TELEDYNE TECHNOLOGIES INC Form 10-Q April 29, 2019 <u>Table of Contents</u>

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 9 1934 For the quarterly period ended March 31, 2019 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 1-15295

TELEDYNE TECHNOLOGIES INCORPORATED (Exact name of registrant as specified in its charter)

Delaware	25-1843385
(State or other jurisdiction of	(I.R.S. Employer
incorporation or organization)	Identification Number)
1049 Camino Dos Rios Thousand Oaks, California (Address of principal executive offices) (805) 373-4545 (Registrant's telephone number, includir	

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 \circ No " Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 such files). Yes \circ 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," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one): Large accelerated filer ý 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 ý

There were 36,236,354 shares of common stock, \$.01 par value per share, outstanding as of April 24, 2019.

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PART I FINANCIAL INFORMATION

Item 1. Financial Statements TELEDYNE TECHNOLOGIES INCORPORATED CONDENSED CONSOLIDATED STATEMENTS OF INCOME FOR THE FIRST QUARTER ENDED MARCH 31, 2019 AND APRIL 1, 2018

(Unaudited - Amounts in millions, except per-share amounts)

	First Quarter			
	2019	2018		
Net sales	\$745.2	\$695.6		
Costs and expenses				
Cost of sales	463.9	438.2		
Selling, general and administrative expenses	184.0	169.0		
Total costs and expenses	647.9	607.2		
Operating income	97.3	88.4		
Interest and debt expense, net	(5.4)	(7.1)		
Non-service retirement benefit income	2.2	3.4		
Other expense, net	(1.2)	(2.5)		
Income before income taxes	92.9	82.2		
Provision for income taxes	17.6	15.7		
Net income	\$75.3	\$66.5		
Basic earnings per common share	\$2.09	\$1.87		
Weighted average common shares outstanding	36.1	35.6		
Diluted earnings per common share	\$2.02	\$1.81		
Weighted average diluted common shares outstanding	37.2	36.8		

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

TELEDYNE TECHNOLOGIES INCORPORATED CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME FOR THE FIRST QUARTER ENDED MARCH 31, 2019 AND APRIL 1, 2018 (Unaudited - Amounts in millions)

	First (Quarter
	2019	2018
Net income	\$75.3	\$66.5
Other comprehensive income (loss):		
Foreign exchange translation adjustment	17.0	17.2
Hedge activity, net of tax	1.8	(1.6)
Pension and postretirement benefit adjustments, net of tax	4.6	4.3
Other comprehensive income	23.4	19.9
Comprehensive income	\$98.7	\$86.4
The accompanying notes are an integral part of these conde	ensed c	onsolidated fir

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

TELEDYNE TECHNOLOGIES INCORPORATED CONDENSED CONSOLIDATED BALANCE SHEETS (Unaudited - Amounts in millions, except share amounts)

(Onaudited - Amounts in minions, except share amounts)	March 31, 2019	, December 2018	30,
Assets			
Current Assets			
Cash	\$106.2	\$ 142.5	
Accounts receivable, net	410.4	416.5	
Unbilled receivables, net	154.0	145.3	
Inventories, net	393.0	364.3	
Prepaid expenses and other current assets	53.9	45.8	
Total current assets	1,117.5	1,114.4	
Property, plant and equipment, net of accumulated depreciation and amortization of \$579.6 a March 31, 2019 and \$566.0 at December 30, 2018	^{it} 450.7	442.6	
Goodwill	1,885.1	1,735.2	
Acquired intangibles, net	389.0	344.3	
Prepaid pension assets	94.8	88.2	
Operating lease right-of-use assets	134.3		
Other assets, net	90.3	84.6	
Total Assets	\$4,161.7	\$ 3,809.3	
Liabilities and Stockholders' Equity			
Current Liabilities			
Accounts payable	\$227.3	\$ 227.8	
Accrued liabilities	364.6	355.6	
Current portion of long-term debt and other debt	131.8	137.4	
Total current liabilities	723.7	720.8	
Long-term debt	724.6	610.1	
Long-term operating lease liabilities	126.0		
Other long-term liabilities	237.9	248.7	
Total Liabilities	1,812.2	1,579.6	
Commitments and contingencies			
Stockholders' Equity			
Preferred stock, \$0.01 par value; outstanding shares - none			
Common stock, \$0.01 par value; authorized 125,000,000 shares; issued shares: 37,697,865 a	t		
March 31, 2019 and December 30, 2018; outstanding shares: 36,232,598 at March 31, 2019	0.4	0.4	
and 36,087,297 at December 30, 2018			
Additional paid-in capital	349.8	343.7	
Retained earnings	2,599.0	2,523.7	
Treasury stock, 1,465,267 shares at March 31, 2019 and 1,610,568 shares at December 30, 2018	(129.9)	(144.9)
Accumulated other comprehensive loss	(469.8)	(493.2)
Total Stockholders' Equity	2,349.5	2,229.7	,
Total Liabilities and Stockholders' Equity	\$4,161.7	\$ 3,809.3	
The accompanying notes are an integral part of these condensed consolidated financial stater			

TELEDYNE TECHNOLOGIES INCORPORATED CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (In millions)

	Common Stock	Additiona Paid-in Capital	¹ Treasury Stock	Retained Earnings	Accumula Other Comprehe Income (I	ensive	Total	
Balance, December 30, 2018	\$ 0.4	\$ 343.7	\$(144.9)	\$2,523.7	\$ (493.2)	\$2,229.7	
Net income		—		75.3			75.3	
Other comprehensive loss, net of tax					23.4		23.4	
Treasury stock issued		(15.0	15.0					
Stock-based compensation		10.9					10.9	
Exercise of stock options and other		10.2					10.2	
Balance, March 31, 2019	\$ 0.4	\$ 349.8	\$(129.9)	\$2,599.0	\$ (469.8)	\$2,349.5	
		Common Stock	Additional Paid-in Capital	Treasury Stock	Retained Earnings	Other Comp	nulated rehensive ne (Loss)	Total
Balance, December 31, 2017		\$ 0.4	\$ 337.3	\$(200.7)	\$2,139.6	\$ (32	9.3)	\$1,947.3
Net income					66.5			66.5
Other comprehensive loss, net of tax						19.9		19.9
Treasury stock issued			(20.4)	20.4				
Stock-based compensation			6.6					6.6
Exercise of stock options and other			12.3					12.3
Cumulative effect of new accounting	standards				50.9	(47.6)	3.3
Balance, April 1, 2018		\$ 0.4	\$ 335.8	\$(180.3)	\$2,257.0	\$ (35	7.0)	\$2,055.9

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

TELEDYNE TECHNOLOGIES INCORPORATED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS FOR THE THREE MONTHS ENDED MARCH 31, 2019 AND APRIL 1, 2018 (Unaudited - Amounts in millions)

	Three M 2019	Ionths 2018
On anothing A attivities	2019	2018
Operating Activities	¢75.0	¢((5
Net income	\$75.3	\$66.5
Adjustments to reconcile net income to net cash provided by operating activities:	07 (2 0.0
Depreciation and amortization	27.6	28.8
Stock-based compensation	10.8	6.5
Changes in operating assets and liabilities:		
Accounts receivable	6.7	(27.0)
Inventories	· ,) (6.0)
Prepaid expenses and other assets		(3.6)
Accounts payable	(1.1)	9.7
Accrued liabilities	(15.1)	(9.0)
Deferred and income taxes receivable/payable, net	(2.8)) 10.9
Long-term assets	(13.4)	(8.8)
Other long-term liabilities	16.2	0.1
Other operating, net	(1.7)	3.5
Net cash provided by operating activities	80.1	71.6
Investing Activities		
Purchases of property, plant and equipment	(21.3)	(19.8)
Purchase of businesses, net of cash acquired	(222.5)) —
Proceeds from the sale of assets		0.2
Net cash used in investing activities	(243.8)	(19.6)
Financing Activities	. ,	
Net proceeds from (payments on) credit facility	120.0	(54.5)
Proceeds from (payments on) other debt, net	(5.9)) 1.6
Proceeds from exercise of stock options	10.2	12.3
Other financing, net		(2.0)
Net cash provided by (used in) financing activities	124.3	(42.6)
Effect of exchange rate changes on cash	3.1	(0.4)
Change in cash	(36.3)	
Cash—beginning of period	142.5	
Cash—end of period	\$106.2	
The accompanying notes are an integral part of these condensed consolidated final		
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TELEDYNE TECHNOLOGIES INCORPORATED NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited) March 31, 2019

Note 1. General

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared by Teledyne Technologies Incorporated ("Teledyne" or the "Company") pursuant to the rules and regulations of the Securities and Exchange Commission. Certain information and disclosures normally included in notes to consolidated financial statements have been condensed or omitted pursuant to such rules and regulations, but resultant disclosures are in accordance with accounting principles generally accepted in the United States ("GAAP") as they apply to interim reporting. The condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and the related notes in Teledyne's Annual Report on Form 10-K for the fiscal year ended December 30, 2018 ("2018 Form 10-K").

In the opinion of Teledyne's management, the accompanying unaudited condensed consolidated financial statements contain all adjustments (consisting of normal recurring adjustments) necessary to present fairly, in all material respects, Teledyne's consolidated financial position as of March 31, 2019 and the consolidated results of operations, consolidated comprehensive income and consolidated cash flows for the three months then ended. The results of operations and cash flows for the three months ended March 31, 2019 are not necessarily indicative of the results of operations or cash flows to be expected for any subsequent quarter or the full fiscal year. Certain prior year amounts have been reclassified to conform to the current period presentation.

