

TELEDYNE TECHNOLOGIES INC
Form 10-Q
August 08, 2017
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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 1934

For the quarterly period ended July 2, 2017

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 (State or other jurisdiction of incorporation or organization)	25-1843385 (I.R.S. Employer Identification Number)
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1049 Camino Dos Rios Thousand Oaks, California (Address of principal executive offices) (805) 373-4545 (Registrant’s telephone number, including area code)	91360-2362 (Zip Code)
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Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) 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.

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Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

There were 35,333,607 shares of common stock, \$.01 par value per share, outstanding as of July 31, 2017.

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PART I FINANCIAL INFORMATION

Item 1. Financial Statements

TELEDYNE TECHNOLOGIES INCORPORATED

CONDENSED CONSOLIDATED STATEMENTS OF INCOME

FOR THE SECOND QUARTER AND SIX MONTHS ENDED JULY 2, 2017 AND JULY 3, 2016

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

	Second Quarter		Six Months	
	2017	2016	2017	2016
Net sales	\$671.1	\$539.7	\$1,237.2	\$1,070.2
Costs and expenses				
Cost of sales	418.3	336.2	772.5	661.0
Selling, general and administrative expenses	166.6	149.9	320.4	294.7
Total costs and expenses	584.9	486.1	1,092.9	955.7
Operating income	86.2	53.6	144.3	114.5
Interest and debt expense, net	(9.1)	(5.9)	(17.3)	(11.6)
Other income/(expense), net	(0.7)	17.2	(10.0)	15.9
Income before income taxes	76.4	64.9	117.0	118.8
Provision for income taxes	16.3	18.0	26.4	32.9
Net income	\$60.1	\$46.9	\$90.6	\$85.9
Basic earnings per common share	\$1.71	\$1.36	\$2.57	\$2.50
Weighted average common shares outstanding	35.2	34.4	35.2	34.4
Diluted earnings per common share	\$1.66	\$1.33	\$2.50	\$2.44
Weighted average diluted common shares outstanding	36.2	35.3	36.2	35.2

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

TELEDYNE TECHNOLOGIES INCORPORATED

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

FOR THE SECOND QUARTER AND SIX MONTHS ENDED JULY 2, 2017 AND JULY 3, 2016

(Unaudited - Amounts in millions)

	Second Quarter		Six Months	
	2017	2016	2017	2016
Net income	\$60.1	\$46.9	\$90.6	\$85.9
Other comprehensive income (loss):				
Foreign exchange translation adjustment	50.8	(11.8)	54.8	11.3
Hedge activity, net of tax	3.1	0.9	2.9	5.5
Pension and postretirement benefit adjustments, net of tax	3.3	3.9	6.8	7.5
Other comprehensive income (loss)	57.2	(7.0)	64.5	24.3
Comprehensive income, net of tax	\$117.3	\$39.9	\$155.1	\$110.2

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

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

	July 2, 2017	January 1, 2017
Assets		
Current Assets		
Cash	\$81.7	\$98.6
Accounts receivable, net	467.1	383.7
Inventories, net	435.7	314.2
Prepaid expenses and other current assets	54.2	49.7
Total current assets	1,038.7	846.2
Property, plant and equipment, net of accumulated depreciation and amortization of \$500.8 at July 2, 2017 and \$468.5 at January 1, 2017	446.9	340.8
Goodwill	1,705.6	1,193.5
Acquired intangibles, net	403.6	234.6
Prepaid pension assets	102.9	88.5
Other assets, net	82.4	70.8
Total Assets	\$3,780.1	\$2,774.4
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable	\$197.4	\$138.8
Accrued liabilities	320.1	261.0
Current portion of long-term debt, capital leases and other debt	102.3	102.0
Total current liabilities	619.8	501.8
Long-term debt and capital leases	1,153.5	515.8
Other long-term liabilities	275.3	202.4
Total Liabilities	2,048.6	1,220.0
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 at July 2, 2017 and January 1, 2017; outstanding shares: 35,331,691 at July 2, 2017 and 35,110,762 at January 1, 2017	0.4	0.4
Additional paid-in capital	336.7	335.7
Retained earnings	2,003.0	1,912.4
Treasury stock, 2,366,174 at July 2, 2017 and 2,587,103 at January 1, 2017	(221.9)	(242.9)
Accumulated other comprehensive loss	(386.7)	(451.2)
Total Stockholders' Equity	1,731.5	1,554.4
Total Liabilities and Stockholders' Equity	\$3,780.1	\$2,774.4

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

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TELEDYNE TECHNOLOGIES INCORPORATED
 CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
 FOR THE SIX MONTHS ENDED JULY 2, 2017 AND JULY 3, 2016
 (Unaudited - Amounts in millions)

	Six Months	
	2017	2016
Operating Activities		
Net income	\$90.6	\$85.9
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	56.0	42.8
Deferred income taxes	(1.3)	11.2
Stock-based compensation	10.2	6.3
Gain on sale of facility	—	(17.9)
Changes in operating assets and liabilities:		
Accounts receivable	(15.4)	6.4
Inventories	(41.0)	(12.2)
Prepaid expenses and other assets	2.8	(0.4)
Accounts payable	25.4	(2.6)
Accrued liabilities	6.5	14.4
Income taxes receivable/payable, net	13.2	24.8
Long-term assets	(7.1)	0.9
Other long-term liabilities	3.7	4.5
Pension and postretirement benefits	(10.3)	(9.3)
Other operating, net	7.1	(2.1)
Net cash provided by operating activities	140.4	152.7
Investing Activities		
Purchases of property, plant and equipment	(24.9)	(30.5)
Purchase of businesses and other investments, net of cash acquired	(742.4)	(58.3)
Proceeds from the sale of assets	0.6	20.2
Sales proceeds transferred to escrow as restricted cash	—	(19.5)
Other investing, net	—	(0.5)
Net cash used in investing activities	(766.7)	(88.6)
Financing Activities		
Net proceeds from (payments on) credit facility	255.0	(74.9)
Proceeds from senior notes	268.0	—
Proceeds from term loan	100.0	—
Payments on other debt	(32.5)	(19.8)
Proceeds from other debt	—	6.4
Proceeds from exercise of stock options	11.7	9.6
Other financing, net	(2.6)	0.8
Net cash provided by (used in) financing activities	599.6	(77.9)
Effect of exchange rate changes on cash	9.8	0.4
Decrease in cash	(16.9)	(13.4)
Cash—beginning of period	98.6	85.1
Cash—end of period	\$81.7	\$71.7

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

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TELEDYNE TECHNOLOGIES INCORPORATED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)
July 2, 2017

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 January 1, 2017 (“2016 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 July 2, 2017 and the consolidated results of operations and consolidated comprehensive income for the three and six months then ended and cash flows for the six months then ended. The results of operations and cash flows for the period ended July 2, 2017 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.

Recent Accounting Pronouncements

In January 2017, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“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 standard, will be effective for the Company prospectively for interim and annual reporting periods beginning after December 15, 2019, with early adoption permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. We expect the adoption of this standard will reduce the complexity surrounding the evaluation of goodwill for impairment. The impact of this new standard for the Company will depend on the outcomes of future goodwill impairment tests.

In March 2017, the FASB issued ASU No. 2017-07, “Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost.” This ASU requires the service cost component of net benefit costs to be disaggregated from all other components and be reported in the same line item or items as other compensation costs. The other components of net benefit cost are required to be presented in the income statement separately from the service cost. This ASU is effective for fiscal years beginning after December 15, 2017 and for interim periods therein. The Company is currently evaluating the impact this guidance will have on the consolidated financial statements and footnote disclosures, however, Teledyne does not believe this ASU will have a material impact on its consolidated financial position, results of operation or cash flows.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers, which provides a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and will supersede most current revenue recognition guidance. The new standard, as subsequently amended, is effective for Teledyne for interim and annual reporting periods beginning after December 15, 2017, with early adoption permitted for interim and annual reporting periods beginning after December 15, 2016. The new standard can be adopted either retrospectively to each prior reporting period presented or as a cumulative-effect adjustment as of the date of adoption. Under the new standard, an entity recognizes revenue when or as it satisfies a performance obligation by transferring control of a good or service to the customer, either at a point in time or over time. Under the new standard, Teledyne expects to recognize revenue over time on most of its contracts that are covered by contract accounting standards using cost inputs to measure progress toward completion of its performance obligations, which is similar to the

percentage-of-completion (“POC”) cost-to-cost method currently used on certain of these contracts. Therefore, adoption of the ASU will primarily impact our contracts for which revenue is currently recognized using the POC units-of-delivery and milestone methods as we expect to recognize revenue for these contracts using the POC cost-to-cost method. These contracts represent approximately half of the revenue currently recognized under the POC method. Also, to a much lesser extent, we expect certain ship and bill contracts for custom products and products sold to the U.S. Government will be recognized under the POC cost-to-cost method. Accordingly, revenue will be recognized earlier in the performance period as costs are incurred, as opposed to recognizing revenue when

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units are delivered or milestones achieved. This change will also impact our backlog and balance sheet presentation with an expected decrease in inventories, an increase in accounts receivable (i.e., unbilled receivables) and a net increase to retained earnings to primarily reflect the impact of converting certain ship and bill contracts and contracts currently applying the units-of-delivery and milestone methods to the cost-to-cost method for recognizing revenue and profits. The percentage of Teledyne revenue recognized using the POC method was 30.5% in 2016, 31.2% in 2015, and 28.7% in 2014.

The Company will adopt the standard as of January 1, 2018, using the modified retrospective transition method and is currently evaluating the expected impact of the adoption on its consolidated financial statements and related disclosures. Under the modified retrospective transition method, the Company will be required to calculate and record the cumulative effect of adopting the new standard as of January 1, 2018, in the Company's Quarterly Report on Form 10-Q for the first quarter of 2018.

