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

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-Q

(Mark One)
[X] QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended June 30, 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 (State or other jurisdiction of incorporation or organization)	01-0393723 (IRS Employer Identification No.)
ONE IDEXX DRIVE, WESTBROOK, MAINE (Address of principal executive offices)	04092 (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 ý 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 ý 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 ý Accelerated filer ¨

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

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 86,590,964 on July 25, 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 around the world

IDEXX LABORATORIES, INC.
Quarterly Report on Form 10-Q
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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)

	June 30, 2018	December 31, 2017
ASSETS		
Current Assets:		
Cash and cash equivalents	$174,559	$187,675
Marketable securities	—	284,255
Accounts receivable, net of reserves of $4,689 in 2018 and $4,576 in 2017	265,012	234,597
Inventories	176,487	164,318
Other current assets	123,774	101,140
Total current assets	739,832	971,985
Long-Term Assets:		
Property and equipment, net	394,021	379,096
Goodwill	195,974	199,873
Intangible assets, net	39,036	43,846
Other long-term assets	151,822	118,616
Total long-term assets	780,853	741,431
TOTAL ASSETS	$1,520,685	$1,713,416
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current Liabilities:		
Accounts payable	$68,015	$66,968
Accrued liabilities	228,380	253,418
Line of credit	437,000	655,000
Current portion of deferred revenue	40,921	29,181
Total current liabilities	774,316	1,004,567
Long-Term Liabilities:		
Deferred income tax liabilities	35,459	25,353
Long-term debt	603,130	606,075
Long-term deferred revenue, net of current portion	65,362	35,545
Other long-term liabilities	83,267	95,718
Total long-term liabilities	787,218	762,691
Total liabilities	1,561,534	1,767,258
Commitments and Contingencies (Note 14)		
Stockholders' Deficit:		
Common stock, $0.10 par value: Authorized: 120,000 shares; Issued: 104,847 shares in 2018 and 104,275 shares in 2017; Outstanding: 86,642 shares in 2018 and 87,104 shares in 2017	10,485	10,428
Additional paid-in capital	1,109,157	1,073,931

Deferred stock units: Outstanding: 162 units in 2018 and 229 units in 2017	4,398	5,988
Retained earnings	989,039	803,545
Accumulated other comprehensive income (loss)	(42,559)	(36,470)
Treasury stock, at cost: 18,195 shares in 2018 and 17,171 shares in 2017	(2,111,647)	(1,911,528)
Total IDEXX Laboratories, Inc. stockholders' deficit	(41,127)	(54,106)
Noncontrolling interest	278	264
Total stockholders' deficit	(40,849)	(53,842)
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	$1,520,685	$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 June 30,		For the Six Months Ended June 30,	
	2018	2017	2018	2017
Revenue:				
Product revenue	$348,621	$304,091	$666,061	$576,056
Service revenue	232,131	204,849	452,347	394,905
Total revenue	580,752	508,940	1,118,408	970,961
Cost of Revenue:				
Cost of product revenue	127,270	110,330	245,516	213,357
Cost of service revenue	121,043	105,895	237,354	206,698
Total cost of revenue	248,313	216,225	482,870	420,055
Gross profit	332,439	292,715	635,538	550,906
Expenses:				
Sales and marketing	96,255	87,693	196,356	174,937
General and administrative	61,080	55,460	122,011	108,374
Research and development	29,510	26,998	58,533	52,788
Income from operations	145,594	122,564	258,638	214,807
Interest expense	(8,457)	(9,155)	(17,731)	(17,744)
Interest income	172	1,176	751	2,259
Income before provision for income taxes	137,309	114,585	241,658	199,322
Provision for income taxes	28,629	29,178	43,502	44,857
Net income	108,680	85,407	198,156	154,465
Less: Net (loss) income attributable to noncontrolling interest	(11)	50	14	89
Net income attributable to IDEXX Laboratories, Inc. stockholders	$108,691	$85,357	$198,142	$154,376
Earnings per Share:				
Basic	$1.25	$0.97	$2.27	$1.75
Diluted	$1.23	$0.95	$2.23	$1.72
Weighted Average Shares Outstanding:				
Basic	87,004	88,004	87,166	88,060
Diluted	88,596	89,878	88,786	89,962

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 June 30,		For the Six Months Ended June 30,	
	2018	2017	2018	2017
Net income	$108,680	$85,407	$198,156	$154,465
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	(21,492)	7,954	(16,327)	15,968
Unrealized gain (loss) on net investment hedge	4,479	(3,767)	2,263	(4,860)
Unrealized gain on investments, net of tax expense of $9 and $49 in 2018 and $49 and $23 in 2017	32	125	150	86
Unrealized gain (loss) on derivative instruments:				
Unrealized gain (loss), net of tax expense (benefit) of $2,161 and $1,784 in 2018 and $(2,287) and $(3,199) in 2017	8,174	(3,848)	5,786	(5,382)
Reclassification adjustment for losses (gains) included in net income, net of tax benefit (expense) of $379 and $629 in 2018 and $(280) and $(681) in 2017	454	(473)	2,039	(1,147)
Unrealized gain (loss) on derivative instruments	8,628	(4,321)	7,825	(6,529)
Other comprehensive (loss) gain, net of tax	(8,353)	(9)	(6,089)	4,665
Comprehensive income	100,327	85,398	192,067	159,130
Less: comprehensive (loss) income attributable to noncontrolling interest	(11)	50	14	89
Comprehensive income attributable to IDEXX Laboratories, Inc.	$100,338	$85,348	$192,053	$159,041

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 Six Months Ended June 30,	
	2018	2017
Cash Flows from Operating Activities:		
Net income	$198,156	$154,465
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	41,696	40,893
Benefit of deferred income taxes	8,638	2,691
Share-based compensation expense	12,352	11,742
Other	1,613	1,031
Changes in assets and liabilities:		
Accounts receivable	(32,872)	(32,400)
Inventories	(16,825)	(18,850)
Other assets and liabilities	(55,781)	(21,426)
Accounts payable	3	1,422
Deferred revenue	(3,252)	1,898
Net cash provided by operating activities	153,728	141,466
Cash Flows from Investing Activities:		
Purchases of property and equipment	(51,377)	(38,566)
Purchase of marketable securities	(87)	(175,522)
Proceeds from the sale and maturities of marketable securities	284,125	155,903
Acquisitions of a business, net of cash acquired	—	(14,529)
Net cash provided (used) by investing activities	232,661	(72,714)
Cash Flows from Financing Activities:		
(Repayments) borrowings on revolving credit facilities, net	(218,000)	93,000
Payment of acquisition-related contingent consideration	(1,000)	—
Repurchases of common stock	(189,884)	(170,798)
Proceeds from exercises of stock options and employee stock purchase plans	21,905	23,170
Shares withheld for statutory tax withholding on restricted stock	(8,720)	(7,459)
Net cash used by financing activities	(395,699)	(62,087)
Net effect of changes in exchange rates on cash	(3,806)	4,409
Net (decrease) increase in cash and cash equivalents	(13,116)	11,074
Cash and cash equivalents at beginning of period	187,675	154,901
Cash and cash equivalents at end of period	$174,559	$165,975

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 six months ended June 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 June 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 six months ended June 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 six months ended June 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

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 new 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)
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

The following tables compare the reported unaudited condensed consolidated balance sheet, statement of operations and cash flows, as of and for the three and six months ended June 30, 2018, to the balances without the adoption of ASC 606 ("previous U.S. GAAP") (in thousands):

	Condensed Consolidated Balance Sheet As of June 30, 2018		
	Previous U.S. GAAP	New U.S. GAAP (As Reported)	Attributed to the New Revenue Standard
ASSETS			
Cash and cash equivalents	$174,559	$174,559	$—
Accounts receivable	262,420	265,012	2,592
Inventories	178,187	176,487	(1,700)
Property and equipment, net	394,021	394,021	—
Goodwill and intangible assets, net	235,010	235,010	—
Other assets	238,682	275,596	36,914
TOTAL ASSETS	$1,482,879	$1,520,685	$37,806
LIABILITIES AND STOCKHOLDERS' DEFICIT			
Accounts payable	$68,015	$68,015	$—
Accrued liabilities	228,095	228,380	285
Deferred income tax liabilities	35,470	35,459	(11)
Line of credit and long-term debt	1,040,130	1,040,130	—
Deferred revenue	64,061	106,283	42,222
Other long-term liabilities	92,290	83,267	(9,023)
Total liabilities	1,528,061	1,561,534	33,473
Stockholders' Deficit:			
Retained earnings	984,736	989,039	4,303
Accumulated other comprehensive income (loss)	(42,589)	(42,559)	30
All other stockholders' deficit and noncontrolling interest	(987,329)	(987,329)	—
Total stockholders' deficit	(45,182)	(40,849)	4,333
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	$1,482,879	$1,520,685	$37,806