In the second quarter of 2018, we realigned the reporting structure for certain of our microwave product groupings. These products, acquired with the acquisition of e2v technologies plc ("e2v") were formerly reported as part of the Aerospace and Defense Electronics segment and are now reported as part of the Digital Imaging segment. Previously reported segment data has been adjusted to reflect this change.

Recent Accounting Pronouncements

In February 2018, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2018-02, "Income Statement-Reporting Comprehensive Income (Topic 220) Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income", to address a specific consequence of the Tax Cuts and Jobs Act ("Tax Act") by allowing a reclassification from accumulated other comprehensive income ("AOCI") to retained earnings for stranded tax effects resulting from the Tax Act reduction of the U.S. federal corporate income tax rate. The guidance is effective for all entities for annual periods beginning after December 15, 2018, with early adoption permitted. In 2018, we elected to early adopt this ASU and elected to reclassify, in the period of enactment, stranded tax effects totaling \$47.6 million from AOCI to retained earnings in our condensed consolidated balance sheet. The reclassification amount primarily included income tax effects related to our pension and postretirement benefit plans. Income tax effects remaining in AOCI will be released into earnings as the related pretax amounts are reclassified to earnings.

In August 2017, the FASB issued ASU No. 2017-12, "Derivatives and Hedging (Topic 815) Targeted Improvements to Accounting for Hedging Activities." This new guidance better aligns an entity's risk management activities and financial reporting for hedging relationships and expands and refines hedge accounting for both nonfinancial and financial risk components. This new guidance also simplifies and aligns the recognition and presentation of the effects of the hedging instrument and the hedged item in the financial statements. This new guidance is effective for fiscal years beginning after December 15, 2018 and for interim periods therein, with early adoption permitted. We adopted the new guidance as of December 31, 2018 using the modified retrospective approach, there was no cumulative adjustment to retained earnings related to hedge ineffectiveness for the year ended December 31, 2018. Additionally, as a result of the adoption, we no longer disclose the ineffective portion of the change in fair value of our derivative financial instruments. The entire change in the fair value of the cash flow hedging instruments aside from components excluded from the assessment of hedge effectiveness will now be recorded in other comprehensive income and subsequently reclassified to earnings in the period the hedged item impacts earnings.

did not have a material impact on our condensed consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, Simplifying the Test for Goodwill Impairment, which eliminates the computation of the implied fair value of goodwill to measure a goodwill impairment charge. Instead, entities will record a goodwill impairment charge based on the excess of a reporting unit's carrying amount over its fair value. The new guidance is effective for interim and annual reporting periods beginning after December 15, 2019, with early adoption permitted. We expect the adoption of this guidance will reduce the complexity surrounding the evaluation of goodwill for impairment. The impact of this new guidance for the Company will depend on the outcomes of future goodwill impairment tests.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842). The new guidance requires lessees to recognize most leases on their balance sheet as a right-of-use asset and a lease liability, other than leases that meet the definition of a short-term lease. For income statement purposes, the FASB retained a dual model, requiring leases to be classified as either operating or finance. We adopted the new guidance on December 31, 2018, the beginning of our 2019 fiscal year using the modified retrospective transition method. Prior period comparative information was not adjusted. In addition, we elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed us to carry forward the historical lease classification. The adoption of this guidance did not have a material impact related to existing leases and as a result, a cumulative-effect adjustment was not recorded. Also, the adoption of the new guidance did not have a material impact on our results of operations or cash flows.

Lease Commitments

We determine if an arrangement is a lease at inception. Effective December 31, 2018, operating leases are recorded as right-of-use assets, other long-term lease liabilities and current accrued liabilities in our condensed consolidated balance sheets. Finance leases are included in property and equipment, other current liabilities, and other long-term liabilities in our condensed consolidated balance sheets.

Operating lease 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 right-of-use assets and lease liabilities are recognized at commencement date based on the present value of lease payments over the lease term. Since most of our leases do not provide an implicit rate, we use our incremental borrowing rate to determine the present value of lease payments at the commencement date. We use the implicit rate when readily determinable. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

Many lease agreements contain renewal options at either a fixed cost, fixed increase or market value adjustment. For those leases with renewal options, we will include the renewal options that are reasonably certain to be exercised, for purposes of calculating the lease liability and corresponding right of use asset. Teledyne will evaluate the likelihood of exercising each renewal option based on many factors, including the length of the renewal option and the future new lease cost, if known, or the estimated future new lease cost if it is not a fixed amount. Operating Leases

Teledyne has approximately 120 operating lease agreements, which are primarily for manufacturing facilities and office space. These agreements frequently include one or more renewal options and require the Company to pay for utilities, taxes, insurance and maintenance expense. No lease agreement imposes a restriction on the Company's ability to engage in financing transactions or enter into further lease agreements. At March 31, 2019, Teledyne has right-of-use assets of \$134.3 million and a total lease liability for operating leases of \$144.0 million of which \$126.0 million is included in long-term lease liabilities and \$18.0 million is included in current accrued liabilities.

At March 31, 2019, future minimum lease payments for operating leases with non-cancelable terms of more than one year were as follows (in millions):

-	
Remainder of 2019	\$22.5
2020	21.0
2021	19.3
2022	16.9
2023	15.6
Thereafter	79.9
Total minimum lease payments	175.2
Less:	
Imputed interest	(31.2)
Current portion	(18.0)
	¢1000

Present value of minimum lease payments, net of current portion \$126.0

The weighted average remaining lease term for operating leases is approximately 10 years and the weighted average discount rate is 4.09%. Operating lease expense was \$5.8 million for the first quarter of 2019.

As previously disclosed in Note 13 of the Notes to Consolidated Financial Statements included in our 2018 Form 10-K and under the previous lease accounting, future minimum lease payments for operating leases having initial or remaining non-cancelable lease terms in excess of one year were as follows (in millions):

e	
	As of
	December
	30, 2018
2019	\$ 23.2
2020	20.6
2021	18.4
2022	18.4
2023	11.8
Thereafter	48.2
Total minimum lease payments	\$ 140.6
Other	

Our finance leases and subleases are not material.

Note 2. Accumulated Other Comprehensive Loss

The changes in AOCI by component, net of tax, for the first quarter ended March 31, 2019 and April 1, 2018 are as follows (in millions):

	Foreign Currency Translation	•	Pension and Postretirement Benefits	Total
Balance as of December 30, 2018	\$ (181.5)		\$ (306.8)	\$(493.2)
Other comprehensive income before reclassifications Amounts reclassified from AOCI	17.0	3.3 (1.5)	 4.6	20.3 3.1
Net other comprehensive income	17.0	(1.5)	4.6	23.4
Balance as of March 31, 2019				\$(469.8)
		,	,	
		Cash		
	Foreign	Flow	Pension and	
	Currency	Hedges	Postretirement	Total
	Translation	and	Benefits	
		Other		
Balance as of December 31, 2017	\$ (102.0)		\$ (227.8)	\$(329.3)
Other comprehensive income/(loss) before reclassifications	17.2	(2.7)		14.5
Amounts reclassified from AOCI		1.1	4.3	5.4
Net other comprehensive income/(loss)	17.2	(1.6)	4.3	19.9
Reclassification of income tax effects for ASU 2018-02		<u> </u>	· · · · · ·	(47.6)
Balance as of April 1, 2018	\$ (84.8)	\$(1.1)	\$ (271.1)	\$(357.0)

The reclassifications out of AOCI to net income for the first quarter ended March 31, 2019 and April 1, 2018 are as follows (in millions):

	Amount		Amount	
	Reclassifi	ed	Reclassifie	d
	from AOC	CI	from AOC	Statement of Income
	Three		Three	Statement of moone
	Months		Months	
	Ended		Ended	
	March 31	,	April 1,	Durantation
	2019		2018	Presentation
(Gain) loss on cash flow hedges:				
(Gain) loss recognized in income on derivatives	\$ (2.0)	\$ 1.3	See Note 4
Income tax impact	0.5		(0.2)	Provision for income taxes
Total	\$ (1.5)	\$ 1.1	unes
Amortization of defined benefit pension and postretirement plan items:				
Amortization of prior service cost	\$ (1.5)	\$ (1.5)	Costs and expenses
Amortization of net actuarial loss	[©] (1.5 7.6	,	7.3	Costs and expenses
Total before tax	6.1		5.8	Costs and expenses
				Provision for income
Income tax impact	(1.5)	(1.5)	taxes
Total	\$ 4.6		\$ 4.3	

Note 3. Business Combinations, Goodwill and Acquired Intangible Assets

Acquisition of the scientific imaging businesses of Roper Technologies, Inc.

On February 5, 2019, we acquired the scientific imaging businesses of Roper Technologies, Inc. for \$225.0 million in cash, subject to a working capital purchase price adjustment. Principally located in the United States and Canada, the acquired businesses are part of the Digital Imaging segment. The acquired businesses include Princeton Instruments, Photometrics and Lumenera. The acquired businesses provide a range of imaging solutions, primarily for life sciences, academic research and customized OEM industrial imaging solutions. Princeton Instruments and Photometrics manufacture state-of-the-art cameras, spectrographs and optics for advanced research in physical sciences, life sciences research and spectroscopy imaging. Applications and markets include materials analysis, quantum technology and cell biology imaging using fluorescence and chemiluminescence. Lumenera primarily provides rugged USB-based customized cameras for markets such as traffic management, as well as life sciences applications. Teledyne funded the acquisition with borrowings under its credit facility and cash on hand. The results of the acquisition have been included in Teledyne's results since the date of the acquisition.

