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

(Mark One)

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

For the quarterly period ended **June 30, 2020**

OR

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

For the transition period from _______________ to _______________.

COMMISSION FILE NUMBER: 000-19271

IDEXX LABORATORIES, INC.

(Exact name of registrant as specified in its charter)

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

One IDEXX Drive	**Westbrook**	**Maine**	**04092**
(Address of principal executive offices)			*(ZIP Code)*

207-556-0300

(Registrant's telephone number, including area code)

Securities Registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.10 par value per share	IDXX	NASDAQ Global Select Market

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

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

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

Large Accelerated Filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date. The number of shares outstanding of the registrant's Common Stock, $0.10 par value per share, was 85,054,677, on July 27, 2020.

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 2016-13	ASU 2016-13, *Financial Instruments-Credit Losses (Topic 326)*: Measurement of Credit Losses on Financial Instruments
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 unsecured revolving credit facility, 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 provides point-of-care and laboratory diagnostics (including electrolyte and blood gas analyzers and related consumable products) for the human 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, certain 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.
PCR	Polymerase chain reaction, a technique used to amplify small segments of DNA
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 of senior notes, referred to as senior notes or long-term debt
U.S. GAAP	Accounting principles generally accepted in the United States of America
Water	Water, a reporting segment that provides water microbiology testing products

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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, 2020	December 31, 2019
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 105,293	$ 90,326
Accounts receivable, net	320,320	269,312
Inventories	229,377	195,019
Other current assets	124,622	124,982
Total current assets	779,612	679,639
Long-Term Assets:		
Property and equipment, net	550,895	533,845
Operating lease right-of-use assets	82,407	80,607
Goodwill	235,426	239,724
Intangible assets, net	55,619	58,468
Other long-term assets	256,754	240,192
Total long-term assets	1,181,101	1,152,836
TOTAL ASSETS	$ 1,960,713	$ 1,832,475
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable	$ 73,903	$ 72,172
Accrued liabilities	308,768	322,938
Line of credit	121,596	288,765
Current portion of deferred revenue	36,317	41,462
Total current liabilities	540,584	725,337
Long-Term Liabilities:		
Deferred income tax liabilities	36,599	33,024
Long-term debt	899,562	698,910
Long-term deferred revenue, net of current portion	57,764	48,743
Long-term operating lease liabilities	68,597	67,472
Other long-term liabilities	84,207	81,164
Total long-term liabilities	1,146,729	929,313
Total liabilities	1,687,313	1,654,650
Commitments and Contingencies (Note 16)		
Stockholders' Equity:		
Common stock, $0.10 par value: Authorized: 120,000 shares; Issued: 106,031 shares in 2020 and 105,711 shares in 2019; Outstanding: 85,049 shares in 2020 and 85,471 shares in 2019	10,603	10,571
Additional paid-in capital	1,247,456	1,213,517
Deferred stock units: Outstanding: 147 units in 2020 and 143 units in 2019	5,402	4,462
Retained earnings	1,854,586	1,595,648
Accumulated other comprehensive loss	(57,032)	(46,182)
Treasury stock, at cost: 20,981 shares in 2020 and 20,240 shares in 2019	(2,788,052)	(2,600,543)
Total IDEXX Laboratories, Inc. stockholders' equity	272,963	177,473
Noncontrolling interest	437	352
Total stockholders' equity	273,400	177,825
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 1,960,713	$ 1,832,475

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

IDEXX LABORATORIES, INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF INCOME

(in thousands, except per share amounts)

(Unaudited)

	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
	2020	2019	2020	2019
Revenue:				
Product revenue	$ 366,058	$ 365,638	$ 730,831	$ 699,696
Service revenue	271,534	254,465	533,097	496,463
Total revenue	637,592	620,103	1,263,928	1,196,159
Cost of Revenue:				
Cost of product revenue	124,024	127,893	249,478	245,276
Cost of service revenue	134,226	134,357	275,518	261,433
Total cost of revenue	258,250	262,250	524,996	506,709
Gross profit	379,342	357,853	738,932	689,450
Expenses:				
Sales and marketing	94,181	101,364	210,324	207,948
General and administrative	60,268	59,955	126,080	120,316
Research and development	31,645	32,259	64,955	63,773
Income from operations	193,248	164,275	337,573	297,413
Interest expense	(9,495)	(8,186)	(17,187)	(16,572)
Interest income	69	33	209	73
Income before provision for income taxes	183,822	156,122	320,595	280,914
Provision for income taxes	34,826	30,421	59,743	52,504
Net income	148,996	125,701	260,852	228,410
Less: Net income (loss) attributable to noncontrolling interest	56	(5)	85	23
Net income attributable to IDEXX Laboratories, Inc. stockholders	$ 148,940	$ 125,706	$ 260,767	$ 228,387
Earnings per Share:				
Basic	$ 1.75	$ 1.46	$ 3.06	$ 2.65
Diluted	$ 1.72	$ 1.43	$ 3.01	$ 2.61
Weighted Average Shares Outstanding:				
Basic	85,134	86,215	85,282	86,210
Diluted	86,402	87,615	86,568	87,594

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,	
	2020	2019	2020	2019
Net income	$ 148,996	$ 125,701	$ 260,852	$ 228,410
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	7,006	3,104	(15,200)	1,681
Unrealized (loss) gain on Euro-denominated notes, net of tax (benefit) expense of $(532) and $(202) in 2020 and $(309) and $158 in 2019	(1,689)	(980)	(642)	500
Unrealized (loss) gain on investments, net of tax (benefit) expense of $(93) and $(181) in 2020 and $(14) and $114 in 2019	(295)	(45)	(574)	362
Unrealized gain (loss) on derivative instruments:				
Unrealized gain (loss) on foreign currency exchange contracts, net of tax (benefit) expense of $(805) and $1,247 in 2020 and $(21) and $203 in 2019	(3,888)	67	5,538	1,110
Unrealized gain (loss) on cross currency swaps, net of tax expense (benefit) expense of $(283) and $586 in 2020 and $(148) and $159 in 2019	(1,447)	(563)	2,602	868
Reclassification adjustment for (gain) included in net income, net of tax (expense) of $(339) and $(579) in 2020 and $(358) and $(607) in 2019	(1,473)	(2,151)	(2,574)	(3,313)
Unrealized (loss) gain on derivative instruments	(6,808)	(2,647)	5,566	(1,335)
Other comprehensive (loss) gain, net of tax	(1,786)	(568)	(10,850)	1,208
Comprehensive income	147,210	125,133	250,002	229,618
Less: Comprehensive income (loss) attributable to noncontrolling interest	56	(5)	85	23
Comprehensive income attributable to IDEXX Laboratories, Inc.	$ 147,154	$ 125,138	$ 249,917	$ 229,595

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

IDEXX LABORATORIES, INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)

(in thousands, except per share amounts)
(Unaudited)

	Common Stock								
	Number of Shares	$0.10 Par Value	Additional Paid-in Capital	Deferred Stock Units	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock	Noncontrolling Interest	Total Stockholders' Equity (Deficit)
Balance December 31, 2019	**105,711**	**$ 10,571**	**$ 1,213,517**	**$ 4,462**	**$ 1,595,648**	**$ (46,182)**	**$(2,600,543)**	**$ 352**	**$ 177,825**
Cumulative effect of accounting changes (Note 2)	—	—	—	—	(1,829)	—	—	—	(1,829)
Net income	—	—	—	—	111,827	—	—	29	111,856
Other comprehensive loss, net	—	—	—	—	—	(9,064)	—	—	(9,064)
Repurchases of common stock, net	—	—	—	—	—	—	(187,767)	—	(187,767)
Common stock issued under stock plans	203	20	9,730	—	—	—	—	—	9,750
Share-based compensation cost	—	—	7,238	46	—	—	—	—	7,284
Balance March 31, 2020	**105,914**	**$ 10,591**	**$ 1,230,485**	**$ 4,508**	**$ 1,705,646**	**$ (55,246)**	**$(2,788,310)**	**$ 381**	**$ 108,055**
Net income	—	—	—	—	148,940	—	—	56	148,996
Other comprehensive loss, net	—	—	—	—	—	(1,786)	—	—	(1,786)
Issuances of common stock, net	—	—	—	—	—	—	258	—	258
Common stock issued under stock plans	117	12	10,068	—	—	—	—	—	10,080
Deferred stock units activity	—	—	(894)	894	—	—	—	—	—
Share-based compensation cost	—	—	7,797	—	—	—	—	—	7,797
Balance June 30, 2020	**106,031**	**$ 10,603**	**$ 1,247,456**	**$ 5,402**	**$ 1,854,586**	**$ (57,032)**	**$(2,788,052)**	**$ 437**	**$ 273,400**

	Number of Shares	$0.10 Par Value	Additional Paid-in Capital	Deferred Stock Units	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock	Noncontrolling Interest	Total Stockholders' Equity (Deficit)
Balance December 31, 2018	**105,087**	**$ 10,509**	**$ 1,138,216**	**$ 4,524**	**$ 1,167,928**	**$ (41,791)**	**$(2,288,899)**	**$ 280**	**$ (9,233)**
Net income	—	—	—	—	102,681	—	—	28	102,709
Other comprehensive income, net	—	—	—	—	—	1,776	—	—	1,776
Repurchases of common stock, net	—	—	—	—	—	—	(61,135)	—	(61,135)
Common stock issued under stock plans	258	26	11,393	—	—	—	—	—	11,419
Share-based compensation cost	—	—	6,266	68	—	—	—	—	6,334
Balance March 31, 2019	**105,345**	**$ 10,535**	**$ 1,155,875**	**$ 4,592**	**$ 1,270,609**	**$ (40,015)**	**$(2,350,034)**	**$ 308**	**$ 51,870**
Net income (loss)	—	—	—	—	125,706	—	—	(5)	125,701
Other comprehensive loss, net	—	—	—	—	—	(568)	—	—	(568)
Repurchases of common stock, net	—	—	—	—	—	—	(20,343)	—	(20,343)
Common stock issued under stock plans	133	13	8,556	(578)	—	—	—	—	7,991
Deferred stock units activity	—	—	(324)	324	—	—	—	—	—
Share-based compensation cost	—	—	6,855	43	—	—	—	—	6,898
Balance June 30, 2019	**105,478**	**$ 10,548**	**$ 1,170,962**	**$ 4,381**	**$ 1,396,315**	**$ (40,583)**	**$(2,370,377)**	**$ 303**	**$ 171,549**

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

IDEXX LABORATORIES, INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)
(Unaudited)

	For the Six Months Ended June 30,	
	2020	2019
Cash Flows from Operating Activities:		
Net income	$ 260,852	$ 228,410
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	46,786	42,976
Provision for credit losses (Note 2 & Note 6)	5,352	299
Benefit of deferred income taxes	2,658	3,426
Share-based compensation expense	15,081	13,232
Other	699	448
Changes in assets and liabilities:		
Accounts receivable	(57,277)	(37,699)
Inventories	(29,254)	(22,911)
Other assets and liabilities	4,540	(45,822)
Accounts payable	(6,729)	(4,030)
Deferred revenue	(6,695)	(6,849)
Net cash provided by operating activities	236,013	171,480
Cash Flows from Investing Activities:		
Purchases of property and equipment	(73,558)	(71,987)
Acquisition of intangible assets	(668)	—
Acquisitions of a business, net of cash acquired	—	(304)
Net cash used by investing activities	(74,226)	(72,291)
Cash Flows from Financing Activities:		
Repayments on revolving credit facilities, net	(167,692)	(147,519)
Issuance of senior notes	200,000	100,000
Debt issuance costs	(4,988)	(142)
Payment of acquisition-related contingent consideration	(1,080)	(1,695)
Repurchases of common stock, net	(182,815)	(74,994)
Proceeds from exercises of stock options and employee stock purchase plans	20,613	19,653
Shares withheld for statutory tax withholding on restricted stock	(8,668)	(7,572)
Net cash used by financing activities	(144,630)	(112,269)
Net effect of changes in exchange rates on cash	(2,190)	131
Net increase (decrease) in cash and cash equivalents	14,967	(12,949)
Cash and cash equivalents at beginning of period	90,326	123,794
Cash and cash equivalents at end of period	$ 105,293	$ 110,845
Supplemental Cash Flow Information:		
Cash paid for income taxes	$ 29,983	$ 56,950
Unpaid property and equipment, reflected in accounts payable and accrued liabilities	$ 12,670	$ 11,633

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

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, 2019, 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, 2020, are not necessarily indicative of the results to be expected for the full year or any future period, particularly in light of the COVID-19 pandemic and its effects on the domestic and global economies as described below. 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, 2020, and our Annual Report on Form 10-K for the year ended December 31, 2019, (the “2019 Annual Report”) filed with the SEC.

Beginning in the first quarter of 2020, to limit the spread of COVID-19, governments took various actions including the issuance of stay-at-home policies and social distancing procedures and guidelines, causing some businesses, including those that we serve, to adjust, reduce, or suspend business and operating activities. The primary impacts of the COVID-19 pandemic have been seen in our CAG and Water businesses. Veterinary care is widely recognized as an “essential” service for pet owners, and veterinarians continued to deliver essential medical care for sick and injured pets. The stay-at-home policies deployed during 2020 to combat the spread of COVID-19 resulted in a decrease in companion animal clinical visits, including delay of elective procedures and wellness visits. Our reference laboratories and manufacturing facilities are operating and have been designated as essential businesses although disruptions or reductions to operations may occur as the impacts from the COVID-19 pandemic and related responses continue to develop. In order to maintain the quality of drinking and surface water, Water compliance testing is also recognized as an "essential" service; however, our business has been impacted due to lower non-compliance testing, as well as some disruption in compliance testing due to social distancing policies, including beach and pool closures. During the second quarter of 2020, local, state, and federal governments began to ease the stay-at-home policies and allowed more businesses and facilities to re-open, leading to a recovery in companion animal clinical visits and associated demand for our diagnostic services. The extent to which the continuation, or a possible second-wave outbreak of COVID-19, or an outbreak of other health epidemics could impact our business, results of operations and financial condition, including the potential for write-offs or impairments of assets and suspension of capital investments, will depend on future developments. We are unable to predict with certainty the effects of the COVID-19 pandemic on our customers, suppliers, and vendors, as well as the actions of governments, and when and to what extent normal economic and operating conditions can resume; these effects may differ from those assumed in our projected estimates. Even after the COVID-19 pandemic has subsided, we may continue to experience adverse impacts to our business as a result of any economic impact that has occurred or may occur in the future.

The preparation of our condensed consolidated financial statements requires us to make estimates, judgments, and assumptions that may affect the reported amounts of assets, liabilities, equity, revenues, and expenses and related disclosure of contingent assets and liabilities. On an ongoing basis we evaluate our estimates, judgments, and methodologies. We base our estimates on historical experience and on various other assumptions that we believe are reasonable, the results of which form the basis for making judgments about the carrying values of assets, liabilities and equity, and the amount of revenues and expenses. We have made estimates of the impact of the COVID-19 pandemic within our financial statements, and our actual results may differ from these estimates and there may be changes to those estimates in future periods.

We have included certain terms and abbreviations used throughout this Quarterly Report on Form 10-Q in the “Glossary of Terms and Selected Abbreviations.”

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, 2020, are consistent with those discussed in Note 2. Summary of Significant Accounting Policies to the consolidated financial statements in our 2019 Annual Report, except as noted below.

New Accounting Pronouncements Adopted

We adopted ASU 2018-13, Fair Value Measurement (Topic 820), as of January 1, 2020, which modifies the disclosure requirements on fair value measurements under ASC Topic No. 820, Fair Value Measurement, as amended ("ASC 820"). ASU 2018-13 removes (a) the prior requirement to disclose the amount and reason for transfers between Level 1 and Level 2 of the fair value hierarchy contained in ASC 820, (b) the policy for timing of transfers between levels, and (c) the valuation processes used for Level 3 fair value measurements. ASU 2018-13 also adds, among other things, a requirement to disclose the range and weighted average of significant unobservable inputs used in Level 3 fair value measurements. The adoption did not have a material impact on our consolidated financial statements.

