140,886
Certificates of deposit	58,510	—	—	58,510
Commercial paper	29,171	—	—	29,171
Asset backed securities	22,206	4	(43)	22,167
U.S. government bonds	15,619	11	(19)	15,611
Agency bonds	10,990	9	(52)	10,947
Treasury bills	6,964	—	(1)	6,963
Total marketable securities	\$ 284,429	\$ 120	\$ (294)	\$ 284,255

We held marketable securities with effective maturities of two years or less that had an average AA- credit rating as of December 31, 2017.

NOTE 7. INVENTORIES

Inventories are stated at the lower of cost (first-in, first-out) or net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. The components of inventories were as follows (in thousands):

	September 30, 2018	December 31, 2017
Raw materials	\$ 33,068	\$ 32,994
Work-in-process	17,696	17,786
Finished goods	128,920	113,538
Inventories (Note 2)	\$ 179,684	\$ 164,318

NOTE 8. PROPERTY AND EQUIPMENT, NET

During the third quarter of 2018, we decided to discontinue the development of our in-house SNAP Fecal product and focus resources and capital on supporting fecal antigen testing within our reference laboratories, which resulted in a \$2.6 million impairment of construction in progress production equipment related to SNAP Fecal. This impairment charge is recorded as general and administrative expense in our CAG reporting segment.

NOTE 9. OTHER CURRENT AND LONG-TERM ASSETS

Other current assets consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Prepaid expenses	\$ 31,997	\$ 28,967
Taxes receivable	23,769	35,475
Customer acquisition costs (Notes 2 and 3)	32,768	23,520
Contract assets (Notes 2 and 3)	7,357	—
Deferred sales commissions (Notes 2 and 3)	4,428	—
Other assets (Notes 2 and 3)	12,754	13,178
Other current assets	\$ 113,073	\$ 101,140

Other long-term assets consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Investment in long-term product supply arrangements	\$ 10,532	\$ 9,949
Customer acquisition costs (Notes 2 and 3)	87,034	64,670
Contract assets (Notes 2 and 3)	21,680	—
Deferred sales commissions (Notes 2 and 3)	8,894	—
Deferred income taxes (Note 2)	8,436	7,698
Other assets (Notes 2 and 3)	35,311	36,299
Other long-term assets	\$ 171,887	\$ 118,616

NOTE 10. ACCRUED LIABILITIES

Accrued liabilities consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Accrued expenses	\$ 61,301	\$ 64,430
Accrued employee compensation and related expenses	87,184	102,944
Accrued taxes	28,082	29,389
Accrued customer incentives and refund obligations (Notes 2 and 3)	61,864	56,655
Total accrued liabilities	\$ 238,431	\$ 253,418

Other long-term liabilities consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Accrued taxes	\$ 63,385	\$ 66,506
Accrued customer incentives (Note 2)	—	12,956
Other accrued long-term expenses	18,109	16,256
Total other long-term liabilities	\$ 81,494	\$ 95,718

NOTE 11. REPURCHASES OF COMMON STOCK

We primarily acquire shares by repurchases in the open market. However, we also acquire shares that are surrendered by employees in payment for the minimum required statutory withholding taxes due on the vesting of restricted stock units and the settlement of deferred stock units, otherwise referred to herein as employee surrenders. We issue shares of treasury stock upon the vesting of certain restricted stock units and upon the exercise of certain stock options. The number of shares of treasury stock issued during the three and nine months ended September 30, 2018 and 2017, was not material.

The following is a summary of our open market common stock repurchases, reported on a trade date basis, and shares acquired through employee surrender for the three and nine months ended September 30, 2018 and 2017 (in thousands, except per share amounts):

	For the Three Months Ended September 30, 2018		For the Nine Months Ended September 30, 2017	
Shares repurchased in the open market	302	312	1,284	1,398
Shares acquired through employee surrender for statutory tax withholding	1	2	50	55
Total shares repurchased	303	314	1,334	1,453
Cost of shares repurchased in the open market	\$73,247	\$50,413	\$265,209	\$215,320
Cost of shares for employee surrenders	390	370	9,110	7,829
Total cost of shares	\$73,637	\$50,783	\$274,319	\$223,149
Average cost per share - open market repurchases	\$242.78	\$161.57	\$206.59	\$153.99
Average cost per share - employee surrenders	\$253.34	\$155.14	\$181.68	\$142.15
Average cost per share - total	\$242.83	\$161.52	\$205.65	\$153.54

NOTE 12. INCOME TAXES

Our effective income tax rate was 14.5% for the three months ended September 30, 2018, as compared to 23.4% for the three months ended September 30, 2017, and 16.9% for the nine months ended September 30, 2018, as compared to 22.8% for the nine months ended September 30, 2017. The decrease in our effective tax rate for each period, as compared to the same periods in the prior year, was primarily related to the reduction in our U.S. statutory tax rate as a result of the 2017 Tax Act and tax benefits related to share-based compensation.

We have accounted for the impacts of the 2017 Tax Act as of December 31, 2017, to the extent a reasonable estimate could be made, and we recognized provisional amounts related to the deemed repatriation tax, offset by the remeasurement of our deferred tax assets and liabilities to record the effects of the tax law change in the period of enactment. This treatment is provided for in ASU 2018-05, which allows a company to record a provisional amount when it does not have the necessary information available, prepared, or analyzed in reasonable detail to complete its accounting for the change in the tax law during the measurement period. The measurement period ends when the company has obtained, prepared, and analyzed the information necessary to finalize its accounting, but cannot extend beyond one year. During the first nine months of 2018, the Internal Revenue Service issued additional guidance providing clarification on certain aspects of the deemed repatriation tax

calculation. The additional guidance did not result in any measurement period adjustments to the provisional amounts recorded as of December 31, 2017. We will continue to monitor for new guidance related to provisional amounts recorded.

NOTE 13. ACCUMULATED OTHER COMPREHENSIVE INCOME

The changes in AOCI, net of tax, for the nine months ended September 30, 2018 consisted of the following (in thousands):

For the Nine Months Ended September 30, 2018	Unrealized (Loss) Gain on Investments, Net of Tax	Unrealized (Loss) Gain on Derivative Instruments, Net of Tax	Unrealized (Loss) Gain on Net Investment Hedge, Net of Tax	Cumulative Translation Adjustment	Total
Balance as of December 31, 2017	\$ (22)	\$ (5,219)	\$ (4,311)	\$ (26,918)	\$ (36,470)
Other comprehensive income (loss) before reclassifications	187	7,514	2,818	(18,172)	(7,653)
Gains reclassified from accumulated other comprehensive income	—	1,936	—	—	1,936
Balance as of September 30, 2018	\$ 165	\$ 4,231	\$ (1,493)	\$ (45,090)	\$ (42,187)

The following is a summary of reclassifications out of AOCI for the three and nine months ended September 30, 2018 and 2017 (in thousands):

Details about AOCI Components	Affected Line Item in the Statement of Operations	Amounts Reclassified from AOCI For the Three Months Ended September 30, 2018	2017
Gains (losses) on derivative instruments classified as cash flow hedges included in net income:			
Foreign currency exchange contracts	Cost of revenue	\$256	\$(893)
	Tax expense (benefits)	153	(333)
	Gains (losses), net of tax	\$103	\$(560)
Details about AOCI Components	Affected Line Item in the Statement of Operations	Amounts Reclassified from AOCI For the Nine	

	Months Ended September 30,	
	2018	2017
(Losses) gains on derivative instruments classified as cash flow hedges included in net income:		
Foreign currency exchange contracts		
Cost of revenue	\$(2,412)	\$935
Tax (benefits) expense	(476)	348
(Losses) gains, net of tax	\$(1,936)	\$587

NOTE 14. EARNINGS PER SHARE

Basic earnings per share is computed by dividing net income attributable to our stockholders by the weighted average number of shares of common stock and vested deferred stock units outstanding during the year. The computation of diluted earnings per share is similar to the computation of basic earnings per share, except that the denominator is increased for the assumed exercise of dilutive options and assumed issuance of unvested restricted stock units and unvested deferred stock units using the treasury stock method unless the effect is anti-dilutive. The treasury stock method assumes that proceeds, including cash received from the exercise of employee stock options and the total unrecognized compensation expense for unvested share-based compensation awards would be used to purchase our common stock at the average market price during the period. Vested deferred stock units outstanding are included in shares outstanding for basic and diluted earnings per share because the associated shares of our common stock are issuable for no cash consideration, the number of shares of our common stock to be issued is fixed and issuance is not contingent. See Note 4 to the consolidated financial statements in our 2017 Annual Report for additional information regarding deferred stock units.

The following is a reconciliation of weighted average shares outstanding for basic and diluted earnings per share for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	For the Three Months Ended September 30, 2018		For the Nine Months Ended September 30, 2017	
Shares outstanding for basic earnings per share	86,756	87,537	87,029	87,884
Shares outstanding for diluted earnings per share:				
Shares outstanding for basic earnings per share	86,756	87,537	87,029	87,884
Dilutive effect of share-based payment awards	1,697	1,719	1,658	1,851
	88,453	89,256	88,687	89,735

Certain options to acquire shares and restricted stock units have been excluded from the calculation of shares outstanding for diluted earnings per share because they were anti-dilutive. There were no anti-dilutive restricted stock units for the three and nine months ended September 30, 2018 and 2017. The following table presents information concerning those anti-dilutive options for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	For the Three Months Ended September 30, 2018		For the Nine Months Ended September 30, 2017	
Weighted average number of shares underlying anti-dilutive options	15	377	274	310

NOTE 15. COMMITMENTS, CONTINGENCIES AND GUARANTEES

We are subject to claims that may arise in the ordinary course of business, including with respect to actual and threatened litigation and other matters. We accrue for loss contingencies when it is probable that future expenditures will be made and such expenditures can be reasonably estimated. However, our actual losses with respect to these contingencies could exceed our accruals. At September 30, 2018, our accruals with respect to actual and threatened litigation were not material.

From time to time, we have received notices alleging that our products infringe third-party proprietary rights, although we are not aware of any pending litigation with respect to such claims. Patent litigation frequently is complex and expensive, and the outcome of patent litigation can be difficult to predict. There can be no assurance that we will prevail in any infringement proceedings that may be commenced against us. If we lose any such litigation, we may be stopped from selling certain products and/or we may be required to pay damages as a result of the litigation.

Significant commitments, contingencies and guarantees at September 30, 2018, are consistent with those discussed in Note 14 to the consolidated financial statements in our 2017 Annual Report.

NOTE 16. SEGMENT REPORTING

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision-maker (“CODM”), or decision-making group, in deciding how to allocate resources and in assessing performance. Our CODM is our Chief Executive Officer. Our reportable segments include diagnostic and information technology-based products and services for the veterinary market, which we refer to as the Companion Animal Group (“CAG”), water quality products (“Water”) and diagnostic products and services for livestock and poultry health and to ensure the quality and safety of milk and improve dairy efficiency, which we refer to as Livestock, Poultry and Dairy (“LPD”). Our Other operating segment combines and presents products for the human point-of-care medical diagnostics market with our pharmaceutical product line and our out-licensing arrangements.

Certain costs are not allocated to our operating segments and are instead reported under the caption “Unallocated Amounts.” These costs include costs that do not align with one of our existing operating segments or are cost prohibitive to allocate, which primarily consist of our R&D function, regional or country expenses, certain foreign currency revaluation gains and losses on monetary balances in currencies other than our subsidiaries’ functional currency and unusual items. Corporate support function costs (such as information technology, facilities, human resources, finance and legal), health benefits and incentive compensation are charged to our business segments at pre-determined budgeted amounts or rates. Differences from these pre-determined budgeted amounts or rates are captured within Unallocated Amounts.