Note 2. Accumulated Other Comprehensive Loss

The changes in accumulated other comprehensive income/(loss) ("AOCI") by component, net of tax, for the second quarter and six months ended July 2, 2017 and July 3, 2016 are as follows (in millions):

	Foreign Currency Translation	Cash Flow Hedges and Other	Pension and Postretirement Benefits	Total
Balance as of April 2, 2017	\$ (194.8)	\$ (3.0)	\$ (246.1)	\$ (443.9)
Other comprehensive income (loss) before reclassifications	50.8	(2.3)	—	48.5
Amounts reclassified from AOCI	—	5.4	3.3	8.7
Net other comprehensive income	50.8	3.1	3.3	57.2
Balance as of July 2, 2017	\$ (144.0)	\$ 0.1	\$ (242.8)	\$ (386.7)

	Foreign Currency Translation	Cash Flow Hedges and Other	Pension and Postretirement Benefits	Total
Balance as of April 3, 2016	\$ (151.1)	\$ (2.1)	\$ (228.7)	\$ (381.9)
Other comprehensive income (loss) before reclassifications	(11.8)	0.3	—	(11.5)
Amounts reclassified from AOCI	—	0.6	3.9	4.5
Net other comprehensive income (loss)	(11.8)	0.9	3.9	(7.0)
Balance as of July 3, 2016	\$ (162.9)	\$ (1.2)	\$ (224.8)	\$ (388.9)

	Foreign Currency Translation	Cash Flow Hedges and Other	Pension and Postretirement Benefits	Total
Balance as of January 1, 2017	\$ (198.8)	\$ (2.8)	\$ (249.6)	\$ (451.2)
Other comprehensive income (loss) before reclassifications	54.8	(2.1)	—	52.7
Amounts reclassified from AOCI	—	5.0	6.8	11.8
Net other comprehensive income	54.8	2.9	6.8	64.5
Balance as of July 2, 2017	\$ (144.0)	\$ 0.1	\$ (242.8)	\$ (386.7)

Foreign Currency Translation	Cash Flow Hedges	Pension and Postretirement Benefits	Total
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		and		
		Other		
Balance as of January 3, 2016	\$ (174.2)	\$ (6.7)	\$ (232.3)	\$ (413.2)
Other comprehensive income before reclassifications	11.3	3.3	—	14.6
Amounts reclassified from AOCI	—	2.2	7.5	9.7
Net other comprehensive income	11.3	5.5	7.5	24.3
Balance as of July 3, 2016	\$ (162.9)	\$ (1.2)	\$ (224.8)	\$ (388.9)

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The reclassifications out of AOCI for the second quarter and six months ended July 2, 2017 and July 3, 2016 are as follows (in millions):

	Amount Reclassified from AOCI Three Months Ended July 2, 2017	Amount Reclassified from AOCI Three Months Ended July 3, 2016	Statement of Income Presentation
Loss on cash flow hedges:			
Loss recognized in income on derivatives	\$ 7.2	\$ 0.8	Cost of sales
Income tax benefit	(1.8)	(0.2)	Income tax benefit
Total	\$ 5.4	\$ 0.6	
Amortization of defined benefit pension and postretirement plan items:			
Amortization of prior service cost	\$ (1.4)	\$ (1.5)	Costs and expenses
Amortization of net actuarial loss	6.9	7.4	Costs and expenses
Total before tax	5.5	5.9	
Income tax benefit	(2.2)	(2.0)	Income tax benefit
Total	\$ 3.3	\$ 3.9	
	Amount Reclassified from AOCI Six Months Ended July 2, 2017	Amount Reclassified from AOCI Six Months Ended July 3, 2016	Statement of Income Presentation
Loss on cash flow hedges:			
Loss recognized in income on derivatives	\$ 6.6	\$ 3.0	Cost of sales
Income tax benefit	(1.6)	(0.8)	Income tax benefit
Total	\$ 5.0	\$ 2.2	
Amortization of defined benefit pension and postretirement plan items:			
Amortization of prior service cost	\$ (3.0)	\$ (3.0)	Costs and expenses
Amortization of net actuarial loss	14.1	14.5	Costs and expenses
Total before tax	11.1	11.5	
Income tax benefit	(4.3)	(4.0)	Income tax benefit
Total	\$ 6.8	\$ 7.5	

Note 3. Business Combinations, Goodwill and Acquired Intangible Assets

Acquisition of e2v

On March 28, 2017, Teledyne completed the acquisition of all of the outstanding common stock of e2v technologies plc ("e2v") for \$770.7 million, including stock options and assumed debt, net of \$24.4 million of cash acquired. Most of e2v's operations will be included in the Digital Imaging and Aerospace and Defense Electronics segments. The Instrumentation segment will also include a small portion of e2v's operations. Principally located in Chelmsford, United Kingdom and Grenoble, France, e2v had sales of approximately £236 million for its fiscal year ended March 31, 2016. e2v's results have been included since the date of the acquisition and include \$98.3 million in net sales and operating income of \$7.8 million, which included \$6.5 million in acquisition-related costs and \$4.5 million in additional intangible asset amortization expense.

The first six months of 2017 includes pretax charges of \$25.2 million related to the acquisition of e2v, which included \$12.8 million in transaction costs, including stamp duty, advisory, legal and other consulting fees and other costs recorded to selling, general and administrative expenses, \$4.1 million in inventory fair value step-up amortization expense recorded to cost of sales, \$2.3 million in bank bridge facility commitment expense recorded to interest expense and \$6.0 million related to a foreign currency option contract expense to hedge the e2v purchase price recorded as other expense. Of these amounts, \$6.5 million impacted segment operating income.

e2v provides high performance image sensors and custom camera solutions and application specific standard products for the machine vision market. In addition, e2v provides high performance space qualified imaging sensors and arrays for space

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science and astronomy. e2v also produces components and subsystems that deliver high reliability radio frequency power generation for healthcare, industrial and defense applications. Finally, the company provides high reliability semiconductors and board-level solutions for use in aerospace, space and communications applications. Teledyne funded the acquisition of e2v with borrowings under its credit facility and cash on hand as well as \$100.0 million in a newly issued term loan.

The unaudited proforma information below, as required by GAAP, assumes that e2v had been acquired at the beginning of the 2016 fiscal year and includes the effect of increased interest expense on net acquisition debt and the amortization of acquired intangible assets. The 2016 first six months proforma amounts also include \$12.3 million in transaction costs, including legal and other consulting fees, \$11.5 million in expense related to a foreign currency option contract to hedge the e2v purchase price, \$2.8 million in bridge financing costs and \$4.1 million in inventory fair value step-up amortization expense. These amounts totaling \$30.7 million (which includes \$2.7 million for the second quarter) should be considered non-recurring costs that were necessary to complete the acquisition and are not indicative of the ongoing operations of the combined company.

This unaudited proforma financial information is presented for informational purposes only and is not necessarily indicative of the results of operations that actually would have resulted had the acquisition been in effect at the beginning of the periods presented. In addition, the unaudited proforma results are not intended to be a projection of future results and do not reflect any operating efficiencies or cost savings that might be achievable.

The following table presents proforma net sales, net income and earnings per share data assuming e2v was acquired at the beginning of the 2016 fiscal year:

	Second		Six Months (a)	
	Quarter (a)			
(unaudited - in millions, except per share amounts)	2017	2016	2017	2016
Net sales	\$671.1	\$601.0	\$1,330.2	\$1,238.4
Net income	\$60.1	\$36.8	\$73.2	\$70.8
Basic earnings per common share	\$1.71	\$1.07	\$2.08	\$2.06
Diluted earnings per common share	\$1.66	\$1.04	\$2.02	\$2.01

a) The above unaudited proforma information is presented for the e2v acquisition as it is considered a material acquisition.

Fair values allocated to the assets acquired and liabilities assumed - e2v (in millions): (a)

Current assets, excluding cash acquired	\$157.4
Property, plant and equipment	107.1
Goodwill	468.8
Acquired intangible assets	175.8
Other long-term assets	8.8
Total assets acquired	917.9
Current liabilities	(78.1)
Long-term liabilities	(97.2)
Total liabilities assumed	(175.3)
Consideration transferred, net of cash acquired (b)	\$742.6

(a) The amounts recorded as of July 2, 2017 are preliminary since there was insufficient time between the acquisition date of March 28, 2017 and the end of the period to finalize the analysis.

(b) Consideration transferred includes a \$2.0 million liability for the payment to former e2v share option holders to be paid prior to the end of fiscal year 2017.

The following table is a summary at the acquisition date of the acquired intangible assets and weighted average useful life in years for the e2v acquisition made in 2017 (dollars in millions):

Intangibles subject to amortization:(a)	Intangible Assets	Weighted average useful life in years
Proprietary technology	\$104.8	10.3
Customer list/relationships	22.2	10.3

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Backlog	2.8	0.8
Total intangibles subject to amortization	129.8	10.1
Intangibles not subject to amortization:(a)		
Trademarks	46.0	
Total acquired intangible assets	\$175.8	

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(a) The amounts recorded as of July 2, 2017 are preliminary since there was insufficient time between the acquisition date and the end of the period to finalize the analysis.

Other Acquisitions

Teledyne spent \$93.4 million on acquisitions and other investments in 2016. On December 6, 2016, Teledyne Instruments, Inc. acquired Hanson Research Corporation (“Hanson Research”) which specializes in analytical instrumentation for the pharmaceutical industry, for \$25.0 million in cash. On November 2, 2016, Teledyne Instruments, Inc. acquired assets of IN USA, Inc. (“IN USA”) which manufactures a range of ozone generators, ozone analyzers and other gas monitoring instruments utilizing ultraviolet and infrared based technologies, for \$10.2 million in cash. On May 3, 2016, Teledyne DALSA, Inc., a Canadian-based subsidiary, acquired the assets and business of CARIS, Inc. (“CARIS”) a leading developer of geospatial software designed for the hydrographic and marine community, for a cash payment of \$26.2 million, net of cash acquired. On April 15, 2016, Teledyne LeCroy, Inc., a U.S.-based subsidiary, acquired assets of Quantum Data, Inc. (“Quantum Data”) which provides electronic test and measurement instrumentation and is a market leader in video protocol analysis test tools for \$17.3 million in cash. On April 6, 2016, Teledyne LeCroy, Inc. also acquired Frontline Test Equipment, Inc. (“Frontline”) which provides electronic test and measurement instrumentation and is a market leader in wireless protocol analysis test tools, for \$13.7 million in cash. Each of the 2016 acquisitions are part of the Instrumentation segment except for CARIS which is part of the Digital Imaging segment.