Effective January 1, 2020, we adopted ASU 2016-13, "Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments," using the modified retrospective transition method. This ASU amends the impairment model to utilize an expected loss methodology in place of the incurred loss methodology for financial instruments, including trade receivables and leased equipment. The amendment requires entities to consider a broader range of information to estimate expected credit losses, which may result in earlier recognition of losses. We recorded a non-cash cumulative effect adjustment to retained earnings of $1.8 million, net of $0.6 million of income taxes, on our opening consolidated balance sheet as of January 1, 2020. This adjustment, before the impact of income taxes, was comprised of $2.3 million related to our contract assets and sales-type leases, and $0.2 million related to accounts receivable. See Note 6. Credit Losses, for more information on our presentation of credit losses.

New Accounting Pronouncements Not Yet Adopted

In December 2019, the FASB issued ASU 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes." The new guidance is intended to simplify the accounting for income taxes by removing certain exceptions and by updating accounting requirements around goodwill recognized for tax purposes and the allocation of current and deferred tax expense among legal entities, among other minor changes. ASU 2019-12 is effective for fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. Early adoption is permitted. We do not expect the adoption of ASU 2019-12 to have a material impact on our consolidated financial statements.

In March 2020, the FASB issued ASU 2020-04, "Facilitation of the Effects of Reference Rate Reform on Financial Reporting". ASU 2020-04 is intended to provide optional expedients and exceptions to the U.S. GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens related to the discontinuation of the London Interbank Offered Rate ("LIBOR") or by another reference rate expected to be discontinued. The relief offered by this guidance, if adopted, is available to companies for the period March 12, 2020 through December 31, 2022. We do not expect the discontinuation of LIBOR to have a material impact on our consolidated financial statements.

NOTE 3. REVENUE RECOGNITION

Our revenue is recognized when, or as, performance obligations under the terms of a contract are satisfied, which occurs when control of the promised products or services is transferred to a customer. We exclude sales, use, value-added, and other taxes we collect on behalf of third parties from revenue. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring products or services to a customer. To accurately present the consideration received in exchange for promised products or services, we apply the 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 and lease receivables 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 predominantly 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. Revenues from instrument rental agreements and reagent rental programs are recognized either as operating leases on a ratable basis over the term of the agreement or as sales-type leases at the time of installation and customer acceptance. Customers typically pay for the right to use instruments under rental agreements in equal monthly amounts over the term of the rental agreement. Our reagent rental programs provide our customers the right to use our instruments upon entering into agreements to purchase specified amounts of consumables, which are considered embedded leases. For some agreements, the customers are provided with the right to purchase the instrument at the end of the lease term. Lease revenues from these agreements are presented in product revenue on our unaudited condensed consolidated income statement. Lease revenue was approximately $3.5 million and $7.7 million for the three and six months ended June 30, 2020, respectively, as compared to $4.6 million and $9.2 million for the three and six months ended June 30, 2019, respectively, including both operating leases and sales-type leases under ASC 842, *Leases,* for leases entered into after January 1, 2019, and ASC 840, *Leases,* for leases entered into prior to 2019. See below for revenue recognition under our 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 one to five 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.

On December 31, 2019, our deferred revenue related to extended warranties and post-contract support was $38.0 million, of which approximately $3.0 million and $16.7 million were recognized during the three and six months ended June 30, 2020. Furthermore, as a result of new agreements, our deferred revenue related to extended warranties and post-contract support was $35.8 million at June 30, 2020. 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. Deferred revenue related to extended warranties and post-contract support with an original duration of more than one year was $22.1 million at June 30, 2020, of which approximately 22%, 36%, 25%, 12%, and 5% are expected to be recognized during the remainder of 2020, the full years 2021, 2022, 2023, 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 IDEXX Neo®, Animana®, Pet Health Network® Pro, Petly® Plans, Web PACS, rVetLink®, and Smart Flow™. We recognize revenue for our SaaS subscriptions over time on a ratable basis over the contract term, beginning on the date our service is made available to the customer. Our subscription contracts vary in term from monthly to two 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 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 current and long-term 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. To the extent invoiced instrument revenue exceeds recognized instrument revenue, we record deferred revenue as a contract liability, which is subsequently recognized upon the purchase of future products and services. We have determined these agreements do not include a significant financing component. Differences between estimated and actual customer purchases may impact the amount and timing of revenue recognition.

On December 31, 2019, our capitalized customer acquisition costs were $137.4 million, of which approximately $10.0 million and $20.2 million were recognized as a reduction of revenue during the three and six months ended June 30, 2020. Furthermore, as a result of new up-front customer loyalty payments, net of subsequent recognition, our capitalized customer acquisition costs were $146.0 million at June 30, 2020. 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, 2020, were not material.

Volume Commitment Programs. Our volume commitment programs, such as our IDEXX 360 program, 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 at the time of installation and customer acceptance in advance of billing the customer, 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. Differences between estimated and actual customer purchases may impact the amount and timing of revenue recognition.

On December 31, 2019, our volume commitment contract assets were $83.9 million, of which approximately $4.7 million and $9.6 million were reclassified to accounts receivable when customers were billed for related products and services during the three and six months ended June 30, 2020. Furthermore, as a result of new placements under volume commitment programs, net of subsequent amounts reclassified to accounts receivable, and allowances established for credit losses upon adoption of ASU 2016-13, our contract assets were $91.6 million at June 30, 2020. 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, 2020, 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 $2.0 billion, of which approximately 13%, 25%, 22%, 19%, and 21% are expected to be recognized during the remainder of 2020, the full years 2021, 2022, 2023, and thereafter, respectively. These future revenues relate to performance obligations not yet satisfied, for which customers have committed to purchase goods and services, net of the expected revenue reductions from customer acquisition costs and expected price adjustments, and as a result, are lower than stated contractual commitments by our customers.

Instrument Rebate Programs. Our instrument rebate programs, previously referred to as IDEXX Instrument Marketing Programs, require an instrument purchase and provide customers the opportunity to earn future rebates based on the volume of products and services they purchase over the term of the program. We account for the customer’s right to earn rebates on future purchases as a separate performance obligation and determine the standalone selling price based on an estimate of rebates the customer will earn over the term of the program. Total consideration allocated to identified performance obligations is limited to goods and services that the customer is presently obligated to purchase and does not include estimates of future purchases that are optional. We allocate total consideration to identified performance obligations, including the 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.

On December 31, 2019, our deferred revenue related to instrument rebate programs was $49.1 million, of which approximately $4.2 million and $8.5 million were recognized when customers purchased eligible products and services and earned rebates during the three and six months ended June 30, 2020. Furthermore, as a result of new instrument purchases under rebate programs, net of subsequent recognition, our deferred revenue was $43.3 million at June 30, 2020, of which approximately 18%, 31%, 23%, 15%, and 13% are expected to be recognized during the remainder of 2020, the full years 2021, 2022, 2023, 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 lease for the right to use our instrument, and we determine the amount of lease revenue allocated to the instrument based on relative standalone selling prices. We evaluate the terms of these embedded leases to determine classification as either a sales-type lease or an operating lease.

Sales-type Reagent Rental Programs. Our reagent rental programs that effectively transfer control of instruments to our customers are classified as sales-type leases, and we recognize instrument revenue and cost in advance of billing the customer, at the time of installation and customer acceptance. Our right to future consideration related to instrument revenue is recorded as a lease receivable within other current and long-term assets, and is transferred to accounts receivable when customers are billed for future products and services over the term of the contract. On December 31, 2019, our lease receivable assets were $7.2 million, of which approximately $0.3 million and $0.7 million were reclassified to accounts receivable when customers were billed for related products and services during the three and six months ended June 30, 2020, respectively. Furthermore, as a result of new placements under sales-type reagent rental programs, net of subsequent amounts reclassified to accounts receivable, and allowances established for credit losses upon adoption of ASU 2016-13, our lease receivable assets were $7.9 million at June 30, 2020. The impacts of discounting and unearned income at June 30, 2020, were not material. Profit and loss recognized at the commencement date and interest income during the three and six months ended June 30, 2020, were not material. We monitor customer purchases over the term of their agreement to assess the realizability of our lease receivable assets. Impairments during the three and six months ended June 30, 2020, were not material.

Operating-type Reagent Rental Programs. Our reagent rental programs that do not effectively transfer control of instruments to our customers are classified as operating leases, and we recognize instrument revenue and costs ratably over the term of the agreement. The cost of the instrument is capitalized within property and equipment. During the three and six months ended June 30, 2020, we transferred instruments of$1.7 million and $4.1 million, respectively, as compared to $3.0 million and $5.0 million for the three and six months ended June 30, 2019, respectively, from inventory to property and equipment.

We estimate future revenue to be recognized related to our reagent rental programs of approximately $26.6 million, of which approximately 21%, 35%, 22%, 11%, and 11% are expected to be recognized during the remainder of 2020, the full years 2021, 2022, 2023, and thereafter, respectively. These future revenues relate to 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, 2020, were not material. Refund obligations related to customer incentive programs are recorded in accrued liabilities for the actual issuance of incentives, incentives earned but not yet issued and estimates of incentives to be earned in the future.

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

IDEXX Points. IDEXX Points may be applied to trade receivables due to us, converted to cash, or applied against the purchase price of IDEXX products and services. We consider IDEXX Points equivalent to cash. 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 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, 2020.

Disaggregated Revenues. We present disaggregated revenue for our CAG segment based on major product and service categories. Our Water segment is comprised of a single major product category. Although our LPD segment does not meet the quantitative thresholds to be reported as a separate segment, we believe it is important to disaggregate these revenues as a major product and service category within our Other reportable segment given its distinct markets, and therefore we have elected to report LPD as a reportable segment.

The following table presents disaggregated revenue by major product and service categories:

(in thousands)	**For the Three Months Ended June 30,**		**For the Six Months Ended June 30,**	
	2020	**2019**	**2020**	**2019**
CAG segment revenue:				
CAG Diagnostics recurring revenue:	$ 510,254	$ 477,431	$ 998,179	$ 921,222
IDEXX VetLab consumables	*196,061*	*175,159*	*384,774*	*342,370*
Rapid assay products	*64,658*	*68,605*	*122,088*	*123,036*
Reference laboratory diagnostic and consulting services	*228,816*	*213,892*	*449,077*	*416,550*
CAG Diagnostics services and accessories	*20,719*	*19,775*	*42,240*	*39,266*
CAG Diagnostics capital - instruments	18,871	31,526	42,704	60,275
Veterinary software, services and diagnostic imaging systems	36,975	38,392	77,213	74,770
CAG segment revenue	566,100	547,349	1,118,096	1,056,267
Water segment revenue	28,116	34,764	62,265	65,074
LPD segment revenue	32,244	33,104	66,398	64,610
Other segment revenue	11,132	4,886	17,169	10,208
Total revenue	$ 637,592	$ 620,103	$ 1,263,928	$ 1,196,159

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,**	
	2020	**2019**	**2020**	**2019**
United States	$ 405,998	$ 388,875	$ 802,781	$ 747,163
Europe, the Middle East and Africa	123,969	124,840	253,735	246,586
Asia Pacific Region	71,750	64,033	135,262	124,108
Canada	25,357	27,654	49,604	50,878
Latin America	10,518	14,701	22,546	27,424
Total	$ 637,592	$ 620,103	$ 1,263,928	$ 1,196,159

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 income. Deferred commission costs are periodically reviewed for impairment.

On December 31, 2019, our deferred commission costs, included within other assets, were $15.6 million, of which approximately $1.3 million and $2.7 million of commission expense was recognized during the three and six months ended June 30, 2020, respectively. Furthermore, as a result of commissions related to new extended warranties and SaaS subscriptions, net of subsequent recognition, our deferred commission costs were $15.7 million at June 30, 2020. Impairments of deferred commission costs during the three and six months ended June 30, 2020, 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. From time to time we may acquire the assets of small reference labs that we account for as an asset purchase.

During the fourth quarter of 2019, we acquired the assets of a multi-site reference laboratory in the Midwest of the U.S. for $50.0 million in cash. This acquisition expands our national reference laboratory presence in the U.S. and was accounted for as a business combination. We finalized the valuation of the assets acquired during the first quarter of 2020. The fair value of the assets acquired consists of $26.9 million in intangible assets, primarily for customer relationships, with a weighted average life of 13.8 years, $0.2 million of tangible assets, and $22.9 million of goodwill, representing synergies within our reference laboratory portfolio. The goodwill is expected to be deductible for income tax purposes.

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, 2020, totaled $2.3 million and $38.6 million as compared to $1.9 million and $36.3 million for the three and six months ended June 30, 2019. The total unrecognized compensation expense, net of estimated forfeitures, for unvested share-based compensation awards outstanding at June 30, 2020, was $70.5 million, which will be recognized over a weighted average period of approximately 1.9 years. During the three and six months ended June 30, 2020, we recognized expenses of $7.8 million and $15.1 million as compared to $6.9 million and $13.2 million for the three and six months ended June 30, 2019, 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,	
	2020	2019
Share price at grant	$ 288.49	$ 208.25
Expected stock price volatility	27 %	26 %
Expected term, in years	6.0	6.0
Risk-free interest rate	1.4 %	2.5 %
Weighted average fair value of options granted	$ 84.09	$ 63.93

NOTE 6. CREDIT LOSSES

We are exposed to credit losses primarily through our sales of products and services to our customers. We maintain allowances for credit losses 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. Historical credit loss experience provides the basis for the estimation of expected credit losses. Adjustments to historical loss information are made for differences in current economic conditions. See Note 2. Accounting Policies, for more information on our adoption of ASU 2016-13 on January 1, 2020, using the modified retrospective transition method.

Additional allowances may be required if either the financial condition of our customers was 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. We monitor our ongoing credit exposure through active review of counterparty balances against contract terms and due dates. Our activities include timely account reconciliations, dispute resolution and payment confirmations. We may employ collection agencies and legal counsel to pursue recovery of defaulted receivables.

Account balances are charged off against the allowance when we believe it is probable the receivable will not be recovered. We may require collateralized asset support or a prepayment to mitigate credit risk. We do not have any off-balance sheet credit exposure related to our customers.

Accounts Receivable

The allowance for credit losses associated with accounts receivable was $7.6 million and $3.6 million at June 30, 2020 and December 31, 2019, respectively. Accounts receivable reflected on the balance sheet is net of this reserve. Based on an aging analysis, at June 30, 2020, approximately 88% of our accounts receivable had not yet reached the invoice due date and approximately 12% was considered past due, of which approximately 2.1% was greater than 60 days past due. At December 31, 2019, approximately 84% of our accounts receivable had not yet reached the invoice due date and approximately 16% was considered past due, of which approximately 1.5% was greater than 60 days past due.

Contract assets and lease receivables

The allowance for credit losses associated with the contract assets and lease receivables was $3.0 million, at June 30, 2020. The assets reflected on the balance sheet are net of these reserves. Historically, we have experienced low credit loss rates on our customer commitment programs and lease receivables. 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.