The following is a summary of segment performance for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	For the Three Months Ended September 30,					Consolidated Total
	CAG	Water	LPD	Other	Unallocated Amounts	
2018						
Revenue	\$478,097	\$33,108	\$29,420	\$4,823	\$—	\$ 545,448
Income (loss) from operations	\$102,241	\$15,874	\$4,007	\$443	\$(5,215)	\$ 117,350
Interest expense, net						(8,311)
Income before provision for income taxes						109,039
Provision for income taxes						15,825
Net income						93,214
Less: Net loss attributable to noncontrolling interest						(37)
Net income attributable to IDEXX Laboratories, Inc. stockholders						\$ 93,251
2017						
Revenue	\$426,686	\$31,030	\$28,396	\$5,864	\$—	\$ 491,976
Income (loss) from operations	\$89,271	\$14,505	\$902	\$2,114	\$(6,379)	\$ 100,413
Interest expense, net						(8,364)
Income before provision for income taxes						92,049
Provision for income taxes						21,535

Net income	70,514
Less: Net income attributable to noncontrolling interest	3
Net income attributable to IDEXX Laboratories, Inc. stockholders	\$ 70,511

	For the Nine Months Ended September 30,					Unallocated Amounts	Consolidated Total
	CAG	Water	LPD	Other			
2018							
Revenue	\$1,456,417	\$94,909	\$96,658	\$15,872	\$—		\$1,663,856
Income (loss) from operations	\$332,435	\$43,458	\$13,439	\$2,071	\$(15,415)		\$375,988
Interest expense, net							(25,291)
Income before provision for income taxes							350,697
Provision for income taxes							59,327
Net income							291,370
Less: Net loss attributable to noncontrolling interest							(23)
Net income attributable to IDEXX Laboratories, Inc. stockholders							\$291,393
2017							
Revenue	\$1,269,861	\$85,531	\$91,266	\$16,279	\$—		\$1,462,937
Income (loss) from operations	\$277,857	\$38,421	\$9,880	\$3,275	\$(14,213)		\$315,220
Interest expense, net							(23,849)
Income before provision for income taxes							291,371
Provision for income taxes							66,392
Net income							224,979
Less: Net income attributable to noncontrolling interest							92
Net income attributable to IDEXX Laboratories, Inc. stockholders							\$224,887

See “Note 3. Revenue Recognition” for a summary of disaggregated revenue by reportable segment and by major product and service category for the three and nine months ended September 30, 2018 and 2017.

NOTE 17. FAIR VALUE MEASUREMENTS

U.S. GAAP defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. U.S. GAAP requires an entity to maximize the use of observable inputs, where available, and minimize the use of unobservable inputs when measuring fair value.

We have certain financial assets and liabilities that are measured at fair value on a recurring basis, certain nonfinancial assets and liabilities that may be measured at fair value on a nonrecurring basis and certain financial assets and liabilities that are not measured at fair value in our unaudited condensed consolidated balance sheets but for which we disclose the fair value. The fair value disclosures of these assets and liabilities are based on a three-level hierarchy, which is defined as follows:

- Level 1 Quoted prices in active markets for identical assets or liabilities that the entity can access at the measurement date.
- Level 2 Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market

data for substantially the full term of the assets or liabilities.

Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Assets and liabilities measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. Our assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the asset or liability. We did not have any transfers between Level 1 and Level 2 or transfers in or out of Level 3 of the fair value hierarchy during the three and nine months ended September 30, 2018.

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Our marketable debt securities are initially valued at the transaction price and are subsequently remeasured to fair value as of the balance sheet date utilizing third-party pricing services. The pricing services utilize industry standard valuation models, including both income and market-based approaches and observable market inputs to determine value. Observable market inputs include reportable trades, benchmark yields, credit spreads, broker/dealer quotes, bids, offers and other industry and economic events. We validate the prices provided by our third-party pricing services by obtaining independent market values from other pricing sources and analyzing pricing data in certain instances.

Our cross currency swap contracts are measured at fair value on a recurring basis in our accompanying unaudited condensed consolidated balance sheets. We measure the fair value of our cross currency swap contracts classified as derivative instruments using prevailing market conditions as of the close of business on each balance sheet date. The product of this calculation is then adjusted for counterparty risk.

Our foreign currency exchange contracts are measured at fair value on a recurring basis in our accompanying unaudited condensed consolidated balance sheets. We measure the fair value of our foreign currency exchange contracts classified as derivative instruments using an income approach, based on prevailing market forward rates less the contract rate multiplied by the notional amount. The product of this calculation is then adjusted for counterparty risk.

The amounts outstanding under our unsecured revolving credit facility (“Credit Facility” or “line of credit”) and senior notes (“long-term debt”) are measured at carrying value in our unaudited condensed consolidated balance sheets though we disclose the fair value of these financial instruments. We determine the fair value of the amount outstanding under our Credit Facility and long-term debt using an income approach, utilizing a discounted cash flow analysis based on current market interest rates for debt issues with similar remaining years to maturity, adjusted for applicable credit risk. Our Credit Facility and long-term debt are valued using Level 2 inputs. The estimated fair value of our Credit Facility approximates its carrying value. The estimated fair value and carrying value of our long-term debt were \$601.7 million and \$602.9 million, respectively, as of September 30, 2018, and \$632.0 million and \$606.6 million, respectively, as of December 31, 2017.

The following tables set forth our assets and liabilities that were measured at fair value on a recurring basis at September 30, 2018, and at December 31, 2017, by level within the fair value hierarchy (in thousands):

As of September 30, 2018	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance at September 30, 2018
Assets				
Money market funds ⁽¹⁾	\$ 8,617	\$ —	\$ —	\$ 8,617
Equity mutual funds ⁽²⁾	\$ 1,991	\$ —	\$ —	\$ 1,991
Cross currency swaps ⁽³⁾	—	\$ 148	—	\$ 148
Foreign currency exchange contracts ⁽³⁾	\$ —	\$ 5,808	\$ —	\$ 5,808

Liabilities

Foreign currency exchange contracts ⁽³⁾	\$ —	\$ 744	\$	—\$ 744
Deferred compensation ⁽⁴⁾	\$ 1,991	\$ —	\$	—\$ 1,991

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As of December 31, 2017	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance at December 31, 2017
Assets				
Money market funds ⁽¹⁾	\$ 32,962	\$ —	\$ —	—\$ 32,962
Certificates of deposit ⁽¹⁾	\$ —	\$ 1,250	\$ —	—\$ 1,250
Marketable Securities				
Corporate bonds	\$ —	\$ 140,886	\$ —	—\$ 140,886
Certificates of deposit	—	58,510	—	58,510
Commercial paper	—	29,171	—	29,171
Asset backed securities	—	22,167	—	22,167
U.S. government bonds	—	15,611	—	15,611
Agency bonds	—	10,947	—	10,947
Treasury bills	—	6,963	—	6,963
Total marketable securities	\$ —	\$ 284,255	\$ —	—\$ 284,255
Equity mutual funds ⁽²⁾	\$ 2,162	\$ —	\$ —	—\$ 2,162
Foreign currency exchange contracts ⁽³⁾	\$ —	\$ 477	\$ —	—\$ 477
Liabilities				
Foreign currency exchange contracts ⁽³⁾	\$ —	\$ 6,468	\$ —	—\$ 6,468
Deferred compensation ⁽⁴⁾	\$ 2,162	\$ —	\$ —	—\$ 2,162

Money market funds and certificates of deposit with an original maturity of less than ninety days are included within cash and cash equivalents. The remaining balance of cash and cash equivalents as of September 30, 2018 and December 31, 2017, consisted of demand deposits. Certificates of deposit with an original maturity of over ninety days are included within marketable securities.

Equity mutual funds relate to a deferred compensation plan that was assumed as part of a previous business combination. This amount is included within other long-term assets. See footnote (4) below for a discussion of the related deferred compensation liability.

Cross currency swaps and foreign currency exchange contracts are included within other current assets; other long-term assets; accrued liabilities; or other long-term liabilities depending on the gain (loss) position and anticipated settlement date.

A deferred compensation plan assumed as part of a previous business combination is included within accrued liabilities and other long-term liabilities. The fair value of our deferred compensation plan is indexed to the performance of the underlying equity mutual funds discussed in footnote (2) above.

The estimated fair value of certain financial instruments, including cash and cash equivalents, accounts receivable and accounts payable, approximate carrying value due to their short maturity.

NOTE 18. HEDGING INSTRUMENTS

Disclosure within this note is presented to provide transparency about how and why we use derivative and non-derivative instruments (collectively “hedging instruments”), how the instruments and related hedged items are accounted for, and how the instruments and related hedged items affect our financial position, results of operations and cash flows.

We are exposed to certain risks related to our ongoing business operations. The primary risks that we manage by using hedging instruments are foreign currency exchange risk and interest rate risk. Our subsidiaries enter into foreign currency exchange contracts to manage the exchange risk associated with their forecasted intercompany inventory purchases and sales for the next year. From time to time, we may also enter into other foreign currency exchange contracts, cross currency swaps or foreign-denominated debt issuances to minimize the impact of foreign currency fluctuations associated with specific balance sheet exposures, including net investments in certain foreign subsidiaries. We may also enter into interest rate swaps to minimize the impact of interest rate fluctuations associated with borrowings under our variable-rate Credit Facility.

The primary purpose of our foreign currency hedging activities is to protect against the volatility associated with foreign currency transactions, including transactions denominated in the euro, British pound, Japanese yen, Canadian dollar, Australian dollar, and Swiss franc. We also utilize natural hedges to mitigate our transaction and commitment exposures. Our corporate policy prescribes the range of allowable hedging activity. We enter into foreign currency exchange contracts with well-capitalized multinational financial institutions, and we do not hold or engage in transactions involving derivative

instruments for purposes other than risk management. Our accounting policies for these contracts are based on the designation of such instruments as hedging transactions.

We recognize all hedging instruments on the balance sheet at fair value at the balance sheet date. Instruments that do not qualify for hedge accounting treatment must be recorded at fair value through earnings. To qualify for hedge accounting treatment, cash flow and net investment hedges must be highly effective in offsetting changes to expected future cash flows or fair value on hedged transactions. If the instrument qualifies for hedge accounting, changes in the fair value of the hedging instrument from the effective portion of the hedge are deferred in AOCI, net of tax, and reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. We immediately record in earnings the extent to which a hedging instrument is not effective in achieving offsetting changes in fair value. We de-designate hedging instruments from hedge accounting when the likelihood of the hedged transaction occurring becomes less than probable. For de-designated instruments, the gain or loss from the time of de-designation through maturity of the instrument is recognized in earnings. Any gain or loss in AOCI at the time of de-designation is reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. See “Note 13. Accumulated Other Comprehensive Income” for further information regarding the effect of hedging instruments on our unaudited condensed consolidated statements of operations for the three and nine months ended September 30, 2018 and 2017.

We enter into master netting arrangements with the counterparties to our derivative transactions which permit certain outstanding receivables and payables to be offset in the event of default. Our derivative contracts do not require either party to post cash collateral. We elect to present our derivative assets and liabilities in the unaudited condensed consolidated balance sheets on a gross basis. All cash flows related to our foreign currency exchange contracts are classified as operating cash flows, which is consistent with the cash flow treatment of the underlying items being hedged.

Cash Flow Hedges

We have designated our foreign currency exchange contracts as cash flow hedges as these derivative instruments mitigate the exposure to variability in the cash flows of forecasted transactions attributable to foreign currency exchange. Unless noted otherwise, we have also designated our derivative instruments as qualifying for hedge accounting treatment.

We did not de-designate any instruments from hedge accounting treatment during either the three and nine months ended September 30, 2018 or 2017. At September 30, 2018, the estimated amount of net gains, net of income tax benefit, which are expected to be reclassified out of AOCI and into earnings within the next 12 months, is \$3.0 million if exchange rates do not fluctuate from the levels at September 30, 2018.