Goodwill and Acquired Intangible Assets

Teledyne's goodwill was \$1,885.1 million at March 31, 2019 and \$1,735.2 million at December 30, 2018. The increase in the balance of goodwill in 2019 resulted from \$145.4 million in goodwill from the acquisition of the scientific imaging businesses of Roper Technologies, Inc. Teledyne's net acquired intangible assets were \$389.0 million at March 31, 2019 and \$344.3 million at December 30, 2018. The increase in the balance of net acquired intangible assets resulted from \$52.4 million in acquired intangible assets from the acquisition of the scientific imaging businesses of Roper Technologies, Inc., partially offset by amortization of acquired intangible assets. The Company is in the process of specifically identifying the amount to be assigned to certain assets, including acquired intangible assets, and liabilities and the related impact on taxes and goodwill for the acquisition of the scientific imaging businesses of Roper Technologies, Inc. since there was insufficient time between the acquisition date and the end of the period to finalize the analysis.

Note 4. Derivative Instruments

Teledyne transacts business in various foreign currencies and has international sales and expenses denominated in foreign currencies, subjecting the Company to foreign currency risk. The Company's primary foreign currency risk management objective is to protect the U.S. dollar value of future cash flows and minimize the volatility of reported earnings. All derivatives are recorded on the balance sheet at fair value. As discussed below, the accounting for gains and losses resulting from changes in fair value depends on the use of the derivative and whether it is designated and qualifies for hedge accounting. The Company utilizes foreign currency forward contracts to reduce the volatility of cash flows primarily related to forecasted revenues and expenses denominated in Canadian dollars for our Canadian companies, including DALSA and in British pounds for our UK companies, including e2v. These contracts are designated and qualify as cash flow hedges. The Company has converted a U.S. dollar denominated, variable rate debt obligation into a euro fixed rate obligation using a receive float, pay fixed cross currency swap. This cross currency swap is designated as a cash flow hedge.

Cash Flow Hedging Activities

The effectiveness of the forward contract cash flow hedge, which exclude time value, and the cross currency swap cash flow hedge is assessed prospectively and retrospectively on a monthly basis using regression analysis, as well as using other timing and probability criteria. To receive hedge accounting treatment, all hedging relationships are formally documented at the inception of the hedges and must be highly effective in offsetting changes to future cash flows on hedged transactions. The effective portion of the cash flow hedge forward contracts' gains or losses resulting from changes in the fair value of these hedges is initially reported, net of tax, as a component of AOCI in stockholders' equity until the underlying hedged item is reflected in our consolidated statements of income, at which time the effective amount in AOCI is reclassified to cost of sales in our consolidated statements of income. For the cross currency swap cash flow hedge, effective amounts are recorded in AOCI, and reclassified into interest expense in the consolidated statements of income. In addition, for the cross currency swap an amount is reclassified from AOCI to other income and expense each reporting period, to offset the earnings impact of the remeasurement of the hedged liability. Net deferred losses recorded in AOCI, net of tax, for the forward contracts that will mature in the next twelve months total \$1.2 million. These losses are expected to be offset by anticipated gains in the value of the forecasted underlying hedged item. Amounts related to the cross currency swap expected to be reclassified from AOCI into income in the next twelve months total \$0.1 million.

In the event that the underlying forecasted transactions do not occur, or it becomes remote that they will occur, within the defined hedge period, the gains or losses on the related cash flow hedges will be reclassified from AOCI to other income and expense. During the current reporting period, all forecasted transactions occurred and, therefore, there were no such gains or losses reclassified to other income and expense. As of March 31, 2019, Teledyne had foreign currency forward contracts designated as cash flow hedges to buy Canadian dollars and to sell U.S. dollars totaling \$80.9 million. These foreign currency forward contracts have maturities ranging from June 2019 to May 2020. Teledyne had foreign currency forward contracts designated as cash flow hedges to buy British pounds and to sell U.S. dollars totaling \$17.4 million. These foreign currency forward contracts have maturities ranging from June 2019 to May 2020. Together the contracts had a negative fair value of \$2.0 million. The cross currency swap has notional amounts of €93.0 million equivalent to \$100.0 million, and matures in October 2019.

The effect of derivative instruments designated as cash flow hedges in the condensed consolidated financial statements for the first quarter ended March 31, 2019 and April 1, 2018 was as follows (in millions):

	First Q	uarter	
	2019	2018	
Net gain (loss) recognized in AOCI (a)	\$4.3	\$(3.7)	
Net gain (loss) reclassified from AOCI into cost of sales (a)	\$(0.6)	\$1.2	
Net gain reclassified from AOCI into interest expense (a)	\$0.8	\$0.5	
Net gain (loss) reclassified from AOCI into other income and expense, net (b)	\$1.8	\$(3.0)	
Net foreign exchange gain (loss) recognized in other income and expense, net (c)	\$(0.2)	\$—	
a) Effective portion pre-tax			

Effective portion, pre-tax a)

Amount reclassified to offset earnings impact of liability hedged by cross currency swap b)

c) Amount excluded from effectiveness testing

Non-Designated Hedging Activities

In addition, the Company utilizes foreign currency forward contracts to mitigate foreign exchange rate risk associated with foreign currency denominated monetary assets and liabilities, including intercompany receivables and payables. As of March 31, 2019, Teledyne had non-designated foreign currency contracts of this type in the following pairs (in millions):

Contracts to Buy			Contracts to Sell		
Currency	Amo	unt	Currency	Amo	ount
Canadian Dollars	C\$	24.4	U.S. Dollars	US\$	18.5
Canadian Dollars	C\$	13.2	Euros	€	8.7
Great Britain Pounds	£	1.1	Australian Dollars	A\$	2.1
Great Britain Pounds	£	33.1	U.S. Dollars	US\$	43.2
Singapore Dollars	S\$	2.3	U.S. Dollars	US\$	1.7
Euros	€	31.2	U.S. Dollars	US\$	35.1
U.S. Dollars	US\$	2.7	Japanese Yen	¥	300.0
Danish Krone	DKR	63.0	U.S. Dollars	US\$	9.5
Great Britain Pounds	£	7.3	Euros	€	8.5
Great Britain Pounds	f	21	Hong Kong Dollars	нк¢	24.6

Great Britain Pounds £ 2.4 Hong Kong Dollars HK\$24.6

The above table includes non-designated hedges derived from terms contained in triggered or previously designated cash flow hedges. The gains and losses on these derivatives which are not designated as hedging instruments are intended to, at a minimum, partially offset the transaction gains and losses recognized in earnings. Teledyne does not use foreign currency forward contracts for speculative or trading purposes.

The effect of derivative instruments not designated as cash flow hedges recognized in other income and expense for the first quarter ended March 31, 2019 was income of \$1.6 million. The effect of derivative instruments not designated as cash flow hedges in other income and expense for the first quarter ended April 1, 2018 was expense of \$0.8 million. The income/expense was largely offset by losses/gains in the value of the underlying hedged item excluding the impact of forward points.

Fair Value of Derivative Financial Instruments

The Company has elected to use the income approach to value the derivatives, using observable Level 2 market expectations at measurement date and standard valuation techniques to convert future amounts to a single present amount. Level 2 inputs for the valuations are limited to quoted prices for similar assets or liabilities in active markets (specifically futures contracts on LIBOR and EURIBOR) and inputs other than quoted prices that are observable for the asset or liability (specifically LIBOR and EURIBOR cash and swap rates, foreign currency forward rates and cross currency basis spreads). Mid-market pricing is used as a practical expedient for fair value measurements. The fair value measurement of an asset or liability must reflect the nonperformance risk of the entity and the counterparty. Therefore, the impact of the counterparty's creditworthiness when in an asset position and the Company's creditworthiness when in a liability position has also been factored into the fair value measurement of the derivative instruments and did not have a material impact on the fair value of these derivative instruments. Both the counterparty and the Company are expected to continue to perform under the contractual terms of the instruments. The fair values of the Company's derivative financial instruments are presented below. All fair values for these derivatives were measured using Level 2 information as defined by the accounting standard hierarchy (in millions):

Asset/(Liability) Derivatives	Balance sheet location	March 31, December 2019 30, 2018
Derivatives designated as hedging instruments:		
Cash flow forward contracts	Other assets	\$0.1 \$—
Cash flow cross currency swap	Accrued liabilities	(4.3) (6.3)
Cash flow forward contracts	Accrued liabilities	(2.1)(4.2)
Total derivatives designated as hedging instruments		(6.3) (10.5)
Derivatives not designated as hedging instruments:		

Non-designated forward contracts	Other current assets	0.3 —
Non-designated forward contracts	Accrued liabilities	(0.7) (0.6)
Total derivatives not designated as hedging instruments		(0.4) (0.6)
Total liability derivatives, net		\$(6.7) \$(11.1)

Note 5. Earnings Per Share

For the first quarter of 2019, 6,480 stock options were excluded in the computation of diluted earnings per share because they had exercise prices that were greater than the weighted average market price of the Company's common stock during the period. For the first quarter of 2018, 370,583 stock options were excluded in the computation of diluted earnings per share because they had exercise prices that were greater than the weighted average market price of the Company's common of the Company's common stock during the period.

The weighted average number of common shares used in the calculation of basic and diluted earnings per share consisted of the following (in millions):

	First	
	Quar	ter
	2019	2018
Weighted average basic common shares outstanding	36.1	35.6
Effect of dilutive securities (primarily stock options)	1.1	1.2
Weighted average diluted common shares outstanding	37.2	36.8

Note 6. Stock-Based Compensation Plans

Teledyne has long-term incentive plans pursuant to which it has granted non-qualified stock options, restricted stock and performance shares to certain employees. The Company also has non-employee Board of Director stock compensation plans, pursuant to which common stock, stock options and restricted stock units have been issued to its directors.