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 price 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, 2020	December 31, 2019
Raw materials	$ 49,129	$ 41,202
Work-in-process	20,314	20,077
Finished goods	159,934	133,740
Inventories	$ 229,377	$ 195,019

NOTE 8. LEASES

The majority of our facilities are occupied under operating lease arrangements with various expiration dates through 2067, some of which include options to extend the life of the lease, and some of which include options to terminate the lease within one year. In certain instances, we are responsible for the real estate taxes and operating expenses related to these facilities. Additionally, we enter into operating leases for certain vehicles and office equipment in the normal course of business. We determine the expected term of any executed agreements using the non-cancelable lease term plus any renewal options by which the failure to renew imposes a penalty in such amount that renewal is reasonably assured. The derived expected term is then used in the determination of a financing or operating lease and in the calculation of straight-line rent expense. Rent escalations are considered in the calculation of minimum lease payments in our capital lease tests and in determining straight-line rent expense for operating leases. Minimum lease payments include the fixed lease component of the agreement, as well as fixed rate increases that are initially measured at the lease commencement date. Variable lease payments based on an index, payments associated with non-lease components and short-term rentals (leases with terms less than 12 months) are expensed as incurred. Consideration is allocated to the lease and non-lease components based on the estimated standalone prices.

We determine if an arrangement is a lease at its inception. Operating leases are included in operating lease right-of-use assets, accrued liabilities, and long-term operating lease liabilities in our consolidated balance sheets. Our financing leases are not material to our financial statements.

Right-of-use assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease liabilities and right-of-use assets are recognized at commencement date based on the present value of lease payments over the lease term. As most of our leases do not provide an explicit rate, we use our incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Rent expense for lease payments is recognized on a straight-line basis over the lease term. The operating lease right-of-use assets also includes any rent prepayments, lease incentives upon receipt and straight-line rent expense impacts, which represent the difference between our operating lease liabilities and right-of-use assets.

Maturities of operating lease liabilities were as follows:

(in thousands, except lease term and discount rate)		**June 30, 2020**
2020 (remainder of year)	$	9,263
2021		19,956
2022		16,841
2023		11,714
2024		7,833
Thereafter		35,739
Total lease payments		101,346
Less imputed interest		(16,276)
Total	$	85,070
Current operating lease liabilities, included in accrued liabilities	$	16,473
Long-term operating lease liabilities	$	68,597
Weighted average remaining lease term - operating leases		9.9 years
Weighted average discount rate - operating leases		3.5 %

Total minimum future lease payments of approximately $1.3 million for leases that have not commenced as of June 30, 2020, are not included in the condensed consolidated financial statements, as we do not yet control the underlying assets. These leases are expected to commence between 2020 and 2021 with lease terms of approximately 5 years to 10 years.

Rent expense charged to operations under operating leases was approximately $5.2 million and $10.6 million during the three and six months ended June 30, 2020, respectively, and $5.1 million and $10.3 million during the three and six months ended June 30, 2019, respectively. Variable rent and short-term lease expenses were not material.

Supplemental cash flow information for leases was as follows:

(in thousands)		**For the Six Months Ended June 30, 2020**
Cash paid for amounts included in the measurement of operating leases liabilities	$	9,346
Right-of-use assets obtained in exchange for operating lease obligations, net of early lease terminations	$	10,738

NOTE 9. OTHER CURRENT AND LONG-TERM ASSETS

Other current assets consisted of the following:

(in thousands)	June 30, 2020	December 31, 2019
Customer acquisition costs	$ 41,569	$ 39,329
Prepaid expenses	31,795	31,992
Contract assets, net	18,860	17,659
Taxes receivable	15,769	20,516
Deferred sales commissions	5,321	5,202
Other assets	11,308	10,284
Other current assets	$ 124,622	$ 124,982

Other long-term assets consisted of the following:

(in thousands)	June 30, 2020	December 31, 2019
Customer acquisition costs	$ 104,406	$ 98,117
Contract assets, net	72,721	66,226
Investment in long-term product supply arrangements	13,388	13,657
Deferred sales commissions	10,409	10,442
Deferred income taxes	7,575	8,100
Taxes receivable	11,543	14,960
Other assets	36,712	28,690
Other long-term assets	$ 256,754	$ 240,192

NOTE 10. ACCRUED LIABILITIES

Accrued liabilities consisted of the following:

(in thousands)	June 30, 2020	December 31, 2019
Accrued employee compensation and related expenses	$ 106,191	$ 127,174
Accrued expenses	67,265	86,296
Accrued customer incentives and refund obligations	63,149	63,079
Accrued taxes	55,690	31,108
Current lease liabilities	16,473	15,281
Accrued liabilities	$ 308,768	$ 322,938

Other long-term liabilities consisted of the following:

(in thousands)	June 30, 2020	December 31, 2019
Accrued taxes	$ 66,100	$ 67,463
Other accrued long-term expenses	18,107	13,701
Other long-term liabilities	$ 84,207	$ 81,164

NOTE 11. DEBT

Senior Notes

The following describes all of our currently outstanding unsecured senior notes issued and sold in private placements (collectively, the "Senior Notes") as of June 30, 2020:

(Principal Amount in thousands)

Issue Date	Due Date	Series	Principal Amount	Coupon Rate	Senior Note Agreement [1]
12/11/2013	12/11/2023	2023 Series A Notes	$ 75,000	3.94 %	NY Life 2013 Note Agreement
12/11/2013	12/11/2025	2025 Series B Notes	$ 75,000	4.04 %	NY Life 2013 Note Agreement
09/04/2014	09/04/2026	2026 Senior Notes	$ 75,000	3.72 %	NY Life 2014 Note Agreement
07/21/2014	07/21/2021	2021 Series A Notes	$ 50,000	3.32 %	Prudential 2015 Amended Agreement
07/21/2014	07/21/2024	2024 Series B Notes	$ 75,000	3.76 %	Prudential 2015 Amended Agreement
06/18/2015	06/18/2025	2025 Series C Notes	€ 88,857	1.785 %	Prudential 2015 Amended Agreement
02/12/2015	02/12/2022	2022 Series A Notes	$ 75,000	3.25 %	MetLife 2014 Note Agreement
02/12/2015	02/12/2027	2027 Series B Notes	$ 75,000	3.72 %	MetLife 2014 Note Agreement
03/14/2019	03/14/2029	2029 Series C Notes	$ 100,000	4.19 %	MetLife 2014 Note Agreement
04/02/2020	04/02/2030	MetLife 2030 Series D Notes	$ 125,000	2.50 %	MetLife 2014 Note Agreement
04/14/2020	04/14/2030	Prudential 2030 Series D Notes	$ 75,000	2.50 %	Prudential 2015 Amended Agreement

(1) In each case, as amended.

MetLife 2014 Note Agreement

On March 23, 2020, we entered into the Second Amendment to the MetLife 2014 Note Agreement (the "MetLife Second Amendment"), in order to (i) increase the facility size from $150 million to $300 million, (ii) extend the facility issuance period to December 20, 2022, (iii) make various implementing and administrative changes in order to facilitate a $125 million notes issuance on April 2, 2020 and (iv) allow the amount available to be issued under the facility to equal $300 million, less the amounts outstanding on 2029 Series C Notes and MetLife 2030 Series D Notes.

On April 2, 2020, we issued and sold to MetLife and other purchasers $125 million of our unsecured senior notes (the "MetLife 2030 Series D Notes") pursuant to the MetLife Second Amendment. The entire outstanding principal balance of the MetLife 2030 Series D Notes is due and payable on April 2, 2030, and the MetLife 2030 Series D Notes bear interest at the rate of 2.50% per annum. We used the proceeds received from the MetLife 2030 Series D Notes for general corporate purposes.

Prudential 2015 Amended Agreement

On April 10, 2020, we entered into the Second Amendment to the Prudential 2015 Amended Agreement (the "Prudential Second Amendment"), in order to (i) increase the facility size to $425 million, (ii) extend the facility issuance period to April 10, 2023, (iii) make various implementing and administrative changes in order to facilitate a $75 million notes issuance on April 14, 2020, (iv) allow the amount available to be issued under the facility to equal $425 million less the amount of notes outstanding from time to time during the issuance period and (v) modify several defined terms, schedules and covenant baskets in the Prudential 2015 Amended Agreement to create additional operating flexibility, and in particular to align such provisions with similar modifications we made substantially concurrently in our other debt facilities.

On April 14, 2020, we issued and sold to Prudential and other purchasers $75 million of our unsecured senior notes (the "Prudential 2030 Series D Notes") pursuant to the Prudential Second Amendment. The entire outstanding balance of the Prudential 2030 Series D Notes is due and payable on April 14, 2030, and the Prudential 2030 Series D Notes bear interest at the rate of 2.50% per annum. We used the proceeds received from the Prudential 2030 Series D Notes for general corporate purposes.

NY Life 2013 and 2014 Note Agreements

On April 10, 2020, we amended the NY Life 2013 Note Agreement and the NY Life 2014 Note Agreement by entering into two Amendments to Note Purchase Agreement with New York Life Insurance Company and the other parties thereto, which modified several defined terms, schedules and covenant baskets in the NY Life 2013 Agreement and the NY Life 2014 Note Agreement to create additional operating flexibility, and in particular to align such provisions with similar modifications we made substantially concurrently in our other debt facilities.

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. The sole financial covenant is a consolidated leverage ratio test that requires our ratio of debt to earnings before interest, taxes, depreciation, amortization, acquisition-related expense, and share-based compensation, as defined in the Senior Note Agreements, not to exceed 3.5-to-1. At June 30, 2020, we were in compliance with the covenants of the Senior Note Agreements.

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 Agreement, 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.

Credit Facility

On April 14, 2020, we, along with IDEXX Distribution, Inc., IDEXX Operations, Inc., OPTI Medical Systems, Inc., IDEXX Laboratories Canada Corporation, IDEXX Europe B.V., and IDEXX Holding B.V., our wholly-owned subsidiaries (whether directly or indirectly held) (collectively, the “Borrowers”), entered into a third amended and restated credit agreement (the “Credit Agreement”) relating to a three-year unsecured revolving credit facility in the principal amount of $1 billion, among the Borrowers, the lenders party thereto, JPMorgan Chase Bank, N.A., as administrative agent, JPMorgan Chase Bank, N.A., Toronto Branch, as Toronto agent, and the other parties thereto.

The Credit Agreement amends and restates that certain second amended and restated credit agreement, dated as of December 4, 2015, (which provided for a $850 million five-year unsecured revolving credit facility) to extend the maturity to April 14, 2023 and to increase the aggregate commitments available for borrowing by the Borrowers to $1 billion with the option to increase the aggregate commitments by $250 million, for an aggregate maximum of up to $1.25 billion, subject to the Borrowers obtaining commitments from existing or new lenders and satisfying other conditions specified in the Credit Agreement.

Although the Credit Facility does not mature until April 14, 2023, all individual borrowings under the terms of the Credit Facility with an interest rate based on a LIBOR, EURIBOR, or Canadian Dollar rate (as selected by the borrower) have a stated term between 30 and 180 days. At the end of each term, the obligation is either repaid or rolled over into a new borrowing, or replaced by a borrowing based on a published prime rate (where interest is then paid quarterly). The Credit Facility contains a subjective material adverse event notification clause, which allows the debt holders to call the loans under the Credit Facility if we fail to provide prompt written notice to the syndicate of such an event. Based on the stated term and the existence of the subjective material adverse event clause, this Credit Facility is reflected in the current liabilities section of our consolidated balance sheets.

NOTE 12. 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, 2020 and 2019, was not material.

The following is a summary of our open market common stock repurchases, reported on a trade date basis, and shares acquired through employee surrender:

(in thousands, except per share amounts)	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
	2020	2019	2020	2019
Shares repurchased in the open market	—	86	721	353
Shares acquired through employee surrender for statutory tax withholding	—	1	30	37
Total shares repurchased	—	87	751	390
Cost of shares repurchased in the open market	$ —	$ 20,285	$ 179,623	$ 74,147
Cost of shares for employee surrenders	65	169	8,669	7,572
Total cost of shares	$ 65	$ 20,454	$ 188,292	$ 81,719
Average cost per share - open market repurchases	$ —	$ 235.94	$ 249.20	$ 209.81
Average cost per share - employee surrenders	$ 312.19	$ 249.77	$ 288.94	$ 207.16
Average cost per share - total	$ 312.19	$ 236.04	$ 250.79	$ 209.56

NOTE 13. INCOME TAXES

Our effective income tax rate was 18.9% for the three months ended June 30, 2020, as compared to 19.5% for the three months ended June 30, 2019, and 18.6% for the six months ended June 30, 2020, as compared to 18.7% for the six months ended June 30, 2019. The decrease in our effective tax rate for the three and six months ended June 30, 2020, as compared to the same period in the prior year, was primarily driven by regional earnings mix, with relatively higher statutory earnings subject to lower international tax rates than domestic tax rates.

The effective tax rate for the three and six months ended June 30, 2020, differed from the U.S. statutory tax rate of 21% primarily due tax benefits from share-based compensation.

NOTE 14. ACCUMULATED OTHER COMPREHENSIVE INCOME

The changes in AOCI, net of tax, consisted of the following:

	For the Six Months Ended June 30, 2020					
		Unrealized (Loss) Gain on Cash Flow Hedges, Net of Tax	Unrealized (Loss) Gain on Net Investment Hedges, Net of Tax			
(in thousands)	Unrealized Gain (Loss) on Investments, Net of Tax	Foreign Currency Exchange Contracts	Euro-Denominated Notes	Cross Currency Swaps	Cumulative Translation Adjustment	Total
Balance as of December 31, 2019	$ 110	$ (736)	$ 1,396	$ 3,467	$ (50,419)	$ (46,182)
Other comprehensive (loss) income before reclassifications	(574)	5,538	(642)	2,602	(15,200)	(8,276)
Gain reclassified from accumulated other comprehensive income	—	(2,574)	—	—	—	(2,574)
Balance as of June 30, 2020	$ (464)	$ 2,228	$ 754	$ 6,069	$ (65,619)	$ (57,032)

	For the Six Months Ended June 30, 2019					
		Unrealized Gain (Loss) on Cash Flow Hedges, Net of Tax	Unrealized (Loss) Gain on Net Investment Hedges, Net of Tax			
(in thousands)	Unrealized (Loss) Gain on Investments, Net of Tax	Foreign Currency Exchange Contracts	Euro-Denominated Notes	Cross Currency Swaps	Cumulative Translation Adjustment	Total
Balance as of December 31, 2018	$ (157)	$ 6,229	$ (394)	$ 1,360	$ (48,829)	$ (41,791)
Other comprehensive income before reclassifications	362	1,110	500	868	1,681	4,521
Gain reclassified from accumulated other comprehensive income	—	(3,313)	—	—	—	(3,313)
Balance as of June 30, 2019	$ 205	$ 4,026	$ 106	$ 2,228	$ (47,148)	$ (40,583)

The following tables present components and amounts reclassified out of AOCI to net income:

(in thousands)	**Affected Line Item in the Statements of Income**	**Amounts Reclassified from AOCI For the Three Months Ended June 30,**	
		2020	**2019**
Gain on derivative instruments classified as cash flow hedges included in net income:			
Foreign currency exchange contracts	Cost of revenue	$ 1,812	$ 2,509
	Tax expense	339	358
	Gain, net of tax	$ 1,473	$ 2,151

(in thousands)	**Affected Line Item in the Statements of Income**	**Amounts Reclassified from AOCI For the Six Months Ended June 30,**	
		2020	**2019**
Gain on derivative instruments classified as cash flow hedges included in net income:			
Foreign currency exchange contracts	Cost of revenue	$ 3,153	$ 3,920
	Tax expense	579	607
	Gain, net of tax	$ 2,574	$ 3,313

NOTE 15. 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 5 to the consolidated financial statements in our 2019 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:

(in thousands)	**For the Three Months Ended June 30,**		**For the Six Months Ended June 30,**	
	2020	**2019**	**2020**	**2019**
Shares outstanding for basic earnings per share	85,134	86,215	85,282	86,210
Shares outstanding for diluted earnings per share:				
Shares outstanding for basic earnings per share	85,134	86,215	85,282	86,210
Dilutive effect of share-based payment awards	1,268	1,400	1,286	1,384
	86,402	87,615	86,568	87,594

Certain awards and options to acquire shares have been excluded from the calculation of shares outstanding for diluted earnings per share because they were anti-dilutive. The following table presents information concerning those anti-dilutive awards and options:

(in thousands)	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
	2020	2019	2020	2019
Weighted average number of shares underlying anti-dilutive awards	—	—	1	—
Weighted average number of shares underlying anti-dilutive options	270	286	218	235

NOTE 16. COMMITMENTS, CONTINGENCIES AND GUARANTEES

Commitments

See “Note 8. Leases”, for more information regarding our lease 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, the results of legal actions cannot be predicted with certainty, and therefore our actual losses with respect to these contingencies could exceed our accruals. At June 30, 2020, 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.