We hedge approximately 85% of the estimated exposure from intercompany product purchases and sales denominated in the euro, British pound, Canadian dollar, Japanese yen, Australian dollar, and Swiss franc. We have additional unhedged foreign currency exposures related to foreign services and emerging markets where it is not practical to hedge. We primarily utilize foreign currency exchange contracts with durations of less than 24 months. Quarterly, we enter into contracts to hedge incremental portions of anticipated foreign currency transactions for the current and following year. As a result, our risk with respect to foreign currency exchange rate fluctuations and the notional value of foreign currency exchange contracts may vary throughout the year. The U.S. dollar is the currency purchased or sold in all of our foreign currency exchange contracts. The notional amount of foreign currency exchange contracts to hedge forecasted intercompany inventory purchases and sales totaled \$192.5 million and \$176.5 million at September 30, 2018 and December 31, 2017, respectively.

Net Investment Hedges

In June 2015, we issued and sold through a private placement an aggregate principal amount of €88.9 million in euro-denominated 1.785% Series C Senior Notes due June 18, 2025. We have designated these euro-denominated notes as a hedge of our euro net investment in certain foreign subsidiaries to reduce the volatility in stockholders' equity caused by changes in foreign currency exchange rates in the euro relative to the U.S. dollar. As a result of this designation, gains and losses from the change in translated U.S. dollar value of these euro-denominated notes are recorded in AOCI rather than to earnings. We recorded gains of \$0.6 million and \$2.8 million, net of income tax, within AOCI as a result of this net investment hedge for the three and nine months ended September 30, 2018, respectively. The related cumulative unrealized gain recorded at September 30, 2018, will not be reclassified in earnings until the complete or substantially complete liquidation of the net investment in the hedged foreign operations or a portion of the hedge no longer qualifies for hedge accounting treatment. See Note 11 to the consolidated financial statements included in our 2017 Annual Report for further information regarding the issuance of these euro-denominated notes.

In May 2018, we entered into two cross currency swap contracts as a hedge of our net investment in foreign operations to offset foreign currency translation gains and losses on the net investment. The cross currency swaps have a maturity date of June 30, 2023. At maturity of the cross currency swap contract, we will deliver the notional amount of €50.0 million and will receive approximately \$59.4 million from the counterparties. The change in fair value of the cross currency swap contracts are recorded in AOCI and will be reclassified to earnings when the foreign subsidiaries are sold or substantially liquidated. During the three and nine months ended September 30, 2018, we recorded a loss of \$0.1 million and a gain of \$0.1 million, net of income tax, within AOCI as a result of these net investment hedges, respectively. We will receive quarterly interest payments from the counterparties based on a fixed interest rate until maturity of the cross currency swap. This interest rate component is excluded from the assessment of hedge effectiveness, thus will be recognized as a reduction to interest expense over the life of the hedge instrument. We recognized approximately \$0.4 million and \$0.6 million related to the excluded component as a reduction of interest expense for the three and nine months ended September 30, 2018, respectively.

The following tables present the effect of cash flow hedge accounting on our unaudited condensed consolidated statements of operations and comprehensive income, and provide information regarding the location and amounts of pretax gains or losses of derivatives (in thousands):

		Three Months Ended September 30, 2018 2017	
Financial statement line items in which effects of cash flow hedges are recorded	Cost of revenue	\$239,805	\$217,974
Foreign exchange contracts			
Amount of gain (loss) reclassified from accumulated other comprehensive income into income		\$256	\$(893)
		Nine Months Ended September 30, 2018 2017	
Financial statement line items in which effects of cash flow hedges are recorded	Cost of revenue	\$722,675	\$638,029
Foreign exchange contracts			
Amount of (loss) gain reclassified from accumulated other comprehensive income into income		\$(2,412)	\$935

Fair Values of Hedging Instruments Designated as Hedges in Consolidated Balance Sheets

The fair values of hedging instruments and their respective classification on our unaudited condensed consolidated balance sheets and amounts subject to offset under master netting arrangements consisted of the following derivative instruments, unless otherwise noted (in thousands):

	Hedging Assets September 30, 2018 2017	
Derivatives and non-derivatives designated as hedging instruments		

	Balance Sheet	
	Classification	
Foreign currency exchange contracts	Other current assets	\$4,469 \$ 477
Cross currency swaps	Other current assets	148 —
Foreign currency exchange contracts	Other long-term assets	1,339 —
Total derivative instruments presented as cash flow hedges on the balance sheet		5,956 477
Gross amounts subject to master netting arrangements not offset on the balance sheet		419 477
Net amount		\$5,537 \$ —

		Hedging Liabilities	
		September 30,	December 31,
		2018	2017
Derivatives and non-derivatives designated as hedging instruments	Balance Sheet Classification		
Foreign currency exchange contracts	Accrued liabilities	\$681	\$ 6,468
Foreign currency exchange contracts	Other long-term liabilities	63	—
Total derivative instruments presented as cash flow hedges on the balance sheet		744	6,468
Non-derivative foreign currency denominated debt designated as net investment hedge on the balance sheet ⁽¹⁾	Long-term debt	102,861	106,567
Total hedging instruments presented on the balance sheet		103,605	113,035
Gross amounts subject to master netting arrangements not offset on the balance sheet		419	477
Net amount		\$103,186	\$ 112,558

(1) Amounts represent reported carrying amounts of our foreign currency denominated debt. See Note 17 for information regarding the fair value of our long-term debt.

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

This Quarterly Report on Form 10-Q contains statements which, to the extent they are not statements of historical fact, constitute "forward-looking statements." Such forward-looking statements about our business and expectations within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), include statements relating to future revenue growth rates, future tax benefits; business trends, earnings and other measures of financial performance; the effect of economic downturns on our business performance; projected impact of foreign currency exchange rates; demand for our products; realizability of assets; future cash flow and uses of cash; future repurchases of common stock; future levels of indebtedness and capital spending; interest expense; warranty expense; share-based compensation expense; the adoption and projected impact of new accounting standards; future commercial efforts; and competition. Forward-looking statements can be identified by the use of words such as "expects," "may," "anticipates," "intends," "would," "will," "plans," "believes," "estimates," "should," "project," and similar expressions. These forward-looking statements are intended to provide our current expectations or forecasts of future events; are based on current estimates, projections, beliefs, and assumptions; and are not guarantees of future performance. Actual events or results may differ materially from those described in the forward-looking statements. These forward-looking statements involve a number of risks and uncertainties, including the matters discussed in Item 1A, "Risk Factors" described in our 2017 Annual Report and this Quarterly Report on Form 10-Q, as well as those described from time to time in our other periodic reports filed with the SEC.

Any forward-looking statements represent our estimates only as of the day this Quarterly Report on Form 10-Q was filed with the SEC and should not be relied upon as representing our estimates as of any subsequent date. From time to time, oral or written forward-looking statements may also be included in other materials released to the public. While we may elect to update forward-looking statements at some point in the future, we specifically disclaim any obligation to do so, even if our estimates or expectations change.

You should read the following discussion and analysis in conjunction with our 2017 Annual Report that includes additional information about us, our results of operations, our financial position, and our cash flows, and with our unaudited condensed consolidated financial statements and related notes included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Business Overview

We develop, manufacture, and distribute products and provide services primarily for the companion animal veterinary, livestock, poultry and dairy, and water testing markets. We also sell a line of portable electrolytes and blood gas analyzers for the human point-of-care medical diagnostics market. Our primary products and services are:

- Point-of-care veterinary diagnostic products, comprising instruments, consumables, and rapid assay test kits;
- Veterinary reference laboratory diagnostic and consulting services;
 - Practice management and diagnostic imaging systems and services used by veterinaries;
- Health monitoring, biological materials testing, laboratory diagnostic instruments and services used by the biomedical research community;
- Diagnostic, health-monitoring products for livestock, poultry, and dairy;
- Products that test water for certain microbiological contaminants;
- Point-of-care electrolytes and blood gas analyzers used in the human point-of-care medical diagnostics market.

Operating Segments. We operate primarily through three business segments: diagnostic and information technology-based products and services for the veterinary market, which we refer to as the Companion Animal Group

(“CAG”), water quality products (“Water”) and diagnostic products and services for livestock and poultry health and to ensure the quality and safety of milk and improve dairy reproductive efficiency, which we refer to as Livestock, Poultry and Dairy (“LPD”). Our Other operating segment combines and presents products for the human point-of-care medical diagnostics market (“OPTI Medical”) with our pharmaceutical product line and our out-licensing arrangements because they do not meet the quantitative or qualitative thresholds for reportable segments.

CAG develops, designs, manufactures, and distributes products and performs services for veterinarians and the biomedical analytics market, primarily related to diagnostics and information management. Water develops, designs, manufactures, and distributes a range of products used in the detection of various microbiological parameters in water. LPD develops, designs, manufactures, and distributes diagnostic tests and related software and performs services that are used to manage the health status of livestock and poultry, to improve bovine reproductive efficiency, and to ensure the quality and safety of milk and food. OPTI Medical manufactures and distributes point-of-care electrolyte and blood gas analyzers and related consumable products for the human medical diagnostics market.

Certain costs are not allocated to our operating segments and are instead reported under the caption “Unallocated Amounts.” These costs include costs that do not align with one of our existing operating segments or are cost prohibitive to allocate, which primarily consist of our R&D function, regional or country expenses, certain foreign currency revaluation gains and losses on monetary balances in currencies other than our subsidiaries’ functional currency and unusual items. Corporate support function costs (such as information technology, facilities, human resources, finance and legal), health benefits and incentive compensation are charged to our business segments at pre-determined budgeted amounts or rates. Differences from these pre-determined budgeted amounts or rates are captured within Unallocated Amounts.

Effects of Certain Factors and Trends on Results of Operations

Currency Impact. See “Part I. Item 3. Quantitative and Qualitative Disclosures about Market Risk” included in this Quarterly Report on Form 10-Q for additional information regarding the impact of foreign currency exchange rates.

Other Items. See “Part I. Item 1. Business - Patents and Licenses” and “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in our 2017 Annual Report for additional information regarding distributor purchasing and inventories, economic conditions, and patent expiration.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations is based upon our unaudited condensed consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We evaluate our estimates on an ongoing basis. We base our estimates on historical experience and on various assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates. Excluding the adoption of the New Revenue Standard, the critical accounting policies and the significant judgments and estimates used in the preparation of our unaudited condensed consolidated financial statements for the three and nine months ended September 30, 2018, are consistent with those discussed in our 2017 Annual Report in the section under the heading “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations - Critical Accounting Policies and Estimates.”

Revenue Recognition. We adopted the New Revenue Standard in the first quarter of 2018 on a modified-retrospective basis. While the New Revenue Standard will not impact the overall economics of our products and services sold under customer marketing and incentive programs, it has changed the timing of revenue recognition. For more information regarding the adoption of the New Revenue Standard and new revenue recognition accounting policies, see Note 2 and Note 3, respectively, to the unaudited condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Future market conditions and changes in product offerings may cause us to change marketing strategies to increase or decrease customer incentive offerings, possibly resulting in incremental reductions of revenue in future periods as compared to reductions in the current or prior periods. Additionally, certain customer programs require us to estimate, based on historical experience, and apply judgment to predict the amounts of future customer purchases, customer rebates and other incentive payments, and price adjustments related to multi-year agreements. Differences between estimated and actual customer purchases may impact the amount and timing of revenue recognition. At September 30, 2018, a 5% change in these customer program estimates would have increased or reduced revenue by approximately \$0.6 million.

Recent Accounting Pronouncements

We are evaluating the impact that other recent accounting standards and amendments will have on our consolidated financial statements as described in Note 2 to the unaudited condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Non-GAAP Financial Measures

The following revenue analysis and discussion focuses on organic revenue growth, and references in this analysis and discussion to “revenue,” “revenues” or “revenue growth” are references to “organic revenue growth.” Organic revenue growth is a non-GAAP financial measure and represents the percentage change in revenue during the three and nine months ended September 30, 2018, as compared to the same period for the prior year, net of the effect of changes in foreign currency

exchange rates, business acquisitions, and divestitures. Organic revenue growth should be considered in addition to, and not as a replacement for, or as a superior measure to, revenues reported in accordance with U.S. GAAP, and may not be comparable to similarly titled measures reported by other companies. Management believes that reporting organic revenue growth provides useful information to investors by facilitating easier comparisons of our revenue performance with prior and future periods and to the performance of our peers.