Teledyne funded the 2016 acquisitions from borrowings under its credit facility and cash on hand. The results of all the acquisitions have been included in Teledyne’s results since the dates of the respective acquisition. The primary reasons for the 2017 and 2016 acquisitions were to strengthen and expand our core businesses through adding complementary product and service offerings, allowing greater integrated products and services, enhancing our technical capabilities or increasing our addressable markets. The significant factors that resulted in recognition of goodwill were: (a) the purchase price was based on cash flow and return on capital projections assuming integration with our businesses and (b) the calculation of the fair value of tangible and intangible assets acquired that qualified for recognition.

For a further description of the Company’s acquisition activity for fiscal year 2016, please refer to Note 3 of our 2016 Form 10-K.

Goodwill and Acquired Intangible Assets

Teledyne’s goodwill was \$1,705.6 million at July 2, 2017 and \$1,193.5 million at January 1, 2017. The increase in the balance of goodwill in 2017 primarily included \$468.8 million in goodwill from e2v acquisition. Goodwill from the e2v acquisition will not be deductible for tax purposes. Teledyne’s net acquired intangible assets were \$403.6 million at July 2, 2017 and \$234.6 million at January 1, 2017. The increase in the balance of acquired intangible assets in 2017 reflected \$175.8 million in intangible assets from the e2v acquisition, partially offset by \$18.7 million of amortization. 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 e2v acquisition, including the allocation by segment. The amounts recorded as of July 2, 2017 are preliminary since there was insufficient time between the acquisition date and the end of the period to finalize the analysis. In addition, the Company is still 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 IN USA and Hanson Research acquisitions made in the fourth quarter of 2016. The amounts recorded as of July 2, 2017 are preliminary 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 United States 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. These contracts are designated and qualify as cash flow hedges. The

Company has converted a US 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

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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 gains recorded in AOCI, net of tax, for the forward contracts that will mature in the next twelve months total \$1.3 million. These gains are expected to be offset by anticipated losses in the value of the forecasted underlying hedged item. In the event that the gains or losses in AOCI are deemed to be ineffective, the ineffective portion of gains or losses resulting from changes in fair value, if any, is reclassified to other income and expense. 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 July 2, 2017, Teledyne had foreign currency forward contracts designated as cash flow hedges to buy Canadian dollars and to sell U.S. dollars totaling \$94.4 million. These foreign currency forward contracts have maturities ranging from September 2017 to February 2019. The cross currency swap has notional amounts of 93.0 million euros 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 second quarter and six months ended July 2, 2017 and July 3, 2016 was as follows (in millions):

	Second Quarter		Six Months	
	2017	2016	2017	2016
Net gain (loss) recognized in AOCI (a)	\$ (3.4)	\$ 0.5	\$ (2.9)	\$ 4.4
Net loss reclassified from AOCI into cost of sales (a)	\$ (0.6)	\$ (0.8)	\$ (0.7)	\$ (3.0)
Net gain reclassified from AOCI into interest expense (a)	\$ 0.4	\$ —	\$ 0.4	\$ —
Net loss reclassified from AOCI into other income and expense, net (b)	\$ (7.0)	\$ —	\$ (6.3)	\$ —
Net foreign exchange loss recognized in other income and expense, net (c)	\$ (0.3)	\$ —	\$ (0.5)	\$ (0.2)
a) Effective portion, pre-tax				
b) Amount reclassified to offset earnings impact of liability hedged by cross currency swap				
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 July 2, 2017, Teledyne had non-designated foreign currency contracts of this type in the following pairs (in millions):

Contracts to Buy		Contracts to Sell	
Currency	Amount	Currency	Amount
Canadian Dollars	C\$ 128.1	U.S. Dollars	US\$95.7
Canadian Dollars	C\$ 5.1	Euros	€ 3.4
Euros	€ 25.2	Great Britain Pounds	£ 22.1
Great Britain Pounds	£ 1.5	Australian Dollars	A\$ 2.7
Great Britain Pounds	£ 45.7	U.S. Dollars	US\$59.9
Singapore Dollars	S\$ 1.8	U.S. Dollars	US\$1.3
Euros	€ 12.7	U.S. Dollars	US\$14.2
U.S. Dollars	US\$ 1.5	Japanese Yen	¥ 165.0
Danish Krone	DKR40.8	U.S. Dollars	US\$6.3
Swedish Krone	kr 26.9	Great Britain Pounds	£ 2.4

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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 second quarter and six months ended July 2, 2017 was expense of \$0.5 million and \$6.5 million, respectively. The effect of derivative instruments not designated as cash flow hedges in other income and expense for the second quarter and six months ended July 3, 2016 was expense of \$2.3 million and gain of \$0.3 million, respectively.

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	July 2, January	
		2017	1, 2017
Derivatives designated as hedging instruments:			
Cash flow forward contracts	Other assets	\$2.0	\$ —
Cash flow cross currency swap	Accrued liabilities	(6.1)	—
Cash flow forward contracts	Accrued liabilities	—	(1.0)
Cash flow forward contracts	Other long-term liabilities	—	(0.1)
Total derivatives designated as hedging instruments		(4.1)	(1.1)
Derivatives not designated as hedging instruments:			
Non-designated forward contracts	Other current assets	4.9	6.4
Non-designated forward contracts	Accrued liabilities	(1.9)	(1.0)
Total derivatives not designated as hedging instruments		3.0	5.4
Total (liability) asset derivatives		\$(1.1)	\$ 4.3

Note 5. Earnings Per Share

For the second quarter and first six months of 2017, nine hundred stock options were excluded in the computation of diluted earnings per share as their exercise price was higher than the average market price of the Company's common stock during the respective periods. For the second quarter and first six months of 2016, 498,895 and 504,686 stock options were excluded in the computation of diluted earnings per share as their exercise price was higher than the average market price of the Company's common stock during the respective periods..

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

	Second		Six	
	Quarter	Months	Quarter	Months
	2017	2016	2017	2016
Weighted average basic common shares outstanding	35.2	34.4	35.2	34.4
Effect of dilutive securities (primarily stock options)	1.0	0.9	1.0	0.8
Weighted average diluted common shares outstanding	36.2	35.3	36.2	35.2

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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 non-qualified stock options and common stock, and beginning in 2015 restricted stock units, have been issued to its directors. After 2014, non-employee directors no longer receive non-qualified stock options.

Stock Incentive Plan

The following disclosures are based on stock options granted to Teledyne's employees and directors. Stock option compensation expense was \$3.7 million and \$7.8 million for the second quarter and first six months of 2017, and was \$2.9 million and \$6.3 million for the second quarter and first six months of 2016. Employee stock option grants are charged to expense evenly over the three year vesting period. For 2017, the Company currently expects approximately \$14.6 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 2017:

	2017
Expected volatility	32.3%
Risk-free interest rate range	1.0% to 2.5%
Expected life in years	7.2
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 2017 was \$48.45 per share.

Stock option transactions for the second quarter and six months ended July 2, 2017 are summarized as follows:

	2017		2017	
	Second Quarter		Six Months	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Beginning balance	2,606,009	\$ 81.81	2,175,442	\$ 70.44
Granted	—	\$ —	543,880	\$ 123.40
Exercised	(82,886)	\$ 66.10	(184,682)	\$ 63.91
Canceled	(8,023)	\$ 102.30	(19,540)	\$ 84.18
Ending balance	2,515,100	\$ 82.26	2,515,100	\$ 82.26
Options exercisable at end of period	1,650,311	\$ 69.56	1,650,311	\$ 69.56

Performance Share Plan and Restricted Stock Award Program

In the first quarter of 2017, the Company issued 876 shares of Teledyne common stock as the third and final payout under the 2012 to 2014 Performance Share Plan.

The following table shows the restricted stock activity for the first six months of 2017:

Restricted stock:	Shares	Weighted average fair value per share
Balance, January 1, 2017	95,304	\$ 83.87
Granted	23,002	\$ 114.42
Vested	(30,704)	\$ 87.98
Forfeited/Canceled	(50)	\$ 87.98

Balance, July 2, 2017 87,552 \$ 90.46

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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 \$371.5 million at July 2, 2017 and \$268.4 million at January 1, 2017. The remainder of the inventories using the LIFO method were \$83.4 million at July 2, 2017 and \$68.4 million at January 1, 2017. 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):	July 2, 2017	January 1, 2017
Raw materials and supplies	\$195.0	\$146.0
Work in process	200.4	147.8
Finished goods	59.5	43.0
	454.9	336.8
Progress payments	(6.2)	(9.1)
Reduction to LIFO cost basis	(13.0)	(13.5)
Total inventories, net	\$435.7	\$314.2

Note 8. Warranty Reserve

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 balance sheet.

	Six Months	
Warranty Reserve (in millions):	2017	2016
Balance at beginning of year	\$18.4	\$17.1
Accruals for product warranties charged to expense	3.3	3.5
Cost of product warranty claims	(3.0)	(3.4)
Acquisition	3.1	0.3
Balance at end of period	\$21.8	\$17.5

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 second quarter and first six months of 2017 was 21.3% and 22.6%, respectively. The Company's effective income tax rate for the second quarter and first six months of 2016 was 27.7% for both periods. The second quarter and first six months of 2017 included net discrete income tax benefits of \$4.6 million and \$6.0 million, respectively. Excluding net discrete income tax benefits in both 2017 periods, the effective tax rates would have been 27.4% for the second quarter and 27.7% for the first six months of 2017. The 2017 second quarter and first six months net discrete tax benefits includes an \$8.1 million income tax benefit related to the release of valuation allowance for which the deferred tax assets are now determined more-likely-than-not to be realizable and \$4.6 million in income tax expense related to adjustments for uncertain tax positions. The 2017 second quarter and first six months net discrete tax benefits includes \$1.2 million and \$2.8 million, respectively, related to share-based accounting. The second quarter and first six months of 2016 included net discrete income tax expense of \$5.7 million

and \$5.1 million, respectively, which reflected \$6.7 million in income tax expense related to the \$17.9 million gain on the sale of a former operating facility. The 2016 second quarter and first six months also includes \$1.2 million and \$1.8 million, respectively, in net discrete tax benefits related to share-based accounting. Excluding net discrete income tax items in both 2016 periods, and the gain and related taxes on the facility sale in 2016, the effective tax rates would have been 26.2% for the second quarter and 27.6% for the first six months of 2016.