We are a defendant in an ongoing litigation matter involving an alleged breach of contract for underpayment of royalty payments made from 2004 through 2017 under an expired patent license agreement. The plaintiff has asserted a claim of approximately $50 million, inclusive of interest, alleging that the incorrect royalty provision was applied to certain licensed products and services throughout the agreement term and that royalties were also due on non-licensed diagnostic services that were provided concurrently with licensed services. While it is possible that we may have a loss related to this claim, we do not believe a loss is probable at this time. We are vigorously defending ourselves against the plaintiff’s allegations. While we believe the claim is without merit, litigation is inherently unpredictable and there can be no assurance that we will prevail in this matter.

Excluding the litigation described above, we have had no significant changes to our contingencies and guarantees discussed in Note 15 to the consolidated financial statements in our 2019 Annual Report.

NOTE 17. 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 medical diagnostics (“OPTI Medical”) market with our out-licensing arrangements. Assets are not allocated to segments for internal reporting purposes.

Effective January 1, 2020, we modified our management reporting to the Chief Operating Decision Maker to provide a more comprehensive view of the performance of our operating segments by including costs that previously were not allocated to our segments. Prior to January 1, 2020, certain costs were not allocated to our operating segments and were instead reported under the caption “Unallocated Amounts”. These costs primarily consist of our R&D function, regional or country expenses and unusual items. Corporate support function costs (such as information technology, facilities, human resources, finance and legal), health benefits and incentive compensation were charged to our business segments at pre-determined budgeted amounts or rates. Beginning January 1, 2020, the segments reflect these actual costs allocated to the segment based on various allocation methods, including revenue and headcount. Foreign exchange losses on settlements of foreign currency denominated transactions are not allocated to our operating segments and are instead reported within our Other reporting segment.

The following table reflects adjustments to previously reported costs in our Unallocated segment, that are now allocated to our CAG, Water, LPD and Other segments for the three and six months ended June 30, 2019, respectively:

(in thousands)	Three Months Ended June 30, 2019				
	CAG	Water	LPD	Other	Unallocated
Cost of sales	$ 344	$ 15	$ 19	$ 8	$ (386)
Gross profit	(344)	(15)	(19)	(8)	386
Operating Expenses:					
Sales and marketing	$ (18)	$ (1)	$ (1)	$ —	$ 20
General and administrative	(893)	(179)	(206)	949	329
Research and development	3,960	10	13	—	(3,983)
Total operating expenses	3,049	(170)	(194)	949	(3,634)
Income from operations	$ (3,393)	$ 155	$ 175	$ (957)	$ 4,020

(in thousands)	Six Months Ended June 30, 2019				
	CAG	Water	LPD	Other	Unallocated
Cost of sales	$ 162	$ 7	$ 9	$ 4	$ (182)
Gross profit	(162)	(7)	(9)	(4)	182
Operating Expenses:					
Sales and marketing	$ 111	$ 5	$ 6	$ —	$ (122)
General and administrative	(1,095)	(219)	(253)	1,164	403
Research and development	7,518	19	24	—	(7,561)
Total operating expenses	6,534	(195)	(223)	1,164	(7,280)
Income from operations	$ (6,696)	$ 188	$ 214	$ (1,168)	$ 7,462

The following is a summary of segment performance:

	For the Three Months Ended June 30,				
	CAG	Water	LPD	Other	Consolidated Total
2020					
Revenue	$ 566,100	$ 28,116	$ 32,244	$ 11,132	$ 637,592
Income (loss) from operations	$ 167,969	$ 12,258	$ 8,249	$ 4,772	$ 193,248
Interest expense, net					(9,426)
Income before provision for income taxes					183,822
Provision for income taxes					34,826
Net income					148,996
Less: Net income attributable to noncontrolling interest					56
Net income attributable to IDEXX Laboratories, Inc. stockholders					$ 148,940
2019					
Revenue	$ 547,349	$ 34,764	$ 33,104	$ 4,886	$ 620,103
Income (loss) from operations	$ 141,190	$ 16,722	$ 6,568	$ (205)	$ 164,275
Interest expense, net					(8,153)
Income before provision for income taxes					156,122
Provision for income taxes					30,421
Net income					125,701
Less: Net loss attributable to noncontrolling interest					(5)
Net income attributable to IDEXX Laboratories, Inc. stockholders					$ 125,706

(in thousands)	For the Six Months Ended June 30,				
	CAG	**Water**	**LPD**	**Other**	**Consolidated Total**
2020					
Revenue	$ 1,118,096	$ 62,265	$ 66,398	$ 17,169	$ 1,263,928
Income from operations	$ 286,628	$ 28,140	$ 17,912	$ 4,893	$ 337,573
Interest expense, net					(16,978)
Income before provision for income taxes					320,595
Provision for income taxes					59,743
Net income					260,852
Less: Net income attributable to noncontrolling interest					85
Net income attributable to IDEXX Laboratories, Inc. stockholders					$ 260,767
2019					
Revenue	$ 1,056,267	$ 65,074	$ 64,610	$ 10,208	$ 1,196,159
Income from operations	$ 252,909	$ 30,537	$ 12,857	$ 1,110	$ 297,413
Interest expense, net					(16,499)
Income before provision for income taxes					280,914
Provision for income taxes					52,504
Net income					228,410
Less: Net income attributable to noncontrolling interest					23
Net income attributable to IDEXX Laboratories, Inc. stockholders					$ 228,387

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, 2020 and 2019.

NOTE 18. 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 non-recurring 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, 2020.

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

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

The amounts outstanding under our unsecured revolving credit facility ("Credit Facility" or "line of credit") and senior notes ("long-term debt") are measured at carrying value in our unaudited condensed consolidated balance sheets though we disclose the fair value of these financial instruments. We determine the fair value of the amount outstanding under our Credit Facility and long-term debt using an income approach, utilizing a discounted cash flow analysis based on current market interest rates for debt issues with similar remaining years to maturity, adjusted for applicable credit risk. Our Credit Facility and long-term debt are valued using Level 2 inputs. The estimated fair value of our Credit Facility approximates its carrying value. The estimated fair value and carrying value of our long-term debt were $996.9 million and $900.3 million, respectively, as of June 30, 2020, and $753.6 million and $699.4 million, respectively, as of December 31, 2019.

The following tables set forth our assets and liabilities that were measured at fair value on a recurring basis by level within the fair value hierarchy:

(in thousands)

As of June 30, 2020	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, 2020
Assets				
Money market funds[1]	$ 76	$ —	$ —	$ 76
Equity mutual funds[2]	$ 1,244	$ —	$ —	$ 1,244
Cross currency swaps[3]	$ —	$ 7,980	$ —	$ 7,980
Foreign currency exchange contracts[3]	$ —	$ 3,889	$ —	$ 3,889
Liabilities				
Foreign currency exchange contracts[3]	$ —	$ 1,374	$ —	$ 1,374
Deferred compensation[4]	$ 1,244	$ —	$ —	$ 1,244

(in thousands)

As of December 31, 2019	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, 2019
Assets				
Money market funds[1]	$ 71	$ —	$ —	$ 71
Equity mutual funds[2]	$ 1,676	$ —	$ —	$ 1,676
Cross currency swaps[3]	$ —	$ 4,559	$ —	$ 4,559
Foreign currency exchange contracts[3]	$ —	$ 1,791	$ —	$ 1,791
Liabilities				
Foreign currency exchange contracts[3]	$ —	$ 2,886	$ —	$ 2,886
Deferred compensation[4]	$ 1,676	$ —	$ —	$ 1,676

(1) Money market funds 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, 2020 and December 31, 2019, consisted of demand deposits.

(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 19. 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 risk that we currently manage by using hedging instruments is foreign currency exchange risk. 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.

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.

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, and Australian dollar. 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 14. Accumulated Other Comprehensive Income” for further information regarding the effect of hedging instruments on our unaudited condensed consolidated statements of income for the three and six months ended June 30, 2020 and 2019.

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, 2020 or 2019. At June 30, 2020, the estimated amount of net gains, net of tax, which are expected to be reclassified out of AOCI and into earnings within the next 12 months, is $2.3 million if exchange rates do not fluctuate from the levels at June 30, 2020.

We hedge approximately 85% of the estimated exposure from intercompany product purchases and sales denominated in the euro, British pound, Canadian dollar, Japanese yen, and Australian dollar. 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 $188.3 million and $210.9 million at June 30, 2020 and December 31, 2019, respectively.

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

(in thousands)		Three Months Ended June 30,	
		2020	**2019**
Financial statement line items in which effects of cash flow hedges are recorded	Cost of revenue	$ 258,250	$ 262,250
Foreign exchange contracts			
Amount of gain reclassified from accumulated other comprehensive income into income		$ 1,812	$ 2,509

(in thousands)		Six Months Ended June 30,	
		2020	**2019**
Financial statement line items in which effects of cash flow hedges are recorded	Cost of revenue	$ 524,996	$ 506,709
Foreign exchange contracts			
Amount of gain reclassified from accumulated other comprehensive income into income		$ 3,153	$ 3,920

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 losses of $1.7 million and $0.6 million, net of tax, within AOCI as a result of this net investment hedge for the three and six months ended June 30, 2020, respectively, and a loss of $1.0 million and a gain of $0.5 million for the three and six months ended June 30, 2019. The related cumulative unrealized gain recorded at June 30, 2020, 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 12 to the consolidated financial statements included in our 2019 Annual Report for further information regarding the issuance of these euro-denominated notes.

During May 2018, January 2019, March 2019, and November 2019, we entered into 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 contracts, we will deliver the notional amount of €90.0 million and will receive approximately $104.5 million from the counterparties. The change in fair value of the cross currency swap contracts are recorded in AOCI and will be reclassified to earnings when the foreign subsidiaries are sold or substantially liquidated. During the three and six months ended June 30, 2020, we recorded losses of $1.4 million and gains of $2.6 million, net of tax, within AOCI as a result of these net investment hedges, respectively, and a loss of $0.6 million and gain of $0.9 million during the three and six months ended June 30, 2019. We will receive quarterly interest payments from the counterparties based on a fixed interest rate until maturity of the cross currency swaps. This interest rate component is excluded from the assessment of hedge effectiveness and, thus is recognized as a reduction to interest expense over the life of the hedge instrument. We recognized approximately $0.7 million and $1.3 million related to the excluded component as a reduction of interest expense for the three and six months ended June 30, 2020, respectively, and $0.6 million and $1.1 million for the three and six months ended June 30, 2019, respectively.

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

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

(in thousands)		Hedging Assets	
		June 30, 2020	December 31, 2019
Derivatives and non-derivatives designated as hedging instruments	**Balance Sheet Classification**		
Foreign currency exchange contracts	Other current assets	$ 3,322	$ 1,791
Cross currency swaps	Other long-term assets	7,980	4,559
Foreign currency exchange contracts	Other long-term assets	567	—
Total derivative instruments presented as hedge instruments on the balance sheet		11,869	6,350
Gross amounts subject to master netting arrangements not offset on the balance sheet		(1,156)	(1,354)
Net amount		$ 10,713	$ 4,996

(in thousands)		Hedging Liabilities	
		June 30, 2020	December 31, 2019
Derivatives and non-derivatives designated as hedging instruments	**Balance Sheet Classification**		
Foreign currency exchange contracts	Accrued liabilities	$ 625	$ 2,886
Foreign currency exchange contracts	Other long-term liabilities	749	—
Total derivative instruments presented as cash flow hedges on the balance sheet		1,374	2,886
Non-derivative foreign currency denominated debt designated as net investment hedge on the balance sheet(1)	Long-term debt	100,267	99,422
Total hedging instruments presented on the balance sheet		101,641	102,308
Gross amounts subject to master netting arrangements not offset on the balance sheet		(1,156)	(1,354)
Net amount		$ 100,485	$ 100,954

(1) Amounts represent reported carrying amounts of our foreign currency denominated debt. See “Note 18. Fair Value Measurements” for information regarding the fair value of our long-term debt.

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

This Quarterly Report on Form 10-Q contains statements which, to the extent they are not statements of historical fact, constitute "forward-looking statements." Such forward-looking statements about our business and expectations within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), include statements relating to, among other things, the impact of the COVID-19 pandemic; future revenue growth rates; projected tax rates and the impact of tax legislation and regulatory action; 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, capital spending and operating expenditures; the working capital and liquidity outlook; interest expense; warranty expense; share-based compensation expense; the adoption and projected impact of new accounting standards; critical accounting estimates; 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 words and 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, among other things, the adverse impact, and the duration, of the effects of the ongoing COVID-19 pandemic on our business, results of operations, liquidity, financial condition, and stock price, as well as the other matters described under the headings "Business," "Risk Factors," "Legal Proceedings," "Management's Discussion and Analysis of Financial Condition and Results of Operations," and "Quantitative and Qualitative Disclosure About Market Risk" in our 2019 Annual Report and in the corresponding sections of 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 2019 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.

Effects of Certain Factors and Trends on Results of Operations

COVID-19 Update. The primary impacts of the COVID-19 pandemic have been seen in our CAG business. While veterinary care is widely recognized as an "essential" service, stay-at-home policies deployed to combat the spread of COVID-19 constrained visits to veterinary practices significantly in late March 2020 through early April 2020, pressuring diagnostic testing volumes. Restrictions on sales professionals' access to veterinary clinics also contributed to deferrals on new CAG instrument placements

As stay-at-home policies were relaxed, there was significant improvement in clinical visit activity which accelerated through the second quarter of 2020. Weekly U.S. companion animal practice data show improvement in same-store clinical visits trends since mid-April 2020. Same-store clinical visits gains were 7% in June 2020, supported by high growth in wellness visits. Solid same-store clinical visit gains have continued in July 2020, reflected in 6% same-store visit gains for the three-week period ended July 17, 2020.

Companion animal market improvement trends globally have supported a strong recovery in demand for CAG diagnostic products and services. Global CAG Diagnostics recurring revenues declined approximately 16% in April 2020, increased approximately 8% in May 2020, and grew approximately 30% in June 2020, in part supported by pent-up demand for diagnostic testing.

While these trends are encouraging, potential effects related to ongoing COVID-19 case management efforts are challenging to predict and may pressure future revenues should enhanced social distancing policies and higher infection rates impact veterinary clinic operations in certain regions.

In addition to impacts on our CAG business, we have also seen pressure on Water testing volumes. There was some disruption to compliance Water testing early in the second quarter of 2020 related to business lockdown effects, as well as beach and pool closures. Approximately 20% of our Water revenues are related to non-compliance testing, which has seen declines related to reduced overall business activity and prioritization of laboratory spending. We anticipate that near-to-moderate-term demand for non-compliance testing will continue to be impacted by pandemic and related economic pressures.

In managing our businesses, we continue to provide high levels of service delivery and product support for customers during this time and maintain high health and safety standards to protect our employees and ensure business continuity. In an effort to continue to protect the health and safety of our workforce and their families and our communities, the majority of our employees continue to work remotely and travel remains highly restricted. We have introduced new employee benefits to support remote workers. Given improved market and business trends, we have discontinued temporary reductions in employee salaries and benefits and Board of Directors compensation.