We exclude from organic revenue growth the effect of changes in foreign currency exchange rates because changes in foreign currency exchange rates are not under management's control, are subject to volatility and can obscure underlying business trends. We calculate the impact on revenue resulting from changes in foreign currency exchange rates by applying the difference between the weighted average exchange rates during the current year period and the comparable prior year period to foreign currency denominated revenues for the prior year period.

We also exclude from organic revenue growth the effect of certain business acquisitions and divestitures because the nature, size and number of these transactions can vary dramatically from period to period, and because they either require or generate cash as an inherent consequence of the transaction, and therefore can also obscure underlying business and operating trends. Effective January 1, 2018, we exclude only acquisitions that are considered to be a business from organic revenue growth. We consider acquisitions to be a business when all three elements of inputs, processes and outputs are present, consistent with ASU 2017-01, "Business Combinations: (Topic 805) Clarifying the Definition of a Business." In a business combination, if substantially all the fair value of the assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets, we do not consider these assets to be a business and effective January 1, 2018, we include these acquisitions in organic revenue growth. A typical acquisition that we do not consider a business is a customer list asset acquisition, which does not have all elements necessary to operate a business, such as employees or infrastructure. We believe the efforts required to convert and retain these acquired customers are similar in nature to our existing customer base and therefore are included in organic revenue growth. This change did not have a material impact on organic revenue growth during the three and nine months ended September 30, 2018. Prior to January 1, 2018, we excluded all acquisitions from organic revenue growth and we have not restated previously reported organic revenue growth for the three and nine months ended September 30, 2017, as this change would not have been material.

We also use Adjusted EBITDA, gross debt, net debt, gross debt to Adjusted EBITDA ratio and net debt to Adjusted EBITDA ratio, in this Quarterly Report on Form 10-Q, all of which are non-GAAP financial measures that should be considered in addition to, and not as a replacement for, financial measures presented according to U.S. GAAP. Management believes that reporting these non-GAAP financial measures provides supplemental analysis to help investors further evaluate our business performance and available borrowing capacity under our Credit Facility.

Results of Operations

Three Months Ended September 30, 2018, Compared to Three Months Ended September 30, 2017

Comparison to Prior Periods. Our fiscal quarter ended on September 30. Unless otherwise stated, the analysis and discussion of our financial condition and results of operations below, including references to growth and organic growth and increases and decreases, are being compared to the equivalent prior year period.

Total Company. The following table presents total Company revenue by operating segment:

Net Revenue (dollars in thousands)	For the Three Months Ended September 30,		Dollar Change	Reported Revenue Growth ⁽¹⁾	Percentage Change from Currency	Percentage Change from Acquisitions	Organic Revenue Growth ⁽¹⁾
	2018	2017					
CAG	\$478,097	\$426,686	\$51,411	12.0 %	(1.0 %)	0.1 %	12.9 %
United States	319,561	280,651	38,910	13.9 %	—	0.1 %	13.7 %
International	158,536	146,035	12,501	8.6 %	(2.9 %)	0.1 %	11.4 %
Water	33,108	31,030	2,078	6.7 %	(2.2 %)	—	8.9 %
United States	15,878	14,972	906	6.0 %	—	—	6.0 %
International	17,230	16,058	1,172	7.3 %	(4.4 %)	—	11.8 %
LPD	29,420	28,396	1,024	3.6 %	(3.4 %)	—	7.0 %
United States	3,502	3,576	(74)	(2.1 %)	—	—	(2.1 %)
International	25,918	24,820	1,098	4.4 %	(4.0 %)	—	8.4 %
Other	4,823	5,864	(1,041)	(17.7 %)	—	—	(17.7 %)
Total Company	\$545,448	\$491,976	\$53,472	10.9 %	(1.2 %)	0.1 %	12.0 %
United States	340,692	301,457	39,235	13.0 %	—	0.1 %	12.9 %
International	204,756	190,519	14,237	7.5 %	(3.1 %)	—	10.5 %

(1) Reported revenue growth and organic revenue growth may not recalculate due to rounding.

Total Company Revenue. The increase in both U.S. and international organic revenues was driven by strong volume gains in CAG Diagnostics recurring revenue, supported by our differentiated diagnostic technologies and expanded commercial organization that are driving increased volumes from new and existing customers in our reference laboratory business and the impact of the continued expansion of our CAG Diagnostics instrument installed base. Our Water business also contributed to our international growth, primarily from higher sales volumes of our Colilert test products and related accessories. Total company revenue included approximately \$13.9 million in the third quarter of 2018 that was attributed to the New Revenue Standard.

The following table presents total Company results of operations:

Total Company - Results of Operations (dollars in thousands)	For the Three Months Ended September 30,				Change	
	2018	Percent of Revenue	2017	Percent of Revenue	Amount	Percentage
Revenues	\$545,448		\$491,976		\$53,472	10.9 %
Cost of revenue	239,805		217,974		21,831	10.0 %
Gross profit	305,643	56.0 %	274,002	55.7 %	31,641	11.5 %
Operating Expenses:						
Sales and marketing	95,146	17.4 %	88,818	18.1 %	6,328	7.1 %
General and administrative	63,955	11.7 %	57,186	11.6 %	6,769	11.8 %
Research and development	29,192	5.4 %	27,585	5.6 %	1,607	5.8 %
Total operating expenses	188,293	34.5 %	173,589	35.3 %	14,704	8.5 %
Income from operations	\$117,350	21.5 %	\$100,413	20.4 %	\$16,937	16.9 %

Gross Profit. Gross profit increased due to higher sales volumes and a 30 basis point increase in the gross profit percentage. The increase in the gross profit percentage was driven by lower product costs in our LPD segment and the net benefit of price increases in our CAG Diagnostics recurring revenue portfolio and productivity gains. These impacts were partially offset by higher information technology costs, including costs that were previously captured within operating expenses, increased investments in reference laboratory capacity and employee benefits, as well as unfavorable impacts related to instrument program mix under the New Revenue Standard. The impact from foreign currency movements decreased gross profit margin by less than 10 basis points, including the impact of hedges. Gross profit included approximately \$5.4 million in the third quarter of 2018 attributed to the New Revenue Standard.

Operating Expenses. The increase in sales and marketing expense was primarily due to increased personnel-related costs as we continue to invest in and grow our global commercial infrastructure. The increase in general and administrative expense resulted primarily due to higher personnel-related costs, costs related to the impairment of construction in progress production equipment in connection with the discontinuation of our in-house SNAP Fecal product, and increased information technology investments, partially offset by certain information technology costs that are now captured within cost of revenue. Research and development expense increased primarily due to higher personnel-related costs. The changes in currency exchange rates decreased total operating expenses within our segments, which was offset by foreign exchange losses on settlements of foreign currency denominated transactions recorded within Unallocated Amounts, resulting in an overall decrease in operating expenses of less than 1%.

Companion Animal Group

The following table presents revenue by product and service category for CAG:

Net Revenue (dollars in thousands)	For the Three Months Ended September 30,		Dollar Change	Reported Revenue Growth ⁽¹⁾	Percentage Change		Organic Revenue Growth ⁽¹⁾
	2018	2017			from Currency	from Acquisitions	
CAG Diagnostics recurring revenue:	\$409,162	\$364,937	\$44,225	12.1 %	(1.0)%	—	13.1 %
IDEXX VetLab consumables	152,509	129,434	23,075	17.8 %	(1.3)%	—	19.1 %
Rapid assay products	53,821	50,924	2,897	5.7 %	(0.6)%	—	6.3 %
Reference laboratory diagnostic and consulting services	184,103	167,851	16,252	9.7 %	(0.8)%	—	10.5 %
CAG diagnostics services and accessories	18,729	16,728	2,001	12.0 %	(1.2)%	—	13.2 %
CAG Diagnostics capital - instruments	31,561	29,119	2,442	8.4 %	(2.1)%	—	10.4 %
Veterinary software, services and diagnostic imaging systems	37,374	32,630	4,744	14.5 %	(0.4)%	1.4 %	13.5 %
Net CAG revenue	\$478,097	\$426,686	\$51,411	12.0 %	(1.0)%	0.1 %	12.9 %

(1) Reported revenue growth and organic revenue growth may not recalculate due to rounding

CAG Diagnostics Recurring Revenue. The increase in CAG Diagnostics recurring revenue was primarily due to increased volumes in IDEXX VetLab consumables and reference laboratory diagnostic services, supported by our differentiated diagnostic technologies, expanded commercial organization, and to a lesser extent, higher realized prices. CAG Diagnostics recurring revenue included approximately \$5.2 million in the third quarter of 2018 that was attributed to the New Revenue Standard.

IDEXX VetLab consumables revenue growth was primarily due to higher sales volumes in the U.S., Europe, and the Asia-Pacific region for our Catalyst consumables, and to a lesser extent, Procyte Dx[®] consumables and Sedivue Dx[®] analyzer pay-per-run sales, supported by growth in testing by new and existing customers and our expanded menu of available tests, as well as benefits from higher average unit sales prices. IDEXX VetLab consumables revenue included approximately \$3.1 million in the third quarter of 2018 that was attributed to the New Revenue Standard.

The increase in rapid assay revenue resulted from higher sales volumes of canine SNAP[®] 4Dx Plus and single analyte SNAP products. Rapid assay revenue included \$0.6 million in the third quarter of 2018 that was attributed to the New Revenue Standard.

The increase in reference laboratory diagnostic and consulting services revenue was primarily due to the impact of higher testing volumes primarily in the U.S., resulting from increased testing from new and existing customers, supported by our differentiated diagnostic technologies, such as IDEXX SDMA[™] and fecal antigen testing, and to a lesser extent, higher average unit sales prices. Reference laboratory diagnostic and consulting revenue included approximately \$1.4 million in the third quarter of 2018 that was attributed to the New Revenue Standard.

CAG Diagnostics services and accessories revenue growth was primarily a result of the increase in our active installed base of instruments.

CAG Diagnostics Capital – Instruments Revenue. The increase in instrument revenue reflects increased placements of Catalyst, SediVue Dx, and Procyte Dx analyzers, supported by our volume commitment program that we refer to as IDEXX 360. The success of our IDEXX 360 program caused a shift away from both our instrument rebate and reagent rental programs which resulted in increased upfront instrument revenue recognition attributed to the New Revenue Standard. CAG Diagnostics

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capital instrument revenue included approximately \$6.9 million in the third quarter of 2018 that was attributed to the New Revenue Standard.

Veterinary Software, Services and Diagnostic Imaging Systems Revenue. The increase in revenue was primarily due to increased diagnostic imaging system placements and higher veterinary subscription service revenue, partially offset by lower diagnostic imaging system prices. Veterinary software, services and diagnostic imaging revenue included approximately \$1.6 million in the third quarter of 2018 attributed to the New Revenue Standard. Our acquisition of a software company in the third quarter of 2018 also contributed 1.4% to reported revenue growth.

The following table presents the CAG segment results of operations:

Results of Operations (dollars in thousands)	For the Three Months Ended September 30,				Change	
	2018	Percent of Revenue	2017	Percent of Revenue	Amount	Percentage
Revenues	\$478,097		\$426,686		\$51,411	12.0 %
Cost of revenue	216,235		191,920		24,315	12.7 %
Gross profit	261,862	54.8 %	234,766	55.0 %	27,096	11.5 %
Operating Expenses:						
Sales and marketing	85,655	17.9 %	78,684	18.4 %	6,971	8.9 %
General and administrative	52,113	10.9 %	46,624	10.9 %	5,489	11.8 %
Research and development	21,853	4.6 %	20,187	4.7 %	1,666	8.3 %
Total operating expenses	159,621	33.4 %	145,495	34.1 %	14,126	9.7 %
Income from operations	\$102,241	21.4 %	\$89,271	20.9 %	\$12,970	14.5 %

Gross Profit. Gross profit increased primarily due to higher sales volume and was offset by a 20 basis point decrease in the gross profit percentage. The decrease in gross profit percentage was driven by higher information technology costs, including costs that were previously captured within operating expenses, increased investments in reference laboratory capacity and employee benefits, as well as unfavorable impacts related to instrument program mix under the New Revenue Standard. These impacts were partially offset by the net benefit of price increases in our CAG Diagnostics recurring revenue portfolio and productivity gains. The impact from foreign currency movements had an immaterial impact to the gross profit margin. Gross profit included approximately \$5.3 million in the third quarter of 2018 attributed to the New Revenue Standard.