Stock Incentive Plan

Stock option compensation expense was \$8.9 million for the first quarter of 2019 and was \$4.9 million for the first quarter of 2018. Employee stock option grants are charged to expense evenly over the three year vesting period except for stock options that were granted in 2019 to Teledyne's President and Chief Executive Officer and Teledyne's Executive Chairman which were expensed immediately. For 2019, the Company currently expects approximately \$26.6 million in stock option compensation expense based on stock options currently outstanding. This amount can be impacted by employee retirements and terminations or stock options granted during the remainder of the year. The Company issues shares of common stock upon the exercise of stock options.

The following assumptions were used in the valuation of stock options granted in 2019:

	2019
Expected volatility	26.7%
Risk-free interest rate range	2.47% to
Risk free merest fate funge	2.70%
Expected life in years	6.6
Expected dividend yield	

Based on the assumptions used in the valuation of stock options, the grant date weighted average fair value of stock options granted in 2019 was \$72.00 per share.

Stock option transactions for the first quarter of 2019 are summarized as follows:

2019	
First Quart	ter
	Weighted
Sharaa	Average
Shares	Exercise
	Price
2,064,740	\$104.66
390,789	\$217.58
(120,783)	\$ 84.76
(17,223	\$ 171.49
2,317,523	\$124.24
	Shares 2,064,740 390,789 (120,783 (17,223

Options exercisable at end of period 1,549,179 \$79.52

Performance Share Plan and Restricted Stock Award Program

Under the 2015 to 2017 Performance Share Plan, in the first quarter of 2019 the Company issued 8,586 shares of Teledyne common stock and in the first quarter of 2018, the Company issued 6,481 shares of Teledyne common stock. A total of 15,578 shares remain to be issued in 2020, subject to the terms of the plan.

In the first quarter of 2018, the performance cycle for the three-year period ending December 31, 2020, was set. Under the plan, the maximum number of shares that could be issued in three equal installments in 2021, 2022 and 2023, is 58,729.

The following table shows the restricted stock activity for the first three months of 2019:

		Weighted
	Shares	average
	Shares	fair value
		per share
Balance, December 30, 2018	74,220	\$108.05
Granted	17,522	\$200.00
Vested	(35,330)	\$72.91
Balance, March 31, 2019	56,412	\$158.62
Note 7 Inventories		

Note 7. Inventories

Inventories are stated at current cost net of reserves for excess, slow moving and obsolete inventory, less progress payments. Inventories are valued under the FIFO method, LIFO method and average cost method. Inventories at cost determined on the average cost or the FIFO methods were \$360.2 million at March 31, 2019 and \$331.3 million at December 30, 2018. The remainder of the inventories using the LIFO method were \$41.9 million at March 31, 2019 and \$42.3 million at December 30, 2018. Interim LIFO calculations are based on the Company's estimates of expected year-end inventory levels and costs since an actual valuation of inventory under the LIFO method can be made only at the end of each year based on the inventory levels and costs at that time. Because these estimates are subject to many factors beyond the Company's control, interim results are subject to the final year-end LIFO inventory valuation.

	Balance at		
Inventories (in millions):	March 31, 2019	December 30, 2018	
Raw materials and supplies	\$221.1	\$ 205.6	
Work in process	125.4	117.5	
Finished goods	55.6	50.5	
	402.1	373.6	
Reduction to LIFO cost basis	(9.1)	(9.3)	
Total inventories, net	\$393.0	\$ 364.3	
Note 8. Customer Contracts			

Estimate at Completion Process

For over time contracts using the cost-to-cost method, we have an Estimate at Completion ("EAC") process in which management reviews the progress and execution of our performance obligations. This EAC process requires management judgment relative to assessing risks, estimating contract revenue and cost, and making assumptions for schedule and technical issues. Since certain contracts extend over a longer period of time, the impact of revisions in cost and revenue estimates during the progress of work may adjust the current period earnings through a cumulative catch-up basis. This method recognizes, in the current period, the cumulative effect of the changes on current and prior quarters. Additionally, if the current contract estimate indicates a loss, a provision is made for the total anticipated loss in the period that it becomes evident. Contract cost and revenue estimates for significant contracts are reviewed and reassessed quarterly. The majority of revenue recognized over time uses an EAC process. The net aggregate effects of these changes in estimates on contracts accounted for under the cost-to-cost method in the first three months of 2019 and 2018 was approximately \$2.8 million and \$0.2 million of favorable operating income, primarily related to changes in estimates that favorably impacted revenue. None of the effects of changes in estimates

on any individual contract were material to the condensed consolidated statements of income for any period presented. Contract Liabilities

We recognize a liability for interim and advance payments in excess of revenue recognized and present it as a contract liability which is included within accrued liabilities and other long-term liabilities on the Condensed Consolidated Balance Sheet, which represented \$111.2 million and \$20.5 million as of March 31, 2019, and \$111.5 million and \$15.3 million as of December 30, 2018, respectively.

The Company recognized revenue of \$35.4 million during the three months ended March 31, 2019 from contract liabilities that existed at the beginning of year. The Company recognizes the incremental costs of obtaining or fulfilling a contract as expense

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when incurred if the amortization period of the asset is one year or less. Incremental costs to obtain or fulfill contracts with an amortization period greater than one year were not material.

Remaining Performance Obligations

Remaining performance obligations represent the transaction price of firm orders for which work has not been performed as of the period end date and excludes unexercised contract options and potential orders under ordering-type contracts (e.g., indefinite-delivery, indefinite-quantity). As of March 31, 2019, the aggregate amount of the transaction price allocated to remaining performance obligations was \$1,760.0 million. The Company expects approximately 79% of remaining performance obligations to be recognized into revenue within the next twelve months, with the remaining 21% recognized thereafter.

Product Warranty Costs

Some of the Company's products are subject to specified warranties, and the Company provides for the estimated cost of product warranties. The adequacy of the warranty reserve is assessed regularly, and the reserve is adjusted as necessary based on a review of historic warranty experience with respect to the applicable business or products, as well as the length and actual terms of the warranties. The warranty reserve is included in current and long-term accrued liabilities on the Condensed Consolidated Balance Sheet.

	First Quarter	
Warranty Reserve (in millions):	2019	2018
Balance at beginning of year	\$21.0	\$21.1
Accruals for product warranties charged to expense	2.2	3.1
Cost of product warranty claims	(2.9)	(2.2)
Acquisition	0.3	
Balance at end of period	\$20.6	\$22.0
Note 9. Income Taxes		

The income tax provision is calculated using an estimated annual effective tax rate, based upon expected annual income, permanent items, statutory rates and planned tax strategies in the various jurisdictions in which the Company operates. However, losses in certain jurisdictions and discrete items, such as the resolution of uncertain tax positions, are treated separately.

The Company's effective income tax rate for the first quarter of 2019 was 18.9%. The Company's effective income tax rate for the first quarter of 2018 was 19.1%. The first quarter of 2019 and 2018 include net discrete income tax benefits of \$3.1 million and \$2.1 million, respectively. The 2019 first quarter net discrete tax benefits includes \$2.9 million related to share-based accounting. The 2018 first quarter net discrete tax benefits includes \$3.0 million related to share-based accounting.

Note 10. Long-Term Debt and Letters of Credit

Long-Term Debt (in millions):	Balance March 3 2019	at 3 IDecember 30, 2018
\$750.0 million credit facility due March 2024, weighted average rate of 3.45% at March 31, 2019 and 5.50% at December 30, 2018	\$149.0	\$ 29.0
Term loan due October 2019, variable rate of 3.61% at March 31, 2019 and 3.63% at December 30, 2018, swapped to a Euro fixed rate of 0.7055%	100.0	100.0
2.61% Fixed Rate Senior Notes due December 2019	30.0	30.0
5.30% Fixed Rate Senior Notes due September 2020	75.0	75.0
2.81% Fixed Rate Senior Notes due November 2020	25.0	25.0
3.09% Fixed Rate Senior Notes due December 2021	95.0	95.0
3.28% Fixed Rate Senior Notes due November 2022	100.0	100.0
0.70% €50 Million Fixed Rate Senior Notes due April 2022	56.1	57.2
0.92% €100 Million Fixed Rate Senior Notes due April 2023	112.2	114.4
1.09% €100 Million Fixed Rate Senior Notes due April 2024	112.2	114.4
Other debt	3.0	8.8

Total debt	857.5 748.8
Less: current portion of long-term debt and debt issuance costs	(132.9) (138.7)
Total long-term debt	\$724.6 \$ 610.1

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On March 15, 2019, Teledyne amended its \$750.0 million credit agreement to extend the maturity date from December 2020 to March 2024. While the borrowing capacity remains at \$750.0 million, the amendment permits Teledyne to increase the aggregate amount of the borrowing capacity by up to \$250.0 million subject to certain conditions.

Available borrowing capacity under the \$750.0 million credit facility, which is reduced by borrowings and certain outstanding letters of credit, was \$571.2 million at March 31, 2019. The credit agreements require the Company to comply with various financial and operating covenants and at March 31, 2019, the Company was in compliance with these covenants.

Teledyne estimates the fair value of its long-term debt based on debt of similar type, rating and maturity and at comparable interest rates. The Company's long-term debt is considered a level 2 fair value hierarchy and is valued based on observable market data. The estimated fair value of Teledyne's long-term debt at March 31, 2019 and December 30, 2018, approximated the carrying value.

At March 31, 2019, Teledyne had \$34.7 million in outstanding letters of credit.

Note 11. Lawsuits, Claims, Commitments, Contingencies and Related Matters

For a further description of the Company's commitments and contingencies, reference is made to Note 14 of the Company's financial statements as of and for the fiscal year ended December 30, 2018, included in the 2018 Form 10-K.