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Note 10. Long-Term Debt, Capital Lease and Letters of Credit

	Balance at	
	July 2, 2017	January 1, 2017
Long-Term Debt (in millions):		
\$750.0 million credit facility due December 2020, weighted average rate of 2.58% at July 2, 2017	\$255.0	\$ —
Term loans due through January 2022, weighted average rate of 2.85% at July 2, 2017 and 1.90% at January 1, 2017	182.5	182.5
4.74% Fixed Rate Senior Notes due September 2017	100.0	100.0
Term loan due October 2019, variable rate of 2.72% swapped to a Euro fixed rate of 0.7055% at July 2, 2017	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
0.7% €50 Million Fixed Rate Senior Notes due April 2022	57.2	—
0.92% €100 Million Fixed Rate Senior Notes due April 2023	114.4	—
1.09% €100 Million Fixed Rate Senior Notes due April 2024	114.4	—
Other debt at various rates due through 2018	2.5	4.2
Total debt	1,251.0	611.7
Less: current portion of long-term debt and debt issuance costs (a)	(101.0)	(102.0)
Total long-term debt	\$1,150.0	\$ 509.7

(a) Includes debt issue costs associated with the term loans and senior notes of \$2.3 million at July 2, 2017 and \$1.4 million at January 1, 2017.

Available borrowing capacity under the \$750.0 million credit facility, which is reduced by borrowings and certain outstanding letters of credit, was \$479.7 million at July 2, 2017. The credit agreements require the Company to comply with various financial and operating covenants and at July 2, 2017, the Company was in compliance with these covenants. In March 2017, Teledyne entered into a \$100.0 million term loan with a maturity date of October 30, 2019. Subsequently, in March 2017, Teledyne entered into a cross currency swap to effectively convert the \$100.0 million term loan to a €93.0 million denominated instrument with a fixed euro interest rate of 0.7055%. The proceeds from the term loan were used in connection with the acquisition of e2v.

On April 18, 2017, Teledyne entered into a note purchase agreement for a private placement of €250.0 million of senior unsecured notes due through April 2024. Teledyne used the proceeds of the private placement, among other things, to repay indebtedness and for general corporate purposes.

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 July 2, 2017 and January 1, 2017, approximated the carrying value.

At July 2, 2017, the Company had \$7.1 million in capital leases, of which \$1.3 million is current. At January 1, 2017, the Company had \$7.4 million in capital leases, of which \$1.3 million was current. At July 2, 2017, Teledyne had \$18.7 million in outstanding letters of credit.

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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 January 1, 2017, included in the 2016 Form 10-K. At July 2, 2017, the Company's reserves for environmental remediation obligations totaled \$5.6 million, of which \$1.9 million is included in current accrued liabilities. At January 1, 2017, the Company's reserves for environmental remediation obligations totaled \$7.0 million. The Company periodically 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 plan, the discount rate decreased to 4.54% in 2017 compared with a 4.91% discount rate used in 2016. Pension expense allocated to contracts pursuant to U.S. Government Cost Accounting Standards ("CAS") was \$3.4 million and \$6.9 million for the second quarter and first six months of both 2017 and 2016, respectively. Pension expense determined under CAS can generally be recovered through the pricing of products and services sold to the U.S. Government. Teledyne did not make any cash pension contributions to its domestic pension plan in 2017 or 2016. No cash pension contributions are planned for 2017 for the domestic pension plan.

	Second Quarter		Six Months	
	2017	2016	2017	2016
Net periodic pension benefit (income) expense (in millions):				
Service cost — benefits earned during the period	\$2.8	\$2.8	\$5.4	\$5.6
Interest cost on benefit obligation	9.1	10.1	18.3	20.2
Expected return on plan assets	(18.3)	(18.8)	(36.6)	(37.5)
Amortization of prior service cost	(1.5)	(1.5)	(3.0)	(3.0)
Amortization of net actuarial loss	7.3	6.8	14.6	13.6
Net periodic pension income	\$(0.6)	\$(0.6)	\$(1.3)	\$(1.1)

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

	Second Quarter		Six Months	
	2017	2016	2017	2016
Net periodic postretirement benefits expense (in millions):				
Interest cost on benefit obligation	\$0.1	\$0.2	\$0.2	\$0.3
Amortization of net actuarial gain	(0.1)	(0.1)	(0.2)	(0.2)
Net periodic postretirement expense	\$—	\$0.1	\$—	\$0.1

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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 include net sales and operating income by segment but excludes 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.

As part of a continuing effort to reduce costs and improve operating performance the Company has taken actions to consolidate and relocate certain facilities and reduce headcount across various businesses, reducing our exposure to weak end markets and high cost locations. Teledyne incurred \$2.0 million and \$3.5 million in expense related to these efforts for the second quarter and first six months of 2017, respectively. Teledyne incurred \$11.1 million and \$12.2 million in expense related to these efforts for the second quarter and first six months of 2016, respectively. At July 2, 2017, Teledyne had a liability of \$2.1 million included in other current liabilities related to these charges.

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

	Second Quarter		%	Six Months		%	
	2017	2016	Change	2017	2016	Change	
Net sales(a):							
Instrumentation	\$233.8	\$220.1	6.2 %	\$466.6	\$443.8	5.1 %	
Digital Imaging	188.5	99.4	89.6 %	302.3	189.3	59.7 %	
Aerospace and Defense Electronics	172.8	158.0	9.4 %	324.7	310.6	4.5 %	
Engineered Systems	76.0	62.2	22.2 %	143.6	126.5	13.5 %	
Total net sales	\$671.1	\$539.7	24.3 %	\$1,237.2	\$1,070.2	15.6 %	
Operating income(b):							
Instrumentation	\$30.8	\$20.1	53.2 %	\$61.2	\$51.5	18.8 %	
Digital Imaging	26.4	10.7	146.7 %	41.7	18.9	120.6 %	
Aerospace and Defense Electronics	32.4	28.0	15.7 %	58.6	52.1	12.5 %	
Engineered Systems	9.1	5.6	62.5 %	18.0	13.6	32.4 %	
Corporate expense	(12.5)	(10.8)	15.7 %	(35.2)	(21.6)	63.0 %	
Operating income	\$86.2	\$53.6	60.8 %	\$144.3	\$114.5	26.0 %	

Net sales excludes inter-segment sales of \$7.5 million and \$11.4 million for the second quarter and first six months (a) of 2017, respectively, and \$6.9 million and \$12.0 million for the second quarter and first six months of 2016, respectively.

The second quarter of 2017 includes pretax charges of \$4.0 million related to the acquisition of e2v, of which \$3.7 million was recorded in the Digital Imaging segment and \$0.3 million was recorded in the Aerospace and Defense (b) Electronics segment. The first six months of 2017 includes pretax charges of \$16.9 million related to the acquisition of e2v, of which \$6.2 million was recorded in the Digital Imaging segment, \$0.3 million was recorded in the Aerospace and Defense Electronics segment and \$10.4 million was recorded in corporate expense.

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:	July 2, 2017	January 1, 2017
Instrumentation	\$1,392.3	\$1,361.0
Digital Imaging	1,513.4	671.1

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Aerospace and Defense Electronics	576.2	449.4
Engineered Systems	110.4	93.9
Corporate	187.8	199.0
Total identifiable assets	\$3,780.1	\$2,774.4

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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):

	Second Quarter		Six Months	
	2017	2016	2017	2016
Instrumentation				
Marine Instrumentation	\$107.0	\$103.8	\$216.5	\$216.7
Environmental Instrumentation	77.0	67.9	152.5	136.6
Test and Measurement Instrumentation	49.8	48.4	97.6	90.5
Total	\$233.8	\$220.1	\$466.6	\$443.8

Note 14. Subsequent Event

On July 20, 2017, a subsidiary of Teledyne acquired assets of Scientific Systems, Inc. ("SSI") for \$31.0 million in cash. Headquartered in State College, PA, SSI manufactures precision components and specialized subassemblies used primarily in analytical and diagnostic instrumentation, such as High Performance Liquid Chromatography systems and specific medical devices and will be part of the Instrumentation segment.

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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. We have evolved from a company that was primarily focused on aerospace and defense to one that serves multiple markets that require advanced technology and high reliability. These markets include deepwater oil and gas exploration and production, oceanographic research, air and water quality environmental monitoring, factory automation and medical imaging. Our products include monitoring instrumentation for marine and environmental applications, harsh environment interconnects, electronic test and measurement equipment, digital imaging sensors and cameras, 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.

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, acquisitions and share repurchases. We aggressively pursue operational excellence to continually improve our margins and earnings. 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.

On March 28, 2017, we completed our largest acquisition to date. We purchased all of the common stock of e2v technologies plc ("e2v") for \$770.7 million, including stock options and assumed debt, net of \$24.4 million of cash acquired. Most of e2v's operations will be included in the Digital Imaging and Aerospace and Defense Electronics segments. The Instrumentation segment will also include a small portion of e2v's operations. See the Recent Acquisitions section for more information on the acquisition.

In the third quarter of 2016, Teledyne completed the disposition of the net assets of its Printed Circuit Technology ("PCT") business for \$9.3 million in cash.

Our Recent Acquisitions

Acquisition of e2v

e2v with principal locations in Chelmsford, United Kingdom and Grenoble, France, acquired on March 28, 2017, had sales of approximately £236 million for its fiscal year ended March 31, 2016. Teledyne funded the acquisition of e2v with borrowings under its credit facility and cash on hand as well as \$100.0 million in newly issued term loans. In connection with the acquisition of e2v, Teledyne incurred \$4.0 million and \$25.2 million in acquisition related costs during the second quarter and first six months of 2017, respectively.

e2v provides high performance image sensors and custom camera solutions and application specific standard products for the machine vision market. In addition, e2v provides high performance space qualified imaging sensors and arrays for space science and astronomy. e2v also produces components and subsystems that deliver high reliability radio frequency power generation for healthcare, industrial and defense applications. Finally, the company provides high reliability semiconductors and board-level solutions for use in aerospace, space and communications applications.