	Condensed Consolidated Statement of Operations For the Three Months Ended June 30, 2018			For the Six Months Ended June 30, 2018		
	Previous U.S. GAAP	New U.S. GAAP (As Reported)	Attributed to the New Revenue	Previous U.S. GAAP	New U.S. GAAP (As Reported)	Attributed to the New Revenue

			Standard			Standard
Total revenue	$565,879	$580,752	$14,873	$1,091,248	$1,118,408	$27,160
Total cost of revenue	239,491	248,313	8,822	467,456	482,870	15,414
Gross profit	326,388	332,439	6,051	623,792	635,538	11,746
Total operating expense	187,321	186,845	(476)	377,947	376,900	(1,047)
Income from operations	139,067	145,594	6,527	245,845	258,638	12,793
Interest expense	(8,457)	(8,457)	—	(17,731)	(17,731)	—
Interest income	437	172	(265)	1,299	751	(548)
Income before provision for income taxes	131,047	137,309	6,262	229,413	241,658	12,245
Provision for income taxes	27,107	28,629	1,522	40,536	43,502	2,966
Net income	$103,940	$108,680	$4,740	$188,877	$198,156	$9,279

	Condensed Consolidated Statement of Cash Flows For the Six Months Ended June 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	$188,877	$198,156	$ 9,279
Adjustments to reconcile net income to net cash provided by operating activities:			
Benefit of deferred income taxes	6,218	8,638	2,420
All other adjustments to reconcile net income to net cash provided by operating activities	55,661	55,661	—
Changes in assets and liabilities, net	(97,028)	(108,727)	(11,699)
Net cash provided by operating activities	$153,728	$153,728	$ —

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 half 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 11. 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. In transition, we are required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach, including the option to utilize a number of practical expedients. We are in the process of evaluating our lessee and lessor arrangements.

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 lease commitments in Note 14 to the consolidated financial statements in our 2017 Annual Report for additional information.

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.

For a discussion of other accounting standards that have been issued by the FASB but are not yet effective, refer to the New Accounting Pronouncements Not Yet Adopted section 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. 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 $2.3 million and $14.1 million were recognized during the three and six months ended June 30, 2018, respectively. Furthermore, as a result of new agreements, our deferred revenue related to extended warranties and post-contract support was $41.6 million at June 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 $29.0 million at June 30, 2018, of which approximately 13%, 29%, 24% and 34% 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, and rVetLink. 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 $7.2 million and $14.4 million were recognized as a reduction of revenue during the three and six months ended June 30, 2018, respectively. Furthermore, as a result of new up-front customer loyalty payments, our capitalized customer acquisition costs were $118.5 million at June 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 six months ended June 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 $1.1 million and $2.4 million were reclassified to accounts receivable when customers were billed for related products and services during the three and six months ended June 30, 2018, respectively. Furthermore, as a result of new placements under volume commitment programs, our contract assets were $21.5 million at June 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 six months ended June 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 $975.0 million, of which approximately 15%, 25%, 20%, and 40% 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 a portion of instrument revenue to our 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 $4.6 million and $9.2 million were recognized when customers purchased eligible products and services and earned rebates during the three and six months ended June 30, 2018, respectively. Furthermore, as a result of new instrument purchases under rebate programs, our deferred revenue was $60.7 million at June 30, 2018, of which approximately 15%, 28%, 22%, and 35% 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 $92.0 million, of which approximately 17%, 31%, 25%, and 27% are expected to be recognized during the remainder of 2018, the full year 2019, the full year 2020, and thereafter, respectively. These represent 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 six months ended June 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.

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 June 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 six months ended June 30, 2018 (in thousands):

	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
	2018	2017	2018	2017
CAG segment revenue:				
CAG Diagnostics recurring revenue:	$437,666	$380,319	$843,714	$726,999
IDEXX VetLab consumables	158,620	132,094	308,133	255,647
Rapid assay products	63,362	60,266	115,379	108,161
Reference laboratory diagnostic and consulting services	197,268	171,298	384,205	330,367
CAG Diagnostics service and accessories	18,416	16,661	35,997	32,824
CAG Diagnostics capital - instruments	34,544	27,716	65,439	53,899
Veterinary software, services and diagnostic imaging systems	35,277	31,913	69,167	62,277
CAG segment revenue	507,487	439,948	978,320	843,175
Water segment revenue	32,658	29,424	61,801	54,501
LPD segment revenue	34,998	33,553	67,238	62,870
Other segment revenue	5,609	6,015	11,049	10,415
Total revenue	$580,752	$508,940	$1,118,408	$970,961

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

	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
	2018	2017	2018	2017
United States	$356,736	$315,695	$684,197	$604,308
Europe, the Middle East and Africa	122,270	102,482	242,844	198,910
Asia Pacific Region	62,505	56,085	118,544	105,037
Canada	26,407	23,078	48,951	41,826
Latin America	12,834	11,600	23,872	20,880
Total	$580,752	$508,940	$1,118,408	$970,961

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 $1.0 million and $2.0 million of commissions expense were recognized during the three and six months ended June 30, 2018, respectively. Furthermore, as a result of commissions related to new extended warranties and SaaS subscriptions, our deferred commission costs were $12.8 million at June 30, 2018. Impairments of deferred commission costs during the three and six months ended June 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. We made no acquisitions during the first half of 2018.

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 million consists of $12 million paid at closing and a $3 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 six months ended June 30, 2018, totaled $1.7 million and $32.8 million, respectively, as compared to $1.6 million and $29.5 million for the three and six months ended June 30, 2017, respectively. The total unrecognized compensation expense, net of estimated forfeitures, for unvested share-based compensation awards outstanding at June 30, 2018, was $62.8 million, which will be recognized over a weighted average period of approximately 2.1 years. During the three and six months ended June 30, 2018, we recognized expense of $6.5 million and $12.4 million, respectively, as compared to $6.0 million and $11.7 million for the three and six months ended June 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 Six Months Ended June 30,	
	2018	2017
Share price at grant	$179.56	$142.66
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	$40.79

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):

	June 30, 2018	December 31, 2017
Raw materials	$34,336	$ 32,994
Work-in-process	16,982	17,786
Finished goods	125,169	113,538
Inventories (Note 2)	$176,487	$ 164,318

NOTE 8. OTHER CURRENT AND LONG-TERM ASSETS

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

	June 30, 2018	December 31, 2017
Prepaid expenses	$27,250	$ 28,967

Taxes receivable	41,315	35,475
Customer acquisition costs (Notes 2 and 3)	32,303	23,520
Contract assets (Notes 2 and 3)	6,558	—
Deferred sales commissions (Notes 2 and 3)	4,440	—
Other assets (Notes 2 and 3)	11,908	13,178
Other current assets	$123,774	$ 101,140

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

	June 30, 2018	December 31, 2017
Investment in long-term product supply arrangements	$11,344	$ 9,949
Customer acquisition costs (Notes 2 and 3)	86,147	64,670
Contract assets (Notes 2 and 3)	14,903	—
Deferred sales commissions (Notes 2 and 3)	8,349	—
Deferred income taxes (Note 2)	8,723	7,698
Other assets (Notes 2 and 3)	22,356	36,299
Other long-term assets	$151,822	$ 118,616

NOTE 9. ACCRUED LIABILITIES

Accrued liabilities consisted of the following (in thousands):

	June 30, 2018	December 31, 2017
Accrued expenses	$61,302	$ 64,430
Accrued employee compensation and related expenses	79,394	102,944
Accrued taxes	25,109	29,389
Accrued customer incentives and refund obligations (Notes 2 and 3)	62,575	56,655
Total accrued liabilities	$228,380	$ 253,418

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

	June 30, 2018	December 31, 2017
Accrued taxes	$67,886	$ 66,506
Accrued customer incentives (Note 2)	—	12,956
Other accrued long-term expenses	15,381	16,256
Total other long-term liabilities	$83,267	$ 95,718

NOTE 10. 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 six months ended June 30, 2018 and 2017, was not material.

