

COGNEX CORP

FORM 10-Q (Quarterly Report)

Filed 05/01/17 for the Period Ending 04/02/17

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Telephone 5086503000
CIK 0000851205
Symbol CGNX
SIC Code 3823 - Industrial Instruments for Measurement, Display, and Control of Process Variables; and Related Products
Industry Industrial Machinery & Equipment
Sector Industrials
Fiscal Year 12/31

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

FORM 10-Q

(Mark One)

Quarterly Report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the quarterly period ended April 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 001-34218

COGNEX CORPORATION

(Exact name of registrant as specified in its charter)

Massachusetts

04-2713778

(State or other jurisdiction of
incorporation or organization)

(I.R.S. Employer
Identification No.)

**One Vision Drive
Natick, Massachusetts 01760-2059
(508) 650-3000**

(Address, including zip code, and telephone number, including area code, of principal executive offices)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes No

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

Yes No

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

Yes No

As of April 2, 2017, there were 86,646,379 shares of Common Stock, \$.002 par value per share, of the registrant outstanding.

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PART I: FINANCIAL INFORMATION
ITEM 1: FINANCIAL STATEMENTS

COGNEX CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)

	Three-months Ended	
	April 2, 2017	April 3, 2016
	(unaudited)	
Revenue	\$ 134,942	\$ 96,205
Cost of revenue	28,225	20,968
Gross margin	106,717	75,237
Research, development, and engineering expenses	22,770	20,555
Selling, general, and administrative expenses	46,521	38,338
Operating income	37,426	16,344
Foreign currency gain (loss)	(263)	(100)
Investment income	2,012	1,137
Other income (expense)	270	207
Income before income tax expense	39,445	17,588
Income tax expense (benefit)	(6,210)	2,703
Net income	\$ 45,655	\$ 14,885
Net income per weighted-average common and common-equivalent share:		
Basic	\$ 0.53	\$ 0.18
Diluted	\$ 0.51	\$ 0.17
Weighted-average common and common-equivalent shares outstanding:		
Basic	86,323	84,943
Diluted	89,177	86,541
Cash dividends per common share	\$ 0.075	\$ 0.070

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

COGNEX CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In thousands)

	Three-months Ended	
	April 2, 2017	April 3, 2016
	(unaudited)	
Net income	\$ 45,655	\$ 14,885
Other comprehensive income (loss), net of tax:		
Cash flow hedges:		
Net unrealized gain (loss), net of tax of (\$4) and (\$82) in 2017 and 2016, respectively	(71)	(577)
Reclassification of net realized (gain) loss into current operations	44	(4)
Net change related to cash flow hedges	(27)	(581)
Available-for-sale investments:		
Net unrealized gain (loss), net of tax of \$92 and \$267 in 2017 and 2016, respectively	511	1,281
Reclassification of net realized (gain) loss into current operations	(65)	13
Net change related to available-for-sale investments	446	1,294
Foreign currency translation adjustments:		
Foreign currency translation adjustments, net of tax of \$0 and \$329 in 2017 and 2016, respectively	2,481	5,160
Net change related to foreign currency translation adjustments	2,481	5,160
Other comprehensive income (loss), net of tax	2,900	5,873
Total comprehensive income	\$ 48,555	\$ 20,758

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

COGNEX CORPORATION
CONSOLIDATED BALANCE SHEETS
(In thousands)

	April 2, 2017 (unaudited)	December 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 92,428	\$ 79,641
Short-term investments	376,027	341,194
Accounts receivable, less reserves of \$941 and \$873 in 2017 and 2016, respectively	58,236	55,438
Unbilled revenue	1,289	2,217
Inventories	32,615	26,984
Prepaid expenses and other current assets	33,349	20,870
Total current assets	593,944	526,344
Long-term investments	312,850	324,335
Property, plant, and equipment, net	57,255	53,992
Goodwill	95,280	95,280
Intangible assets, net	7,440	8,312
Deferred income taxes	27,096	28,022
Other assets	2,379	2,319
Total assets	\$ 1,096,244	\$ 1,038,604
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 17,115	\$ 9,830
Accrued expenses	38,904	42,539
Accrued income taxes	5,696	5,193
Deferred revenue and customer deposits	13,801	8,211
Total current liabilities	75,516	65,773
Reserve for income taxes	5,641	5,361
Other non-current liabilities	3,875	4,871
Total liabilities	85,032	76,005
Shareholders' equity:		
Common stock, \$.002 par value – Authorized: 200,000 shares in 2017 and 2016, respectively, issued and outstanding: 86,646 and 85,939 shares in 2017 and 2016, respectively	173	172
Additional paid-in capital	411,650	375,030
Retained earnings	652,917	643,825
Accumulated other comprehensive loss, net of tax	(53,528)	(56,428)
Total shareholders' equity	1,011,212	962,599
	\$ 1,096,244	\$ 1,038,604