Other Acquisitions

Teledyne spent \$93.4 million on acquisitions and other investments in fiscal year 2016. On December 6, 2016, Teledyne Instruments, Inc. acquired Hanson Research Corporation ("Hanson Research") which specializes in analytical instrumentation for the pharmaceutical industry, for \$25.0 million in cash. On November 2, 2016, Teledyne Instruments, Inc. acquired assets of IN USA, Inc. ("IN USA") which manufactures a range of ozone generators, ozone analyzers and other gas monitoring instruments utilizing ultraviolet and infrared based technologies, for \$10.2 million in cash. On May 3, 2016, Teledyne DALSA, Inc., a Canadian-based subsidiary, acquired the assets and business of CARIS, Inc. ("CARIS") a leading developer of geospatial software designed for the hydrographic and marine community, for a cash payment of \$26.2 million, net of cash acquired. On April 15, 2016, Teledyne LeCroy, Inc., a

U.S.-based subsidiary, acquired assets of Quantum Data, Inc. (“Quantum Data”) which provides electronic test and measurement instrumentation and is a market leader in video protocol analysis test tools for \$17.3 million in cash. On April 6, 2016, Teledyne LeCroy, Inc. also acquired Frontline Test Equipment, Inc. (“Frontline”) which provides electronic test and measurement instrumentation and is a market leader in wireless protocol

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analysis test tools, for \$13.7 million in cash. Each of the 2016 acquisitions are part of the Instrumentation segment except for CARIS which is part of the Digital Imaging segment.

Teledyne funded the 2016 acquisitions from borrowings under its credit facility and cash on hand. The results of the acquisitions have been included in Teledyne's results since the dates of each respective acquisition.

For a further description of the Company's acquisition activity for the fiscal year ended January 1, 2017, please refer to Note 3 of our 2016 Annual Report on Form 10-K ("2016 Form 10-K").

Results of Operations

(in millions)	Second Quarter		Six Months	
	2017	2016	2017	2016
Net sales	\$671.1	\$539.7	\$1,237.2	\$1,070.2
Costs and expenses				
Cost of sales	418.3	336.2	772.5	661.0
Selling, general and administrative expenses	166.6	149.9	320.4	294.7
Total costs and expenses	584.9	486.1	1,092.9	955.7
Operating income	86.2	53.6	144.3	114.5
Interest expense, net	(9.1)	(5.9)	(17.3)	(11.6)
Other income/(expense), net	(0.7)	17.2	(10.0)	15.9
Income before income taxes	76.4	64.9	117.0	118.8
Provision for income taxes	16.3	18.0	26.4	32.9
Net income	\$60.1	\$46.9	\$90.6	\$85.9

(dollars in millions)	Second Quarter		% Change	Six Months		% Change
	2017	2016		2017	2016	
Net sales(a):						
Instrumentation	\$233.8	\$220.1	6.2 %	\$466.6	\$443.8	5.1 %
Digital Imaging	188.5	99.4	89.6 %	302.3	189.3	59.7 %
Aerospace and Defense Electronics	172.8	158.0	9.4 %	324.7	310.6	4.5 %
Engineered Systems	76.0	62.2	22.2 %	143.6	126.5	13.5 %
Total net sales	\$671.1	\$539.7	24.3 %	\$1,237.2	\$1,070.2	15.6 %
Operating income:						
Instrumentation	\$30.8	\$20.1	53.2 %	\$61.2	\$51.5	18.8 %
Digital Imaging	26.4	10.7	146.7 %	41.7	18.9	120.6 %
Aerospace and Defense Electronics	32.4	28.0	15.7 %	58.6	52.1	12.5 %
Engineered Systems	9.1	5.6	62.5 %	18.0	13.6	32.4 %
Corporate expense	(12.5)	(10.8)	15.7 %	(35.2)	(21.6)	63.0 %
Total operating income	\$86.2	\$53.6	60.8 %	\$144.3	\$114.5	26.0 %

Net sales excludes inter-segment sales of \$7.5 million and \$11.4 million for the second quarter and first six months (a) of 2017, respectively, and \$6.9 million and \$12.0 million for the second quarter and first six months of 2016, respectively.

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

(dollars in millions)	Second Quarter		Six Months		
	2017	2016	2017	2016	
Instrumentation					
Net sales	\$233.8	\$220.1	\$466.6	\$443.8	
Cost of sales	\$133.6	\$127.0	\$268.8	\$248.2	
Cost of sales as a % of net sales	57.1	% 57.7	% 57.6	% 55.9	%
Digital Imaging					
Net sales	\$188.5	\$99.4	\$302.3	\$189.3	
Cost of sales	\$122.1	\$60.6	\$191.8	\$116.5	
Cost of sales as a % of net sales	64.8	% 61.0	% 63.4	% 61.5	%
Aerospace and Defense Electronics					
Net sales	\$172.8	\$158.0	\$324.7	\$310.6	
Cost of sales	\$101.8	\$97.0	\$196.6	\$193.6	
Cost of sales as a % of net sales	58.9	% 61.4	% 60.6	% 62.3	%
Engineered Systems					
Net sales	\$76.0	\$62.2	\$143.6	\$126.5	
Costs of sales	\$60.8	\$51.6	\$115.3	\$102.7	
Cost of sales as a % of net sales	80.0	% 83.0	% 80.3	% 81.2	%
Total Company					
Net sales	\$671.1	\$539.7	\$1,237.2	\$1,070.2	
Costs of sales	\$418.3	\$336.2	\$772.5	\$661.0	
Cost of sales as a % of net sales	62.3	% 62.3	% 62.4	% 61.8	%

Second quarter of 2017 compared with the second quarter of 2016

Our second quarter 2017 net sales were \$671.1 million, compared with net sales of \$539.7 million for the second quarter of 2016, an increase of 24.3%. The increase in net sales, resulted from organic growth and the acquisition of e2v. Net income was \$60.1 million for the second quarter of 2017, compared with \$46.9 million for the second quarter of 2016, an increase of 28.1%. Net income per diluted share was \$1.66 for the second quarter of 2017, compared with net income per diluted share of \$1.33 for the second quarter of 2016. The second quarter of 2017 includes pretax charges of \$4.0 million related to the acquisition of e2v. The second quarter of 2016 includes pretax charges totaling \$11.7 million for severance, facility consolidation and asset impairment expense. In addition, the second quarter of 2016 included a pretax gain of \$17.9 million related to the sale of a former operating facility.

Net sales

The second quarter of 2017 net sales, compared with the second quarter of 2016 net sales, reflected higher net sales in each segment. The second quarter of 2017 included organic growth of \$35.1 million and \$96.3 million in incremental net sales from recent acquisitions, primarily e2v.

Cost of Sales

Cost of sales increased \$82.1 million in the second quarter of 2017, compared with the second quarter of 2016, which primarily reflected the impact of higher sales. Cost of sales as a percentage of net sales for the second quarter of 2017 remained at 62.3%.

Certain contracts are accounted for under the percentage of completion ("POC") method and related contract cost and revenue estimates for significant contracts are reviewed and reassessed quarterly. The net aggregate effects of these changes in estimates on contracts accounted for under the POC accounting method, in the second quarter of 2017 and 2016, were \$2.4 million of unfavorable operating income and \$0.1 million of favorable operating income, respectively. 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.

Selling, General and Administrative Expenses

Selling, general and administrative expenses, including research and development and bid and proposal expense, increased \$16.6 million in the second quarter of 2017, compared with the second quarter of 2016, which primarily

reflected the impact of higher sales. Selling, general and administrative expenses for the second quarter of 2017, as a percentage of net sales decreased

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to 24.9% compared with 27.8% for the second quarter of 2016 and reflected the impact of the e2v acquisition which carries a lower selling, general and administrative expense percentage than the overall Teledyne selling, general and administrative expense percentage. Corporate expense, which is included in selling, general and administrative expenses, was \$12.5 million for the second quarter of 2017, compared with \$10.8 million for the second quarter of 2016 and reflected higher compensation expense. In the second quarter of 2017 and 2016, we recorded a total of \$3.7 million and \$2.9 million, respectively, in stock option compensation expense.

Pension Income/Expense

Pension income or expense is included in both cost of sales and selling general and administrative expense. The second quarter of 2017 and 2016 both included pension income of \$0.6 million. For 2017, the discount rate used to determine the benefit obligation for the domestic plan was 4.54 percent compared with 4.91 percent in 2016. Pension expense allocated to contracts pursuant to U.S. Government Cost Accounting Standards (“CAS”) was \$3.4 million for both the second quarter of 2017 and the second quarter of 2016. Pension expense determined allowable under CAS can generally be recovered through the pricing of products and services sold to the U.S. Government.

Operating Income

Operating income was \$86.2 million for the second quarter of 2017, compared with \$53.6 million for the second quarter of 2016, an increase of 60.8%. The second quarter of 2017, compared with the second quarter of 2016, reflected higher operating income in each segment. The incremental operating income included in the results for the second quarter of 2017 from recent acquisitions was \$9.8 million which included \$4.6 million in additional intangible asset amortization expense.

Interest Expense and Other Income/Expense

Interest expense, net of interest income, was \$9.1 million for the second quarter of 2017, compared with \$5.9 million for the second quarter of 2016 and reflected the impact of higher debt levels, primarily due to the acquisition of e2v. Other income and expense was expense of \$0.7 million for the second quarter of 2017, compared with \$17.2 million of income for the second quarter of 2016. Other income and expense in the second quarter of 2016 included a gain of \$17.9 million on the sale of a former operating facility.

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, are treated separately. The Company’s effective income tax rate for the second quarter of 2017 was 21.3%, compared with 27.7% for the second quarter of 2016.