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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 six months ended June 30, 2018 and 2017 (in thousands, except per share amounts):

	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
	2018	2017	2018	2017
Shares repurchased in the open market	517	696	982	1,086
Shares acquired through employee surrender for statutory tax withholding	1	1	49	53
Total shares repurchased	518	697	1,031	1,139
Cost of shares repurchased in the open market	$105,774	$114,163	$191,962	$164,907
Cost of shares for employee surrenders	165	156	8,720	7,459
Total cost of shares	$105,939	$114,319	$200,682	$172,366
Average cost per share - open market repurchases	$204.69	$163.96	$195.47	$151.81
Average cost per share - employee surrenders	$215.36	$168.25	$179.41	$141.56
Average cost per share - total	$204.71	$163.97	$194.71	$151.34

NOTE 11. INCOME TAXES

Our effective income tax rate was 20.9% for the three months ended June 30, 2018, as compared to 25.5% for the three months ended June 30, 2017, and 18.0% for the six months ended June 30, 2018, as compared to 22.5% for the six months ended June 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.

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 half 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 12. ACCUMULATED OTHER COMPREHENSIVE INCOME

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

For the Six Months Ended June 30, 2018	Unrealized (Loss) Gain	Unrealized (Loss) Gain	Unrealized (Loss)	Cumulative Translation	Total

	on Investments, Net of Tax	on Derivative Instruments, Net of Tax	Gain on Net Investment Hedge, Net of Tax	Adjustment	
Balance as of December 31, 2017	$ (22)	$ (5,219)	$ (4,311)	$ (26,918)	$ (36,470)
Other comprehensive income (loss) before reclassifications	150	5,786	2,263	(16,327)	(8,128)
Gains reclassified from accumulated other comprehensive income	—	2,039	—	—	2,039
Balance as of June 30, 2018	$ 128	$ 2,606	$ (2,048)	$ (43,245)	$ (42,559)

The following is a summary of reclassifications out of AOCI for the three and six months ended June 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 June 30,	
		2018	2017
(Losses) gains on derivative instruments classified as cash flow hedges included in net income:			
Foreign currency exchange contracts	Cost of revenue	$(833)	$753
	Tax (benefits) expense	(379)	280
	(Losses) gains, net of tax	$(454)	$473

Details about AOCI Components	Affected Line Item in the Statement of Operations	Amounts Reclassified from AOCI For the Six Months Ended June 30,	
		2018	2017
(Losses) gains on derivative instruments classified as cash flow hedges included in net income:			
Foreign currency exchange contracts	Cost of revenue	$(2,668)	$1,828
	Tax (benefits) expense	(629)	681
	(Losses) gains, net of tax	$(2,039)	$1,147

NOTE 13. 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 six months ended June 30, 2018 and 2017 (in thousands):

	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
	2018	2017	2018	2017
Shares outstanding for basic earnings per share	87,004	88,004	87,166	88,060
Shares outstanding for diluted earnings per share:				
Shares outstanding for basic earnings per share	87,004	88,004	87,166	88,060
Dilutive effect of share-based payment awards	1,592	1,874	1,620	1,902
	88,596	89,878	88,786	89,962

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 six months ended June 30, 2018 and 2017. The following table presents information concerning those anti-dilutive options for the three and six months ended June 30, 2018 and 2017 (in thousands):

	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
	2018	2017	2018	2017
Weighted average number of shares underlying anti-dilutive options	326	368	245	275

NOTE 14. 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 June 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 June 30, 2018, are consistent with those discussed in Note 14 to the consolidated financial statements in our 2017 Annual Report.

NOTE 15. 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 six months ended June 30, 2018 and 2017 (in thousands):

	For the Three Months Ended June 30,					
	CAG	Water	LPD	Other	Unallocated Amounts	Consolidated Total
2018						
Revenue	$507,487	$32,658	$34,998	$5,609	$ —	$ 580,752
Income (loss) from operations	$129,796	$15,122	$6,471	$1,130	$ (6,925)	$ 145,594
Interest expense, net						(8,285)
Income before provision for income taxes						137,309
Provision for income taxes						28,629
Net income						108,680
Less: Net loss attributable to noncontrolling interest						(11)
Net income attributable to IDEXX Laboratories, Inc. stockholders						$ 108,691
2017						
Revenue	$439,948	$29,424	$33,553	$6,015	$ —	$ 508,940
Income (loss) from operations	$108,731	$13,653	$5,176	$768	$ (5,764)	$ 122,564
Interest expense, net						(7,979)
Income before provision for income taxes						114,585
Provision for income taxes						29,178
Net income						85,407
Less: Net income attributable to noncontrolling interest						50
Net income attributable to IDEXX Laboratories, Inc. stockholders						$ 85,357

	For the Six Months Ended June 30,					
	CAG	Water	LPD	Other	Unallocated Amounts	Consolidated Total
2018						
Revenue	$978,320	$61,801	$67,238	$11,049	$—	$1,118,408
Income (loss) from operations	$230,194	$27,584	$9,432	$1,628	$(10,200)	$258,638
Interest expense, net						(16,980)
Income before provision for income taxes						241,658
Provision for income taxes						43,502
Net income						198,156
Less: Net income attributable to noncontrolling interest						14
Net income attributable to IDEXX Laboratories, Inc. stockholders						$198,142
2017						
Revenue	$843,175	$54,501	$62,870	$10,415	$—	$970,961
Income (loss) from operations	$188,586	$23,916	$8,978	$1,161	$(7,834)	$214,807
Interest expense, net						(15,485)
Income before provision for income taxes						199,322
Provision for income taxes						44,857
Net income						154,465
Less: Net income attributable to noncontrolling interest						89
Net income attributable to IDEXX Laboratories, Inc. stockholders						$154,376

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 six months ended June 30, 2018 and 2017.

NOTE 16. 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 six months ended June 30, 2018.

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 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 $608.1 million and $603.6 million, respectively, as of June 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 June 30, 2018, and at December 31, 2017, by level within the fair value hierarchy (in thousands):

As of June 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 June 30, 2018
Assets				
Money market funds[1]	$12,677	$ —	$ —	$12,677
Equity mutual funds[2]	$2,026	$ —	$ —	$2,026
Cross currency swaps [3]	—	$ 314	—	$314
Foreign currency exchange contracts[3]	$—	$ 4,459	$ —	$4,459
Liabilities				
Foreign currency exchange contracts[3]	$—	$ 1,360	$ —	$1,360
Deferred compensation[4]	$2,026	$ —	$ —	$2,026

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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

(1) 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 June 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.

(2) 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.

(3) 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.

(4) 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 17. 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 12. 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 six months ended June 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 six months ended June 30, 2018 or 2017. At June 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 $1.0 million if exchange rates do not fluctuate from the levels at June 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 $202.7 million and $176.5 million at June 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 $4.5 million and $2.3 million, net of income tax, within AOCI as a result of this net investment hedge for the three and six months ended June 30, 2018, respectively. The related cumulative unrealized gain recorded at June 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 month period ended June 30, 2018, we recorded a gain of $0.2 million, net of income tax, within AOCI as a result of these net investment hedges. The Company 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. During the second quarter, we recognized approximately $0.2 million related to the excluded component as a reduction of interest expense.