Human COVID-19 Testing

On May 7, 2020, we announced that OPTI Medical was granted by the United States Food and Drug Administration (FDA) an Emergency Use Authorization (EUA) for the OPTI® SARS-CoV-2 RT-PCR laboratory test kit for the detection of SARS-CoV-2, the virus that causes COVID-19. This announcement followed an earlier validation of the test by the Institut Pasteur of France. The test kit provides results in approximately 2 to 3.5 hours and has been validated on commonly available PCR instruments. The OPTI SARS-CoV-2 RT-PCR test kit was developed by utilizing the EUA process outlined by the FDA in March 2020. Use in the United States is limited to laboratories certified under the Clinical Laboratory Improvement Amendments of 1988, 42 U.S.C. §263a (CLIA), to perform high complexity tests to assist physicians in the diagnosis of COVID-19. On June 5, 2020 OPTI Medical announced that it has received the CE mark certification in the European Union for its OPTI® SARS-CoV-2 RT-PCR laboratory test kit. Additionally, the FDA has granted EUA for the new OPTI DNA/RNA Magnetic Bead Kit for nucleic acid extraction from respiratory samples to be used with the OPTI SARS-CoV-2 RT-PCR test kit, which enables OPTI Medical Systems to provide laboratories with a complete OPTI Medical Systems-manufactured workflow solution for COVID-19 testing.

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 2019 Annual Report for additional information regarding distributor purchasing and inventories, economic conditions, and patent expiration.

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 design, manufacture, and distribute point of care and laboratory diagnostics for the human medical diagnostics market. Our primary products and services are:

- Point-of-care veterinary diagnostic products, comprising instruments, consumables, and rapid assay test kits;
- Veterinary reference laboratory diagnostic and consulting services;
- Practice management and diagnostic imaging systems and services used by veterinarians;
- Health monitoring, biological materials testing, laboratory diagnostic instruments and services used by the biomedical research community;
- Diagnostic, health-monitoring products for livestock, poultry, and dairy;
- Products that test water for certain microbiological contaminants; and
- Point-of-care electrolytes and blood gas analyzers, and laboratory diagnostics used in the human 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 medical diagnostics market ("OPTI Medical") with 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 develops, designs, manufactures and distributes point-of-care and laboratory diagnostics (including electrolyte and blood gas analyzers and related consumable products) for the human medical diagnostics market.

Effective January 1, 2020, we modified our management reporting to the Chief Operating Decision Maker to provide a more comprehensive view of the performance of our operating segments by including costs that were previously not allocated to our segments. Prior to January 1, 2020, certain costs were not allocated to our operating segments and were instead reported under the caption "Unallocated Amounts". These costs included costs primarily consisting of our R&D function, regional or country expenses and unusual items. Corporate support function costs (such as information technology, facilities, human resources, finance and legal), health benefits and incentive compensation were charged to our business segments at pre-determined budgeted amounts or rates. Beginning January 1, 2020, the segments will reflect these actual costs allocated to the segment based on various allocation methods, including revenue and headcount. Foreign exchange losses on settlements of foreign currency denominated transactions are not allocated to our operating segments and are instead reported within our Other reporting segment.

The following table reflects adjustments to previously reported costs in our Unallocated segment, that are now allocated to our CAG, Water, LPD and Other segments:

For the three months ended June 30, 2019:

(in thousands)

	CAG	Water	LPD	Other	Unallocated
Cost of sales	$ 344	$ 15	$ 19	$ 8	$ (386)
Gross profit	(344)	(15)	(19)	(8)	386
Operating Expenses:					
Sales and marketing	$ (18)	$ (1)	$ (1)	$ —	$ 20
General and administrative	(893)	(179)	(206)	949	329
Research and development	3,960	10	13	—	(3,983)
Total operating expenses	3,049	(170)	(194)	949	(3,634)
Income from operations	$ (3,393)	$ 155	$ 175	$ (957)	$ 4,020

For the six months ended June 30, 2019:

(in thousands)

	CAG	Water	LPD	Other	Unallocated
Cost of sales	$ 162	$ 7	$ 9	$ 4	$ (182)
Gross profit	(162)	(7)	(9)	(4)	182
Operating Expenses:					
Sales and marketing	$ 111	$ 5	$ 6	$ —	$ (122)
General and administrative	(1,095)	(219)	(253)	1,164	403
Research and development	7,518	19	24	—	(7,561)
Total operating expenses	6,534	(195)	(223)	1,164	(7,280)
Income from operations	$ (6,696)	$ 188	$ 214	$ (1,168)	$ 7,462

The following table reflects the impact to previously reported segment gross profit margin, operating income margin and operating expenses as a percentage of revenue, due to the allocation of these costs to our CAG, Water, LPD and Other segments:

For the three months ended June 30, 2019:

	CAG	Water	LPD	Other
Cost of sales	0.1 %	— %	0.1 %	0.2 %
Gross profit	(0.1)%	— %	(0.1)%	(0.2)%
Operating Expenses:				
Sales and marketing	— %	— %	— %	— %
General and administrative	(0.2)%	(0.5)%	(0.6)%	19.4 %
Research and development	0.7 %	— %	— %	— %
Total operating expenses	0.6 %	(0.5)%	(0.6)%	19.4 %
Income from operations	(0.6)%	0.4 %	0.5 %	(19.6)%

For the six months ended June 30, 2019:

	CAG	Water	LPD	Other
Cost of sales	— %	— %	— %	— %
Gross profit	— %	— %	— %	— %
Operating Expenses:				
Sales and marketing	— %	— %	— %	— %
General and administrative	(0.1)%	(0.3)%	(0.4)%	11.4 %
Research and development	0.7 %	— %	— %	— %
Total operating expenses	0.6 %	(0.3)%	(0.3)%	11.4 %
Income from operations	(0.6)%	0.3 %	0.3 %	(11.4)%

Critical Accounting Estimates and Assumptions

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. Except as described below, 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, 2020, are consistent with those discussed in our 2019 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 Estimates and Assumptions."

Valuation of Goodwill and Other Intangible Assets

A significant portion of the purchase price for acquired businesses is generally assigned to intangible assets. Intangible assets other than goodwill are initially valued at fair value. If a quoted price in an active market for the identical asset is not readily available at the measurement date, the fair value of the intangible asset is estimated based on discounted cash flows using market participant assumptions, which are assumptions that are not specific to IDEXX. The selection of appropriate valuation methodologies and the estimation of discounted cash flows require significant assumptions about the timing and amounts of future cash flows, risks, appropriate discount rates, and the useful lives of intangible assets. When material, we utilize independent valuation experts to advise and assist us in determining the fair values of the identified intangible assets acquired in connection with a business acquisition and in determining appropriate amortization methods and periods for those intangible assets. Goodwill is initially valued based on the excess of the purchase price of a business combination over the fair value of acquired net assets recognized and represents the future economic benefits arising from other assets acquired that could not be individually identified and separately recognized.

We assess goodwill for impairment annually, at the reporting unit level, in the fourth quarter and whenever events or circumstances indicate impairment may exist. Our reporting units are the individual product and service categories that comprise our CAG operating segment, our Water and LPD operating segments and goodwill remaining from the restructuring of our pharmaceutical business in the fourth quarter of 2008. We also assess the realizability of other intangible assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable.

We considered the effects of the ongoing COVID-19 pandemic and have evaluated factors specific to our reporting units, as well as industry and macroeconomic factors that are reasonably likely to have a material impact on the fair value of our reporting units and determined it is more likely than not that the fair value of our reporting units and intangible assets continues to exceed the carrying amount. Examples of the factors considered in assessing the fair value of our reporting units include: the results of the most recent goodwill impairment test, recent and anticipated revenue growth trends, the market price of our common stock, our overall financial position including our working capital and liquidity levels, the competitive environment, the regulatory environment, anticipated changes in product or labor costs, the consistency of operating margins and cash flows and current and long-range financial forecasts.

The results of our most recent goodwill impairment test in the fourth quarter of 2019, indicated an excess of estimated fair value over the carrying amount for each of our reporting units with a minimum of 71% and an average of approximately 1,060% in total. The majority of our goodwill is related to our CAG Diagnostics reporting units with an average of approximately 1,200% excess of estimated fair value over the carrying amount, including our Reference Laboratory Diagnostic and Consulting Services, Rapid Assay Products, and IDEXX VetLab Consumables, Instruments, Services and Accessories.

We also maintain approximately $45 million of goodwill associated with our Veterinary Software and Services reporting unit, which is primarily comprised of recent acquisitions of early-stage software companies that expand our suite of technology applications for the veterinary profession, including SaaS-based practice management systems, applications that extend workflow capabilities, client marketing, wellness plan management and other connectivity and communication needs. These software applications continue to be in the earlier stages of commercial development, and therefore our Veterinary Software and Services reporting unit has a relatively lower excess of estimated fair value over the carrying amount, as indicated by the results of our most recent goodwill impairment test, which indicated approximately $208 million and 217% of the reporting unit's carrying value. Realization of this goodwill is dependent on our successful commercialization of these early-stage software applications.

Additionally, we maintain approximately $6.5 million of goodwill associated with our remaining pharmaceutical intellectual property, out-licensing arrangements, and certain retained drug delivery technologies (collectively "Pharmaceutical Activities") that we seek to commercialize through arrangements with third parties. Currently, our primary support for the carrying value of this goodwill is royalty revenue associated with the commercialization of certain intellectual property. There is no guarantee that we will be able to maintain or increase revenues from our remaining Pharmaceutical Activities. The results of our most recent goodwill impairment test for these Pharmaceutical Activities indicate an excess of estimated fair value over the carrying amount of this reporting unit by approximately $4.7 million and 71% of the reporting unit's carrying value. Realization of this goodwill is dependent upon the success of those third parties in developing and commercializing products, which will result in our receipt of royalties and other payments.

While we believe that the assumptions used in our determination that the fair values of our reporting units continue to exceed the carrying amounts are reasonable, a change in these underlying assumptions could result in a material negative effect on the estimated fair value of the reporting units. A prolonged economic downturn in the U.S. or internationally resulting in lower long-term growth rates and reduced long-term profitability may reduce the fair value of our reporting units. Industry specific events or circumstances could have a negative impact on our reporting units and may also reduce the fair value of our reporting units. Should such events occur, and it becomes more likely than not that a reporting unit's fair value or intangible asset value has fallen below its carrying value, we will perform an interim impairment test, in addition to the annual goodwill impairment test. Future impairment tests may result in an impairment of goodwill or other intangible assets, depending on the outcome of future impairment tests. An impairment of goodwill or other intangible assets would be reported as a non-cash charge to earnings.

Recent Accounting Pronouncements

For more information regarding the impact that 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, 2020, as compared to the same period for the prior year, net of the effect of changes in foreign currency exchange rates, certain 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. We exclude only acquisitions that are considered to be a business from organic revenue growth. In a business combination, if substantially all the fair value of the assets acquired is concentrated in a single asset or group of similar assets, we do not consider these assets to be a business and 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.

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.

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 periods.

Results of Operations

Three Months Ended June 30, 2020, Compared to Three Months Ended June 30, 2019

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

Net Revenue *(dollars in thousands)*	For the Three Months Ended June 30, 2020	2019	Dollar Change	Reported Revenue Growth(1)	Percentage Change from Currency	Percentage Change from Acquisitions	Organic Revenue Growth(1)
CAG	**$ 566,100**	**$ 547,349**	**$ 18,751**	**3.4%**	**(1.0%)**	**0.7%**	**3.8%**
United States	*387,113*	*367,031*	*20,082*	*5.5%*	*—*	*1.0%*	*4.5%*
International	*178,987*	*180,318*	*(1,331)*	*(0.7%)*	*(3.1%)*	*—*	*2.3%*
Water	**28,116**	**34,764**	**(6,648)**	**(19.1%)**	**(3.0%)**	**—**	**(16.2%)**
United States	*13,935*	*16,759*	*(2,824)*	*(16.8%)*	*—*	*—*	*(16.8%)*
International	*14,181*	*18,005*	*(3,824)*	*(21.2%)*	*(5.8%)*	*—*	*(15.5%)*
LPD	**32,244**	**33,104**	**(860)**	**(2.6%)**	**(4.3%)**	**—**	**1.7%**
United States	*3,242*	*3,309*	*(67)*	*(2.0%)*	*—*	*—*	*(2.0%)*
International	*29,002*	*29,795*	*(793)*	*(2.6%)*	*(4.8%)*	*—*	*2.2%*
Other	**11,132**	**4,886**	**6,246**	**127.8%**	**—**	**—**	**127.8%**
Total Company	**$ 637,592**	**$ 620,103**	**$ 17,489**	**2.8%**	**(1.3%)**	**0.6%**	**3.6%**
United States	*405,998*	*388,875*	*17,123*	*4.4%*	*—*	*0.9%*	*3.5%*
International	*231,594*	*231,228*	*366*	*0.2%*	*(3.6%)*	*—*	*3.8%*

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

Total Company Revenue. In our CAG business, following a period of significant pressure on testing volumes in late-March through mid-April related to COVID-19 social distancing procedures and guidelines, we saw a sharp recovery in market demand for diagnostics globally, including high levels of growth in testing volumes in June, supported by pent-up demand as social distancing procedures and guidelines began to be lifted. In our LPD business, the increased demand for African swine fever testing programs and core swine testing volumes in China were partially offset by the decrease in testing volumes in other regions as a result of the impact of the COVID-19 pandemic, as well as lower herd health screening revenue this quarter. Lower revenues in our Water business are primarily the result of the COVID-19 pandemic, both in part due to customer stocking in the first quarter of 2020 and lower demand for non-compliance testing in the second quarter of 2020. Our new OPTI COVID-19 PCR test for humans increased our overall revenue growth by approximately 1%. The impact of currency movements decreased total revenue by 1.3%, while acquisitions increased revenue by 0.6%.

The following table presents total Company results of operations:

Total Company - Results of Operations *(dollars in thousands)*	**For the Three Months Ended June 30,** 2020	Percent of Revenue	2019	Percent of Revenue	**Change** Amount	Percentage
Revenues	$ 637,592		$ 620,103		$ 17,489	2.8%
Cost of revenue	258,250		262,250		(4,000)	(1.5%)
Gross profit	379,342	59.5 %	357,853	57.7 %	21,489	6.0%
Operating Expenses:						
Sales and marketing	94,181	14.8 %	101,364	16.3 %	(7,183)	(7.1%)
General and administrative	60,268	9.5 %	59,955	9.7 %	313	0.5%
Research and development	31,645	5.0 %	32,259	5.2 %	(614)	(1.9%)
Total operating expenses	186,094	29.2 %	193,578	31.2 %	(7,484)	(3.9%)
Income from operations	$ 193,248	30.3 %	$ 164,275	26.5 %	$ 28,973	17.6%

Gross Profit. Gross profit increased due to higher sales volumes and a 180 basis point increase in the gross profit margin. The increase in the gross profit margin was driven by several factors, including mix benefits from strong IDEXX VetLab consumable and lower CAG Diagnostics instrument revenue, the net benefit of price increases, benefits from productivity gains and cost controls in our reference laboratories, as well as the benefit from the OPTI COVID-19 PCR test. These favorable factors were offset by incremental investments in reference laboratory capacity and systems, including acquisitions, as well as business mix impacts from lower Water testing volumes. The impact from foreign currency movements decreased the gross profit margin by approximately 35 basis points, including the impact of hedges.

Operating Expenses. Overall operating expenses were lower primarily as a result of cost containment efforts implemented in response to the COVID-19 pandemic, including temporary reductions to compensation and benefits. Sales and marketing expense decreased approximately 6%, excluding the impact of foreign currency, primarily due to the temporary cost containment efforts, which reduced travel and personnel-related costs. General and administrative expense increased approximately 2.6%, excluding the impact of foreign currency, primarily due to increases in facilities costs, partially offset by the benefits of cost containment initiatives across our business segments. Research and development expense decreased 1.9%, excluding the impact of foreign currency, primarily due to the benefits of cost containment initiatives. The overall change in currency exchange rates resulted in a decrease in operating expenses of approximately 1.5%.