At March 31, 2019, the Company's reserves for environmental remediation obligations totaled \$6.4 million, of which \$1.5 million is included in current accrued liabilities. At December 30, 2018, the Company's reserves for environmental remediation obligations totaled \$6.0 million. The Company evaluates whether it may be able to recover a portion of future costs for environmental liabilities from its insurance carriers and from third parties. The timing of expenditures depends on a number of factors that vary by site, including the nature and extent of contamination, the number of potentially responsible parties, the timing of regulatory approvals, the complexity of the investigation and remediation, and the standards for remediation. The Company expects that it will expend present accruals over many years and will complete remediation of all sites with which it has been identified in up to 30 years.

A number of other lawsuits, claims and proceedings have been or may be asserted against the Company, including those pertaining to product liability, acquisitions, patent infringement, contracts, environmental, employment and employee benefits matters. While the outcome of litigation cannot be predicted with certainty, and some of these lawsuits, claims or proceedings may be determined adversely to the Company, management does not believe that the disposition of any such pending matters is likely to have a material adverse effect on the Company's financial statements.

Note 12. Pension Plans and Postretirement Benefits

For the domestic pension plans, the discount rate increased to 4.59% in 2019 compared with a 4.02% discount rate used in 2018. Teledyne has not made any cash pension contributions to its domestic qualified pension plan since 2013. No cash pension contributions are planned for 2019 for the domestic qualified pension plan.

	First Quarter	
	2019	2018
Service cost — benefits earned during the period (in millions	s)\$2.4	\$2.7
Pension non-service income (in millions):		
Interest cost on benefit obligation	\$8.4	\$8.1
Expected return on plan assets	(16.5)	(17.9)
Amortization of prior service cost	(1.5)	(1.5)
Amortization of net actuarial loss	7.7	7.9
Curtailment/settlements	(0.3)	
Pension non-service income	\$(2.2)	\$(3.4)

Teledyne sponsors several postretirement defined benefit plans that provide health care and life insurance benefits for certain eligible retirees.

	First	
	Quarter	
Postretirement benefits non-service (income)/expense (in millions):	2019 2018	
Interest cost on benefit obligation	\$0.1 \$0.1	
Amortization of net actuarial gain	— (0.1)	
Postretirement benefits non-service (income)/expense	\$0.1 \$	
Note 13 Segment Information		

Note 13. Segment Information

Teledyne is a leading provider of sophisticated instrumentation, digital imaging products and software, aerospace and defense electronics, and engineered systems. Our customers include government agencies, aerospace prime contractors, energy exploration and production companies, major industrial companies and airlines. The Company has four reportable segments: Instrumentation; Digital Imaging; Aerospace and Defense Electronics; and Engineered Systems.

Segment results includes net sales and operating income by segment but excludes non-service retirement benefit income, equity income or loss, unusual non-recurring legal matter settlements, interest income and expense, gains and losses on the disposition of assets, sublease rental income and non-revenue licensing and royalty income, domestic and foreign income taxes and corporate office expenses. Corporate expense includes various administrative expenses relating to the corporate office and certain non-operating expenses, including certain acquisition-related transaction costs, not allocated to our segments.

The following table presents Teledyne's segment disclosures (dollars in millions):

	First Qua	arter	%
	2019 2018		Change
Net sales(a):			
Instrumentation	\$256.5	\$239.0	7.3 %
Digital Imaging	235.3	211.0	11.5 %
Aerospace and Defense Electronics	180.4	173.6	3.9 %
Engineered Systems	73.0	72.0	1.4 %
Total net sales	\$745.2	\$695.6	7.1 %
Operating income:			
Instrumentation	\$39.9	\$27.8	43.5 %
Digital Imaging	37.0	34.6	6.9 %
Aerospace and Defense Electronics	33.8	31.7	6.6 %
Engineered Systems	4.7	7.2	(34.7)%
Corporate expense	(18.1)	(12.9)	40.3 %
Operating income	\$97.3	\$88.4	10.1 %

(a) Net sales excludes inter-segment sales of \$6.4 million and \$5.2 million for the first quarter of 2019 and 2018, respectively.

Identifiable assets are those assets used in the operations of the segments. Corporate assets primarily consist of cash, deferred taxes, net pension assets/liabilities and other assets (in millions):

Identifiable assets:	March	December	
Identifiable assets.	31, 2019	30, 2018	
Instrumentation	\$1,422.2	\$1,392.7	
Digital Imaging	1,832.2	1,600.9	
Aerospace and Defense Electronics	597.4	521.4	
Engineered Systems	117.6	116.6	
Corporate	192.3	177.7	
Total identifiable assets	\$4,161.7	\$3,809.3	

Product Lines

The Instrumentation segment includes three product lines: Environmental Instrumentation, Marine Instrumentation and Test and Measurement Instrumentation. Teledyne's other three segments each contain one product line. The following tables provide a summary of the net sales by product line for the Instrumentation segment (in millions):

	First Qu	ıarter
Instrumentation	2019	2018
Marine Instrumentation	\$105.2	\$104.2
Environmental Instrumentation	86.4	81.2
Test and Measurement Instrumentation	64.9	53.6
Total	\$256.5	\$239.0

We also disaggregate our revenue from contracts with customers by customer type, contract-type and geographic region for each of our segments, as we believe it best depicts how the nature, amount, timing and uncertainty of our revenue and cash flows are affected by economic factors.

	First Qu March Custom United	uarter E 31, 201 her Typ	Ended 9 e		April 1	ner Type	d	
(in millions)	States Govern (a)	Other, Primar ment Comm		Total	States Govern (a)	Other, Primarily ment Commerci	Tc ial	otal
Net Sales:								
Instrumentation	\$14.2	\$ 242	.3	\$256.5	\$12.8	\$ 226.2	\$2	.39.0
Digital Imaging	26.2	209.1		235.3	22.4	188.6	21	1.0
Aerospace and Defense Electronics	68.0	112.4		180.4	65.3	108.3	17	3.6
Engineered Systems	61.5	11.5		73.0	59.0	13.0	72	.0
	\$169.9	\$ 575	.3	\$745.2	\$159.5	\$ 536.1	\$6	95.6
a) Includes sales as a prime contractor or subcontractor.								
First Quarter Ended			First Quarter Ended					
	March 31, 2019 Contract			April 1	, 2018			
				Contra	ract			
	Type			Type				
(in millions)	Fixed Price	Cost Type	Total	Fixed Price	Cost Type	Total		
Net Sales:		-) ף •			-) ף•			
Instrumentation	\$251.0	\$5.5	\$256.5	5 \$234.1	\$4.9	\$239.0		
Digital Imaging	213.3	22.0	235.3	191.2	19.8	211.0		
Aerospace and Defense Electronics	180.1	0.3	180.4	173.4	0.2	173.6		
Engineered Systems	18.2	54.8	73.0	23.2	48.8	72.0		
				2 \$621.9				
	ф 0 0 2 10	ф 0 _ .о	ф <i>т</i> .с. <u>-</u>	φ ο Ξτι,	φ <i>ι</i> στι	<i>0<i></i></i>		
	First Q					Quarter En	ded	
	March	31, 201	9		April 1, 2018			
	Geogra	phic Re	egion (a	ι)	Geog (a)	graphic Reg	gion	
(in millions)	United States	Europ	e All other	Total	Unite	Europe	All other	Total
Net sales:								
Instrumentation	\$211.1	\$33.6	\$11.8	8 \$256	.5 \$191	.0 \$39.4	\$8.6	\$239.0

Digital Imaging	72.4	70.3	92.6	235.3	56.8	67.0	87.2	211.0
Aerospace and Defense Electronics	165.1	15.1	0.2	180.4	154.1	18.8	0.7	173.6
Engineered Systems	71.2	1.8		73.0	70.2	1.8		72.0
	\$519.8	\$120.8	\$104.6	\$745.2	\$472.1	\$127.0	\$96.5	\$695.6
a) Net sales by geographic region of origin.								

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Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations Teledyne Technologies Incorporated provides enabling technologies for industrial growth markets that require advanced technology and high reliability. These markets include aerospace and defense, factory automation, air and water quality environmental monitoring, electronics design and development, oceanographic research, deepwater oil and gas exploration and production, medical imaging and pharmaceutical research. Our products include digital imaging sensors, cameras and systems within the visible, infrared and X-ray spectra, monitoring and control instrumentation for marine and environmental applications, harsh environment interconnects, electronic test and measurement equipment, aircraft information management systems, and defense electronics and satellite communication subsystems. We also supply engineered systems for defense, space, environmental and energy applications. We differentiate ourselves from many of our direct competitors by having a customer and company-sponsored applied research center that augments our product development expertise.

Effective in 2018, Teledyne early adopted Financial Accounting Standards Board ("FASB") Accounting Standards Update ("ASU") No. 2018-02, "Income Statement-Reporting Comprehensive Income (Topic 220) Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income." See Note 1 to these condensed consolidated financial statements for additional information.

Effective December 31, 2018, Teledyne adopted Financial Accounting Standards Board ("FASB") ASU No. 2016-02, Leases (Topic 842) using the modified retrospective transition option of applying the new standard at the adoption date. Prior period comparative information was not adjusted. See Note 1 to these condensed consolidated financial statements for additional information.