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

	Three Months Ended June 30,	
	2018 Costs of revenue	2017 Costs of revenue
Financial statement line items in which effects of cash flow hedges are recorded	$248,313	$216,225
Foreign exchange contracts		
Amount of (loss) gain reclassified from accumulated other comprehensive income into income	(833)	753

	Six Months Ended June 30,	
	2018 Costs of revenue	2017 Costs of revenue
Financial statement line items in which effects of cash flow hedges are recorded	$482,870	$420,055
Foreign exchange contracts		
Amount of (loss) gain reclassified from accumulated other comprehensive income into income	(2,668)	1,828

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 (in thousands):

		Hedging Assets	
		June 30, 2018	December 31, 2017
Derivatives designated as hedging instruments	Balance Sheet Classification		

Foreign currency exchange contracts	Other current assets	$2,704	$ 477
Cross currency swaps	Other current assets	314	—
Foreign currency exchange contracts	Other long-term assets	1,755	—
Total derivative instruments presented as cash flow hedges on the balance sheet		4,773	477
Gross amounts subject to master netting arrangements not offset on the balance sheet		703	477
Net amount		$4,070	$ —

		Hedging Liabilities	
		June 30, 2018	December 31, 2017
Derivatives designated as hedging instruments	Balance Sheet Classification		
Foreign currency exchange contracts	Accrued liabilities	$1,304	$ 6,468
Foreign currency exchange contracts	Other long-term liabilities	56	—
Total derivative instruments presented as cash flow hedges on the balance sheet		1,360	6,468
Foreign currency borrowings designated as net investment hedge on the balance sheet	Long-term debt	103,590	106,567
Total hedging instruments presented on the balance sheet		104,950	113,035
Gross amounts subject to master netting arrangements not offset on the balance sheet		703	477
Net amount		$104,247	$ 112,558

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 v 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;
- Veterinary management and diagnostic imaging systems and services;
- Biomedical research, reference laboratory diagnostic services, and instruments;
- Diagnostic, health-monitoring products for livestock, poultry, and antibiotic residue testing in 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 six months ended June 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 June 30, 2018, a 5% change in these customer program estimates would have increased or reduced revenue by approximately $0.8 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 six months ended June 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 six months ended June 30, 2018. Prior to January 1, 2018, we excluded all acquisitions from organic revenue growth. This change would not have impacted previously reported organic revenue growth for the three and six months ended June 30, 2018, as all acquisitions were business acquisitions.

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

Comparison to Prior Periods. Our fiscal quarter ended on June 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 June 30, 2018	2017	Dollar Change	Reported Revenue Growth [1]	Percentage Change from Currency	Percentage Change from Acquisitions	Organic Revenue Growth [1]
CAG	$507,487	$439,948	$67,539	15.4 %	1.8 %	0.1 %	13.4 %
United States	334,865	295,829	39,036	13.2 %	—	0.1 %	13.1 %
International	172,622	144,119	28,503	19.8 %	5.6 %	—	14.1 %
Water	32,658	29,424	3,234	11.0 %	2.0 %	—	9.0 %
United States	15,740	14,366	1,374	9.6 %	—	—	9.6 %
International	16,918	15,058	1,860	12.3 %	3.8 %	—	8.5 %
LPD	34,998	33,553	1,445	4.3 %	4.0 %	—	0.3 %
United States	3,681	3,433	248	7.3 %	—	—	7.3 %
International	31,317	30,120	1,197	4.0 %	4.5 %	—	(0.5 %)
Other	5,609	6,015	(406)	(6.7 %)	0.4 %	—	(7.2 %)
Total Company	$580,752	$508,940	$71,812	14.1 %	2.0 %	0.1 %	12.1 %
United States	356,736	315,695	41,041	13.0 %	—	0.1 %	12.9 %
International	224,016	193,245	30,771	15.9 %	5.2 %	—	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. International organic growth was strong across all regions, reflecting the aforementioned CAG Diagnostics recurring volume driven growth. 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 $14.9 million in the second 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 June 30,						Change		
	2018	Percent of Revenue		2017	Percent of Revenue		Amount	Percentage	
Revenues	$580,752			$508,940			$71,812	14.1	%
Cost of revenue	248,313			216,225			32,088	14.8	%
Gross profit	332,439	57.2	%	292,715	57.5	%	39,724	13.6	%
Operating Expenses:									
Sales and marketing	96,255	16.6	%	87,693	17.2	%	8,562	9.8	%
General and administrative	61,080	10.5	%	55,460	10.9	%	5,620	10.1	%
Research and development	29,510	5.1	%	26,998	5.3	%	2,512	9.3	%
Total operating expenses	186,845	32.2	%	170,151	33.4	%	16,694	9.8	%
Income from operations	$145,594	25.1	%	$122,564	24.1	%	$23,030	18.8	%

Gross Profit. Gross profit increased due to higher sales volumes and was offset by a 30 basis point decrease in the gross profit percentage. The decrease in the 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 mix impacts from high instrument revenue growth. 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 increased gross profit margin by less than 10 basis points, including the impact of hedge gains in the prior period compared to hedge losses in the current period. Gross profit included approximately $6.0 million in the second quarter of 2018 attributable to the New Revenue Standard.

Operating Expense. The increase in total Company sales and marketing expense was due primarily 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 from 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 higher personnel-related costs, 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 total operating expenses of approximately 2.5%.

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 June 30, 2018	2017	Dollar Change	Reported Revenue Growth (1)	Percentage Change from Currency	Percentage Change from Acquisitions	Organic Revenue Growth (1)
CAG Diagnostics recurring revenue:	$437,666	$380,319	$57,347	15.1 %	1.9%	—	13.2 %
IDEXX VetLab consumables	158,620	132,094	26,526	20.1 %	2.2%	—	17.8 %
Rapid assay products	63,362	60,266	3,096	5.1 %	0.8%	—	4.3 %
Reference laboratory diagnostic and consulting services	197,268	171,298	25,970	15.2 %	2.0%	—	13.1 %
CAG diagnostics services and accessories	18,416	16,661	1,755	10.5 %	1.9%	—	8.6 %
CAG Diagnostics capital - instruments	34,544	27,716	6,828	24.6 %	2.8%	—	21.8 %
Veterinary software, services and diagnostic imaging systems	35,277	31,913	3,364	10.5 %	0.5%	1.0 %	9.0 %
Net CAG revenue	$507,487	$439,948	$67,539	15.4 %	1.8%	0.1 %	13.4 %

(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 due primarily to increased volumes in IDEXX VetLab consumables and reference laboratory diagnostic services, supported by our differentiated diagnostic technologies and our expanded commercial organization and to a lesser extent, higher realized prices. CAG Diagnostics recurring revenue included approximately $4.7 million in the second 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 $3.4 million in the second quarter 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 and higher sales volume of single analyte SNAP products and SNAP feline combination products. Rapid assay revenue included less than $0.1 million in the second 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 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 $1.3 million in the second 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 Catalyst analyzer and SediVue Dx instrument placements, supported by our new volume commitment program that we refer to as IDEXX 360. The success of our new 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 $8.8 million in the second 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 $1.5 million in the second quarter of 2018 attributed to the New Revenue Standard.

The following table presents the CAG segment results of operations:

Results of Operations (dollars in thousands)	For the Three Months Ended June 30,						Change		
	2018	Percent of Revenue		2017	Percent of Revenue		Amount	Percentage	
Revenues	$507,487			$439,948			$67,539	15.4	%
Cost of revenue	221,577			189,862			31,715	16.7	%
Gross profit	285,910	56.3	%	250,086	56.8	%	35,824	14.3	%
Operating Expenses:									
Sales and marketing	84,668	16.7	%	76,374	17.4	%	8,294	10.9	%
General and administrative	49,993	9.9	%	45,396	10.3	%	4,597	10.1	%
Research and development	21,453	4.2	%	19,585	4.5	%	1,868	9.5	%
Total operating expenses	156,114	30.8	%	141,355	32.1	%	14,759	10.4	%
Income from operations	$129,796	25.6	%	$108,731	24.7	%	$21,065	19.4	%

Gross Profit. Gross profit increased primarily due to higher sales volume and was offset by a 50 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 mix impacts from high instrument revenue growth. 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 increased gross profit margin by less than 10 basis points, including the impact of hedge gains in the prior period compared to hedge losses in the current period. Gross profit included approximately $6.0 million in the second quarter of 2018 attributable to the New Revenue Standard.

Operating Expense. The increase in sales and marketing expense was due primarily to increased personnel-related costs as we continue to invest in our global commercial infrastructure, offset by approximately $0.4 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 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 due primarily to increased personnel-related costs. The overall change in currency exchange rates resulted in an immaterial increase in operating expenses.