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, 2020	2019	Dollar Change	Reported Revenue Growth [(1)]	Percentage Change from Currency	Percentage Change from Acquisitions	Organic Revenue Growth [(1)]
CAG Diagnostics recurring revenue:	$ 510,254	$ 477,431	$ 32,823	6.9 %	(1.1%)	0.8 %	7.2 %
IDEXX VetLab consumables	*196,061*	*175,159*	*20,902*	*11.9 %*	*(1.6%)*	*—*	*13.5 %*
Rapid assay products	*64,658*	*68,605*	*(3,947)*	*(5.8)%*	*(0.6%)*	*—*	*(5.1)%*
Reference laboratory diagnostic and consulting services	*228,816*	*213,892*	*14,924*	*7.0 %*	*(0.8%)*	*1.7 %*	*6.1 %*
CAG diagnostics services and accessories	*20,719*	*19,775*	*944*	*4.8 %*	*(1.3%)*	*—*	*6.1 %*
CAG Diagnostics capital - instruments	18,871	31,526	(12,655)	(40.1%)	(1.0%)	—	(39.1%)
Veterinary software, services and diagnostic imaging systems	36,975	38,392	(1,417)	(3.7)%	(0.3%)	—	(3.4)%
Net CAG revenue	$ 566,100	$ 547,349	$ 18,751	3.4 %	(1.0%)	0.7 %	3.8 %

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

CAG Diagnostics Recurring Revenue. Following a period of significant pressure on testing volumes in late-March through mid-April related to COVID-19 social distancing procedures and guidelines, we saw a sharp recovery in market demand for CAG diagnostics recurring revenues globally across modalities, including high levels of growth in testing volumes in June, supported by pent-up demand as social distancing procedures and guidelines began to be lifted. The increase in CAG Diagnostics recurring revenue was primarily due to increased volumes in IDEXX VetLab consumables and reference laboratory diagnostic services, and to a lesser extent, higher realized prices.

The increase in IDEXX VetLab consumables revenue was primarily due to higher sales volumes for our Catalyst® consumables and, to a lesser extent, Procyte Dx® consumables. These increases were supported by an expansion of our instrument installed base, growth in testing by new and existing customers, our expanded menu of available tests, and to a lesser extent, benefits from higher average unit sales prices.

The decrease in rapid assay revenue resulted primarily from lower SNAP® 4Dx Plus sales volumes, as a result of the impact of COVID-19 and timing of prior-year promotions, partially offset by higher realized prices. Rapid assay testing is relatively more dependent on wellness visits, which were impacted more severely by COVID-19 stay-at-home policies and procedures due to typical seasonality of wellness testing that occurs in the second quarter, however we saw a sharp rebound in rapid assay testing volumes in June, consistent with the broader U.S. market recovery for wellness testing.

The increase in reference laboratory diagnostic and consulting services revenue was primarily due to the impact of higher testing volumes, most prominently in the U.S. as well as higher average unit sales prices. Modest growth internationally was driven by strong growth in Germany, Japan, and Australia, offset by the extended COVID-19-related impacts in the United Kingdom and Canada.

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

CAG Diagnostics Capital – Instruments Revenue. The decrease in instrument revenue was primarily due to the impacts of the COVID-19 pandemic, including restrictions on our sales professionals' access to clinics and certain customers deferring new purchase decisions.

Veterinary Software, Services and Diagnostic Imaging Systems Revenue. The decrease in revenue was primarily due to the impacts of the COVID-19 pandemic on new diagnostic imaging placements, including restrictions on our sales professionals' access to clinics and certain customers deferring purchase decisions. These decreases were partially offset by increased veterinary software and diagnostic imaging subscription-based services, due to increases in our active installed base, and to a lesser extent higher realized prices.

The following table presents the CAG segment results of operations:

	For the Three Months Ended June 30,				Change	
Results of Operations *(dollars in thousands)*	**2020**	**Percent of Revenue**	**2019**	**Percent of Revenue**	**Amount**	**Percentage**
Revenues	$ 566,100		$ 547,349		$ 18,751	3.4%
Cost of revenues	231,633		236,054		(4,421)	(1.9%)
Gross profit	334,467	59.1 %	311,295	56.9 %	23,172	7.4%
Operating Expenses:						
Sales and marketing	86,096	15.2 %	91,169	16.7 %	(5,073)	(5.6%)
General and administrative	53,533	9.5 %	51,157	9.3 %	2,376	4.6%
Research and development	26,869	4.7 %	27,779	5.1 %	(910)	(3.3%)
Total operating expenses	166,498	29.4 %	170,105	31.1 %	(3,607)	(2.1%)
Income from operations	$ 167,969	29.7 %	$ 141,190	25.8 %	$ 26,779	19.0%

Gross Profit. Gross profit increased primarily due to higher sales volume, as well as a 220 basis point increase in the gross profit margin. The increase in the gross profit margin was driven by the mix benefits from high growth in IDEXX VetLab consumable revenues and lower CAG Diagnostics instrument revenue, lower product costs, productivity in our reference laboratories, as well as the net benefit of price increases in our CAG Diagnostics recurring revenue portfolio, partially offset by incremental investments in reference laboratory capacity and systems, including acquisitions, and software services field resources. The impact from foreign currency movements decreased the gross profit margin by approximately 20 basis points, including the impact of hedges.

Operating Expenses. Overall operating expenses were lower primarily as a result of cost containment efforts implemented in response to the COVID-19 pandemic, including temporary reductions to compensation and benefits. Sales and marketing expense decreased primarily due to the temporary cost containment efforts that reduced travel and personnel-related costs. General and administrative expense increased primarily due to increases in personnel-related and facilities costs, partially offset by the benefits of cost containment initiatives. Research and development expense decreased primarily due to the temporary cost containment efforts that reduced personnel-related costs, partially offset by increased project costs. The overall change in currency exchange rates decreased operating expenses by approximately 1%.

Water

The following table presents the Water segment results of operations:

Results of Operations *(dollars in thousands)*	For the Three Months Ended June 30, 2020	Percent of Revenue	2019	Percent of Revenue	Change Amount	Percentage
Revenues	$ 28,116		$ 34,764		$ (6,648)	(19.1)%
Cost of revenue	8,438		9,903		(1,465)	(14.8%)
Gross profit	19,678	70.0 %	24,861	71.5 %	(5,183)	(20.8)%
Operating Expenses:						
Sales and marketing	3,399	12.1 %	3,960	11.4 %	(561)	(14.2%)
General and administrative	3,193	11.4 %	3,153	9.1 %	40	1.3 %
Research and development	828	2.9 %	1,026	3.0 %	(198)	(19.3)%
Total operating expenses	7,420	26.4 %	8,139	23.4 %	(719)	(8.8)%
Income from operations	$ 12,258	43.6 %	$ 16,722	48.1 %	$ (4,464)	(26.7)%

Revenue. The decrease in revenue was primarily due to the impact of the COVID-19 pandemic, primarily due to lower non-compliance testing, as well as some disruption in compliance testing due to social distancing policies, including beach and pool closures, and the impact of customer stocking orders in the first quarter of 2020. These factors were partially offset by the benefit of price increases. The decline in non-compliance testing was primarily related to lower overall business activity, including special projects, construction, and real estate transactions. The impact of currency movements decreased revenue by approximately 3.0%.

Gross Profit. Gross profit decreased due to lower sales volumes, and a 150 basis point decrease in the gross profit margin. Foreign currency movements decreased the gross profit margin by approximately 110 basis points, including the impact of hedges. The remaining decrease in the gross profit margin was primarily due to higher freight and distribution costs, partially offset by the net benefit of price increases and favorable product costs.

Operating Expenses. Overall operating expenses were lower primarily as a result of cost containment efforts implemented in response to the COVID-19 pandemic, including temporary reductions to compensation and benefits. These reductions were primarily in travel and personnel-related costs. The overall change in currency exchange rates resulted in a decrease 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 Three Months Ended June 30, 2020	Percent of Revenue	2019	Percent of Revenue	Change Amount	Change Percentage
Revenues	$ 32,244		$ 33,104		$ (860)	(2.6%)
Cost of revenue	13,405		13,425		(20)	(0.1%)
Gross profit	18,839	58.4%	19,679	59.4%	(840)	(4.3%)
Operating Expenses:						
Sales and marketing	4,298	13.3%	5,900	17.8%	(1,602)	(27.2%)
General and administrative	3,678	11.4%	4,168	12.6%	(490)	(11.8%)
Research and development	2,614	8.1%	3,043	9.2%	(429)	(14.1%)
Total operating expenses	10,590	32.8%	13,111	39.6%	(2,521)	(19.2%)
Income from operations	$ 8,249	25.6%	$ 6,568	19.8%	$ 1,681	25.6%

Revenue. The unfavorable impact of foreign currency movements decreased revenue by 4.3%. Excluding the impact of currency, revenue increased primarily from the continued demand for African swine fever testing and improved core swine testing volumes in China, as well as increased poultry testing. These increases were partially offset by the impact of lower testing volumes in other regions related to the COVID-19 pandemic, including the impact of accelerated stocking orders in the first quarter of 2020, as well as decreased herd health screening, which reflects comparisons to a strong prior year.

Gross Profit. The decrease in gross profit was primarily due to lower sales volume related to the impacts of the COVID-19 pandemic and a 100 basis point decrease in the gross profit margin. Foreign currency movements decreased the gross profit margin by approximately 170 basis points, including the impact of hedges. Excluding the impact of currency, the gross profit margin increased primarily as a result of favorable product costs from volume leverage, partially offset by unfavorable mix, primarily due to lower heard health screening.

Operating Expenses. Overall operating expenses were lower primarily as a result of cost containment efforts implemented in response to the COVID-19 pandemic, including temporary reductions to compensation and benefits. The reductions in sales and marketing and general and administrative expenses were primarily travel and personnel-related. The decrease in research and development expense was primarily due to the cost containment initiatives, primarily in personnel related costs, partially offset by third-party services. The overall change in currency exchange rates resulted in a decrease in operating expenses of approximately 2%.

Other

The following table presents the Other results of operations:

Results of Operations *(dollars in thousands)*	For the Three Months Ended June 30, 2020	Percent of Revenue	2019	Percent of Revenue	Change Amount	Percentage
Revenues	$ 11,132		$ 4,886		$ 6,246	127.8%
Cost of revenue	4,774		2,868		1,906	66.5%
Gross profit	6,358	57.1%	2,018	41.3%	4,340	215.1%
Operating Expenses:						
Sales and marketing	388	3.5%	335	6.9%	53	15.8%
General and administrative	(136)	(1.2%)	1,477	30.2%	(1,613)	(109.2%)
Research and development	1,334	12.0%	411	8.4%	923	224.6%
Total operating expenses	1,586	14.2%	2,223	45.5%	(637)	(28.7%)
Income from operations	$ 4,772	42.9%	$ (205)	(4.2%)	$ 4,977	NM

NM - Not meaningful

Revenue. The increase in revenue was primarily due to our new OPTI COVID-19 PCR test for humans, which was introduced in the second quarter of 2020. The future demand for this product is difficult to project given the uncertain nature of the COVID-19 pandemic, including short-term project commitments, available PCR testing capacity and alternative suppliers. The impact of currency movements on revenue was immaterial.

Gross Profit. The increase in gross profit was primarily due to sales volumes of our new OPTI COVID-19 PCR test for humans and a 15.8% increase in the gross profit margin, primarily due to favorable product mix from OPTI COVID-19 PCR testing, partially offset by higher product costs in our other OPTI products and lower royalties associated with our former pharmaceutical product line. The overall change in currency exchange rates had an immaterial impact on gross profit.

Operating Expenses. The increase in sales and marketing expense was primarily due to higher personnel-related costs related to new positions associated with our new OPTI COVID-19 PCR test. The decrease in general and administrative expense was primarily due to foreign exchange gains on settlements of foreign currency denominated transactions, as compared to losses in the prior year, for all operating segments, which are reported within our Other segment, as well as cost control initiatives. The increase in research and development cost was primarily due to higher personnel-related and project costs associated with the development of the OPTI COVID-19 PCR test.

Non-Operating Items

Interest Expense. Interest expense was $9.5 million for the three months ended June 30, 2020, as compared to $8.2 million for the same period in the prior year. The increase in interest expense was the result of higher average debt levels, offset by slightly lower interest rates.

Provision for Income Taxes. Our effective income tax rate was 18.9% for the three months ended June 30, 2020, as compared to 19.5% for the three months ended June 30, 2019. The decrease in our effective tax rate was primarily driven by regional earnings mix, with relatively higher statutory earnings subject to lower international tax rates than domestic tax rates.

Results of Operations

Six Months Ended June 30, 2020, Compared to Six Months Ended June 30, 2019

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

Net Revenue *(dollars in thousands)*	For the Six Months Ended June 30, 2020	2019	Dollar Change	Reported Revenue Growth (1)	Percentage Change from Currency	Percentage Change from Acquisitions	Organic Revenue Growth (1)
CAG	**$ 1,118,096**	**$ 1,056,267**	**$ 61,829**	**5.9%**	**(1.0%)**	**0.7%**	**6.1%**
United States	*760,388*	*704,905*	*55,483*	*7.9%*	—	*1.1%*	*6.8%*
International	*357,708*	*351,362*	*6,346*	*1.8%*	*(2.9%)*	—	*4.7%*
Water	**62,265**	**65,074**	**(2,809)**	**(4.3%)**	**(3.0%)**	—	**(1.4%)**
United States	*30,876*	*31,363*	*(487)*	*(1.6%)*	—	—	*(1.6%)*
International	*31,389*	*33,711*	*(2,322)*	*(6.9%)*	*(5.7%)*	—	*(1.2%)*
LPD	**66,398**	**64,610**	**1,788**	**2.8%**	**(4.0%)**	—	**6.8%**
United States	*7,019*	*6,572*	*447*	*6.8%*	—	—	*6.8%*
International	*59,379*	*58,038*	*1,341*	*2.3%*	*(4.4%)*	—	*6.8%*
Other	**17,169**	**10,208**	**6,961**	**68.2%**	—	—	**68.2%**
Total Company	**$ 1,263,928**	**$ 1,196,159**	**$ 67,769**	**5.7%**	**(1.2%)**	**0.6%**	**6.3%**
United States	*802,781*	*747,163*	*55,618*	*7.4%*	—	*1.0%*	*6.4%*
International	*461,147*	*448,996*	*12,151*	*2.7%*	*(3.3%)*	—	*6.0%*

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

Total Company Revenue. In our CAG business, following a period of significant pressure on testing volumes in late-March through mid-April related to COVID-19 social distancing procedures and guidelines, we saw a sharp recovery in market demand for diagnostics globally, including high levels of growth in testing volumes in June 2020, supported by pent-up demand as social distancing procedures and guidelines began to be lifted. In our LPD business, the increased demand for African swine fever testing programs and core swine testing volumes in China were partially offset by the decrease in volume on other regions as a result of the impact of the COVID-19 pandemic, as well as lower herd health screening revenue. Lower revenues in our Water business is primarily the result of the COVID-19 pandemic, due to lower demand for non-compliance testing in the second quarter of 2020. Our new OPTI COVID-19 PCR test for humans increased our overall revenue growth by approximately 0.5%. The impact of currency movements decreased total revenue by 1.2%, while acquisitions increased revenue by 0.6%.