Operating Expenses. The increase in sales and marketing expense was primarily due to increased personnel-related costs as we continue to invest in our global commercial infrastructure, offset by approximately \$0.5 million related to net deferred costs to obtain contracts under the New Revenue Standard. The increase in general and administrative expense was the result of higher personnel-related costs, costs related to the impairment of construction in progress production equipment in connection with the discontinuation of our in-house SNAP Fecal product, and incremental information technology investments, partially offset by certain information technology costs that are now captured within cost of revenue. The increase in research and development expense was primarily due to increased personnel-related costs. The overall change in currency exchange rates decreased operating expenses by approximately 1%.

Water

The following table presents the Water segment results of operations:

Results of Operations (dollars in thousands)	For the Three Months Ended September 30,				Change	
	2018	Percent of Revenue	2017	Percent of Revenue	Amount	Percentage
Revenues	\$33,108		\$31,030		\$2,078	6.7 %
Cost of revenue	9,685		9,401		284	3.0 %
Gross profit	23,423	70.7 %	21,629	69.7 %	1,794	8.3 %
Operating Expenses:						
Sales and marketing	3,823	11.5 %	3,546	11.4 %	277	7.8 %
General and administrative	3,086	9.3 %	2,949	9.5 %	137	4.6 %
Research and development	640	1.9 %	629	2.0 %	11	1.7 %
Total operating expenses	7,549	22.8 %	7,124	23.0 %	425	6.0 %
Income from operations	\$15,874	47.9 %	\$14,505	46.7 %	\$1,369	9.4 %

Revenue. The increase in revenue was attributable to higher sales volumes of our Colilert test products and related accessories used in coliform and E. coli testing in North America and Latin America, and to a lesser extent, the benefit of price increases. The impact of currency movements decreased revenue by approximately 2%. The New Revenue Standard did not have a material impact on Water revenue in the third quarter of 2018.

Gross Profit. Gross profit increased due to higher sales volumes as well as a 100 basis point increase in the gross profit percentage. The increase in the gross profit percentage was primarily due to the net benefit of price increases and decreases in manufacturing costs, partially offset by higher distribution costs. The impact from foreign currency movements was immaterial. The New Revenue Standard did not have a material impact on Water gross profit in the third quarter of 2018.

Operating Expenses. The increase in sales and marketing expense was primarily due to higher personnel-related costs. General and administrative expenses increased primarily due to personnel-related costs and consultant fees. Research and development expense was relatively unchanged. The overall change in currency exchange rates resulted in a decrease in operating expenses of approximately 2%.

Livestock, Poultry and Dairy

The following table presents the LPD segment results of operations:

Results of Operations (dollars in thousands)	For the Three Months Ended September 30,				Change	
	2018	Percent of Revenue	2017	Percent of Revenue	Amount	Percentage
Revenues	\$29,420		\$28,396		\$1,024	3.6 %
Cost of revenue	12,187		13,740		(1,553)	(11.3 %)
Gross profit	17,233	58.6 %	14,656	51.6 %	2,577	17.6 %
Operating Expenses:						
Sales and marketing	5,728	19.5 %	6,052	21.3 %	(324)	(5.4 %)
General and administrative	4,684	15.9 %	4,765	16.8 %	(81)	(1.7 %)
Research and development	2,814	9.6 %	2,937	10.3 %	(123)	(4.2 %)
Total operating expenses	13,226	45.0 %	13,754	48.4 %	(528)	(3.8 %)
Income from operations	\$4,007	13.6 %	\$902	3.2 %	\$3,105	344.2 %

Revenue. The increase in revenue was primarily due to higher herd health screening in the Asia-Pacific region and poultry testing across many regions, as well as the benefit of price increases. These increases were partially offset by the impact of an African swine fever outbreak in China. We also continue to experience pressure in our dairy business, including impacts of lower milk prices. The unfavorable impact of currency movements decreased revenue by approximately 3%. The New Revenue Standard did not have a material impact on LPD revenue in the third quarter of 2018.

Gross Profit. The increase in gross profit was due to higher sales volumes as well as a 7% increase in the gross profit percentage. The increase in the gross profit percentage was primarily due to lower product costs, as well as favorable product mix driven by higher herd health screening. The impact from foreign currency movements increased gross profit margin by less than 10 basis points, including the impact of hedges.

Operating Expenses. The decrease in sales and marketing expense was primarily due to lower personnel-related costs. General and administrative and research and development costs were consistent as compared to the prior period. The overall change in currency exchange rates resulted in a decrease in operating expenses of approximately 3%.

Other

The following table presents the Other results of operations:

Results of Operations (dollars in thousands)	For the Three Months Ended September 30,				Change	
	2018	Percent of Revenue	2017	Percent of Revenue	Amount	Percentage
Revenues	\$4,823		\$5,864		\$(1,041)	(17.8 %)
Cost of revenue	2,171		2,252		(81)	(3.6 %)
Gross profit	2,652	55.0 %	3,612	61.6 %	(960)	(26.6 %)
Operating Expenses:						
Sales and marketing	423	8.8 %	438	7.5 %	(15)	(3.4 %)
General and administrative	1,557	32.3 %	843	14.4 %	714	84.7 %
Research and development	229	4.7 %	217	3.7 %	12	5.5 %
Total operating expenses	2,209	45.8 %	1,498	25.5 %	711	47.5 %
Income from operations	\$443	9.2 %	\$2,114	36.1 %	\$(1,671)	(79.0 %)

Revenue. The decrease in revenue was due to lower volumes of our OPTI Medical analyzers and related consumables in the Middle East and Asia, partially offset by higher realized prices of our OPTI Medical products and services. The impact of currency movements on revenue was immaterial.

Gross Profit. The decrease in gross profit was due to a 6.6% decrease in the gross profit percentage primarily due to unfavorable product mix and higher service and distribution expense, partially offset by higher OPTI Medical realized prices. The overall change in currency exchange rates had an immaterial impact on the gross profit percentage.

Operating Expenses. The increase in general and administrative expenses were primarily due to bad debt reserves established as a result of the impact of economic and political instability on certain customers in the Middle East. Sales and marketing and research and development costs were consistent as compared to the prior period.

Unallocated Amounts

We estimate certain personnel-related costs and allocate these budgeted expenses to the operating segments. This allocation differs from actual expense and consequently yields a difference that is reported under the caption “Unallocated Amounts.”

The following table presents the Unallocated Amounts results of operations:

Results of Operations (dollars in thousands)	For the Three Months Ended September 30,		Change	
	2018	2017	Amount	Percentage
Revenues	\$—	\$—	\$—	—
Cost of revenue	(473)	661	(1,134)	NM
Gross profit	473	(661)	1,134	NM
Operating Expenses:				
Sales and marketing	(483)	98	(581)	NM
General and administrative	2,515	2,005	510	25.4 %
Research and development	3,656	3,615	41	1.1 %
Total operating expenses	5,688	5,718	(30)	(0.5 %)
Loss from operations	\$(5,215)	\$(6,379)	\$1,164	(18.2 %)

NM - Not Meaningful

Unallocated Amounts. The net change in cost of revenue and operating expenses was primarily due to lower unallocated employee benefit and incentive costs, as well as corporate function costs as a result of increased allocations to our segments, largely offset by foreign exchange losses on settlements of foreign currency denominated transactions compared to gains in the prior period.

Non-Operating Items

Interest Income. Interest income was \$0.1 million for the three months ended September 30, 2018, as compared to \$1.4 million for the three months ended September 30, 2017. The decrease in interest income was primarily due to the liquidation of our portfolio of marketable securities during the first quarter of 2018. We do not anticipate any material interest income for the remainder of 2018. The adoption of the New Revenue Standard decreased interest income by approximately \$0.3 million in the third quarter of 2018.

Interest Expense. Interest expense was \$8.5 million for the three months ended September 30, 2018, as compared to \$9.8 million for the same period in the prior year. The decrease in interest expense was due to a lower average balance on our Credit Facility, partially offset by higher variable interest rates.

Provision for Income Taxes. Our effective income tax rate was 14.5% for the three months ended September 30, 2018, as compared to 23.4% for the three months ended September 30, 2017. The decrease in our effective tax rate was primarily related to the reduction in our U.S. statutory tax rate as a result of the 2017 Tax Act and tax benefits related to share-based compensation.

Results of Operations

Nine Months Ended September 30, 2018, Compared to Nine Months Ended September 30, 2017

Comparison to Prior Periods. Our nine month period ended on September 30. Unless otherwise stated, the analysis and discussion of our financial condition and results of operations below, including references to growth and organic growth and increases and decreases, are being compared to the equivalent prior year period.

Total Company. The following table presents total Company revenue by operating segment:

Net Revenue (dollars in thousands)	For the Nine Months Ended September 30,		Dollar Change	Reported Revenue Growth ⁽¹⁾	Percentage Change from Currency		Percentage Change from Acquisitions		Organic Revenue Growth ⁽¹⁾
	2018	2017							
CAG	\$1,456,417	\$1,269,861	\$186,556	14.7 %	1.5 %	0.1 %	13.1 %		
United States	962,712	846,968	115,744	13.7 %	—	0.1 %	13.6 %		
International	493,705	422,893	70,812	16.7 %	4.3 %	—	12.4 %		
Water	94,909	85,531	9,378	11.0 %	1.1 %	—	9.8 %		
United States	45,539	42,357	3,182	7.5 %	—	—	7.5 %		
International	49,370	43,174	6,196	14.4 %	2.3 %	—	12.1 %		
LPD	96,658	91,266	5,392	5.9 %	3.1 %	—	2.8 %		
United States	10,496	10,493	3	—	—	—	—		
International	86,162	80,773	5,389	6.7 %	3.5 %	—	3.2 %		
Other	15,872	16,279	(407)	(2.5 %)	0.5 %	—	(3.0 %)		
Total Company	\$1,663,856	\$1,462,937	\$200,919	13.7 %	1.5 %	0.1 %	12.1 %		
United States	1,024,889	905,765	119,124	13.2 %	—	0.1 %	13.0 %		
International	638,967	557,172	81,795	14.7 %	4.0 %	—	10.7 %		

(1) Reported revenue growth and organic revenue growth may not recalculate due to rounding.

Total Company Revenue. The increase in both U.S. and international organic revenues was driven by strong volume gains in CAG Diagnostics recurring revenue, supported by our differentiated diagnostic technologies and expanded commercial organization that are driving increased volumes from new and existing customers in our reference laboratory business and the continued expansion of our CAG Diagnostics instrument installed base. Our Water business also contributed to our international growth, primarily from higher sales volumes of our Colilert test products and related accessories. Total company revenue included approximately \$41.1 million in the first nine months of 2018 that was attributed to the New Revenue Standard.