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

COGNEX CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Three-months Ended	
	April 2, 2017	April 3, 2016
	(unaudited)	
Cash flows from operating activities:		
Net income	\$ 45,655	\$ 14,885
Adjustments to reconcile net income to net cash provided by operating activities:		
Stock-based compensation expense	7,483	6,804
Depreciation of property, plant, and equipment	3,083	2,757
Amortization of intangible assets	872	1,045
Amortization of discounts or premiums on investments	86	125
Realized (gain) loss on sale of investments	(65)	13
Revaluation of contingent consideration	(275)	(263)
Change in deferred income taxes	921	(2,064)
Change in operating assets and liabilities:		
Accounts receivable	(2,238)	(1,025)
Unbilled revenue	953	4
Inventories	(5,386)	2,646
Prepaid expenses and other current assets	(12,326)	3,221
Accounts payable	7,167	2,216
Accrued expenses	(3,398)	(3,353)
Accrued income taxes	423	467
Deferred revenue and customer deposits	5,494	(155)
Other	(734)	257
Net cash provided by operating activities	47,715	27,580
Cash flows from investing activities:		
Purchases of investments	(193,612)	(219,616)
Maturities and sales of investments	171,667	223,334
Purchases of property, plant, and equipment	(6,095)	(2,237)
Cash paid for acquisition of business	(176)	—
Cash paid related to discontinued business	(291)	—
Net cash provided by (used in) investing activities	(28,507)	1,481
Cash flows from financing activities:		
Issuance of common stock under stock plans	29,139	3,440
Repurchase of common stock	(30,067)	—
Payment of dividends	(6,497)	(5,950)
Net cash provided by (used in) financing activities	(7,425)	(2,510)
Effect of foreign exchange rate changes on cash and cash equivalents	1,004	1,388
Net change in cash and cash equivalents	12,787	27,939
Cash and cash equivalents at beginning of period	79,641	51,975
Cash and cash equivalents at end of period	\$ 92,428	\$ 79,914

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

COGNEX CORPORATION
CONSOLIDATED STATEMENT OF SHAREHOLDERS' EQUITY
(In thousands)

	Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total Shareholders' Equity
	Shares	Par Value				
Balance as of December 31, 2016	85,939	\$ 172	\$ 375,030	\$ 643,825	\$ (56,428)	\$ 962,599
Issuance of common stock under stock plans	1,087	2	29,137	—	—	29,139
Repurchase of common stock	(380)	(1)	—	(30,066)	—	(30,067)
Stock-based compensation expense	—	—	7,483	—	—	7,483
Payment of dividends	—	—	—	(6,497)	—	(6,497)
Net income	—	—	—	45,655	—	45,655
Net unrealized gain (loss) on cash flow hedges, net of tax of (\$4)	—	—	—	—	(71)	(71)
Reclassification of net realized (gain) loss on cash flow hedges	—	—	—	—	44	44
Net unrealized gain (loss) on available-for-sale investments, net of tax of \$92	—	—	—	—	511	511
Reclassification of net realized (gain) loss on the sale of available-for-sale investments	—	—	—	—	(65)	(65)
Foreign currency translation adjustment	—	—	—	—	2,481	2,481
Balance as of April 2, 2017 (unaudited)	<u>86,646</u>	<u>\$ 173</u>	<u>\$ 411,650</u>	<u>\$ 652,917</u>	<u>\$ (53,528)</u>	<u>\$ 1,011,212</u>

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

COGNEX CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

NOTE 1: Summary of Significant Accounting Policies

As permitted by the rules of the Securities and Exchange Commission applicable to Quarterly Reports on Form 10-Q, these notes are condensed and do not contain all disclosures required by generally accepted accounting principles (GAAP). Cognex Corporation (the "Company") has provided new disclosures related to inventories and internal-use software in this quarterly report on Form 10-Q. Reference should be made to the consolidated financial statements and related notes included in the Company's Annual Report on Form 10-K for the year ended December 31, 2016 for a full description of significant accounting policies.