The following table presents total Company results of operations:

Total Company - Results of Operations *(dollars in thousands)*	**For the Six Months Ended June 30,**				**Change**	
	2020	**Percent of Revenue**	**2019**	**Percent of Revenue**	**Amount**	**Percentage**
Revenues	$ 1,263,928		$ 1,196,159		$ 67,769	5.7 %
Cost of revenue	524,996		506,709		18,287	3.6 %
Gross profit	738,932	58.5 %	689,450	57.6 %	49,482	7.2 %
Operating Expenses:						
Sales and marketing	210,324	16.6 %	207,948	17.4 %	2,376	1.1 %
General and administrative	126,080	10.0 %	120,316	10.1 %	5,764	4.8%
Research and development	64,955	5.1 %	63,773	5.3 %	1,182	1.9 %
Total operating expenses	401,359	31.8 %	392,037	32.8 %	9,322	2.4 %
Income from operations	$ 337,573	26.7 %	$ 297,413	24.9 %	$ 40,160	13.5 %

Gross Profit. Gross profit increased due to higher sales volumes, as well as a 90 basis point increase in the gross profit margin. The increase in the gross profit margin was driven by several factors, including mix benefits from strong IDEXX VetLab consumable and lower CAG Diagnostics instrument revenue, the net benefit of price increases, benefits from productivity gains and cost controls in our reference laboratories, as well as the benefit from the OPTI COVID-19 PCR test. These favorable factors were offset by the incremental investments in reference laboratory capacity and systems, including acquisitions, as well as business mix impacts from lower Water testing volumes. The impact from foreign currency movements decreased the gross profit margin by approximately 30 basis points, including the impact of hedges.

Operating Expenses. Sales and marketing expense increased approximately 2.4%, excluding the impact of foreign currency, primarily due to increased personnel-related costs related to our expanded global commercial infrastructure, partially offset by cost containment efforts implemented in response to the COVID-19 pandemic, including temporary compensation and benefit reductions. General and administrative expense increased approximately 5.5%, excluding the impact of foreign currency, primarily due to increases in bad debt reserves and facilities costs, partially offset by temporary cost containment efforts and the benefits of earlier cost control initiatives across our business segments. Research and development expense increased 1.9% excluding the impact of foreign currency, primarily due to higher personnel-related costs, partially offset by temporary cost containment efforts. The overall change in currency exchange rates decreased operating expenses by approximately 1%.

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, 2020	2019	Dollar Change	Reported Revenue Growth (1)	Percentage Change from Currency	Percentage Change from Acquisitions	Organic Revenue Growth (1)
CAG Diagnostics recurring revenue:	$ 998,179	$ 921,222	$ 76,957	8.4 %	(1.0%)	0.8%	8.5 %
IDEXX VetLab consumables	*384,774*	*342,370*	*42,404*	*12.4 %*	*(1.4%)*	—	*13.8 %*
Rapid assay products	*122,088*	*123,036*	*(948)*	*(0.8)%*	*(0.6%)*	—	*(0.2)%*
Reference laboratory diagnostic and consulting services	*449,077*	*416,550*	*32,527*	*7.8 %*	*(0.8%)*	*1.8%*	*6.8 %*
CAG diagnostics services and accessories	*42,240*	*39,266*	*2,974*	*7.6 %*	*(1.4%)*	—	*9.0 %*
CAG Diagnostics capital - instruments	42,704	60,275	(17,571)	(29.2%)	(1.1%)	—	(28.0%)
Veterinary software, services and diagnostic imaging systems	77,213	74,770	2,443	3.3 %	(0.3%)	—	3.5 %
Net CAG revenue	$ 1,118,096	$ 1,056,267	$ 61,829	5.9 %	(1.0%)	0.7 %	6.1 %

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

CAG Diagnostics Recurring Revenue. Following a period of significant pressure on testing volumes in late-March through mid-April related to COVID-19 social distancing procedures and guidelines, we saw a sharp recovery in market demand for CAG diagnostics recurring revenue globally across modalities, including high levels of growth in testing volumes in June, supported by pent-up demand as social distancing procedures and guidelines began to be lifted. The increase in CAG Diagnostics recurring revenue was primarily due to increased volumes in IDEXX VetLab consumables and reference laboratory diagnostic services, and to a lesser extent, higher realized prices.

The increase in IDEXX VetLab consumables revenue was primarily due to higher sales volumes for our Catalyst consumables and, to a lesser extent, Procyte Dx consumables. These increases were supported by an expansion of our instrument installed base, growth in testing by new and existing customers, our expanded menu of available tests, and to a lesser extent, benefits from higher average unit sales prices.

The decrease in rapid assay revenue resulted primarily from lower SNAP® 4Dx Plus sales volumes, as a result of the impact of COVID-19, partially offset by higher realized prices. Rapid assay testing is relatively more dependent on wellness visits, which were impacted more severely by COVID-19 stay-at-home policies and procedures due to typical seasonality of wellness testing that occurs in the second quarter, however we saw a sharp rebound in rapid assay testing volumes in June, consistent with the broader U.S. market recovery for wellness testing.

The increase in reference laboratory diagnostic and consulting services revenue was primarily due to the impact of higher testing volumes, most prominently in the U.S., as well as higher average unit sales prices. Modest growth internationally was driven by strong growth in Australia, Japan, and Germany, offset by the extended COVID-19 related impact in the United Kingdom, France, and Canada.

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

CAG Diagnostics Capital – Instruments Revenue. The decrease in instrument revenue was primarily due to the impacts of the COVID-19 pandemic, including restrictions on our sales professionals' access to clinics and certain customers deferring new purchase decisions.

Veterinary Software, Services and Diagnostic Imaging Systems Revenue. The increase in revenue was primarily due to increased veterinary software and hardware upgrades, subscription-based services, as well as higher diagnostic imaging services as a result of the increase in our active installed base, and to a lesser extent, higher realized prices on these service offerings. These factors were partially offset by impacts of the COVID-19 pandemic on new diagnostic imaging placements, including restrictions on our sales professionals' access to clinics and certain customers deferring purchase decisions, which began to occur in mid-March of 2020.

The following table presents the CAG segment results of operations:

	For the Six Months Ended June 30,				Change	
Results of Operations *(dollars in thousands)*	**2020**	**Percent of Revenue**	**2019**	**Percent of Revenue**	**Amount**	**Percentage**
Revenues	$ 1,118,096		$ 1,056,267		$ 61,829	5.9 %
Cost of revenue	474,286		457,302		16,984	3.7 %
Gross profit	643,810	57.6 %	598,965	56.7 %	44,845	7.5 %
Operating Expenses:						
Sales and marketing	192,098	17.2 %	188,117	17.8 %	3,981	2.1 %
General and administrative	109,136	9.8 %	103,266	9.8 %	5,870	5.7 %
Research and development	55,948	5.0 %	54,673	5.2 %	1,275	2.3 %
Total operating expenses	357,182	31.9 %	346,056	32.8 %	11,126	3.2 %
Income from operations	$ 286,628	25.6 %	$ 252,909	23.9 %	$ 33,719	13.3 %

Gross Profit. Gross profit increased primarily due to higher sales volume, as well a 100 basis point increase in the gross profit margin. The increase in the gross profit margin was primarily due to mix benefits from higher growth in IDEXX VetLab consumable revenues and lower CAD Diagnostics instrument revenues, as well as the net benefit of price increases in our CAG Diagnostics recurring revenue portfolio, partially offset by incremental investments in reference laboratory capacity and systems, including acquisitions, and software services field resources. The impact from foreign currency movements decreased the gross profit margin by approximately 15 basis points, including the impact of hedges.

Operating Expenses. The increase in sales and marketing expense was primarily due to increased personnel-related costs related to our global commercial infrastructure, partially offset by cost containment efforts implemented in response to the COVID-19 pandemic, including temporary compensation and benefit reductions. The increase in general and administrative expense resulted primarily from higher personnel-related costs, facility costs, and bad debt reserves, partially offset by temporary cost containment efforts. The increase in research and development expense was primarily due to increased personnel-related costs and higher project costs, partially offset by temporary cost containment initiatives. The overall change in currency exchange rates resulted in a decrease in operating expenses of approximately 1%.

Water

The following table presents the Water segment results of operations:

Results of Operations *(dollars in thousands)*	For the Six Months Ended June 30, 2020	Percent of Revenue	2019	Percent of Revenue	Change Amount	Change Percentage
Revenues	$ 62,265		$ 65,074		$ (2,809)	(4.3)%
Cost of revenue	17,838		18,066		(228)	(1.3%)
Gross profit	44,427	71.4 %	47,008	72.2 %	(2,581)	(5.5)%
Operating Expenses:						
Sales and marketing	7,773	12.5 %	7,961	12.2 %	(188)	(2.4%)
General and administrative	6,689	10.7 %	6,427	9.9 %	262	4.1 %
Research and development	1,825	2.9 %	2,083	3.2 %	(258)	(12.4)%
Total operating expenses	16,287	26.2 %	16,471	25.3 %	(184)	(1.1)%
Income from operations	$ 28,140	45.2 %	$ 30,537	46.9 %	$ (2,397)	(7.8)%

Revenue. The decrease in revenue was primarily due to the impact of the COVID-19 pandemic, primarily by reductions in our non-compliance testing in the second quarter of 2020, partially offset by higher sales volumes of our Colilert test products and related accessories used in coliform and E. coli testing during the first quarter of 2020, as well as the benefit of price increases. The impact of currency movements decreased revenue by approximately 3.0%.

Gross Profit. Gross profit decreased due to lower sales volumes, and an 80 basis point decrease in the gross profit margin, primarily due to a 75 basis point reduction from foreign currency movements, including the impact of hedges, as well as higher distribution costs. These reductions in the gross profit margin were partially offset by the net benefits of price increases and product mix.

Operating Expenses. Overall operating expenses were lower primarily as a result of cost containment efforts implemented in response to the COVID-19 pandemic, including temporary compensation and benefit reductions. The decrease in sales and marketing expense was primarily due to lower personnel-related costs. The increased in general and administrative expense was primarily due to higher bad debt reserves, partially offset by temporary cost containment efforts. The decrease in research and development expense was primarily as a result of temporary cost containment efforts. The overall change in currency exchange rates resulted in a decrease in operating expenses of approximately 2.5%.

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, 2020	Percent of Revenue	2019	Percent of Revenue	Change Amount	Percentage
Revenues	$ 66,398		$ 64,610		$ 1,788	2.8%
Cost of revenue	25,247		25,882		(635)	(2.5%)
Gross profit	41,151	62.0 %	38,728	59.9 %	2,423	6.3 %
Operating Expenses:						
Sales and marketing	9,680	14.6 %	11,188	17.3 %	(1,508)	(13.5%)
General and administrative	8,167	12.3 %	8,586	13.3 %	(419)	(4.9%)
Research and development	5,392	8.1 %	6,097	9.4 %	(705)	(11.6)%
Total operating expenses	23,239	35.0 %	25,871	40.0 %	(2,632)	(10.2%)
Income from operations	$ 17,912	27.0 %	$ 12,857	19.9 %	$ 5,055	39.3 %

Revenue. The increase in revenue was primarily due to the continued demand for new diagnostic programs related to African swine fever and improved core swine testing volumes in China, as well as increased poultry testing. These increases were offset by decreased herd health screening, which reflects comparisons to a strong prior year, and lower volumes as the result of the COVID-19 pandemic. The impact of currency decreased revenue by approximately 4.0%.

Gross Profit. The increase in gross profit was primarily due to higher sales volumes and a 210 basis point increase in the gross profit margin. The increase in the gross profit margin is primarily due to favorable product costs from volume leverage. The impact from foreign currency movements decreased gross profit margin by approximately 120 basis points, including the impact of hedges.

Operating Expenses. Overall operating expenses were lower primarily as a result of cost containment efforts implemented in response to the COVID-19 pandemic, including temporary compensation and benefit reductions. The reductions in sales and marketing and general and administrative expenses were primarily travel and personnel-related, partially offset by higher bad debt reserves. The decrease in research and development expense was primarily personnel-related costs, partially offset by third-party services. The overall change in currency exchange rates resulted in a decrease in operating expenses of approximately 2%.

Other

The following table presents the Other results of operations:

Results of Operations *(dollars in thousands)*	For the Six Months Ended June 30, 2020	Percent of Revenue	2019	Percent of Revenue	Change Amount	Percentage
Revenues	$ 17,169		$ 10,208		$ 6,961	68.2%
Cost of revenue	7,625		5,459		2,166	39.7%
Gross profit	9,544	55.6%	4,749	46.5 %	4,795	101.0%
Operating Expenses:						
Sales and marketing	773	4.5%	682	6.7 %	91	13.3%
General and administrative	2,088	12.2%	2,037	20.0 %	51	2.5%
Research and development	1,790	10.4%	920	9.0 %	870	94.6%
Total operating expenses	4,651	27.1%	3,639	35.6 %	1,012	27.8%
Income from operations	$ 4,893	28.5%	$ 1,110	10.9 %	$ 3,783	340.8%

Revenue. The increase in revenue was primarily due to our new OPTI COVID-19 PCR test for humans, which was introduced in the second quarter of 2020. The future demand for this product is difficult to project given the uncertain nature of the COVID-19 pandemic, including short-term project commitments, available PCR testing capacity and alternative suppliers. The impact of currency movements on revenue was immaterial.

Gross Profit. The increase in gross profit was due to the new OPTI COVID-19 PCR test for humans. The gross profit margin decreased 910 basis points primarily due to higher OPTI Medical product costs and lower royalties associated with our former pharmaceutical product line. These factors were mostly offset by the favorable product mix impact of our new OPTI COVID-19 PCR testing and the net benefit of price increases. The overall change in currency exchange rates had an immaterial impact on gross profit.

Operating Expenses. The increase in sales and marketing expense was primarily due to higher personnel-related costs related to new positions associated with our new OPTI COVID-19 PCR test. The increase in general and administrative expense was primarily due to higher foreign exchange losses on settlements of foreign currency denominated transactions for all operating segments, which are reported within our Other segment, partially offset by cost control initiatives. The increase in research and development cost was primarily due to higher personnel-related and project costs associated with the development of the OPTI COVID-19 PCR test.

Non-Operating Items

Interest Expense. Interest expense was $17.2 million for the six months ended June 30, 2020, as compared to $16.6 million for the same period in the prior year. The increase in interest expense was the result of higher average debt levels, offset by interest rates.

Provision for Income Taxes. Our effective income tax rate was 18.6% for the six months ended June 30, 2020, as compared to 18.7% for the six months ended June 30, 2019. The decrease in our effective tax rate was primarily driven by regional earnings mix, with relatively higher statutory earnings subject to lower international tax rates than domestic tax rates.

Liquidity and Capital Resources

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, 2020, we had $105.3 million of cash and cash equivalents, as compared to $90.3 million on December 31, 2019. Working capital, including our Credit Facility, totaled $239.0 million at June 30, 2020, as compared to negative $45.7 million at December 31, 2019. Additionally, at June 30, 2020, we had remaining borrowing availability of $877.0 million under our $1 billion Credit Facility, which was expanded in April 2020, from $850 million, and extended through 2023. Also in April 2020, we further enhanced our liquidity and financial flexibility by issuing $200 million in 10-year, 2.50% fixed-rate senior notes. We believe that, if necessary, we could obtain additional 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, will also be sufficient to fund our business as currently conducted for the foreseeable future. We may enter into new financing arrangements or refinance or retire existing debt in the future depending on market conditions. Should we require more capital in the U.S. than is generated by our operations, for example to fund significant discretionary activities, we could elect to raise capital in the U.S. through the incurrence of debt or equity issuances, which we may not be able to complete on favorable terms or at all. In addition, 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:

Cash, cash equivalents and marketable securities *(dollars in thousands)*	June 30, 2020	December 31, 2019
U.S.	$ 3,892	$ 1,135
Foreign	101,401	89,191
Total	$ 105,293	$ 90,326
Total cash, cash equivalents and marketable securities held in U.S. dollars by our foreign subsidiaries	$ 9,047	$ 6,469
Percentage of total cash, cash equivalents and marketable securities held in U.S. dollars by our foreign subsidiaries	8.6 %	7.2 %

Of the $105.3 million of cash and cash equivalents held as of June 30, 2020, greater than 99% was held as bank deposits.