Strategy/Overview

Our strategy continues to emphasize growth in our core markets of instrumentation, digital imaging, aerospace and defense electronics and engineered systems. Our core markets are characterized by high barriers to entry and include specialized products and services not likely to be commoditized. We intend to strengthen and expand our core businesses with targeted acquisitions and through product development. We continue to focus on balanced and disciplined capital deployment among capital expenditures, product development, acquisitions and share repurchases. We aggressively pursue operational excellence to continually improve our margins and earnings by emphasizing cost containment and cost reductions in all aspects of our business. At Teledyne, operational excellence includes the rapid integration of the businesses we acquire. Using complementary technology across our businesses and internal research and development, we seek to create new products to grow our company and expand our addressable markets. We continue to evaluate our businesses to ensure that they are aligned with our strategy. Recent Acquisitions

Acquisition of the scientific imaging businesses of Roper Technologies

On February 5, 2019, we acquired the scientific imaging businesses of Roper Technologies, Inc. for \$225.0 million in cash, subject to a working capital purchase price adjustment. Principally located in the United States and Canada, the acquired businesses are part of the Digital Imaging segment. The acquired businesses include Princeton Instruments, Photometrics and Lumenera. The acquired businesses provide a range of imaging solutions, primarily for life sciences, academic research and customized OEM industrial imaging solutions. Princeton Instruments and Photometrics manufacture state-of-the-art cameras, spectrographs and optics for advanced research in physical sciences, life sciences research and spectroscopy imaging. Applications and markets include materials analysis, quantum technology and cell biology imaging using fluorescence and chemiluminescence. Lumenera primarily provides rugged USB-based customized cameras for markets such as traffic management, as well as life sciences applications. Teledyne funded the acquisition with borrowings under its credit facility and cash on hand. The results of the acquisition have been included in Teledyne's results since the date of the acquisition.

Results of Operations

L L	First Qu	arter
(in millions)	2019	2018
Net sales	\$745.2	\$695.6
Costs and expenses		
Cost of sales	463.9	438.2
Selling, general and administrative expenses	184.0	169.0
Total costs and expenses	647.9	607.2
Operating income	97.3	88.4
Interest expense, net	(5.4)	(7.1)
Non-service retirement benefit income	2.2	3.4
Other expense, net	(1.2)	(2.5)
Income before income taxes	92.9	82.2
Provision for income taxes	17.6	15.7
Net income	\$75.3	\$66.5
First Qu	arter	%

	I not Que		\mathcal{N}
(dollars in millions)	2019	2018	Change
Net sales(a):			
Instrumentation	\$256.5	\$239.0	7.3 %
Digital Imaging	235.3	211.0	11.5 %
Aerospace and Defense Electronics	180.4	173.6	3.9 %
Engineered Systems	73.0	72.0	1.4 %
Total net sales	\$745.2	\$695.6	7.1 %
Operating income:			
Instrumentation	\$39.9	\$27.8	43.5 %
Digital Imaging	37.0	34.6	6.9 %
Aerospace and Defense Electronics	33.8	31.7	6.6 %
Engineered Systems	4.7	7.2	(34.7)%
Corporate expense	(18.1)	(12.9)	40.3 %
Total operating income	\$97.3	\$88.4	10.1 %

(a) Net sales excludes inter-segment sales of \$6.4 million and \$5.2 million for the first quarter of 2019 and 2018, respectively.

The table below presents net sales and cost of sales by segment and total company:

First Qua	rter	
2019	2018	
\$256.5	\$239.0	
\$147.0	\$139.3	
57.3 %	58.3 %	
\$235.3	\$211.0	
\$141.8	\$128.1	
60.3 %	60.7 %	
\$180.4	\$173.6	
\$112.9	\$112.1	
62.6 %	64.6 %	
\$73.0	\$72.0	
\$62.2	\$58.7	
85.2 %	81.5 %	
\$745.2	\$695.6	
\$463.9	\$438.2	
62.3 %	63.0 %	
	2019 \$256.5 \$147.0 57.3 % \$235.3 \$141.8 60.3 % \$180.4 \$112.9 62.6 % \$73.0 \$62.2 85.2 % \$745.2 \$463.9	

First Quarter Results

The following is a discussion of our 2019 first quarter results compared with the 2018 first quarter results. Comparisons are with the corresponding reporting period of 2018, unless noted otherwise.

First quarter of 2019 compared with the first quarter of 2018

Our first quarter of 2019 net sales increased 7.1%. Net income increased 13.2%. Net income per diluted share was \$2.02 for the first quarter of 2019, compared with net income per diluted share of \$1.81. The first quarter of 2019 included net discrete income tax benefits of \$3.1 million compared with \$2.1 million. Net Sales

The first quarter of 2019 net sales, compared with the first quarter of 2018 net sales, reflected higher net sales in each segment.

Cost of Sales

Cost of sales increased \$25.7 million in the first quarter of 2019 and reflected the impact of higher sales. Cost of sales as a percentage of net sales decreased slightly for the first quarter of 2019 to 62.3%, from 63.0%. Selling, General and Administrative Expenses

Selling, general and administrative expenses, including research and development and bid and proposal expense, increased \$15.0 million in the first quarter of 2019 and primarily reflected the impact of higher sales and higher research and development spending. Selling, general and administrative expenses for the first quarter of 2019, as a percentage of net sales increased slightly to 24.7% from 24.3%. Corporate expense, which is included in selling, general and administrative expenses, which is included in selling, general and administrative expenses, which is included in selling, general and administrative expenses, was \$18.1 million for the first quarter of 2019, compared with \$12.9 million and primarily reflected higher stock option expense. In the first quarter of 2019 and 2018, we recorded a total of \$8.9 million and \$4.9 million, respectively, in stock option compensation expense. The higher amount in 2019 reflect the expense related to certain stock options that were granted in 2019 to Teledyne's President and Chief Executive Officer and Teledyne's Executive Chairman which were required to be expensed immediately.

Pension Service Expense

Pension service expense is included in both cost of sales and selling general and administrative expense. For the first quarter of 2019 pension service expense was \$2.4 million compared with \$2.7 million. For 2019, the discount rate

used to determine the benefit obligation for the domestic plan was 4.59 percent compared with 4.02 percent in 2018.

Operating Income

Operating income for the first quarter of 2019 increased 10.1%. The first quarter of 2019, compared with the first quarter of 2018, reflected higher operating income in each segment except the Engineered Systems segment. Interest Expense, Non-Service Retirement Benefit Income and Other Income/Expense

Interest expense, net of interest income, was \$5.4 million for the first quarter of 2019, compared with \$7.1 million and primarily reflected lower average debt levels. Non-service retirement benefit income was \$2.2 million for the first quarter of 2019 compared with \$3.4 million. Other income and expense was expense of \$1.2 million for the first quarter of 2019, compared with expense of \$2.5 million.

Income Taxes

The income tax provision is calculated using an estimated annual effective tax rate, based upon estimates of annual income, permanent items, statutory tax rates and planned tax strategies in the various jurisdictions in which we operate except that certain loss jurisdictions and discrete items, such as the resolution of uncertain tax positions and share-based accounting income tax benefits, are treated separately.

The Company's effective income tax rate for the first quarter of 2019 was 18.9%, compared with 19.1%. The first quarter of 2019 reflected net discrete income tax benefits of \$3.1 million, which included a \$2.9 million income tax benefit related to share-based accounting. The first quarter of 2018 included net discrete tax benefits of \$2.1 million, which included a \$3.0 million income tax benefit related to share-based accounting. Excluding the net discrete income tax benefits in both periods, the effective tax rates would have been 22.3% for the first quarter of 2019 and 21.7% for the first quarter of 2018. The Company's annual effective tax rate for fiscal year 2019 is expected to be 22.3%, based on the projected mix of earnings before tax by jurisdiction, excluding the impact of any matters that would be treated as discrete.

Segment Results

Segment results includes net sales and operating income by segment but exclude non-service retirement benefit income, equity income or loss, unusual non-recurring legal matter settlements, interest income and expense, gains and losses on the disposition of assets, sublease rental income and non-revenue licensing and royalty income, domestic and foreign income taxes and corporate office expenses. Corporate expense includes various administrative expenses relating to the corporate office and certain nonoperating expenses, including certain acquisition related transaction costs, not allocated to our segments. See Note 13 to these condensed consolidated financial statements for additional segment information.

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Instrumentation

	First Quarter			
(dollars in millions)	2019		2018	
Net sales	\$256.5	5	\$239.0)
Cost of sales	\$147.0)	\$139.3	3
Selling, general and administrative expenses	\$69.6		\$71.9	
Operating income	\$39.9		\$27.8	
Cost of sales as a % of net sales	57.3	%	58.3	%
Selling, general and administrative expenses % of sales	27.1	%	30.1	%
Operating income as a % of net sales	15.6	%	11.6	%
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First quarter of 2019 compared with the first quarter of 2018

The Instrumentation segment's first quarter of 2019 net sales increased 7.3%. Operating income for the first quarter of 2019 increased 43.5%.

The first quarter of 2019 net sales increase resulted from higher sales of test and measurement instrumentation,

environmental instrumentation, and marine instrumentation. Sales of test and measurement instrumentation increased \$11.3 million while sales of environmental instrumentation increased \$5.2 million and sales of marine instrumentation increased \$1.0 million. The increase in operating income the first quarter of 2019 reflected the impact of higher sales and higher margins across most product lines.

The first quarter of 2019 cost of sales increased \$7.7 million and reflected the impact of higher sales. Cost of sales as a percentage of net sales for the first quarter of 2019 decreased slightly to 57.3% from 58.3%. First quarter 2019 selling,

general and administrative expenses, including research and development expense, decreased \$2.3 million. The selling, general and administrative expense percentage decreased to 27.1% in the first quarter of 2019 from 30.1%.

Digital Imaging

	First Quarter			
(dollars in millions)	2019		2018	
Net sales	\$235.3	3	\$211.0)
Cost of sales	\$141.8	3	\$128.1	1
Selling, general and administrative expenses	\$56.5		\$48.3	
Operating income	\$37.0		\$34.6	
Cost of sales as a % of net sales	60.3	%	60.7	%
Selling, general and administrative expenses % of sales	24.0	%	22.9	%
Operating income as a % of net sales	15.7	%	16.4	%
First quarter of 2019 compared with the first quarter of 2	2018			

The Digital Imaging segment's first quarter of 2019 net sales increased 11.5%. Operating income for the first quarter of 2019 increased 6.9%.