In the opinion of the management of the Company, the accompanying consolidated unaudited financial statements contain all adjustments, consisting of normal, recurring adjustments and financial statement reclassifications, including those related to the disposition of a business, necessary to present fairly the Company's financial position as of April 2, 2017, and the results of its operations for the three-month periods ended April 2, 2017 and April 3, 2016, and changes in shareholders' equity, comprehensive income, and cash flows for the periods presented.

The results disclosed in the Consolidated Statements of Operations for the three-month period ended April 2, 2017 are not necessarily indicative of the results to be expected for the full year.

Inventories

On January 1, 2017, the Company adopted Accounting Standards Update (ASU) 2015-11 "Inventory - Simplifying the Measurement of Inventory." This Update requires companies to measure inventory at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. This adoption did not have an impact on the Company's inventory value.

Internal-use Software

The Company accounts for the costs of computer software developed or obtained for internal use under Accounting Standards Codification 350-40 "Intangibles - Goodwill and Other, Internal-use Software." Internal-use software is software acquired, internally developed, or modified solely to meet the entity's internal needs, and during the software's development, no substantive plan exists to sell the software.

The preliminary project stage includes determination of system requirements, vendor demonstrations, and final selection of vendors, and during this stage costs are expensed as incurred. The application development stage includes software design, coding, hardware installation, and testing. During this stage, certain costs are capitalized, including external direct costs of materials and services, as well as payroll and payroll-related costs for employees who are directly associated with the project, while certain costs are expensed as incurred, including training and data conversion costs. The post-implementation stage includes training and maintenance, and during this stage costs are expensed as incurred.

Capitalization begins when both the preliminary project stage is completed and management commits to funding the project. Capitalization ceases at the point the project is substantially complete and ready for its intended use, that is, after all substantial testing is completed. Costs of specified upgrades and enhancements to internal-use software are capitalized if it is probable that those expenditures result in additional functionality. Capitalized costs are amortized on a straight line basis over the estimated useful life.

NOTE 2: New Pronouncements

Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers"

The amendments in ASU 2014-09 will supersede and replace all currently existing U.S. GAAP, including industry-specific revenue recognition guidance, with a single, principle-based revenue recognition framework. The concept guiding this new model is that revenue recognition will depict transfer of control to the customer in an amount that reflects consideration to which an entity expects to be entitled. The core principles supporting this framework include (1) identifying the contract with a customer, (2) identifying separate performance obligations within the contract, (3) determining the transaction price, (4) allocating the transaction price to the performance obligations, and (5) recognizing revenue. This new framework will require entities to apply significantly more judgment. This increase in management judgment will require expanded disclosure on estimation methods, inputs, and assumptions for revenue recognition.

In March 2016, ASU 2016-08, "Principal versus Agent Considerations (Reporting Revenue Gross versus Net)," was issued, in April 2016, ASU 2016-10, "Identifying Performance Obligations and Licensing," was issued, in May 2016,

ASU 2016-12, "Narrow-Scope Improvements and Practical Expedients," was issued, and in December 2016, ASU 2016-20, "Technical Corrections and Improvements," was issued. These Updates do not change the core principle of the guidance under ASU 2014-09, but rather provide implementation guidance. ASU 2015-14, "Deferral of the effective date," amended the effective date of ASU 2014-09 for public companies to annual reporting periods beginning after December 15, 2017. Early adoption is permitted, but only beginning after December 15, 2016. The Financial Accounting Standards Board may release additional implementation guidance in future periods.

We expect to adopt this standard using the full retrospective method to present all periods reported on a consistent basis. Upon adoption, revenue for software-only products sold as part of multiple-deliverable arrangements will no longer be deferred when vendor-specific objective evidence of fair value does not exist for undelivered elements of the arrangement. This change will likely result in earlier recognition of revenue. In addition, we expect certain of the Company's product accessory sales, which are currently reported on a net basis, to be reported on a gross basis as a result of applying the expanded guidance in the new standard related to principal versus agent considerations. This change will result in the Company reporting higher revenue and higher cost of revenue when these sales are reported on a gross basis, although the gross margin dollars will not change. We do not expect either of these changes to have a material impact on total revenue. Management will continue to evaluate the impact of this standard .