The following table presents additional key information concerning working capital:

	For the Three Months Ended				
	June 30, 2020	March 31, 2020	December 31, 2019	September 30, 2019	June 30, 2019
Days sales outstanding(1)	44.4	41.5	40.5	41.8	41.7
Inventory turns(2)	1.6	1.9	2.2	2.0	2.1

(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 average inventory balances at the beginning and end of each quarter.

Sources and Uses of Cash

The following table presents cash provided (used):

	For the Six Months Ended June 30,		
(in thousands)	2020	2019	Dollar Change
Net cash provided by operating activities	$ 236,013	$ 171,480	$ 64,533
Net cash used by investing activities	(74,226)	(72,291)	(1,935)
Net cash provided (used) by financing activities	(144,630)	(112,269)	(32,361)
Net effect of changes in exchange rates on cash	(2,190)	131	(2,321)
Net change in cash and cash equivalents	$ 14,967	$ (12,949)	$ 27,916

Operating Activities. The increase in cash provided by operating activities of $64.5 million was driven primarily by changes in other assets and liabilities and an increase in net income. The following table presents cash flows from changes in operating assets and liabilities:

	For the Six Months Ended June 30,		
(in thousands)	2020	2019	Dollar Change
Accounts receivable	$ (57,277)	$ (37,699)	$ (19,578)
Inventories	(29,254)	(22,911)	(6,343)
Accounts payable	(6,729)	(4,030)	(2,699)
Deferred revenue	(6,695)	(6,849)	154
Other assets and liabilities	4,540	(45,822)	50,362
Total change in cash due to changes in operating assets and liabilities	$ (95,415)	$ (117,311)	$ 21,896

Cash used due to changes in operating assets and liabilities during the six months ended June 30, 2020, as compared to the same period in the prior year, decreased approximately $21.9 million and was primarily due to lower cash income taxes paid, as U.S. Federal and state payments are delayed until July 15, 2020, under COVID-19 stimulus guidance, and timing of employee payroll as compared to prior year, partially offset by increases in accounts receivable from customers related to late quarter revenue growth, as well as increases in instrument inventory, due to deferred customer purchase decisions, and new human COVID-19 testing inventory.

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.

Investing Activities. Cash used by investing activities was $74.2 million for the six months ended June 30, 2020, as compared to $72.3 million for the same period in the prior year and is primarily due to increased capital spending related to the purchase of one of our reference laboratory facilities that was previously leased, partially offset by the completion of our major facilities projects.

Financing Activities. Cash used by financing activities was $144.6 million for the six months ended June 30, 2020, as compared to cash used by financing activities of $112.3 million for the same period in the prior year. The increase in cash used by financing activities was due to an increase in repurchases of our common stock and an increase in the amount repaid on our Credit Facility, partially offset by the issuance of senior notes in the current year.

Cash used to repurchase shares of our common stock increased $107.8 million during the six months ended June 30, 2020. We believe that the repurchase of our common stock is a favorable means of returning value to our stockholders, 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. In light of the uncertainty of the duration and magnitude of the COVID-19 pandemic and its impacts, we have suspended share repurchase activity. See Note 12 to the unaudited condensed consolidated financial statements in Part I. Item 1. of this Quarterly Report on Form 10-Q for additional information about our share repurchases.

Net repayment activity under our Credit Facility resulted in cash used of $167.7 million during the six months ended June 30, 2020, as compared to $147.5 million of cash used in the same period of the prior year. At June 30, 2020, we had $121.6 million outstanding under the Credit Facility. The general availability of funds under our Credit Facility was further reduced by $1.4 million for a letter of credit that was issued in connection with claims under our workers' compensation policy. The Credit Facility contains affirmative, negative, and financial covenants customary for financings of this type. The negative covenants include restrictions on liens, indebtedness of subsidiaries of the Company, fundamental changes, investments, transactions with affiliates, certain restrictive agreements and violations of laws and regulations. The obligations under our Credit Facility may be accelerated upon the occurrence of an event of default under the Credit Facility, which includes customary events of default including payment defaults, defaults in the performance of the affirmative, negative and financial covenants, the inaccuracy of representations or warranties, bankruptcy and insolvency-related defaults, defaults relating to judgments, certain events related to employee pension benefit plans under the Employee Retirement Income Security Act of 1974 ("ERISA"), the failure to pay specified indebtedness, cross-acceleration to specified indebtedness and a change of control default.

See Note 11 to the unaudited condensed consolidated financial statements in Part I. Item 1. of this Quarterly Report on Form 10-Q for additional information about our debt issuance and Credit Facility.

The Credit Agreement 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 sanctions laws and regulations. The financial covenant is a consolidated leverage ratio test.

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 ERISA, 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 is 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, non-recurring transaction expenses incurred in connection with acquisitions, share-based compensation expense, and certain other non-cash losses and charges ("Adjusted EBITDA") not to exceed 3.5-to-1. At June 30, 2020, we were in compliance with such covenant. The following details our consolidated leverage ratio calculation:

(in thousands) **Trailing 12 Months Adjusted EBITDA:**	**Twelve months ended June 30, 2020**
Net income attributable to stockholders (as reported)	$ 460,100
Interest expense	31,670
Provision for income taxes	101,665
Depreciation and amortization	91,821
Acquisition-related expense	1,910
Share-based compensation expense	41,127
Extraordinary and other non-recurring non-cash charges	1,353
Adjusted EBITDA	$ 729,646

(in thousands) **Debt to Adjusted EBITDA Ratio:**	**June 30, 2020**
Line of credit	$ 121,596
Long-term debt	899,562
Total debt	1,021,158
Acquisition-related contingent consideration payable	2,000
Financing leases	65
Deferred financing costs	705
Gross debt	$ 1,023,928
Gross debt to Adjusted EBITDA ratio	1.40
Less: Cash and cash equivalents	$ (105,293)
Net debt	$ 918,635
Net debt to Adjusted EBITDA ratio	1.26

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, 2020, are described in Note 16 to the unaudited condensed consolidated financial statements in Part I, Item 1. of this Quarterly Report on Form 10-Q.

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 2019 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 2019 Annual Report, except for the impact of foreign exchange rates, as discussed below.

Foreign Currency Exchange Impacts. Approximately 20% and 21% 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, 2020, respectively, as compared to 21% for the three and six months ended June 30, 2019. Strengthening of the U.S. dollar exchange rate relative to other currencies has a negative impact on our revenues derived in currencies other than the U.S. dollar and on profits of products manufactured in the U.S. and sold internationally, and a weakening of the U.S. dollar has the opposite effect. Similarly, to the extent that the U.S. dollar is stronger in current or future periods relative to the exchange rates in effect in the corresponding prior periods, our growth rate will be negatively affected. The impact of foreign currency denominated costs and expenses and foreign currency denominated supply contracts partly offsets this exposure. Additionally, our designated hedges of intercompany inventory purchases and sales help delay the impact of certain exchange rate fluctuations on non-U.S. dollar denominated revenues. We estimate a 1% strengthening of the U.S. dollar would result in incremental gains on our foreign currency hedge contracts in place as of June 30, 2020, of approximately $1 million.

The following table presents the estimated foreign currency exchange impact on our revenues, operating profit, and diluted earnings per share for the current period and as compared to the respective prior-year period:

	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
(in thousands, except per share amounts)	**2020**	**2019**	**2020**	**2019**
Revenue impact	**$ (7,493)**	**$ (12,072)**	**$ (14,050)**	**$ (27,191)**
Operating profit impact, excluding hedge activity and exchange impacts on settlement of foreign currency denominated transactions	$ (4,275)	$ (6,323)	$ (6,609)	$ (13,586)
Hedge gains - current period	1,812	2,509	3,153	3,920
Exchange gains (losses) on settlements of foreign currency denominated transactions - current period	799	(318)	(1,108)	(541)
Operating profit impact - current period	**$ (1,664)**	**$ (4,132)**	**$ (4,564)**	**$ (10,207)**
Hedge (gains) losses - prior period	(2,509)	833	(3,920)	2,668
Exchange losses on settlement of foreign currency denominated transactions - prior period	318	1,547	541	2,069
Operating profit impact - as compared to prior period	**$ (3,855)**	**$ (1,752)**	**$ (7,943)**	**$ (5,470)**
Diluted earnings per share impact - as compared to prior period	**$ (0.04)**	**$ (0.02)**	**$ (0.07)**	**$ (0.05)**

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 are 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, 2020, our Chief Executive Officer and our 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, 2020, 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 2019 Annual Report, the risk factor included in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2020 (the "First Quarter 10-Q"), and the risk factor below, which supplements and should be read in conjunction with the risk factors disclosed in our 2019 Annual Report and the First Quarter 10-Q, 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 2019 Annual Report and the First Quarter 10-Q. The risks described in this Quarterly Report on Form 10-Q and in our 2019 Annual Report and the First Quarter 10-Q 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.

The effects of the ongoing COVID-19 pandemic could have a material adverse impact on our business, results of operations, liquidity, financial condition, and stock price.

On March 11, 2020, the World Health Organization declared the outbreak of COVID-19 a global pandemic, and on March 13, 2020, the U.S. President announced a National Emergency relating to the disease. The global pandemic has increased economic uncertainty and has caused an economic slowdown that is likely to continue and may result in a sustained global recession. If a weakened global economy reduces our customers' ability or willingness to pay for our products and service or our suppliers' ability to provide products and services to us, then our business, results of operation, liquidity, financial condition, and stock price could be negatively impacted, and these impacts could be material.

The spread of COVID-19 has caused us to modify aspects of our business practices (including the management of and access to our facilities, employee remote work locations, and employee travel), and we may take further actions, as may be required by federal, state, and local governments or as we determine to be in the best interests of our employees and customers. Such actions may result in disruptions to our supply chain, operations, facilities, and employee workforce. In addition, the social distancing procedures and guidelines, including stay-at-home orders that may be further deployed to combat the spread of COVID-19, and possible higher infection rates could result in a decrease in companion animal clinical visits, the delay of elective procedures and wellness visits and disruption of veterinary clinic operations, all of which would have a negative effect on veterinary service providers and result in declines in demand for our CAG products and services, which represented 88% of our 2019 consolidated revenues. If stay-at-home orders are re-implemented periodically, to combat the spread of COVID-19, particularly in the United States, the negative impact on veterinary service providers and their businesses, and correspondingly on demand for our CAG products and services, may be material.

The weakened global economy caused by the effects of the COVID-19 pandemic has reduced, and may further reduce, demand for our water testing products, livestock and poultry diagnostic tests and dairy products due to reduced testing or disruptions in livestock, poultry, dairy, or other food supply and distribution chains and markets that could negatively impact the related production markets. If the global recession is sustained, the decline in our customers' demand for our water testing products, livestock and poultry diagnostic tests and dairy products may be significant.

The magnitude of the negative impact of the COVID-19 pandemic on our business, results of operations, liquidity, financial condition and stock price depends on future developments that are unpredictable and most of which are outside of our control, including the duration and scope of the pandemic, related governmental advisories and restrictions to contain COVID-19 and how quickly economic conditions improve once the COVID-19 pandemic subsides. There can be no assurance that we will be able to prevent or mitigate any or all of the COVID-19 near- or long-term adverse impacts, which could be material, including, among others:

- We may be prevented from operating our manufacturing facilities, reference laboratories, or other workplaces due to the illness of our employees, regulations, and employee inability or reluctance to appear for work or travel to our facilities, and if most of our employees are required to work remotely for an extended period, their productivity may be negatively impacted, and we may not be able to maintain the necessary information technology infrastructure to adequately support our employees working remotely.
- The operations of our customers may be disrupted thereby increasing the likelihood that our customers may attempt to delay or cancel orders, may reduce orders for our products and services in the future or may cease to operate as going concerns.
- We may experience a heightened risk of cybersecurity attacks due to governmental mandates implemented to control the spread of COVID-19, which has resulted in a greater number of our employees working remotely. There is no guarantee that the data security and privacy safeguards we have in place will be completely effective or that we will not encounter some increased risk of vulnerability or attacks associated with additional individuals accessing our data and systems remotely. In addition, security industry experts and government officials have warned about the risks of hackers and cybersecurity attacks targeting U.S. organizations conducting COVID-19 related research, such as IDEXX.
- We may have difficulty collecting accounts receivable due from our customers.
- The operations of our suppliers may be disrupted or may not operate effectively or efficiently thereby negatively impacting our ability to purchase supplies for our business at historical prices and in sufficient amounts.
- We may not be able to manage our business effectively due to key employees becoming ill, working from home inefficiently, or being unable to travel to our customers' facilities.
- We may incur significant employee health care costs under our self-insurance programs.
- Legislative and regulatory action in response to the COVID-19 pandemic in the jurisdictions in which we conduct business could negatively affect our effective tax rate. Such legislative and regulatory action may also impact our customers’ effective tax rates, which could adversely affect our results of operation and financial condition.
- The goodwill on our balance sheet may be adjusted downward if we determine that the carrying value of the asset is in excess of the fair value. We are required to perform an annual impairment review of goodwill and indefinite-lived

assets, which we last performed in the fourth quarter of fiscal 2019. We are also required to perform an interim impairment review of goodwill if an event occurs or circumstances change that would indicate that a goodwill impairment more likely than not exists. Any sustained decline in our stock price is an example of such an event or circumstance, as well as certain other macroeconomic factors that may result from the COVID-19 pandemic. If the market price of our common stock were to experience a sustained decline, we may be required to perform an interim impairment review of our goodwill and potentially record an impairment charge.

- We may not be able to generate sufficient levels of earnings to satisfy the applicable affirmative, negative, and financial covenants in our Credit Facility and senior notes, which could result in an event of default and acceleration of our obligations under these agreements, requiring us to seek additional financing or restructure existing debt on unfavorable terms.

- We may need to raise additional capital by incurring indebtedness or issuing equity securities, and our ability to do so may be negatively impacted by, among other things, negative covenants in our existing debt instruments and adverse changes in credit or equity markets, and the cost of funding and terms may not be favorable to us.

- We may have an increased risk of inventory that may expire.

- The market price of our common stock may drop significantly or remain volatile.

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

During the three months ended June 30, 2020, 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, 2020	—	$ —	—	6,275,912
May 1 to May 31, 2020	—	$ —	—	6,275,912
June 1 to June 30, 2020	207	$ 312.19	—	6,275,912
Total	207 [2]		—	6,275,912

The total shares repurchased include shares surrendered for employee statutory tax withholding. In light of the uncertainty of the duration and magnitude of the COVID-19 pandemic and its impacts, we have suspended our open market share repurchase activity. See Note 12 to the unaudited condensed consolidated financial statements in Part I. Item 1. of this Quarterly Report on Form 10-Q for additional information about our share repurchases.

(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 February 12, 2020, the maximum level of shares that may be repurchased under the program was increased from 68 million to 73 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, 2020, and no share repurchase programs expired during the period. There were no share repurchases made during the three months ended June 30, 2020, in transactions made pursuant to our share repurchase program.

(2) During the three months ended June 30, 2020, we received 207 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
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	The following financial and related information from IDEXX Laboratories, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2020, formatted in Inline eXtensible Business Reportable Language (iXBRL) includes: (i) the Condensed Consolidated Balance Sheet; (ii) the Condensed Consolidated Statement of Income; (iii) the Condensed Consolidated Statements of Comprehensive Income; (iv) the Condensed Consolidated Statement of Changes in Stockholders' Equity (Deficit); (v) the Condensed Consolidated Statement of Cash Flows; and, (vi) Notes to Consolidated Financial Statements.
104	The cover page from the Company's Quarterly Report of Form 10-Q for the quarter ended June 30, 2020, formatted in Inline XBRL and contained in Exhibit 101.

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: July 31, 2020	Brian P. McKeon
	Executive Vice President, Chief Financial Officer and Treasurer
	(Principal Financial Officer)