The following table presents total Company results of operations:

Total Company - Results of Operations (dollars in thousands)	For the Nine Months Ended September 30,				Change	
	2018	Percent of Revenue	2017	Percent of Revenue	Amount	Percentage
Revenues	\$1,663,856		\$1,462,937		\$200,919	13.7 %
Cost of revenue	722,675		638,029		84,646	13.3 %
Gross profit	941,181	56.6 %	824,908	56.4 %	116,273	14.1 %
Operating Expenses:						
Sales and marketing	291,502	17.5 %	263,755	18.0 %	27,747	10.5 %
General and administrative	185,966	11.2 %	165,560	11.3 %	20,406	12.3 %
Research and development	87,725	5.3 %	80,373	5.5 %	7,352	9.1 %
Total operating expenses	565,193	34.0 %	509,688	34.8 %	55,505	10.9 %
Income from operations	\$375,988	22.6 %	\$315,220	21.5 %	\$60,768	19.3 %

Gross Profit. Gross profit increased due to higher sales volumes and a 20 basis point increase in the gross profit percentage. The increase in the gross profit percentage was supported by the net benefit of price increases in our CAG Diagnostics recurring revenue portfolio, the favorable impact of lower product costs and productivity gains. These impacts were partially offset by higher information technology costs, including costs that were previously captured within operating expenses, increased investments in reference laboratory capacity and employee benefits, as well as unfavorable impacts related to instrument program mix under the New Revenue Standard. The impact from foreign currency movements including the impact of hedge gains in the prior period compared to hedge losses in the current period did not have a material impact. Gross profit included approximately \$17.1 million in the first nine months of 2018 attributed to the New Revenue Standard.

Operating Expenses. The increase in sales and marketing expense was primarily due to increased personnel-related costs as we continue to invest in and grow our global commercial infrastructure. The increase in general and administrative expense resulted primarily from higher personnel-related costs, foreign exchange losses on settlements of foreign currency denominated transactions compared to gains in the prior period, information technology investments, including ongoing depreciation and maintenance associated with prior year projects, and costs related to the impairment of construction in progress production equipment in connection with the discontinuation of our in-house SNAP Fecal product. These increases were partially offset by certain information technology costs that are now captured within cost of revenue. Research and development expense increased primarily due to higher personnel-related costs. The overall change in currency exchange rates resulted in an increase in operating expenses of approximately 2%, including foreign exchange losses on settlements of foreign currency denominated transactions recorded within Unallocated Amounts.

Companion Animal Group

The following table presents revenue by product and service category for CAG:

Net Revenue (dollars in thousands)	For the Nine Months Ended September 30,			Reported Revenue Growth (1)	Percentage Change from Current	Percentage Change from Acquisitions	Organic Revenue Growth (1)
	2018	2017	Dollar Change				
CAG Diagnostics recurring revenue:	\$1,252,876	\$1,091,936	\$160,940	14.7 %	1.5%	—	13.2 %
IDEXX VetLab consumables	460,642	385,081	75,561	19.6 %	1.7%	—	17.9 %
Rapid assay products	169,200	159,085	10,115	6.4 %	0.7%	—	5.7 %
Reference laboratory diagnostic and consulting services	568,308	498,218	70,090	14.1 %	1.6%	—	12.5 %
CAG diagnostics services and accessories	54,726	49,552	5,174	10.4 %	1.6%	—	8.8 %
CAG Diagnostics capital - instruments	97,000	83,018	13,982	16.8 %	2.1%	—	14.7 %
Veterinary software, services and diagnostic imaging systems	106,541	94,907	11,634	12.3 %	0.3%	1.1 %	10.8 %
Net CAG revenue	\$1,456,417	\$1,269,861	\$186,556	14.7 %	1.5%	0.1 %	13.1 %

(1) Reported revenue growth and organic revenue growth may not recalculate due to rounding

CAG Diagnostics Recurring Revenue. The increase in CAG Diagnostics recurring revenue was primarily due to increased volumes in IDEXX VetLab consumables and reference laboratory diagnostic services, supported by our differentiated diagnostic technologies, expanded commercial organization, and to a lesser extent, higher realized prices. CAG Diagnostics recurring revenue included approximately \$14.2 million in the first nine months of 2018 that was attributed to the New Revenue Standard.

IDEXX VetLab consumables revenue growth was primarily due to higher sales volumes in the U.S., Europe, and the Asia-Pacific region for our Catalyst consumables, and to a lesser extent Procyte Dx consumables and Sedivue Dx analyzer pay-per-run sales, supported by growth in testing by new and existing customers and our expanded menu of available tests, as well as benefits from higher average unit sales prices. IDEXX VetLab consumables revenue included approximately \$9.2 million in the first nine months of 2018 that was attributed to the New Revenue Standard.

The increase in rapid assay revenue resulted from higher sales volumes and average unit prices of canine SNAP® 4Dx Plus tests and higher sales volumes of single analyte SNAP products. Rapid assay revenue included approximately \$0.9 million in the first nine months of 2018 that was attributed to the New Revenue Standard.

The increase in reference laboratory diagnostic and consulting services revenue was primarily due to the impact of higher testing volumes throughout our worldwide network of laboratories, most prominently in the U.S., resulting from increased testing from new and existing customers, supported by our differentiated diagnostic technologies, such as IDEXX SDMA™ and fecal antigen testing, and to a lesser extent, higher average unit sales prices. Reference laboratory diagnostic and consulting revenue included approximately \$4.2 million during the first nine months of 2018 that was attributed to the New Revenue Standard.

CAG Diagnostics services and accessories revenue growth was primarily a result of the increase in our active installed base of instruments.

CAG Diagnostics Capital – Instruments Revenue. The increase in instrument revenue reflects increased placements of Catalyst, SediVue Dx, and to a lesser extent, Procyte Dx analyzers, supported by the introduction of IDEXX 360 in the first quarter of 2018. The success of our IDEXX 360 program caused a shift away from both our instrument rebate and reagent

rental programs, which resulted in increased upfront instrument revenue recognition attributed to the New Revenue Standard. CAG Diagnostics capital instrument revenue included approximately \$22.6 million in the first nine months of 2018 that was attributed to the New Revenue Standard.

Veterinary Software, Services and Diagnostic Imaging Systems Revenue. The increase in revenue was primarily due to increased diagnostic imaging system placements and higher veterinary subscription service revenue, partially offset by lower relative diagnostic imaging system prices. Veterinary software, services and diagnostic imaging revenue included approximately \$3.7 million in the first nine months of 2018 attributed to the New Revenue Standard. Our acquisition of a software company in the third quarter of 2018 and two software companies in the second quarter of 2017 also contributed 1.1% to reported revenue growth.

The following table presents the CAG segment results of operations:

Results of Operations (dollars in thousands)	For the Nine Months Ended September 30,				Change	
	2018	Percent of Revenue	2017	Percent of Revenue	Amount	Percentage
Revenues	\$1,456,417		\$1,269,861		\$186,556	14.7 %
Cost of revenue	646,712		563,939		82,773	14.7 %
Gross profit	809,705	55.6 %	705,922	55.6 %	103,783	14.7 %
Operating Expenses:						
Sales and marketing	259,429	17.8 %	232,840	18.3 %	26,589	11.4 %
General and administrative	153,241	10.5 %	136,087	10.7 %	17,154	12.6 %
Research and development	64,600	4.4 %	59,138	4.7 %	5,462	9.2 %
Total operating expenses	477,270	32.8 %	428,065	33.7 %	49,205	11.5 %
Income from operations	\$332,435	22.8 %	\$277,857	21.9 %	\$54,578	19.6 %

Gross Profit. Gross profit increased primarily due to higher sales volume. The gross profit percentage was relatively unchanged. The net benefit of price increases in our CAG Diagnostics recurring revenue portfolio and the favorable impact of productivity gains were offset by higher information technology costs, including costs that were previously captured within operating expenses, as well as increased investments in reference laboratory capacity and employee benefits, as well as unfavorable impacts related to instrument program mix under the New Revenue Standard. The impact from foreign currency movements had an immaterial impact on the gross profit margin. Gross profit included approximately \$16.7 million in the first nine months of 2018 attributed to the New Revenue Standard.

Operating Expenses. The increase in sales and marketing expense was primarily due to increased personnel-related costs as we continue to invest in our global commercial infrastructure, offset by approximately \$1.5 million related to net deferred costs to obtain contracts under the New Revenue Standard. The increase in general and administrative expense resulted primarily from higher personnel-related costs, incremental information technology investments, and costs related to the impairment of construction in progress production equipment in connection with the discontinuation of our in-house SNAP Fecal product. These increases were partially offset by certain information technology costs that are now captured within cost of revenue. The increase in research and development expense was primarily due to increased personnel-related costs. The overall change in currency exchange rates resulted in an increase in operating expenses by approximately 1%.

Water

The following table presents the Water segment results of operations:

Results of Operations (dollars in thousands)	For the Nine Months Ended September 30,				Change	
	2018	Percent of Revenue	2017	Percent of Revenue	Amount	Percentage
Revenues	\$94,909		\$85,531		\$9,378	11.0 %
Cost of revenue	28,045		25,775		2,270	8.8 %
Gross profit	66,864	70.5 %	59,756	69.9 %	7,108	11.9 %
Operating Expenses:						
Sales and marketing	11,991	12.6 %	10,714	12.5 %	1,277	11.9 %
General and administrative	9,484	10.0 %	8,734	10.2 %	750	8.6 %
Research and development	1,931	2.0 %	1,887	2.2 %	44	2.3 %
Total operating expenses	23,406	24.7 %	21,335	24.9 %	2,071	9.7 %
Income from operations	\$43,458	45.8 %	\$38,421	44.9 %	\$5,037	13.1 %

Revenue. The increase in revenue was attributable to higher sales volumes of our Colilert test products and related accessories, used in coliform and E. coli testing in North America and Latin America and to a lesser extent, the benefit of price increases. Revenue growth in Latin America was driven by our go-direct initiative in Brazil, which contributed approximately 1% to revenue growth, including the impact of reductions in distributor inventories in the prior year and the benefit of price increases in the current year. Water revenue of approximately \$0.6 million in the first nine months of 2018 was attributed to the New Revenue Standard, as a result of accelerated revenue recognition upon shipping to the customer instead of delivery to the customer. The favorable impact of currency movements increased revenue by approximately 1%.

Gross Profit. Gross profit increased due to higher sales volumes as well as a 60 basis point increase in the gross profit percentage. The increase in the gross profit percentage was primarily due to the net benefit of price increases, and to a lesser extent, decreases in manufacturing costs. The impact from foreign currency movements decreased gross profit margin by approximately 40 basis points, including the impact of hedges. Gross profit included approximately \$0.5 million in the first nine months of 2018 attributed to the New Revenue Standard.

Operating Expenses. The increase in sales and marketing expense was primarily due to higher personnel-related costs. General and administrative expenses increased primarily due to personnel-related costs and consultant fees. Research and development expense was relatively unchanged. The overall change in currency exchange rates resulted in an increase in operating expenses of approximately 1%.

Livestock, Poultry and Dairy

The following table presents the LPD segment results of operations:

Results of Operations (dollars in thousands)	For the Nine Months Ended September 30,				Change	
	2018	Percent of Revenue	2017	Percent of Revenue	Amount	Percentage
Revenues	\$96,658		\$91,266		\$5,392	5.9 %
Cost of revenue	41,091		40,083		1,008	2.5 %
Gross profit	55,567	57.5 %	51,183	56.1 %	4,384	8.6 %
Operating Expenses:						
Sales and marketing	18,847	19.5 %	18,528	20.3 %	319	1.7 %
General and administrative	14,399	14.9 %	13,927	15.3 %	472	3.4 %
Research and development	8,882	9.2 %	8,848	9.7 %	34	0.4 %
Total operating expenses	42,128	43.6 %	41,303	45.3 %	825	2.0 %
Income from operations	\$13,439	13.9 %	\$9,880	10.8 %	\$3,559	36.0 %

Revenue. The increase in revenue was primarily due to higher herd health screening in the Asia-Pacific region and an increase in recurring poultry and livestock testing in Latin America and Europe. These increases were partially offset by the impact of an African swine fever outbreak in China and continued pressure on our dairy business, including impacts from lower milk prices. The favorable impact of currency movements increased revenue by approximately 3%. The New Revenue Standard did not have a material impact on LPD revenue in the first nine months of 2018.

Gross Profit. The increase in gross profit was due to higher sales volume as well as a 140 basis point increase in the gross profit percentage. The increase in the gross profit percentage reflected lower product costs, as well as favorable product mix driven by higher herd health screening. The impact from foreign currency movements increased gross profit margin by approximately 20 basis points, including the impact of hedges.