The second quarter of 2017 reflected \$4.6 million in net discrete income tax benefits, which included a \$1.2 million income tax benefit related to share-based accounting. The 2017 second quarter net discrete tax benefits, includes \$8.1 million in income tax benefit related to the release of valuation allowance for which the deferred tax assets are now determined more-likely-than-not to be realizable and \$4.6 million in income tax expense related to adjustments for uncertain tax positions. The second quarter of 2016 reflected \$5.7 million in net discrete income tax expense which included \$6.7 million in tax expense related to the \$17.9 million gain on the sale of the operating facility. The 2016 second quarter also included a \$1.2 million income tax benefit related to share-based accounting. Excluding the net discrete income tax benefits in 2017, the effective tax rate would have been 27.4% for the second quarter of 2017. Excluding net discrete income tax items in 2016, and the gain and related taxes on the facility sale in 2016, the effective tax rate would have been 26.2% for the second quarter of 2016. The Company’s effective tax rate for fiscal year 2017 is expected to be 27.7%, based on the projected mix of earnings before tax by jurisdiction, excluding the impact of any matters that would be treated as discrete.

First six months of 2017 compared with the first six months of 2016

Our first six months of 2017 net sales were \$1,237.2 million, compared with net sales of \$1,070.2 million for the first six months of 2016, an increase of 15.6%. The increase in net sales resulted from organic growth and the acquisition of e2v. Net income was \$90.6 million for the first six months of 2017, compared with \$85.9 million for the first six months of 2016, an increase of 5.5%. Net income per diluted share was \$2.50 for the first six months of 2017, compared with net income per diluted share of \$2.44 for the first six months of 2016. The first six months of 2017

includes pretax charges of \$25.2 million related to the acquisition of e2v, of which, \$4.1 million was recorded to cost of sales, \$12.8 million was recorded to selling, general and administrative expenses, \$2.3 million was recorded to interest expense and \$6.0 million was recorded as other expense. The amount recorded to cost of sales related to the inventory fair value step-up amortization expense. The amount recorded to selling, general and administrative expenses related to transaction costs, including stamp duty, advisory, legal and other consulting fees and other costs. The amount recorded to interest expense related to funds-certain bank bridge facility commitment expense for the £625.0 million bridge credit facility entered into in December 2016 to fund the acquisition and related transaction costs in order to meet the requirement under the U.K. City Code on Takeovers and Mergers that we have

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sufficient and certain resources available to fund the consideration for the acquisition. The amount recorded to other expense related to a foreign currency option contract expense to hedge the e2v purchase price.

Sales

The first six months of 2017 net sales, compared with the first six months of 2016 net sales, reflected higher net sales in each segment. The first six months of 2017 included organic growth of \$51.5 million and \$115.5 million in incremental net sales from recent acquisitions, primarily e2v.

Cost of Sales

Cost of sales increased \$111.5 million in the first six months of 2017, compared with the first six months of 2016, which primarily reflected the impact of higher sales. Cost of sales as a percentage of net sales for the six months of 2017 increased to 62.4%, compared with 61.8% for the first six months of 2016. The net aggregate effects of changes in estimates on contracts accounted for under the POC accounting method in the first six months of 2017 and 2016 were \$6.4 million and \$0.8 million of unfavorable operating income, respectively.

Selling, general and administrative expenses

Selling, general and administrative expenses, including research and development and bid and proposal expense, increased by

\$25.7 million in the first six months of 2017, compared with the first six months of 2017, and reflected the impact of higher

sales. The first six months of 2017 reflected the impact of \$12.8 million in acquisition transaction expense related to the e2v acquisition. Selling, general and administrative expenses for the first six months of 2017, as a percentage of net sales, decreased to 25.9% compared with 27.5% for the first six months of 2016 despite the impact of \$12.8 million in expense related to the e2v acquisition. Corporate expense, which is included in selling, general and administrative expenses, was \$35.2 million for the first six months of 2017, compared with \$21.6 million for the first six months of 2016 and reflected \$10.4 million in expense related to the e2v acquisition. In the first six months of 2017 and 2016, we recorded a total of \$7.8 million and \$6.3 million, respectively, in stock option compensation expense.

Pension Income/Expense

The first six months of 2017 included pension income of \$1.3 million, compared with pension income of \$1.1 million in the first six months of 2016. Pension expense allocated to contracts pursuant to CAS was \$6.9 million in both the first six months of 2017 and 2016.

Operating Income

Operating income was \$144.3 million for the first six months of 2017, compared with \$114.5 million for the first six months of 2016, an increase of 26.0%. The first six months of 2017, compared with the first six months of 2016, reflected higher operating income in each segment, partially offset by higher corporate expense. The incremental operating income included in the results for the first six months of 2017 from recent acquisitions was \$9.5 million which included \$5.3 million in additional intangible asset amortization expense.

Interest Expense and Other Income/Expense

Interest expense, net of interest income, was \$17.3 million for the first six months of 2017, compared with \$11.6 million for the

first six months of 2016 and reflected the impact of higher debt levels, as well as \$2.3 million in fees related to the terminated bridge facility in connection with the acquisition of e2v. Other income and expense was expense of \$10.0 million for the first six months of 2017, compared with income of \$15.9 million for the first six months of 2016. Other expense in the first six months of 2017 reflected \$6.0 million of expense for a foreign currency option contract related to the e2v acquisition as well as higher foreign currency expense. Other income for the six months of 2016 included a gain of \$17.9 million on the sale of a former operating facility.

Income Taxes

The Company's effective income tax rate for the first six months of 2017 was 22.6% compared with 27.7% for the first six months of 2016. The first six months of 2017 reflected \$6.0 million in net discrete income tax benefits, which included a \$2.8 million income tax benefit related to share-based accounting. The 2017 first six months net discrete tax benefits, also includes an \$8.1 million income tax benefit related to the release of valuation allowance for which the deferred tax assets are now determined more-likely-than-not to be realizable and \$4.6 million in income tax expense related to adjustments for uncertain tax positions. The first six months of 2016 reflected \$5.1 million in net discrete income tax expense. The first six months of 2016 net discrete tax expense of \$5.1 million, includes \$6.7 million in income tax expense related to the \$17.9 million gain on the sale of the operating facility. The 2016 first six months, also includes \$1.8 million in net discrete tax benefits related to share-based accounting. Excluding the net discrete income tax items in both periods, and the gain and related taxes on the facility sale in 2016, the effective tax rates would have been 27.7% for the first six months of 2017 and 27.6% for the first six months of 2016.

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Segment Results

Segment results include net sales and operating income by segment but excludes 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.

Instrumentation

(dollars in millions)	Second Quarter		Six Months	
	2017	2016	2017	2016
Net sales	\$233.8	\$220.1	\$466.6	\$443.8
Cost of sales	\$133.6	\$127.0	\$268.8	\$248.2
Selling, general and administrative expenses	\$69.4	\$73.0	\$136.6	\$144.1
Operating income	\$30.8	\$20.1	\$61.2	\$51.5
Cost of sales as a % of net sales	57.1	% 57.7	% 57.6	% 55.9
Selling, general and administrative expenses % of sales	29.7	% 33.2	% 29.3	% 32.5
Operating income as a % of net sales	13.2	% 9.1	% 13.1	% 11.6

Second quarter of 2017 compared with the second quarter of 2016

The Instrumentation segment's second quarter 2017 net sales were \$233.8 million, compared with \$220.1 million in the second quarter of 2016, an increase of 6.2%. Operating income for the second quarter of 2017 was \$30.8 million, compared with operating income of \$20.1 million in the second quarter of 2016, an increase of 53.2%.

The second quarter of 2017 net sales increase resulted from higher sales of environmental instrumentation, marine instrumentation and test and measurement instrumentation, as well as the contribution from recent acquisitions. Sales of environmental instrumentation increased \$9.1 million and primarily reflected higher sales of air monitoring instruments and \$4.3 million in incremental sales from recent acquisitions. Sales of marine instrumentation increased \$3.2 million and primarily reflected higher sales of sensors for energy exploration. Sales of test and measurement instrumentation increased \$1.4 million and included \$0.7 million in incremental sales from recent acquisitions. The increase in operating income was primarily due to greater sales and lower severance, facility consolidation and asset impairment expenses for marine instrumentation. The second quarter of 2016 included \$8.7 million in severance, facility consolidation and asset impairment expenses. The incremental operating income included in the results for the second quarter of 2017 from recent acquisitions was less than \$0.1 million.

The second quarter of 2017 cost of sales increased \$6.6 million, compared with the second quarter of 2016, and reflected the impact of higher sales. The cost of sales percentage for the second quarter of 2017 decreased slightly to 57.1% from 57.7% for the second quarter of 2016. Second quarter 2017 selling, general and administrative expenses, including research and development expense, decreased \$3.6 million, compared with the second quarter of 2016 and reflected lower severance, facility consolidation and asset impairment expenses, partially offset by the impact of higher sales. The selling, general and administrative expense percentage decreased to 29.7% in the second quarter of 2017 from 33.2% in the second quarter of 2016 and reflected the impact of lower severance, facility consolidation and asset impairment costs.

First six months of 2017 compared with the first six months of 2016

The Instrumentation segment's first six months 2017 net sales were \$466.6 million, compared with \$443.8 million in the first six months of 2016, an increase of 5.1%. Operating income for the first six months of 2017 was \$61.2 million, compared with operating income of \$51.5 million in the first six months of 2016, an increase of 18.8%.

The first six months of 2017 sales increase resulted from increased sales of electronic test and measurement and environmental instrumentation and flat sales of marine instrumentation. Sales of environmental instrumentation increased \$15.9 million and primarily reflected higher sales of air monitoring instruments and \$8.9 million in

incremental sales from recent acquisitions. Sales of test and measurement instrumentation increased \$7.1 million and included \$4.7 million in incremental sales from recent acquisitions. Sales of marine instrumentation decreased \$0.2 million. The increase in operating income was primarily due to greater sales and improved margins for environmental and test and measurement instrumentation and lower severance,

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facility consolidation and asset impairment expenses with marine instrumentation. The first six months of 2016 included \$9.3 million in severance, facility consolidation and asset impairment costs. The incremental operating income included in the results for the first six months of 2017 from recent acquisitions was \$0.5 million which included \$0.9 million in additional intangible asset amortization expense.

The first six months of 2017 cost of sales increased by \$20.6 million, compared with the first six months of 2016, and primarily reflected the impact of higher sales, partially offset by lower severance and facility consolidation expenses. The cost of sales percentage increased to 57.6% from 55.9%. The first six months of 2017 selling, general and administrative expenses, including research and development expense, decreased by \$7.5 million, compared with the first six months of 2016 and reflected the impact of lower research and development expense and lower severance and facility consolidation costs and asset impairment expenses, partially offset the impact of lower sales. The selling, general and administrative expense percentage decreased to 29.3% in the first six months of 2017 from 32.5% in the first six months of 2016 and reflected the impact of lower severance and facility consolidation expenses and asset impairment expense and lower research and development expense.