The first quarter of 2019 net sales primarily reflected higher sales of X-ray detectors for life sciences applications and aerospace, defense and MEMS products as well as \$14.1 million in sales from the acquisition of the Scientific Imaging businesses of Roper Technologies. The increase in operating income in the first quarter of 2019 reflected the impact of higher sales, partially offset by higher research and development expense and acquisition-related costs. The first quarter of 2019 cost of sales increased \$13.7 million and primarily reflected the impact of higher sales. Cost of sales as a percentage of net sales for the first quarter of 2019 decreased slightly to 60.3% from 60.7%. Selling, general and administrative expenses, including research and development and bid and proposal expense increased \$8.2 million driven by the impact of higher net sales in the first quarter of 2019. The selling, general and administrative expense and acquisition-related costs.

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Aerospace and Defense Electronics

(0	lollars in millions)	2019		2018	
Ν	fet sales	\$180.4	1	\$173.6	5
С	ost of sales	\$112.9)	\$112.1	L
S	elling, general and administrative expenses	\$33.7		\$29.8	
0	perating income	\$33.8		\$31.7	
С	ost of sales as a % of net sales	62.6	%	64.6	%
S	elling, general and administrative expenses % of sales	18.7	%	17.1	%
0	perating income as a % of net sales	18.7	%	18.3	%
-		010			

First quarter of 2019 compared with the first quarter of 2018

The Aerospace and Defense Electronics segment's first quarter of 2019 net sales increased 3.9%. Operating income increased 6.6%.

The first quarter of 2019 net sales reflected \$5.7 million of higher sales of defense electronics and \$1.1 million of higher sales of aerospace electronics. The higher sales of defense electronics reflected greater sales in most product categories. The increase in operating income the first quarter of 2019 reflected the impact of higher sales and improved margins.

The first quarter of 2019 cost of sales increased \$0.8 million and reflected the impact of higher net sales, partially offset by product mix differences. Cost of sales as a percentage of net sales for the first quarter of 2019 decreased to 62.6% from 64.6% and reflected product mix differences. Selling, general and administrative expenses, including research and development and bid and proposal expense increased to \$33.7 million in the first quarter of 2019 from \$29.8 million and reflected the impact of higher sales. The selling, general and administrative expense percentage increased to 18.7% in the first quarter of 2019 from 17.1%.

Engineered Systems

	First Quarter				
(dollars in millions)	2019		2018		
Net sales	\$73.0	9	\$72.0)	
Cost of sales	\$62.2	9	\$58.7	7	
Selling, general and administrative expenses	\$6.1	9	\$6.1		
Operating income	\$4.7	9	\$7.2		
Cost of sales as a % of net sales	85.2	% 8	81.5	%	
Selling, general and administrative expenses % of sales	8.4	% 8	8.5	%	
Operating income as a % of net sales	6.4	%	10.0	%	
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First quarter of 2019 compared with the first quarter of 2018

The Engineered Systems segment's first quarter of 2019 net sales increased 1.4%. Operating income decreased 34.7%. The first quarter of 2019 net sales reflected higher sales of \$6.5 million of engineered products and services, partially offset by lower sales of \$4.8 million of turbine engines and lower sales of \$0.7 million of energy systems products. The higher sales of engineered products and services, primarily reflected increased nuclear manufacturing programs and increased sales related to missile defense. Operating income in the first quarter of 2019 decreased primarily due to lower sales of turbine engines.

The first quarter of 2019 cost of sales increased \$3.5 million and reflected the impact of product mix differences. Cost of sales as a percentage of net sales for the first quarter of 2019 increased to 85.2% from 81.5%, primarily due to product mix. Selling, general and administrative expenses, including research and development and bid and proposal expense, remained at \$6.1 million. The selling, general and administrative expense percentage was 8.4% for the first quarter of 2019, compared with 8.5%.

Financial Condition, Liquidity and Capital Resources

Our net cash provided by operating activities was \$80.1 million for the first three months of 2019, compared with net cash provided by operating activities of \$71.6 million. The higher cash provided by operating activities in the first three months of 2019 reflected the impact of higher operating income, partiality offset by higher income tax payments, primarily due to the payment of repatriation taxes under the Tax Cuts and Jobs Act of 2017. Our net cash used in investing activities was \$243.8 million for the first three months of 2019, compared with net cash used by investing activities of \$19.6 million. The 2019 amount included \$225.0 million for the acquisition of the scientific imaging businesses of Roper Technologies, Inc. Capital expenditures for the first three months of 2019 and 2018 were \$21.3 million and \$19.8 million, respectively.

Our goodwill was \$1,885.1 million at March 31, 2019 and \$1,735.2 million at December 30, 2018. The increase in the balance of goodwill in 2019 resulted from \$145.4 million in goodwill from the acquisition of the scientific imaging businesses of Roper Technologies, Inc. Teledyne's net acquired intangible assets were \$389.0 million at March 31, 2019 and \$344.3 million at December 30, 2018. The increase in the balance of net acquired intangible assets resulted from \$52.4 million in acquired intangible assets from the acquisition of the scientific imaging businesses of Roper Technologies, Inc., partially offset by amortization of acquired intangible assets. The Company is in the process of specifically identifying the amount to be assigned to certain assets, including acquired intangible assets, and liabilities and the related impact on taxes and goodwill for the acquisition of the scientific imaging businesses of Roper Technologies, Inc. since there was insufficient time between the acquisition date and the end of the period to finalize the analysis.

On March 15, 2019, Teledyne amended its \$750.0 million credit agreement to extend the maturity date from December 2020 to March 2024. While the borrowing capacity remains at \$750.0 million, the amendment permits Teledyne to increase the aggregate amount of the borrowing capacity by up to \$250.0 million subject to certain conditions.

Financing activities provided cash of \$124.3 million for the first three months of 2019, compared with cash used by financing activities of \$42.6 million. Financing activities for the first three months of 2019 reflected net proceeds from the \$750.0 million credit facility of \$120.0 million. Financing activities for the first three months of 2018 reflected net payments against the \$750.0 million credit facility of \$54.5 million. Proceeds from the exercise of stock options were

\$10.2 million and \$12.3 million for the first three months of 2019 and 2018, respectively.

Our principal cash and capital requirements are to fund working capital needs, capital expenditures, income tax payments, pension contributions, debt service requirements and the stock repurchase program, as well as acquisitions. It is anticipated that operating cash flow, together with available borrowings under the credit facility described below, will be sufficient to meet these requirements over the next twelve months. We may raise debt capital, depending on financial, market and economic conditions. We may need to raise additional capital to support acquisitions. We currently expect to spend approximately \$90.0

million for capital expenditures in 2019, of which \$21.3 million has been spent in the first three months of 2019. No cash pension contributions have been made since 2013 or are planned for the remainder of 2019 for the domestic qualified pension plan.

Total debt at March 31, 2019 was \$856.4 million. At March 31, 2019, \$149.0 million was outstanding under the \$750.0 million credit facility. At March 31, 2019, Teledyne had \$34.7 million in outstanding letters of credit. Available borrowing capacity under the \$750.0 million credit facility, which is reduced by borrowings and certain outstanding letters of credit, was \$571.2 million at March 31, 2019. The credit agreements require the Company to comply with various financial and operating covenants and at March 31, 2019, the Company was in compliance with these covenants.

As of March 31, 2019, the Company had an adequate amount of margin between required financial covenant ratios (as required by applicable credit agreements) and our actual ratios. At March 31, 2019, the required financial ratios and the actual ratios were as follows:

\$750.0 million Credit Facility expires March 2024 and \$100.0 million term loan due October 2019 (issued in March 2017)

Financial Covenants	Requirement	Actual Measure
Consolidated Leverage Ratio (Net Debt/EBITDA) (a)	No more than 3.25 to 1	1.6 to 1
Consolidated Interest Coverage Ratio (EBITDA/Interest) (b)	No less than 3.0 to 1	20.4 to 1

\$605.5 million Private Placement Senior Notes due from 2019 to 2024

Financial Covenants Requirement Actual Measure

Consolidated Leverage Ratio (Net Debt/EBITDA) (a) No more than 3.25 to 1 1.6 to 1 Consolidated Interest Coverage Ratio (EBITDA/Interest) (b) No less than 3.0 to 1 20.4 to 1

The Consolidated Leverage Ratio is equal to Net Debt/EBITDA as defined in our private placement note purchase

- a) agreement and our \$750.0 million credit agreement.
- b) The Consolidated Interest Coverage Ratio is equal to EBITDA/Interest as defined in our private placement note purchase agreement and our \$750.0 million credit agreement.

Our liquidity is not dependent upon the use of off-balance sheet financial arrangements. We have no off-balance sheet financing arrangements that incorporate the use of special purpose entities or unconsolidated entities. Critical Accounting Policies

Our critical accounting policies are those that are reflective of significant judgments and uncertainties, and may potentially result in materially different results under different assumptions and conditions. Our critical accounting policies are the following: revenue recognition; accounting for pension plans; accounting for business combinations, goodwill, acquired intangible assets and other long-lived assets; and accounting for income taxes.

For additional discussion of the application of the critical accounting policies and other accounting policies, see Note 1 to these condensed consolidated financial statements and also Management's Discussion and Analysis of Financial Condition and Results of Operations — Critical Accounting Policies and Note 2 of the Notes to Consolidated Financial Statements included in Teledyne's 2018 Form 10-K.