Water

The following table presents the Water segment results of operations:

Results of Operations (dollars in thousands)	For the Three Months Ended June 30,						Change		
	2018	Percent of Revenue		2017	Percent of Revenue		Amount	Percentage	
Revenues	$32,658			$29,424			$3,234	11.0	%
Cost of revenue	9,579			8,772			807	9.2	%
Gross profit	23,079	70.7	%	20,652	70.2	%	2,427	11.8	%
Operating Expenses:									
Sales and marketing	4,103	12.6	%	3,505	11.9	%	598	17.1	%
General and administrative	3,210	9.8	%	2,854	9.7	%	356	12.5	%
Research and development	644	2.0	%	640	2.2	%	4	0.6	%
Total operating expenses	7,957	24.4	%	6,999	23.8	%	958	13.7	%
Income from operations	$15,122	46.3	%	$13,653	46.4	%	$1,469	10.8	%

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 the benefit of price increases in North America and Europe. The favorable impact of currency movements increased revenue by approximately 2%. The New Revenue Standard did not have a material impact on Water revenue in the second quarter of 2018.

Gross Profit. Gross profit increased due to higher sales volumes as well as a 50 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 freight costs. The impact from foreign currency movements decreased gross profit margin by approximately 35 basis points, including the impact of hedge gains in the prior period compared to hedge losses in the current period. The New Revenue Standard did not have a material impact on Water gross profit in the second quarter of 2018.

Operating Expenses. The increase in operating expense was primarily due to higher personnel-related costs in sales and marketing expenses and general and administrative expenses. 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 Three Months Ended June 30,						Change		
	2018	Percent of Revenue		2017	Percent of Revenue		Amount	Percentage	
Revenues	$34,998			$33,553			$1,445	4.3	%
Cost of revenue	14,311			13,871			440	3.2	%
Gross profit	20,687	59.1	%	19,682	58.7	%	1,005	5.1	%
Operating Expenses:									
Sales and marketing	6,505	18.6	%	6,941	20.7	%	(436)	(6.3	%)
General and administrative	4,805	13.7	%	4,753	14.2	%	52	1.1	%
Research and development	2,906	8.3	%	2,812	8.4	%	94	3.3	%
Total operating expenses	14,216	40.6	%	14,506	43.2	%	(290)	(2.0	%)
Income from operations	$6,471	18.5	%	$5,176	15.4	%	$1,295	25.0	%

Revenue. The increase in revenue was primarily due to an increase in recurring livestock and poultry testing in the U.S., Europe, and Latin America. These increases were mostly offset by lower revenue in the Asia-Pacific region related to continued pressure in our dairy business and lower pregnancy product sales, including impacts from lower milk prices. The favorable impact of currency movements increased revenue by approximately 4%. The New Revenue Standard did not have a material impact on LPD revenue in the second quarter of 2018.

Gross Profit. The increase in gross profit was due to higher sales volumes as well as a 40 basis point increase in the gross profit percentage. The increase in the gross profit percentage was primarily due to foreign currency movements and lower product costs, partially offset by lower prices. The impact from foreign currency movements increased gross profit margin by approximately 60 basis points, including the impact of higher relative hedge losses in the current period.

Operating Expenses. The decrease in sales and marketing expense was due primarily 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 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 Three Months Ended June 30,				Change	
	2018	Percent of Revenue	2017	Percent of Revenue	Amount	Percentage
Revenues	$5,609		$6,015		$(406)	(6.7 %)
Cost of revenue	2,996		3,512		(516)	(14.7 %)
Gross profit	2,613	46.6 %	2,503	41.6 %	110	4.4 %
Operating Expenses:						
Sales and marketing	439	7.8 %	601	10.0 %	(162)	(27.0 %)
General and administrative	773	13.8 %	826	13.7 %	(53)	(6.4 %)
Research and development	271	4.8 %	308	5.1 %	(37)	(12.0 %)
Total operating expenses	1,483	26.4 %	1,735	28.8 %	(252)	(14.5 %)
Income from operations	$1,130	20.1 %	$768	12.8 %	$362	47.1 %

Revenue. The decrease in revenue was due to lower volumes of our OPTI Medical analyzers and related consumables reflecting prior year customer restocking after temporary product availability constraints during the first quarter of 2017, offset by higher royalties associated with intellectual property related to our former pharmaceutical product line and higher realized prices of our OPTI Medical products and services. The favorable impact of currency movements increased revenue by approximately 40 basis points.

Gross Profit. The increase in gross profit was due to a 5% increase in the gross profit percentage due primarily to increased royalties and higher OPTI Medical realized prices, partially offset by higher OPTI Medical product costs. The overall change in currency exchange rates had an immaterial impact on the gross profit percentage.

Operating Expenses. The decrease in operating expense was due primarily to lower personnel costs in sales and marketing. General and administrative 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 June 30, 2018	2017	Change Amount	Percentage
Revenues	$—	$—	$—	N/A
Cost of revenue	(150)	208	(358)	(172.1)%
Gross profit	150	(208)	358	(172.1)%
Operating Expenses:				
Sales and marketing	540	272	268	98.5%
General and administrative	2,299	1,631	668	41.0%
Research and development	4,236	3,653	583	16.0%
Total operating expenses	7,075	5,556	1,519	27.3%
Loss from operations	$(6,925)	$(5,764)	$(1,161)	20.1%

Gross Profit. Costs of revenue impacts that were not allocated to segments were relatively consistent.

Operating Expenses. The overall increase in operating expenses was primarily due to foreign exchange losses on settlements of foreign currency denominated transactions compared to gains in the prior period, 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 $0.2 million for the three months ended June 30, 2018, as compared to $1.2 million for the three months ended June 30, 2017. The decrease in interest income was due primarily 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 second quarter of 2018.

Interest Expense. Interest expense was $8.5 million for the three months ended June 30, 2018, as compared to $9.2 million for the same period in the prior year. The decrease in interest expense was due to lower average balance on our Credit Facility, partially offset by higher variable interest rates.

Provision for Income Taxes. Our effective income tax rate was 20.9% for the three months ended June 30, 2018, as compared to 25.5% for the three months ended June 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.

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Results of Operations
Six Months Ended June 30, 2018, Compared to Six Months Ended June 30, 2017

Comparison to Prior Periods. Our six month period, also referred to as our first half of 2018, ended on June 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 Six Months Ended June 30, 2018	2017	Dollar Change	Reported Revenue Growth [1]	Percentage Change from Currency	Percentage Change from Acquisitions	Organic Revenue Growth [1]
CAG	$978,320	$843,175	$135,145	16.0 %	2.7 %	0.1 %	13.3 %
United States	643,151	566,317	76,834	13.6 %	—	0.1 %	13.5 %
International	335,169	276,858	58,311	21.1 %	8.2 %	—	12.9 %
Water	61,801	54,501	7,300	13.4 %	3.1 %	—	10.3 %
United States	29,661	27,385	2,276	8.3 %	—	—	8.3 %
International	32,140	27,116	5,024	18.5 %	6.3 %	—	12.3 %
LPD	67,238	62,870	4,368	6.9 %	5.9 %	—	1.1 %
United States	6,994	6,917	77	1.1 %	—	—	1.1 %
International	60,244	55,953	4,291	7.7 %	6.6 %	—	1.1 %
Other	11,049	10,415	634	6.1 %	0.8 %	—	5.3 %
Total Company	$1,118,408	$970,961	$147,447	15.2 %	2.9 %	0.1 %	12.2 %
United States	684,197	604,308	79,889	13.2 %	—	0.1 %	13.1 %
International	434,211	366,653	67,558	18.4 %	7.7 %	—	10.8 %

(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. International organic growth was strong in Europe and the Asia Pacific region, reflecting CAG Diagnostics recurring volume driven growth. 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 $27.2 million in the first half 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 Six Months Ended June 30, 2018	Percent of Revenue	2017	Percent of Revenue	Change Amount	Percentage
Revenues	$1,118,408		$970,961		$147,447	15.2 %
Cost of revenue	482,870		420,055		62,815	15.0 %
Gross profit	635,538	56.8 %	550,906	56.7 %	84,632	15.4 %
Operating Expenses:						
Sales and marketing	196,356	17.6 %	174,937	18.0 %	21,419	12.2 %
General and administrative	122,011	10.9 %	108,374	11.2 %	13,637	12.6 %
Research and development	58,533	5.2 %	52,788	5.4 %	5,745	10.9 %
Total operating expenses	376,900	33.7 %	336,099	34.6 %	40,801	12.1 %
Income from operations	$258,638	23.1 %	$214,807	22.1 %	$43,831	20.4 %

Gross Profit. Gross profit increased due to higher sales volumes and a 10 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, partially offset by higher information technology costs, including costs that were previously captured within operating expenses, as well as increased investments in reference laboratory capacity. 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 $11.7 million in the first half of 2018 attributable to the New Revenue Standard.