Operating Expenses. The increase in sales and marketing expense was primarily due to the impact of foreign currency exchange movements. The increase in general and administrative expense resulted primarily from consultant costs. The increase in research and development expense was primarily due to increased personnel-related costs, partially offset by lower third-party costs. The overall change in currency exchange rates resulted in an increase in operating expenses of approximately 1%.

Other

The following table presents the Other results of operations:

Results of Operations (dollars in thousands)	For the Nine Months Ended September 30,				Change	
	2018	Percent of Revenue	2017	Percent of Revenue	Amount	Percentage
Revenues	\$15,872		\$16,279		\$(407)	(2.5 %)
Cost of revenue	8,533		8,053		480	6.0 %
Gross profit	7,339	46.2 %	8,226	50.5 %	(887)	(10.8 %)
Operating Expenses:						
Sales and marketing	1,382	8.7 %	1,658	10.2 %	(276)	(16.6 %)
General and administrative	3,134	19.7 %	2,460	15.1 %	674	27.4 %
Research and development	752	4.7 %	833	5.1 %	(81)	(9.7 %)
Total operating expenses	5,268	33.2 %	4,951	30.4 %	317	6.4 %
Income from operations	\$2,071	13.0 %	\$3,275	20.1 %	\$(1,204)	(36.8 %)

Revenue. The decrease in revenue was due to lower volumes of our OPTI Medical analyzers and related consumables in the Middle East and Asia, partially offset by higher royalties associated with intellectual property related to our former pharmaceutical product line, as well as higher realized prices of our OPTI Medical products and services. The favorable impact of currency movements increased revenue by approximately 50 basis points.

Gross Profit. The decrease in gross profit was due to a 4.3% decrease in the gross profit percentage primarily due to higher OPTI Medical product costs, unfavorable product mix, and to a lesser extent, service and distribution costs, partially offset by higher OPTI Medical realized price and increased royalties. The overall change in currency exchange rates had an immaterial impact on the gross profit percentage.

Operating Expenses. The decreases in sales and marketing and research and development expenses were primarily due to lower personnel costs. The increase in general and administrative costs were primarily due to bad debt reserves established as a result of the impact of economic and political instability on certain customers in the Middle East.

Unallocated Amounts

We estimate certain personnel-related costs and allocate these budgeted expenses to the operating segments. This allocation differs from actual expense and consequently yields a difference that is reported under the caption “Unallocated Amounts.”

The following table presents the Unallocated Amounts results of operations:

Results of Operations (dollars in thousands)	For the Nine Months Ended September 30,		Change	
	2018	2017	Amount	Percentage
Revenues	\$—	\$—	\$—	—
Cost of revenue	(1,706)	179	(1,885)	NM
Gross profit	1,706	(179)	1,885	NM
Operating Expenses:				
Sales and marketing	(147)	15	(162)	NM
General and administrative	5,708	4,352	1,356	31.2 %
Research and development	11,560	9,667	1,893	19.6 %
Total operating expenses	17,121	14,034	3,087	22.0 %
Loss from operations	\$(15,415)	\$(14,213)	\$(1,202)	8.5 %

NM - Not Meaningful

Unallocated Amounts. The net change in cost of revenue and operating expenses was primarily due to foreign exchange losses on settlements of foreign currency denominated transactions compared to gains in the prior period and an increased investment in research and development, partially offset by lower unallocated employee incentive costs and corporate function costs as a result of increased allocations to our segments.

Non-Operating Items

Interest Income. Interest income was \$0.9 million for the nine months ended September 30, 2018, as compared to \$3.7 million for the nine months ended September 30, 2017. The decrease in interest income was primarily due to the liquidation of our portfolio of marketable securities during the first quarter of 2018. We do not anticipate any material interest income for the remainder of 2018. The adoption of the New Revenue Standard decreased interest income by approximately \$0.8 million in the first nine months of 2018.

Interest Expense. Interest expense was \$26.2 million for the nine months ended September 30, 2018, as compared to \$27.5 million for the same period in the prior year. The decrease in interest expense was due to a lower average balance on our Credit Facility, partially offset by higher variable interest rates.

Provision for Income Taxes. Our effective income tax rate was 16.9% for the nine months ended September 30, 2018, as compared to 22.8% for the nine months ended September 30, 2017. The decrease in our effective tax rate was primarily related to the reduction in our U.S. statutory tax rate as a result of the 2017 Tax Act and tax benefits related to share-based compensation.

Liquidity and Capital Resources

Liquidity

We fund the capital needs of our business through cash on hand, funds generated from operations, proceeds from long-term senior note financings, and amounts available under our Credit Facility. At September 30, 2018, we had \$146.9 million of cash, cash equivalents and short-duration marketable securities, as compared to \$471.9 million on December 31, 2017. Working capital, including our Credit Facility, totaled negative \$55.3 million at September 30, 2018, as compared to negative \$32.6 million at December 31, 2017. Additionally, at September 30, 2018, we had remaining borrowing availability of \$434.5 million under our \$850 million Credit Facility. We believe that, if necessary, we could obtain additional borrowings at similar rates to our existing borrowings to fund our growth objectives. We further believe that current cash and cash equivalents, funds generated from operations, and committed borrowing availability will be sufficient to fund our operations, capital purchase requirements, and anticipated growth needs for the next twelve months. We believe that these resources, coupled with our ability, as needed, to obtain additional financing on favorable terms will also be sufficient to fund our business as currently conducted for the foreseeable future. We may enter into new financing arrangements or refinance or retire existing debt in the future depending on market conditions. Should we require more capital in the U.S. than is generated by our operations, for example to fund significant discretionary activities, we could elect to raise capital in the U.S. through debt or equity issuances. These alternatives could result in increased interest expense or other dilution of our earnings.

We manage our worldwide cash requirements considering available funds among all of our subsidiaries. Our foreign cash and marketable securities are generally available without restrictions to fund ordinary business operations outside the U.S.

The following table presents cash, cash equivalents and marketable securities held domestically and by our foreign subsidiaries at September 30, 2018, and December 31, 2017:

Cash, cash equivalents and marketable securities (dollars in thousands)	September 30, 2018	December 31, 2017	
U.S.	\$ 2,113	\$ 5,902	
Foreign	144,764	466,028	
Total	\$ 146,877	471,930	
Total cash, cash equivalents and marketable securities held in U.S. dollars by our foreign subsidiaries	\$ 20,082	\$ 334,339	
Percentage of total cash, cash equivalents and marketable securities held in U.S. dollars by our foreign subsidiaries	13.7	% 70.8	%

As a result of the passage of the 2017 Tax Act during the fourth quarter of 2017, we liquidated our marketable securities held outside the U.S. during the first quarter of 2018 and recognized a loss of approximately \$0.3 million. We repatriated these funds and reduced our revolving debt balance during the first quarter of 2018.

Of the \$146.9 million of cash and cash equivalents held as of September 30, 2018, approximately 94% was held as bank deposits and approximately 6% was invested in money market funds restricted to U.S. government and agency securities.

The following table presents additional key information concerning working capital:

	For the Three Months Ended				
	September 30, 2018	June 30, 2018	March 31, 2018	December 31, 2017	September 30, 2017
Days sales outstanding ⁽¹⁾	44.3	41.2	42.0	41.7	43.4
Inventory turns ⁽²⁾	2.1	2.2	2.0	2.2	1.9

(1) Days sales outstanding represents the average of the accounts receivable balances at the beginning and end of each quarter divided by revenue for that quarter, the result of which is then multiplied by 91.25 days.

(2) Inventory turns represent inventory-related cost of product revenue for the 12 months preceding each quarter-end divided by the inventory balance at the end of the quarter.

Sources and Uses of Cash

The following table presents cash provided (used):

(dollars in thousands)	For the Nine Months Ended September 30,		
	2018	2017	Dollar Change
Net cash provided by operating activities	\$264,436	\$252,150	\$12,286
Net cash provided (used) by investing activities	178,446	(114,201)	292,647
Net cash used by financing activities	(479,993)	(129,958)	(350,035)
Net effect of changes in exchange rates on cash	(3,687)	6,127	(9,814)
Net change in cash and cash equivalents	\$(40,798)	\$14,118	\$(54,916)

Operating Activities. The increase in cash provided by operating activities of \$12.3 million was driven primarily by the increases in net income and the benefit of deferred income taxes, offset by the changes in operating assets and liabilities. The following table presents cash flows from changes in operating assets and liabilities:

(dollars in thousands)	For the Nine Months Ended September 30,		
	2018	2017	Dollar Change
Accounts receivable	\$(33,041)	\$(18,724)	\$(14,317)
Inventories	(27,415)	(22,966)	(4,449)
Accounts payable	(1,336)	(3,540)	2,204
Deferred revenue	(6,314)	2,279	(8,593)
Other assets and liabilities	(58,214)	(10,734)	(47,480)
Total change in cash due to changes in operating assets and liabilities	\$(126,320)	\$(53,685)	\$(72,635)

Cash used due to changes in operating assets and liabilities during the nine months ended September 30, 2018, as compared to the same period in the prior year, increased approximately \$72.6 million primarily due to the impact of increased instrument placements under our volume commitment program, referred to as IDEXX 360, and fewer instrument placements under our rebate programs. Customers are not required to pay at the time of instrument placement under our volume commitment programs, which contrasts to our rebate programs, where customers pay at the time of instrument placement. This results in higher cash used due to increases in other assets, for our volume commitment programs and decreases in deferred revenue, for our rebate programs. Our transition to the New Revenue Standard also impacted the classification of cash flow impacts, see Notes 2 and 3 to the unaudited condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q for additional information regarding our volume commitment programs and the impact of the New Revenue Standard. Furthermore, our cash used for accounts receivable increased, as compared to the same period of the prior year, primarily due to quarter-end timing on a weekend, which resulted in certain customer payments being delayed until the start of the fourth quarter.

We have historically experienced proportionally lower net cash flows from operating activities during the first quarter and proportionally higher cash flows from operating activities for the remainder of the year driven primarily by payments related to annual employee incentive programs in the first quarter following the year for which the bonuses were earned and the seasonality of vector-borne disease testing, which has historically resulted in significant increases in accounts receivable balances during the first quarter of the year.

Investing Activities. Cash provided by investing activities was \$178.4 million for the nine months ended September 30, 2018, as compared to cash used by investing activities of \$114.2 million for the same period in the prior year. The change from cash used by investing activities to cash provided by investing activities was primarily due to the sale of marketable securities as a result of our repatriation of cash and investments held by our foreign subsidiaries, partially offset by increased capital spending as we expand our Westbrook, Maine headquarters and relocate our core lab in Germany.

Financing Activities. Cash used by financing activities was \$480.0 million for the nine months ended September 30, 2018, as compared to cash used by financing activities of \$130.0 million for the same period in the prior year. The increase in cash used by financing activities was due to a partial repayment on our revolving Credit Facility from repatriated foreign cash and an increase in repurchases of our common stock.

Cash used to repurchase shares of our common stock increased \$35.0 million during the nine months ended September 30, 2018, as compared to the same period in the prior year. We believe that the repurchase of our common stock is a favorable means of returning value to our shareholders and we also repurchase our stock to offset the dilutive effect of our share-based compensation programs. Repurchases of our common stock may vary depending upon the level of other investing activities and the share price. See Note 11 to the unaudited condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q for additional information about our share repurchases.