Safe Harbor Cautionary Statement Regarding Forward-Looking Information

From time to time we make, and this report contains, forward looking statements, as defined in the Private Securities Litigation Reform Act of 1995, directly or indirectly relating to sales, earnings, operating margin, growth opportunities, acquisitions and divestitures, product sales, capital expenditures, pension matters, stock option compensation expense, the credit facility, interest expense, severance, relocation and facility consolidation costs, environmental remediation costs, stock repurchases, taxes, exchange rate fluctuations and strategic plans. Forward-looking statements are generally accompanied by words such as "estimate", "project", "predict", "believes" or "expectively of the statements are generally accompanied by words such as "estimate", "project", "predict", "believes" or "expectively of the statements are generally accompanied by words such as "estimate", "project", "predict", "believes" or "expectively of the statements are generally accompanied by words such as "estimate", "project", "predict", "believes" or "expectively of the statements are generally accompanied by words such as "estimate", "project", "predict", "believes" or "expectively of the statements are generally accompanied by words such as "estimate", "project", "predict", "believes" or "expectively of the statements are generally accompanied by words such as "estimate", "project", "predict", "believes" or "expectively of the statements are generally accompanied by words such as "estimate", "project", "predict", "believes" or "expectively of the statements are generally accompanied by words such as "estimate", "project", "predict", "believes" or "expectively of the statements are generally accompanied by words such as "estimate", "project", "predict", "believes" or "expectively of the statements are generally accompanied by words such as "estimate", "project", "predict", "believes" or "expectively of the statements are generally accompanied by words such as "estimate", "project", "predict", "believes" or "expectively of the sta

that convey the uncertainty of future events or outcomes. All statements made in this Management's Discussion and Analysis of Financial Condition and Results of Operations and in other sections of this Form 10-Q that are not historical in nature should be considered forward-looking.

Actual results could differ materially from these forward-looking statements. Many factors could change the anticipated results, including: disruptions in the global economy; changes in demand for products sold to the defense

electronics, instrumentation, digital imaging, energy exploration and production, commercial aviation, semiconductor and communications markets; funding, continuation and award of government programs; cuts to defense spending resulting from existing and future deficit reduction measures; impacts from the United Kingdom's pending exit from the European Union; uncertainties related to the policies of the U.S. Presidential Administration; the imposition and expansion of, and responses to, trade sanctions and tariffs;

and threats to the security of our confidential and proprietary information, including cyber security threats. Lower oil and natural gas prices, as well as instability in the Middle East or other oil producing regions, and regulations or restrictions relating to energy production, including with respect to hydraulic fracturing, could further negatively affect the company's businesses that supply the oil and gas industry. Increasing fuel costs and disruptions from the grounding of Boeing's 737 Max aircraft could negatively affect the markets of our commercial aviation businesses. In addition, financial market fluctuations affect the value of the company's pension assets.

Changes in the policies of U.S. and foreign governments, could result, over time, in reductions and realignment in defense or other government spending and further changes in programs in which the company participates. While the Company's growth strategy includes possible acquisitions, we cannot provide any assurance as to when, if or on what terms any acquisitions will be made. Acquisitions involve various inherent risks, such as, among others, our ability to integrate acquired businesses, retain customers and achieve identified financial and operating synergies. There are additional risks associated with acquiring, owning and operating businesses outside of the United States, including those arising from U.S. and foreign government policy changes or actions and exchange rate fluctuations. While we believe our internal and disclosure control systems are effective, there are inherent limitations in all control systems, and misstatements due to error or fraud may occur and not be detected.

Readers are urged to read our periodic reports filed with the Securities and Exchange Commission for a more complete description of our Company, its businesses, its strategies and the various risks that we face. Various risks are identified in Teledyne's 2018 Form 10-K and this Quarterly Report on Form 10-Q.

We assume no duty to publicly update or revise any forward-looking statements, whether as a result of new information or otherwise.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Except as set forth below, there were no material changes to the information provided under "Item 7A, Quantitative and Qualitative Disclosure About Market Risk" included in our 2018 Form 10-K. Market Risk

We are exposed to various market risks, including changes in foreign currency exchange rates and interest rates. Foreign currency forward contracts are used primarily to hedge anticipated exposures. We do not enter into derivatives or other financial instruments for trading or speculative purposes.

Foreign Currency Exchange Rate Risk

Notwithstanding our efforts to mitigate portions of our foreign currency exchange rate risks, there can be no assurance that our hedging activities will adequately protect us against the risks associated with foreign currency fluctuations. A hypothetical 10 percent price change in the U.S. dollar from its value at March 31, 2019 would result in a decrease or increase in the fair value of our foreign currency forward contracts designated as cash flow hedges to buy Canadian dollars and to sell U.S. dollars by approximately \$8.1 million. A hypothetical 10 percent price change in the U.S. dollar from its value at March 31, 2019 would result in a decrease or increase in the fair value of our foreign currency forward contracts designated as cash flow hedges to buy British Pounds and to sell U.S. dollars by approximately \$4.8 million. A hypothetical 10 percent price change in the U.S. dollar from its value at March 31, 2019 would result in a decrease or increase in the fair value of our foreign currency forward contracts designated as cash flow hedges to buy British Pounds and to sell U.S. dollars by approximately \$4.8 million. A hypothetical 10 percent price change in the U.S. dollar from its value at March 31, 2019 would result in a decrease or increase in the fair value of our Euro/U.S. Dollar cross currency swap designated as a cash flow hedge by approximately \$10.5 million. For additional information please see Derivative Instruments discussed in Note 4 to these condensed consolidated financial statements.

Interest Rate Exposure

We are exposed to market risk through the interest rate on our borrowings under our \$750.0 million credit facility and our \$100.0 million in term loans. Borrowings under our credit facility and our term loans are at variable rates which are, at our option, tied to a Eurocurrency rate equal to LIBOR (London Interbank Offered Rate) plus an applicable rate or a base rate as defined in our credit agreements. Eurocurrency rate loans may be denominated in U.S. dollars or an alternative currency as defined in the credit agreements. Eurocurrency or LIBOR based loans under the credit facility typically have terms of one, two, three or nine months and the interest rate for each such loan is subject to change if the loan is continued or converted following the applicable maturity date. The Company has not drawn any loans with a term longer than three months under the credit facility. Base rate loans have interest rates that primarily fluctuate

with changes in the prime rate. Interest rates are also subject to change based on our consolidated leverage ratio as defined in the credit agreements. As of March 31, 2019, we had \$249.0 million in outstanding indebtedness under our credit facility and term loans. A 100 basis point increase in interest rates would result in an increase in annual interest expense of approximately \$2.5 million, assuming the \$249.0 million in debt was outstanding for the full year.

Item 4. Controls and Procedures

Our disclosure controls and procedures are designed to ensure that information required to be disclosed in reports that we file or submit under the Securities Exchange Act of 1934, are recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission and to provide reasonable assurance that information required to be disclosed by us in such reports is accumulated and communicated to the Company's management, including its principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure. Our Chief Executive Officer and our Senior Vice President and Chief Financial Officer, with the participation and assistance of other members of management, have reviewed the effectiveness of our disclosure controls and procedures and have concluded that the disclosure controls and procedures, as of March 31, 2019, are effective at the reasonable assurance level.

In connection with our evaluation during the quarterly period ended March 31, 2019, we have made no changes in our internal controls over financial reporting that have materially affected or are reasonably likely to materially affect our internal controls over financial reporting.

PART II OTHER INFORMATION

Item 1. Legal Proceedings

See Item 1 of Part 1, "Financial Statements -- Note 11 -- Lawsuits, Claims, Commitments, Contingencies and Related Matters."

Item 1A. Risk Factors

There are no material changes to the risk factors previously disclosed in our 2018 Form 10-K in response to Item 1A to Part 1 of Form 10-K. See also Part I Item 3, Quantitative and Qualitative Disclosures About Market Risk, for updated disclosures about interest rate exposure and exchange rate risks.

Item 6. Exhibits (a) Exhibits

Fourth Amendment to Amended and Restated Credit Facility, dated as of March 15, 2019, by
and among Teledyne, certain subsidiaries of Teledyne, the lenders parties thereto and Bank of
America, N.A. as Administrative Agent, Swing Line Lender and L/C Issuer (Incorporated by
reference to Exhibit 10.1 to Teledyne's Current Report on Form 8-K dated March 15, 2019).

- Exhibit 31.1 <u>302 Certification Aldo Pichel</u>li
- Exhibit 31.2 <u>302 Certification Susan L. Mai</u>n
- Exhibit 32.1 <u>906 Certification Aldo Pichel</u>li
- Exhibit 32.2 <u>906 Certification Susan L. Mai</u>n
- Exhibit 101 (INS) XBRL Instance Document
- Exhibit 101 (SCH) XBRL Schema Document
- Exhibit 101 (CAL) XBRL Calculation Linkbase Document
- Exhibit 101 (LAB) XBRL Label Linkbase Document XBRL Schema Document
- Exhibit 101 (PRE) XBRL Presentation Linkbase Document XBRL Schema Document

Exhibit 101 (DEF) XBRL Definition Linkbase Document XBRL Schema Document

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized. TELEDYNE TECHNOLOGIES INCORPORATED

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Teledyne Technologies Incorporated Index to Exhibits				
Exhibit Number	Description			
Exhibit 10.1	Fourth Amendment to Amended and Restated Credit Facility, dated as of March 15, 2019, by and among Teledyne, certain subsidiaries of Teledyne, the lenders parties thereto and Bank of America, N.A. as Administrative Agent, Swing Line Lender and L/C Issuer (Incorporated by reference to Exhibit 10.1 to Teledyne's Current Report on Form 8-K dated March 15, 2019).			
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