Operating Expense. The increase in total Company sales and marketing expense was due primarily 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 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 higher personnel-related costs, 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 3%.

Companion Animal Group

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

Net Revenue (dollars in thousands)	For the Six Months Ended June 30, 2018	2017	Dollar Change	Reported Revenue Growth (1)	Percentage Change from Currency	Percentage Change from Acquisitions	Organic Revenue Growth (1)
CAG Diagnostics recurring revenue:	$843,714	$726,999	$116,715	16.1 %	2.8%	—	13.3 %
IDEXX VetLab consumables	308,133	255,647	52,486	20.5 %	3.2%	—	17.3 %
Rapid assay products	115,379	108,161	7,218	6.7 %	1.3%	—	5.4 %
Reference laboratory diagnostic and consulting services	384,205	330,367	53,838	16.3 %	2.9%	—	13.4 %
CAG diagnostics services and accessories	35,997	32,824	3,173	9.7 %	3.0%	—	6.6 %
CAG Diagnostics capital - instruments	65,439	53,899	11,540	21.4 %	4.5%	—	16.9 %
Veterinary software, services and diagnostic imaging systems	69,167	62,277	6,890	11.1 %	0.6%	1.0 %	9.5 %
Net CAG revenue	$978,320	$843,175	$135,145	16.0 %	2.7%	0.1 %	13.3 %

(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 due primarily to increased volumes in reference laboratory diagnostic services and IDEXX VetLab consumables, supported by our differentiated diagnostic technologies and our expanded commercial organization. CAG Diagnostics recurring revenue included approximately $9.0 million in the first half 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 $6.1 million in the first half 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 and SNAP feline combination products. Rapid assay revenue included approximately $0.3 million in the first half 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 $2.8 million in the first half 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 SediVue Dx and Catalyst analyzer placements, supported by the introduction of IDEXX 360 in the first quarter of 2018. The success of our new 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 $15.7 million in the first half 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 $2.1 million in the first half of 2018 attributed to the New Revenue Standard.

The following table presents the CAG segment results of operations:

Results of Operations (dollars in thousands)	For the Six Months Ended June 30,						Change		
	2018	Percent of Revenue		2017	Percent of Revenue		Amount	Percentage	
Revenues	$978,320			$843,175			$135,145	16.0	%
Cost of revenue	430,477			372,019			58,458	15.7	%
Gross profit	547,843	56.0	%	471,156	55.9	%	76,687	16.3	%
Operating Expenses:									
Sales and marketing	173,774	17.8	%	154,156	18.3	%	19,618	12.7	%
General and administrative	101,128	10.3	%	89,463	10.6	%	11,665	13.0	%
Research and development	42,747	4.4	%	38,951	4.6	%	3,796	9.7	%
Total operating expenses	317,649	32.5	%	282,570	33.5	%	35,079	12.4	%
Income from operations	$230,194	23.5	%	$188,586	22.4	%	$41,608	22.1	%

Gross Profit. Gross profit increased primarily due to higher sales volume and a 10 basis point increase in the gross profit percentage. The increase in gross profit percentage was supported by the net benefit of price increases in our CAG Diagnostics recurring revenue portfolio and the favorable impact of productivity gains, partially offset by higher information technology costs, including costs that were previously captured within operating expenses, as well as increased investments in reference laboratory capacity. The impact from foreign currency movements increased gross profit margin by less than 10 basis points, including the impact of hedge gains in the prior period compared to hedge losses in the current period. Gross profit included approximately $11.4 million in the first half of 2018 attributable to the New Revenue Standard.

Operating Expense. The increase in sales and marketing expense was due primarily to increased personnel-related costs as we continue to invest in our global commercial infrastructure, offset by approximately $1.0 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 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 due primarily to increased personnel-related costs. The overall change in currency exchange rates resulted in an increase in operating expenses of approximately 2%.

Water

The following table presents the Water segment results of operations:

Results of Operations (dollars in thousands)	For the Six Months Ended June 30,						Change		
	2018	Percent of Revenue		2017	Percent of Revenue		Amount	Percentage	
Revenues	$61,801			$54,501			$7,300	13.4	%
Cost of revenue	18,360			16,374			1,986	12.1	%
Gross profit	43,441	70.3	%	38,127	70.0	%	5,314	13.9	%
Operating Expenses:									
Sales and marketing	8,168	13.2	%	7,168	13.2	%	1,000	14.0	%
General and administrative	6,398	10.4	%	5,785	10.6	%	613	10.6	%
Research and development	1,291	2.1	%	1,258	2.3	%	33	2.6	%
Total operating expenses	15,857	25.7	%	14,211	26.1	%	1,646	11.6	%
Income from operations	$27,584	44.6	%	$23,916	43.9	%	$3,668	15.3	%

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 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 $0.4 million in the first half of 2018 was attributed to the New Revenue Standard, as a result of accelerated revenue recognition upon shipping to customer instead of delivery to the customer. The favorable impact of currency movements increased revenue by approximately 3%.

Gross Profit. Gross profit increased due to higher sales volumes as well as a 30 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, as well as decreases in manufacturing costs. The impact from foreign currency movements decreased gross profit margin by approximately 60 basis points, including the impact of hedge gains in the prior period compared to hedge losses in the current period. Gross profit included approximately $0.3 million in the first half of 2018 attributable to the New Revenue Standard.

Operating Expenses. The increase in operating expense was primarily due to higher personnel-related costs in sales and marketing expenses and general and administrative expenses. Research and development expense was relatively unchanged. The overall change in currency exchange rates resulted in an increase in operating expenses of approximately 3%.

Livestock, Poultry and Dairy

The following table presents the LPD segment results of operations:

Results of Operations (dollars in thousands)	For the Six Months Ended June 30,						Change		
	2018	Percent of Revenue		2017	Percent of Revenue		Amount	Percentage	
Revenues	$67,238			$62,870			$4,368	6.9	%
Cost of revenue	28,904			26,343			2,561	9.7	%
Gross profit	38,334	57.0	%	36,527	58.1	%	1,807	4.9	%
Operating Expenses:									
Sales and marketing	13,119	19.5	%	12,476	19.8	%	643	5.2	%
General and administrative	9,715	14.4	%	9,162	14.6	%	553	6.0	%
Research and development	6,068	9.0	%	5,911	9.4	%	157	2.7	%
Total operating expenses	28,902	43.0	%	27,549	43.8	%	1,353	4.9	%
Income from operations	$9,432	14.0	%	$8,978	14.3	%	$454	5.1	%

Revenue. The increase in revenue was primarily due to an increase in recurring livestock and poultry testing in the U.S., Europe, and Latin America. These increases were partially offset by lower revenue in the Asia-Pacific region related to continued pressure in our dairy business, including impacts from lower milk prices. The favorable impact of currency movements increased revenue by approximately 6%. The New Revenue Standard did not have a material impact on LPD revenue in the first half of 2018.

Gross Profit. The increase in gross profit was due to higher sales volume partially offset by a 110 basis point reduction in the gross profit percentage. The decrease in the gross profit percentage reflected higher product costs and lower prices. The impact from foreign currency movements increased gross profit margin by approximately 40 basis points, including the impact of hedge gains in the prior period compared to hedge losses in the current period.

Operating Expenses. The increase in sales and marketing expense was due primarily 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 due primarily 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 3%.