Digital Imaging

(dollars in millions)	Second Quarter		Six Months	
	2017	2016	2017	2016
Net sales	\$188.5	\$99.4	\$302.3	\$189.3
Cost of sales	\$122.1	\$60.6	\$191.8	\$116.5
Selling, general and administrative expenses	\$40.0	\$28.1	\$68.8	\$53.9
Operating income	\$26.4	\$10.7	\$41.7	\$18.9
Cost of sales as a % of net sales	64.8	% 61.0	% 63.4	% 61.5
Selling, general and administrative expenses % of sales	21.2	% 28.2	% 22.8	% 28.5
Operating income as a % of net sales	14.0	% 10.8	% 13.8	% 10.0

Second quarter of 2017 compared with the second quarter of 2016

The Digital Imaging segment's second quarter 2017 net sales were \$188.5 million, compared with \$99.4 million in the second quarter of 2016, an increase of 89.6%. Operating income was \$26.4 million for the second quarter of 2017, compared with operating income of \$10.7 million in the second quarter of 2016, an increase of 146.7%.

The second quarter of 2017 net sales included \$71.9 million in incremental sales from recent acquisitions, primarily e2v. The second quarter sales also reflected higher sales of machine vision cameras for industrial applications and micro electro-mechanical systems ("MEMS"). The increase in operating income in the second quarter of 2017 reflected the impact of higher sales, favorable product mix and incremental operating profit from e2v, partially offset by acquisition-related charges of \$3.7 million. The incremental operating profit included in the results for the second quarter of 2017 from recent acquisitions was \$6.4 million, which included \$3.5 million in additional intangible asset amortization expense.

The second quarter of 2017 cost of sales increased \$61.5 million, compared with the second quarter of 2016 and primarily reflected the impact of higher sales. The cost of sales percentage for the second quarter of 2017 increased to 64.8%, compared with 61.0% for the second quarter of 2016, and reflects the impact of the e2v acquisition which carries a higher cost of sales percentage than the other digital imaging businesses. Selling, general and administrative expenses, including research and development and bid and proposal expense, increased to \$40.0 million in the second quarter of 2017, from \$28.1 million in 2016 and reflected the impact of higher net sales and certain acquisition-related costs related to the e2v acquisition. The selling, general and administrative expense percentage decreased to 21.2% in the second quarter of 2017 from 28.2% in the second quarter of 2016 and reflected the impact of the e2v acquisition which carries a lower selling, general and administrative expense percentage than the other digital imaging businesses. First six months of 2017 compared with the first six months of 2016

The Digital Imaging segment's first six months of 2017 net sales were \$302.3 million, compared with \$189.3 million in the first six months of 2016, an increase of 59.7%. Operating income was \$41.7 million for the first six months of 2017, compared with operating income of \$18.9 million in the first six months of 2016, an increase of 120.6%.

The first six months of 2017 net sales included \$82.4 million in incremental sales from recent acquisitions, primarily e2v. The first six months sales also reflected higher sales of machine vision cameras for industrial applications, MEMS and geospatial software. The increase in operating income in the first six months of 2017 reflected the impact of higher sales, favorable product mix and incremental operating profit from e2v, partially offset by acquisition-related charges of \$6.2 million. The incremental operating profit included in the results for the first six months of 2017 from recent acquisitions was \$5.9 million, which included \$3.6 million in additional intangible asset amortization expense.

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The first six months of 2017 cost of sales increased to \$191.8 million from \$116.5 million for the first six months of 2016 and reflected the impact of higher sales. The cost of sales percentage in 2017 increased to 63.4% compared with 61.5% in the first six months of 2016 and reflected the impact of the e2v acquisition which carries a higher cost of sales percentage than the other digital imaging businesses. Selling, general and administrative expenses, including research and development and bid and proposal expense, increased to \$68.8 million in the first six months of 2017, from \$53.9 million in first six months of 2016 and reflected the impact of higher net sales and certain acquisition-related costs related to the e2v acquisition. The selling, general and administrative expense percentage decreased to 22.8% in the first six months of 2017 from 28.5% in the first six months of 2016 and reflected the impact of the e2v acquisition which carries a lower selling, general and administrative expense percentage than the other digital imaging businesses.

Aerospace and Defense Electronics

(dollars in millions)	Second Quarter		Six Months	
	2017	2016	2017	2016
Net sales	\$172.8	\$158.0	\$324.7	\$310.6
Cost of sales	\$101.8	\$97.0	\$196.6	\$193.6
Selling, general and administrative expenses	\$38.6	\$33.0	\$69.5	\$64.9
Operating income	\$32.4	\$28.0	\$58.6	\$52.1
Cost of sales as a % of net sales	58.9	% 61.4	% 60.6	% 62.3
Selling, general and administrative expenses % of sales	22.3	% 20.9	% 21.4	% 20.9
Operating income as a % of net sales	18.8	% 17.7	% 18.0	% 16.8

Second quarter of 2017 compared with the second quarter of 2016

The Aerospace and Defense Electronics segment's second quarter 2017 net sales were \$172.8 million, compared with \$158.0 million in the second quarter of 2016, an increase of 9.4%. Operating income was \$32.4 million for the second quarter of 2017, compared with operating income of \$28.0 million in the second quarter of 2016, an increase of 15.7%.

The second quarter of 2017 net sales reflected \$20.4 million of higher sales of microwave and interconnect systems and higher sales of \$2.6 million for avionics products and electronic relays, partially offset by \$8.2 million of lower sales of electronic manufacturing services products due, in part, to the 2016 divestiture of PCT. The higher sales of microwave and interconnect systems included \$19.4 million in sales from e2v. Operating income in the second quarter of 2017 reflected the impact of higher sales, overall improved margins and favorable product mix. The incremental operating profit included in the results for the second quarter of 2017 from e2v was \$3.4 million, which included \$0.8 million in additional intangible asset amortization expense.

The second quarter of 2017 cost of sales increased \$4.8 million, compared with the second quarter of 2016 and reflected the impact of higher sales, partially offset by the absence of costs due to the divestiture of PCT. Cost of sales as a percentage of sales for the second quarter of 2017 decreased to 58.9% from 61.4% in the second quarter of 2016 and reflected favorable product mix. Selling, general and administrative expenses, including research and development and bid and proposal expense increased to \$38.6 million in the second quarter of 2017, compared with the \$33.0 million in the second quarter of 2016 and reflected the impact of higher sales. The selling, general and administrative expense percentage increased to 22.3% in the second quarter of 2017, compared with 20.9% in the second quarter of 2016.

First six months of 2017 compared with the first six months of 2016

The Aerospace and Defense Electronics segment's first six months of 2017 net sales were \$324.7 million, compared with \$310.6 million in the first six months of 2016, an increase of 4.5%. Operating income was \$58.6 million for the first six months of 2017, compared with operating income of \$52.1 million in the first six months of 2016, an increase of 12.5%.

The first six months of 2017 net sales reflected \$17.9 million of higher sales of microwave and interconnect systems and higher sales of \$10.0 million for avionics products and electronic relays, partially offset by \$13.8 million of lower sales of electronic manufacturing services products due, in part, to the 2016 divestiture of PCT. The higher sales of microwave and interconnect systems included \$19.5 million in sales from e2v. Operating income in the first six months of 2017 reflected the impact of higher sales, overall improved margins and favorable product mix. The incremental operating profit included in the results for the first six months of 2017 from e2v was \$3.1 million, which included \$0.8 million in additional intangible asset amortization expense.

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The first six months of 2017 cost of sales increased by \$3.0 million, compared with the first six months of 2016, and reflected the impact of higher sales. Cost of sales as a percentage of sales for the first six months of 2017 decreased to 60.6% from 62.3% in the first six months of 2016. Selling, general and administrative expenses, including research and development and bid and proposal expense, increased to \$69.5 million in the first six months of 2017, compared with \$64.9 million for the first six months of 2016 and reflected the impact of higher sales. The selling, general and administrative expense percentage increased slightly to 21.4% in the first six months of 2017, compared with 20.9% in the first six months of 2016.

Engineered Systems

(dollars in millions)	Second Quarter		Six Months	
	2017	2016	2017	2016
Net sales	\$76.0	\$62.2	\$143.6	\$126.5
Cost of sales	\$60.8	\$51.6	\$115.3	\$102.7
Selling, general and administrative expenses	\$6.1	\$5.0	\$10.3	\$10.2
Operating income	\$9.1	\$5.6	\$18.0	\$13.6
Cost of sales as a % of net sales	80.0 %	83.0 %	80.3 %	81.2 %
Selling, general and administrative expenses % of sales	8.0 %	8.0 %	7.2 %	8.0 %
Operating income as a % of net sales	12.0 %	9.0 %	12.5 %	10.8 %

Second quarter of 2017 compared with the second quarter of 2016

The Engineered Systems segment's second quarter 2017 net sales were \$76.0 million, compared with \$62.2 million in the second quarter of 2016, an increase of 22.2%. Operating income was \$9.1 million for the second quarter of 2017, compared with operating income of \$5.6 million in the second quarter of 2016, an increase of 62.5%.

The second quarter of 2017 net sales reflected higher sales of \$10.3 million of engineered products and services and \$3.2 million of turbine engines and \$0.3 million of energy systems products. The higher sales of engineered products and services primarily reflected greater marine manufacturing and missile defense programs. Operating income in the second quarter of 2017, compared to the second quarter of 2016 reflected the impact of higher sales and a greater proportion of higher margin manufacturing programs.

The second quarter of 2017 cost of sales increased \$9.2 million, compared with the second quarter of 2016 and reflected the impact of higher sales and product mix differences. Cost of sales as a percentage of sales for the second quarter of 2017 decreased to 80.0% from 83.0% in the second quarter of 2016 and reflected product mix differences. Selling, general and administrative expenses, including research and development and bid and proposal expense, increased to \$6.1 million for the second quarter of 2017, compared with \$5.0 million for the second quarter of 2016 and reflected the impact of higher sales. The selling, general and administrative expense percentage was 8.0% for both the second quarter of 2017 and the second quarter of 2016.