Net borrowing and repayment activity under our Credit Facility resulted in cash used of \$240.5 million during the nine months ended September 30, 2018, as compared to \$75.3 million of cash provided in the same period of the prior year. At September 30, 2018, we had \$414.5 million outstanding under the Credit Facility. The general availability of funds under our Credit Facility was further reduced by \$1.0 million for a letter of credit that was issued in connection with claims under our workers' compensation policy. The Credit Facility contains affirmative, negative, and financial covenants customary for financings of this type. The negative covenants include restrictions on liens, indebtedness of subsidiaries of the Company, fundamental changes, investments, transactions with affiliates, certain restrictive agreements and violations of laws and regulations. The obligations under our Credit Facility may be accelerated upon the occurrence of an event of default under the Credit Facility, which includes customary events of default including payment defaults, defaults in the performance of the affirmative, negative and financial covenants, the inaccuracy of representations or warranties, bankruptcy and insolvency related defaults, defaults relating to judgments, certain events related to employee pension benefit plans under the Employee Retirement Income Security Act of 1974, the failure to pay specified indebtedness, cross-acceleration to specified indebtedness and a change of control default.

Since December 2013, we have issued and sold through private placements senior notes having an aggregate principal amount of approximately \$600 million pursuant to certain note purchase agreements (collectively, the "Senior Note Agreements"). The Senior Note Agreements contain affirmative, negative, and financial covenants customary for agreements of this type. The negative covenants include restrictions on liens, indebtedness of our subsidiaries, priority indebtedness, fundamental changes, investments, transactions with affiliates, certain restrictive agreements and violations of laws and regulations. See Note 11 to the consolidated financial statements in our 2017 Annual Report for additional information regarding our senior notes.

Should we elect to prepay the senior notes, such aggregate prepayment will include the applicable make-whole amount(s), as defined within the applicable Senior Note Agreements. Additionally, in the event of a change in control of the Company or upon the disposition of certain assets of the Company the proceeds of which are not reinvested (as defined in the Senior Note Agreements), we may be required to prepay all or a portion of the senior notes. The obligations under the senior notes may be accelerated upon the occurrence of an event of default under the applicable Senior Note Agreements, each of which includes customary events of default including payment defaults, defaults in the performance of the affirmative, negative and financial covenants, the inaccuracy of representations or warranties, bankruptcy and insolvency related defaults, defaults relating to judgments, certain events related to employee pension benefit plans under the Employee Retirement Income Security Act of 1974, the failure to pay specified indebtedness and cross-acceleration to specified indebtedness.

Effect of Currency Translation on Cash. The net effect of changes in foreign currency exchange rates are related to changes in exchange rates between the U.S. dollar and the functional currencies of our foreign subsidiaries. These changes will

fluctuate for each period presented as the value of the U.S. dollar relative to the value of the foreign currencies changes. A currency's value depends on many factors, including interest rates and the country's debt levels and strength of economy.

Off-Balance Sheet Arrangements. We have no off-balance sheet arrangements or variable interest entities, except for letters of credit and third-party guarantees.

Financial Covenant. The sole financial covenant of our Credit Facility and Senior Note Agreements is a consolidated leverage ratio test that requires our ratio of debt to earnings before interest, taxes, depreciation and amortization and certain other non-cash charges ("Adjusted EBITDA") not to exceed 3.5-to-1. At September 30, 2018, we were in compliance with such covenant. The following details our consolidated leverage ratio calculation as of September 30, 2018:

	Twelve months ended September 30, 2018
Trailing 12 Months Adjusted EBITDA:	
Net income attributable to stockholders (as reported)	\$329,650
Interest expense	35,901
Provision for income taxes	110,723
Depreciation and amortization	84,094
Share-based compensation expense	24,703
Extraordinary and other non-recurring non-cash charges	2,629
Adjusted EBITDA	\$587,700
Debt to Adjusted EBITDA Ratio:	September 30, 2018
Line of credit	\$414,500
Long-term debt	602,416
Total debt	1,016,916
Acquisition-related contingent consideration payable	5,037
Capitalized leases	276
U.S. GAAP change - deferred financing costs	445
Gross debt	1,022,674
Gross debt to Adjusted EBITDA ratio	1.74
Less: Cash and cash equivalents	(146,877)
Net debt	\$875,797
Net debt to Adjusted EBITDA ratio	1.49

Adjusted EBITDA, gross debt, net debt, gross debt to Adjusted EBITDA ratio and net debt to Adjusted EBITDA ratio are non-GAAP financial measures which should be considered in addition to, and not as a replacement for, financial measures presented according to U.S. GAAP. Management believes that reporting these non-GAAP financial measures provides supplemental analysis to help investors further evaluate our business performance and available

borrowing capacity under our Credit Facility.

Other Commitments, Contingencies and Guarantees

Significant commitments, contingencies and guarantees at September 30, 2018, are consistent with those discussed in the section under the heading “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources,” and in Note 14 to the consolidated financial statements contained in our 2017 Annual Report.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

For quantitative and qualitative disclosures about market risk affecting us, see the section under the heading “Part II, Item 7A. Quantitative and Qualitative Disclosure About Market Risk” of our 2017 Annual Report. As of the date of this Quarterly Report on Form 10-Q, there have been no material changes to the market risks described in our 2017 Annual Report, except for the impact of foreign exchange rates, as discussed below.

Foreign Currency Exchange Impacts. Approximately 21% of our consolidated revenue was derived from products manufactured in the U.S. and sold internationally in local currencies for both the three and nine months ended September 30, 2018, which is consistent with 21% for both the three and nine months ended September 30, 2017. Strengthening of the U.S. dollar exchange rate relative to other currencies has a negative impact on our revenues derived in currencies other than the U.S. dollar and on profits of products manufactured in the U.S. and sold internationally, and a weakening of the U.S. dollar has the opposite effect. Similarly, to the extent that the U.S. dollar is stronger in current or future periods relative to the exchange rates in effect in the corresponding prior periods, our growth rate will be negatively affected. The impact of foreign currency denominated costs and expenses and foreign currency denominated supply contracts partly offsets this exposure. Additionally, our designated hedges of intercompany inventory purchases and sales help delay the impact of certain exchange rate fluctuations on non-U.S. dollar denominated revenues.

Our foreign currency exchange impacts are comprised of three components: 1) local currency revenues and expenses; 2) the impact of hedge contracts; and 3) intercompany and monetary balances for our subsidiaries that are denominated in a currency that is different from the functional currency used by each subsidiary. Based on projected revenues and expenses for the remainder of 2018, excluding the impact of intercompany and trade balances denominated in currencies other than the functional subsidiary currencies, we project a 1% strengthening of the U.S. dollar would reduce revenue by approximately \$2 million and operating income by less than \$1 million. Additionally, we project our foreign currency hedge contracts in place as of September 30, 2018, would result in immaterial offsetting gains. The impact of the intercompany and trade balances, and monetary balances referred to in the third component above have been excluded, as they are transacted at multiple times during the year and we are not able to reliably forecast the impact that changes in exchange rates would have on such balances.

At our current foreign currency exchange rate assumptions, the favorable impact from a weaker dollar in the first half of 2018 will be partially offset by the projected impact of a stronger U.S. dollar for the second half of 2018, resulting in our revenues, operating profit, and diluted earnings per share for the year ending December 31, 2018, increasing by approximately \$12 million, \$1 million, and \$0.01 per share, respectively. This favorable currency impact includes an unfavorable impact of less than \$1 million from foreign currency hedging activity. The actual impact of changes in the value of the U.S. dollar against foreign currencies in which we transact may materially differ from our expectations described above. The above estimates assume that the value of the U.S. dollar will reflect the euro at \$1.13, the British pound at \$1.29, the Canadian dollar at \$0.76, and the Australian dollar at \$0.70; and the Japanese yen at ¥115, the Chinese renminbi at RMB 7.00 and the Brazilian real at R\$3.79 relative to the U.S. dollar for the remainder of 2018.

The following table presents the foreign currency exchange impact on our revenues, operating profit, and diluted earnings per share for the three and nine months ended September 30, 2018 and 2017, as compared to the respective prior periods:

	For the Three Months Ended September 30, 2018		For the Nine Months Ended September 30, 2017	
(dollars in thousands)				

Revenue impact	\$ (5,892)	\$ 4,744	\$ 21,715	\$ (3,512)
Operating profit impact, excluding hedge activity	\$ (3,979)	\$ 1,982	\$ 6,619	\$ (2,514)
Hedge gains (losses) - prior year	893	(648)	(935)	(1,538)
Hedge gains (losses) - current year	256	(893)	(2,412)	935
Hedging activity impact	1,149	(1,541)	(3,347)	(603)
Operating profit impact, including hedge activity	\$ (2,830)	\$ 441	\$ 3,272	\$ (3,117)
Diluted earnings per share impact, including hedge activity	\$ (0.03)	\$ —	\$ 0.03	\$ (0.03)

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Item 4. Controls and Procedures

Disclosure Controls and Procedures

Our management is responsible for establishing and maintaining disclosure controls and procedures, as defined by the SEC in its Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 as amended (the “Exchange Act”). The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of an issuer that are designed to ensure that information required to be disclosed by the issuer in the reports that it files or submits under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures at September 30, 2018, our Chief Executive Officer and Chief Financial Officer have concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the three months ended September 30, 2018, that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings

Due to the nature of our activities, we are at times subject to pending and threatened legal actions that arise out of the ordinary course of business. In the opinion of management, based in part upon advice of legal counsel, the disposition of any such currently pending matters is not expected to have a material effect on our results of operations, financial condition, or cash flows. However, the results of legal actions cannot be predicted with certainty. Therefore, it is possible that our results of operations, financial condition or cash flows could be materially adversely affected in any particular period by the unfavorable resolution of one or more legal actions.

Item 1A. Risk Factors

In addition to the other information set forth in this Quarterly Report on Form 10-Q, you should carefully consider the risk factors discussed in “Part I, Item 1A. Risk Factors” in our 2017 Annual Report, as well as the updated risk factors included in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, which supplement and should be read in conjunction with the risk factors disclosed in our 2017 Annual Report, any and all of which could materially affect our business, financial condition, or future results. There have been no material changes from the risk factors previously disclosed in the 2017 Annual Report, as supplemented by the updated risk factors in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2018. The risks described in our 2017 Annual Report and our Quarterly Report on 10-Q for the quarter ended June 30, 2018, are not the only risks facing our Company. 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, or future results.

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

During the three months ended September 30, 2018, we repurchased shares of common stock as described below:

Period	Total Number of Shares Purchased (a)	Average Price Paid per Share (b)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ⁽¹⁾ (c)	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs ⁽¹⁾ (d)
July 1 to July 31, 2018	55,903	\$230.00	55,903	3,948,142
August 1 to August 31, 2018	132,200	\$245.82	132,200	3,815,942
September 1 to September 30, 2018	115,138	\$245.63	113,600	3,702,342
Total	303,241	⁽²⁾ \$242.83	301,703	3,702,342

The total shares repurchased include shares purchased in the open market and shares surrendered for employee statutory tax withholding. See Note 11 to the unaudited condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q for additional information about our share repurchases.

On August 13, 1999, our Board of Directors approved and announced the repurchase of our common stock in the open market or in negotiated transactions pursuant to the Company's share repurchase program. The authorization has been increased by the Board of Directors on numerous occasions; most recently, on May 2, 2017, the maximum level of shares that may be repurchased under the program was increased from 65 million to 68 million shares. There is no specified expiration date for this share repurchase program. There were no other repurchase programs outstanding during the three months ended September 30, 2018, and no share repurchase programs expired during the period. Repurchases of 301,703 shares were made during the three months ended September 30, 2018, in transactions made pursuant to our share repurchase program.

During the three months ended September 30, 2018, we received 1,538 shares of our common stock that were surrendered by employees in payment for the minimum required withholding taxes due on the vesting of restricted stock units and settlement of deferred stock units. In the above table, these shares are included in columns (a) and (b), but excluded from columns (c) and (d). These shares do not reduce the number of shares that may yet be purchased under the share repurchase program.

Item 6. Exhibits

Exhibit No.	Description
<u>31.1</u>	<u>Certification of Principal Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>
<u>31.2</u>	<u>Certification of Principal Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>
<u>32.1</u>	<u>Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
<u>32.2</u>	<u>Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

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.

IDEXX LABORATORIES, INC.

/s/ Brian P. McKeon

Date: November 1, 2018 Brian P. McKeon

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