Other

The following table presents the Other results of operations:

Results of Operations (dollars in thousands)	For the Six Months Ended June 30, 2018	Percent of Revenue	2017	Percent of Revenue	Change Amount	Percentage
Revenues	$11,049		$10,415		$634	6.1 %
Cost of revenue	6,362		5,801		561	9.7 %
Gross profit	4,687	42.4 %	4,614	44.3 %	73	1.6 %
Operating Expenses:						
Sales and marketing	959	8.7 %	1,220	11.7 %	(261)	(21.4 %)
General and administrative	1,577	14.3 %	1,617	15.5 %	(40)	(2.5 %)
Research and development	523	4.7 %	616	5.9 %	(93)	(15.1 %)
Total operating expenses	3,059	27.7 %	3,453	33.2 %	(394)	(11.4 %)
Income from operations	$1,628	14.7 %	$1,161	11.1 %	$467	40.2 %

Revenue. The increase in revenue was due to 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, partially offset by lower volumes of our OPTI Medical products and services. The favorable impact of currency movements increased revenue by approximately 80 basis points.

Gross Profit. Overall gross profit remained relatively flat despite a 1.9% decrease in the gross profit percentage due primarily to higher OPTI Medical product costs, offset by increased royalties. The overall change in currency exchange rates had an immaterial impact on the gross profit percentage.

Operating Expenses. The decrease in operating expense was due primarily to lower personnel costs in sales and marketing and research and development. General and administrative 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 Six Months Ended June 30, 2018	2017	Change Amount	Percentage
Revenues	$—	$—	$—	N/A
Cost of revenue	(1,233)	(482)	(751)	155.8 %
Gross profit	1,233	482	751	155.8 %
Operating Expenses:				
Sales and marketing	336	(83)	419	(504.8 %)
General and administrative	3,193	2,347	846	36.0 %
Research and development	7,904	6,052	1,852	30.6 %
Total operating expenses	11,433	8,316	3,117	37.5 %
Loss from operations	$(10,200)	$(7,834)	$(2,366)	30.2 %

Gross Profit. Costs of revenues impacts that were not allocated to segments were relatively consistent.

Operating Expenses. The overall increase in operating expenses was primarily due to foreign exchange losses on settlements of foreign currency denominated transactions compared to gains in the prior period, 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 $0.8 million for the six months ended June 30, 2018, as compared to $2.3 million for the six months ended June 30, 2017. The decrease in interest income was due primarily 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 $0.6 million in the first half of 2018.

Interest Expense. Interest expense was $17.7 million for the six months ended June 30, 2018, as compared to $17.7 million for the same period in the prior year. Higher variable interest rates on our Credit Facility were offset by lower average balances.

Provision for Income Taxes. Our effective income tax rate was 18.0% for the six months ended June 30, 2018, as compared to 22.5% for the six months ended June 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.

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 June 30, 2018, we had $174.6 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 $34.5 million at June 30, 2018, as compared to negative $32.6 million at December 31, 2017. Additionally, at June 30, 2018, we had remaining borrowing availability of $412.0 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 for the foreseeable future to fund our business as currently conducted. 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 June 30, 2018, and December 31, 2017:

Cash, cash equivalents and marketable securities (dollars in thousands)	June 30, 2018	December 31, 2017
U.S.	$3,302	$5,902
Foreign	171,257	466,028
Total	$174,559	471,930
Total cash, cash equivalents and marketable securities held in U.S. dollars by our foreign subsidiaries	$20,389	$334,339
Percentage of total cash, cash equivalents and marketable securities held in U.S. dollars by our foreign subsidiaries	11.7 %	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 $174.6 million of cash and cash equivalents held as of June 30, 2018, approximately 93% was held as bank deposits and approximately 7% was invested in money market funds restricted to U.S. government and agency securities.

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The following table presents additional key information concerning working capital:

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

(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):

	For the Six Months Ended June 30,		
(dollars in thousands)	2018	2017	Dollar Change
Net cash provided by operating activities	$153,728	$141,466	$12,262
Net cash provided (used) by investing activities	232,661	(72,714)	305,375
Net cash used by financing activities	(395,699)	(62,087)	(333,612)
Net effect of changes in exchange rates on cash	(3,806)	4,409	(8,215)
Net change in cash and cash equivalents	$(13,116)	$11,074	$(24,190)

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:

	For the Six Months Ended June 30,		
(dollars in thousands)	2018	2017	Dollar Change
Accounts receivable	$(32,872)	$(32,400)	$(472)
Inventories	(16,825)	(18,850)	2,025
Accounts payable	3	1,422	(1,419)
Deferred revenue	(3,252)	1,898	(5,150)
Other assets and liabilities	(55,781)	(21,426)	(34,355)
Total change in cash due to changes in operating assets and liabilities	$(108,727)	$(69,356)	$(39,371)

Cash used due to changes in operating assets and liabilities during the six months ended June 30, 2018, as compared to the same period in the prior year, increased approximately $39.4 million primarily due to the impact of instruments placements under a new volume commitment program referred to as IDEXX 360, which increases other assets and a related decrease in deferred revenues as a result of fewer instruments placements under 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 I of this Quarterly Report on Form 10-Q for additional information regarding our volume commitment programs and the impact of the New Revenue Standard.

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 $232.7 million for the six months ended June 30, 2018, as compared to cash used by investing activities of $72.7 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.

Financing Activities. Cash used by financing activities was $395.7 million for the six months ended June 30, 2018, as compared to cash used by financing activities of $62.1 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 $19.1 million during the six months ended June 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 10 to the unaudited condensed consolidated financial statements in Part I, Item I of this Quarterly Report on Form 10-Q for additional information about our share repurchases.

Net borrowing and repayment activity under the Credit Facility resulted in cash used of $218.0 million during the six months ended June 30, 2018, as compared to $93.0 million of cash provided in the same period of the prior year. At June 30, 2018, we had $437.0 million outstanding under the Credit Facility. The general availability of funds under the 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 the 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 June 30, 2018, we were in compliance with such covenant. The following details our consolidated leverage ratio calculation as of June 30, 2018:

Trailing 12 Months Adjusted EBITDA:	Twelve months ended June 30, 2018
Net income attributable to stockholders (as reported)	$306,910
Interest expense	37,212
Provision for income taxes	116,433
Depreciation and amortization	83,943
Share-based compensation expense	24,127
Adjusted EBITDA	$568,625

Debt to Adjusted EBITDA Ratio:	June 30, 2018
Line of credit	$437,000
Long-term debt	603,130
Total debt	1,040,130
Acquisition-related contingent consideration payable	2,537
Capitalized leases	330
U.S. GAAP change - deferred financing costs	460
Gross debt	1,043,457
Gross debt to Adjusted EBITDA ratio	1.84
Less: Cash and cash equivalents	(174,559)
Net debt	$868,898
Net debt to Adjusted EBITDA ratio	1.53

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 June 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.

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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% and 22% of our consolidated revenue was derived from products manufactured in the U.S. and sold internationally in local currencies for the three and six months ended June 30, 2018, respectively, as compared to 20% for both the three and six months ended June 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 operating 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 $4 million and operating income by approximately $2 million. Additionally, we project our foreign currency hedge contracts in place as of June 30, 2018, would result in offsetting gains that are immaterial. 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 remainder of the year, resulting in our revenues, operating profit, and diluted earnings per share for the year ending December 31, 2018, increasing by approximately $9 million, $1 million, and $0.01 per share, respectively. This favorable impact includes an immaterial impact 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 $1.14, the British pound at $1.28, the Canadian dollar at $0.74, and the Australian dollar at $0.72; and the Japanese yen at ¥115, the Chinese renminbi at RMB 6.90 and the Brazilian real at R$3.95 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 six months ended June 30, 2018 and 2017, as compared to the respective prior periods:

	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
(dollars in thousands)	2018	2017	2018	2017

Revenue impact	$9,791	$(5,301)	$27,607	$(8,256)
Operating profit impact, excluding hedge activity	$3,456	$(2,044)	$10,598	$(4,496)
Hedge gains - prior year	(753)	(80)	(1,828)	(889)
Hedge (losses) gains - current year	(833)	753	(2,668)	1,828
Hedging activity impact	(1,586)	673	(4,496)	939
Operating profit impact, including hedge activity	$1,870	$(1,371)	$6,102	$(3,557)
Diluted earnings per share impact, including hedge activity	$0.02	$(0.01)	$0.05	$(0.03)

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 June 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 June 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 below, 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. Except as described below in this Item 1A., there have been no material changes from the risk factors previously disclosed in the 2017 Annual Report. The risks described in this Quarterly Report on Form 10-Q and in our 2017 Annual Report 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.