First six months of 2017 compared with the first six months of 2016

The Engineered Systems segment's first six months of 2017 net sales were \$143.6 million, compared with \$126.5 million in the first six months of 2016, an increase of 13.5%. Operating income was \$18.0 million for the first six months of 2017, compared with operating income of \$13.6 million in the first six months of 2016, an increase of 32.4%.

The first six months of 2017 sales reflected higher sales of \$10.6 million of engineered products and services and \$5.3 million of turbine engines and \$1.2 million of energy systems products. The higher sales of engineered products and services primarily reflected greater missile defense, space and marine manufacturing programs. Operating income in the first six months of 2017, compared to the first six months of 2016 reflected the impact of higher sales and a greater proportion of higher margin manufacturing programs.

The first six months of 2017 cost of sales increased by \$12.6 million, compared with the first six months of 2016, and reflected the impact of higher sales. Cost of sales as a percentage of sales for the first six months of 2017 decreased slightly to 80.3% from 81.2% in the first six months of 2016. Selling, general and administrative expenses, including research and development and bid and proposal expense, increased to \$10.3 million for the first six months of 2017,

compared with \$10.2 million for the first six months of 2016. The selling, general and administrative expense percentage decreased to 7.2% for the first six months of 2017 compared with 8.0% for the first six months of 2016.

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Financial Condition, Liquidity and Capital Resources

Our net cash provided by operating activities was \$140.4 million for the first six months of 2017, compared with net cash provided by operating activities of \$152.7 million for the first six months of 2016. The lower cash provided by operating activities in the first six months of 2017 reflected the impact of transaction related payments for the e2v acquisition and higher income tax payments, partially offset by the impact of higher operating income and cash flow from e2v.

Our net cash used in investing activities was \$766.7 million for the first six months of 2017, compared with net cash used by investing activities of \$88.6 million for the first six months of 2016. The 2017 amount includes \$742.6 million for the acquisition of e2v. The 2016 amount includes \$58.3 million for acquisitions and other investments. See “Our Recent Acquisitions” section of this Management’s Discussion and Analysis for additional information on the e2v acquisition and acquisitions made in 2016. Capital expenditures for the first six months of 2017 and 2016 were \$24.9 million and \$30.5 million, respectively.

Our goodwill was \$1,705.6 million at July 2, 2017 and \$1,193.5 million at January 1, 2017. The increase in the balance of goodwill in 2017 included \$468.8 million in goodwill from the e2v acquisition. Goodwill from the e2v acquisition will not be deductible for tax purposes. Teledyne’s net acquired intangible assets were \$403.6 million at July 2, 2017 and \$234.6 million at January 1, 2017. The increase in the balance of acquired intangible assets in 2017 reflected \$175.8 million in acquired intangible assets from the e2v acquisition, partially offset by \$18.7 million of amortization. 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 e2v acquisition. The amounts recorded as of July 2, 2017 are preliminary since there was insufficient time between the acquisition date and the end of the period to finalize the analysis. In addition, the Company is still 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 IN USA and Hanson Research acquisitions made in the fourth quarter of 2016. The amounts recorded as of July 2, 2017 are preliminary since there was insufficient time between the acquisition date and the end of the period to finalize the analysis. On July 20, 2017, a subsidiary of Teledyne acquired assets of Scientific Systems, Inc. (“SSI”) for \$31.0 million in cash. Headquartered in State College, PA, SSI manufactures precision components and specialized subassemblies used primarily in analytical and diagnostic instrumentation, such as High Performance Liquid Chromatography systems and specific medical devices and will be part of the Instrumentation segment.

Financing activities provided cash of \$599.6 million for the first six months of 2017, compared with cash used by financing activities of \$77.9 million for the first six months of 2016. Financing activities for the first six months of 2017 reflected net borrowings from the \$750.0 million credit facility of \$255.0 million and the proceeds from a \$100.0 million term loan and the proceeds from the private placement of €250.0 million of senior unsecured notes. The first six months of 2016 included net payments on debt of \$88.3 million, which included net payments on the credit facility of \$74.9 million. Proceeds from the exercise of stock options were \$11.7 million and \$9.6 million for the first six months of 2017 and 2016, respectively. In March 2017, Teledyne entered into a \$100.0 million term loan with a maturity date of October 30, 2019. Subsequently, in March 2017, Teledyne entered into a cross currency swap to effectively convert the \$100.0 million term loan to a 93.0 million Euro denominated instrument with a fixed euro interest rate of 0.7055%. The proceeds from the term loan were used in connection with the acquisition of e2v. On April 18, 2017, Teledyne entered into a note purchase agreement for a private placement of €250.0 million of senior unsecured notes due through 2024. Teledyne used the proceeds of the private placement to, among other things, repay indebtedness incurred in connection with the acquisition of e2v and for general corporate purposes.

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 other forms of debt capital, depending on financial, market and economic conditions. We may need to raise additional capital to support acquisitions. We currently expect to spend up to \$80.0 million for capital expenditures in 2017, of which \$24.9 million has been spent in the first six months of 2017. No cash pension contributions have been made in 2017 or are

planned for the remainder of 2017 for the domestic pension plan.

Total debt, including capital lease obligations, at July 2, 2017 was \$1,255.8 million. At July 2, 2017, \$255.0 million was outstanding under the \$750.0 million credit facility. At July 2, 2017, Teledyne had \$18.7 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 \$479.7 million at July 2, 2017. The credit agreements require the Company to comply with various financial and operating covenants and at July 2, 2017, the Company was in compliance with these covenants.

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As of July 2, 2017, the Company had an adequate amount of margin between required financial covenant ratios (as required by applicable credit agreements) and our actual ratios. At July 2, 2017, the required financial ratios and the actual ratios were as follows:

\$750.0 million Credit Facility expires December 2020 and \$182.5 million term loans due through January 2022 (issued in October 2012) 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	2.8 to 1
Consolidated Interest Coverage Ratio (EBITDA/Interest) (b)	No less than 3.0 to 1	11.0 to 1

\$711.0 million Private Placement Senior Notes due from 2017 to 2024

Financial Covenants	Requirement	Actual Measure
Consolidated Leverage Ratio (Net Debt/EBITDA) (a)	No more than 3.25 to 1	2.8 to 1
Consolidated Interest Coverage Ratio (EBITDA/Interest) (b)	No less than 3.0 to 1	11.0 to 1

a) The Consolidated Leverage Ratio is equal to Net Debt/EBITDA as defined in our private placement note purchase 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 2016 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, relating to earnings, growth opportunities, acquisitions and divestitures, product sales, capital expenditures, pension matters, stock option compensation expense, the credit facility, interest expense, severance and relocation and facility consolidation costs, environmental remediation costs, stock repurchases, taxes, exchange rates and strategic plans. Forward-looking statements are generally accompanied by words such as "estimate", "project", "predict", "believes" or "expect", 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; risks associated with our acquisition of e2v, including failure to successfully integrate the business; impacts from the United Kingdom's decision to exit the European Union; uncertainties related to the policies of the new U.S. Presidential Administration; 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 new regulations or restrictions relating to energy production, including with respect to hydraulic fracturing, could negatively affect the Company's businesses that supply the oil and gas industry. Increasing fuel costs 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

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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 2016 Form 10-K and this 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 2016 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 July 2, 2017 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 \$9.4 million. A hypothetical 10 percent price change in the U.S. dollar from its value at July 2, 2017 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 \$10.9 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 \$282.5 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 July 2, 2017, we had \$537.5 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 \$5.4 million, assuming the \$537.5 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 Chairman, President and 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 July 2, 2017, are effective at the reasonable assurance level.

In connection with our evaluation during the quarterly period ended July 2, 2017, 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.

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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 2016 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.

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Item 6. Exhibits

(a) Exhibits

Exhibit 10.1	Note Purchase and Guaranty Agreement, dated as of April 18, 2017, by and among Teledyne Technologies Incorporated, Teledyne Netherlands B.V. and the purchasers identified therein (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated April 18, 2017).
Exhibit 10.2	Amendment to Note Purchase Agreement, dated as of April 18, 2017, between Teledyne Technologies Incorporated and the noteholders under that certain Note Purchase Agreement dated as of May 12, 2010 (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K dated April 18, 2017).
Exhibit 10.3	Amendment to Note Purchase Agreement, dated as of April 18, 2017, between Teledyne Technologies Incorporated and the noteholders under that certain Note Purchase Agreement dated as of September 23, 2014 (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K dated April 18, 2017).
Exhibit 10.4	Amendment to Note Purchase Agreement, dated as of April 18, 2017, between Teledyne Technologies Incorporated and the noteholders under that certain Note Purchase Agreement dated as of August 27, 2015 (incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K dated April 18, 2017).
Exhibit 10.5	Guaranty Agreement to Note Purchase Agreement, dated as of April 18, 2017, made by the Subsidiary Guarantors (incorporated by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K dated April 18, 2017).
Exhibit 10.6	Amended and Restated Teledyne Technologies Incorporated 2014 Incentive Award Plan (incorporated by reference to Annex A of the Company's Definitive Proxy Statement filed March 10, 2017).†
Exhibit 10.7	Standing resolutions of the Nominating and Governance Committee related to non-employee director compensation (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K dated April 26, 2017).†
Exhibit 10.8	Administrative Rules of the Amended and Restated Teledyne Technologies Incorporated 2014 Incentive Award Plan Related to Non-Employee Director Restricted Stock Unit Awards and Fees (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K dated April 26, 2017).†
Exhibit 31.1	302 Certification – Robert Mehrabian
Exhibit 31.2	302 Certification – Susan L. Main

Exhibit 32.1 906 Certification – Robert Mehrabian

Exhibit 32.2 906 Certification – Susan L. Main

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

† Denotes management contract or compensatory plan or arrangement required to be filed as an Exhibit.

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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

DATE: August 7, 2017 By: /s/ Susan L. Main

Susan L. Main, Senior Vice President and

Chief Financial Officer

(Principal Financial Officer and Authorized Officer)

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Teledyne Technologies Incorporated

Index to Exhibits

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