Our dependence on suppliers could limit our ability to sell certain products or negatively affect our operating results

We rely on third-party suppliers to provide components for our products, manufacture products that we do not manufacture ourselves and perform services that we do not provide ourselves, including package-delivery services. Because these suppliers are independent third parties with their own financial objectives, actions taken by them could have a materially negative effect on our results of operations. The risks of relying on suppliers include our inability to enter into contracts with such suppliers on reasonable terms, breach, or termination by suppliers of their contractual obligations, inconsistent or inadequate quality control, relocation of supplier facilities, disruption to suppliers' business, including work stoppages, suppliers' failure to comply with complex and changing regulations, and third party financial failure. Any problems with our suppliers and associated disruptions to our supply chain could materially negatively impact our ability to supply the market, substantially decrease sales, lead to higher costs, or damage our reputation with our customers, and any longer-term disruptions

could potentially result in the permanent loss of our customers, which could reduce our recurring revenues and long-term profitability. Disruption to our supply chain could occur as a result of any number of events, including, but not limited to, increases in wages that drive up prices; the imposition of regulations, trade protection measures, tariffs, duties, import/export restrictions, quotas or embargoes on key components; labor stoppages; transportation failures affecting the supply and shipment of materials and finished goods; the unavailability of raw materials; severe weather conditions; natural disasters; civil unrest, geopolitical developments, war or terrorism; computer viruses, physical or electronic breaches, or other information system disruptions or security breaches; and disruptions in utility and other services. For more information regarding the risks presented by natural and other disasters and system disruptions and security breaches from cyberattacks, see the risk factor titled “Natural and other disasters, information technology system failures and network disruptions and cybersecurity breaches and attacks could adversely affect our business” in our 2017 Annual Report.

In addition, we currently purchase many products and materials from sole or single sources. Some of the products that we purchase from these sources are proprietary and, therefore, cannot be readily or easily replaced by alternative sources. These products include the majority of our Catalyst Dx and Catalyst One consumables; VetLyte electrolyte consumables; ProCyte Dx hematology, IDEXX VetAutoread hematology, and VetTest chemistry analyzers and related consumables and accessories; SediVue Dx urine sediment analyzer and consumables; image capture plates used in our diagnostic imaging systems; and certain components and raw materials used in our SNAP rapid assay kits and SNAP Pro Mobile Device, Catalyst One, LaserCyte and LaserCyte Dx hematology analyzers, livestock and poultry diagnostic tests, dairy testing products, and water testing products. Even where products and materials are available from alternate suppliers, if any becomes unavailable to us for any reason we likely would incur additional costs and delays in identifying or qualifying replacement materials and there can be no assurance that replacements would be available to us on acceptable terms, or at all. In certain cases, we may be required to obtain regulatory approval to use alternative suppliers, and this process of approval could delay production of our products or development of product candidates indefinitely.

We seek to mitigate risks associated with sole and single source suppliers, when possible, by entering into long-term contracts that provide for an uninterrupted supply of products at predictable or fixed prices. However, suppliers may decline to enter into long-term contracts for any number of reasons, which required us to purchase products via short-term contracts or on a purchase order basis. There can be no assurance that suppliers with which we do not have long-term contracts will continue to supply our requirements for products, that suppliers with which we do have long-term contracts will always fulfill their obligations under those contracts, or that any of our suppliers will not experience disruptions in their ability to supply our requirements for products. In cases where we purchase sole and single source products or components under purchase orders, we are more susceptible to unanticipated cost increases or changes in other terms of supply. In addition, under some contracts with suppliers we have minimum purchase obligations, and our failure to satisfy those obligations may result in loss of some or all of our rights under these contracts or require us to compensate the supplier. If we are unable to obtain adequate quantities of products in the future from sole and single source suppliers, or if such sole and single source suppliers are unable to obtain the components or other materials required to manufacture the products, we may be unable to supply the market, which could have a material adverse effect on our results of operations, and any longer-term disruptions could potentially result in the permanent loss of customers, which could reduce our recurring revenues and long-term profitability.

Our operations and reputation may be impaired if we, our products, or our services do not comply with evolving laws and regulations regarding data privacy and protection

The privacy and security of personally identifiable information stored, maintained, received, or transmitted electronically is a major issue in the United States and abroad. We offer products and services that collect and use personal data provided by client practices and individuals, including practice management systems for veterinary practices (e.g., Cornerstone and IDEXX Neo), online client communication tools and services (e.g., Pet Health Network Pro), cloud-based technology through VetConnect PLUS that enables veterinarians to access and analyze

patients' diagnostic data from our in-clinic analyzers, our rapid assays and reference laboratories in one place and two-way integration technology (e.g., IDEXX VetLab Station and IDEXX SmartService Solutions). Some of these products and services rely on third-party providers for cloud storage. We also engage in e-commerce through various websites and collect contact and other personally identifiable information from our customers and visitors to our websites.

Numerous federal and state laws and regulations govern the collection, use, retention, sharing and security of personally identifiable information, including personal data that we receive from our employees, customers, vendors and visitors to our websites and personal data collected by our customers and others when using our products and services. We are also subject to laws and regulations in non-U.S. countries covering data privacy and the protection of personal information. EU member states and other jurisdictions have adopted, or are considering adopting, data protection laws and regulations, which impose significant compliance obligations. Laws and regulations in these jurisdictions apply broadly to the collection, use, storage, disclosure, sharing and security of personal information that identifies or may be used to identify an individual, such as names, contact information, and sensitive personal data. These laws and regulations are subject to frequent revisions and

differing interpretations and have generally become more stringent over time. In many cases, the federal, state and international laws described above apply not only to third-party transactions, but also to transfers of information between us and our subsidiaries, and among us, our subsidiaries, and other parties with which we have commercial relations.

For example, in April 2016, the EU Parliament adopted the General Data Protection Regulation, or GDPR, which, among other things, imposes more stringent operational requirements for processors and controllers of personal data, including, for example, expanded disclosures about how personal information is to be used, limitations on retention of information and mandatory data breach notification requirements. The GDPR became effective May 25, 2018.

The laws and regulations related to data privacy and protection continue to develop, are subject to differing interpretations and may be applied inconsistently from jurisdiction to jurisdiction and may be inconsistent with our current data protection and privacy policies and practices. Further, the costs associated with compliance with these evolving legal and regulatory requirements are significant and likely to increase in the future and as a result may cause us to incur substantial costs, require us to change our business practices in a manner adverse to our business or limit our ability to use and share personal data. Any failure, or perceived failure, by us, the third parties with whom we work or our products and services to protect employee, applicant, vendor, website visitor or customer personal data (including as a result of a breach by or of a third-party provider) or to comply with any privacy-related laws, government regulations or directives or industry self-regulatory principles or our posted privacy policies could result in damage to our reputation, legal proceedings or actions against us by governmental entities or otherwise, which could have an adverse effect on our business. In addition, concerns about our practices with regard to the collection, use, disclosure, or security of personally identifiable information or other privacy-related matters, even if unfounded and even if we are in compliance with applicable laws, could damage our reputation and harm our business. We have and post on our website our own privacy policy and cookie statement concerning the collection, use and disclosure of user personal data.

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

During the three months ended June 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)
April 1 to April 30, 2018	139,550	$193.51	139,550	4,381,238
May 1 to May 31, 2018	233,143	$202.06	233,143	4,148,095
June 1 to June 30, 2018	144,816	$219.77	144,050	4,004,045
Total	517,509 [2]	$204.71	516,743	4,004,045

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

(1) 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 June 30, 2018, and no share repurchase programs expired during the period. Repurchases of 516,743 shares were made during the three months ended June 30, 2018, in transactions made pursuant to our share repurchase program.

(2) During the three months ended June 30, 2018, we received 766 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
10.1	Retirement Agreement dated May 24, 2018, between the Company and Jacqueline L. Studer (filed herewith).
31.1	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.
31.2	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.
32.1	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.
32.2	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.
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: August 1, 2018 Brian P. McKeon
Executive Vice President, Chief Financial Officer and Treasurer
(Principal Financial Officer)