Accounting Standards Update (ASU) 2016-01, "Financial Instruments - Recognition and Measurement of Financial Assets and Financial Liabilities"

ASU 2016-01 provides guidance related to certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The amendments in this Update affect all entities that hold financial assets or owe financial liabilities. This ASU requires equity investments (except those accounted under the equity method) to be measured at fair value with changes in fair value recognized in net income. However, an entity may choose to measure equity investments that do not have readily determinable fair values at cost minus impairment. This ASU also eliminates the requirement for public companies to disclose the methods and significant assumptions used to estimate the fair value for financial instruments measured at amortized cost on the balance sheet, and it requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset on the balance sheet or the accompanying notes to the financial statements. For public companies, the guidance in ASU 2016-01 is effective for annual periods beginning after December 15, 2017, and interim periods within those annual periods. Early adoption is not permitted except for certain amendments in this Update. Management does not expect ASU 2016-01 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2016-02, "Leases"

ASU 2016-02 creates Topic 842, Leases. The objective of this Update is to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet, and disclosing key information about leasing arrangements. This ASU applies to any entity that enters into a lease, although lessees will see the most significant changes. The main difference between current U.S. GAAP and Topic 842 is the recognition of lease assets and lease liabilities on the balance sheet for those leases classified as operating leases under current U.S. GAAP. Topic 842 distinguishes between finance leases and operating leases, which are substantially similar to the classification criteria for distinguishing between capital leases and operating leases under current U.S. GAAP. For public companies, the guidance in ASU 2016-02 is effective for annual periods beginning after December 15, 2018, and interim periods within those annual periods. This ASU should be applied using a modified retrospective approach. Management is in the process of evaluating the impact of this Update.

Accounting Standards Update (ASU) 2016-13, "Financial Instruments - Measurement of Credit Losses"

ASU 2016-13 applies to all reporting entities holding financial assets that are not accounted for at fair value through net income (debt securities). The amendments in this Update eliminate the probable initial recognition threshold to recognize a credit loss under current U.S. GAAP and, instead, reflect an entity's current estimate of all expected credit losses. In addition, this Update broadens the information an entity must consider in developing the credit loss estimate, including the use of reasonable and supportable forecasted information. The amendments in this Update require that credit losses on available-for-sale debt securities be presented as an allowance rather than as a write-down and an entity will be able to record reversals of credit losses in current period net income. For public companies, the guidance in ASU 2016-13 is effective for annual periods beginning after December 15, 2019, and interim periods within those annual periods. This ASU should be applied through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. Management does not expect ASU 2016-13 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2016-16, "Income Taxes - Intra-Entity Transfers of Assets Other than Inventory"

ASU 2016-16 applies to all reporting entities with intra-entity transfers of assets other than inventory. The amendments in this Update allow the recognition of deferred income taxes for an intra-entity transfer of an asset other than inventory when the transfer occurs, as opposed to when the asset has been sold to an outside party under current U.S. GAAP. Two common examples of assets included in the scope of this Update are intellectual property and property, plant, and equipment. For public companies, the amendments in ASU 2016-16 are effective for annual reporting periods beginning after December 15, 2017, and interim reporting periods within those annual periods. Early adoption is permitted for all entities as of the beginning of an annual reporting period for which financial statements (interim or annual) have not been issued or made available for issuance. This ASU should be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. Management is in the process of evaluating the impact of this Update.

Accounting Standards Update (ASU) 2017-01, "Business Combinations - Clarifying the Definition of a Business"

ASU 2017-01 applies to all reporting entities that must determine whether they have acquired or sold a business. The amendments in this Update clarify the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. For public companies, the amendments in ASU 2017-01 are effective for annual reporting periods beginning after December 15, 2017, and interim reporting periods within those annual periods. This ASU should be applied prospectively on or after the effective date and no disclosures are required at transition. Early adoption is permitted for transactions for which the acquisition date occurs before the issuance date or the effective date of the amendments in this Update, only when the transaction has not been reported in financial statements that have been issued. Management is in the process of evaluating the impact of this Update.

Accounting Standards Update (ASU) 2017-04, "Intangibles - Goodwill and Other - Simplifying the Test for Goodwill Impairment"

ASU 2017-04 applies to all reporting entities that have goodwill reported in their financial statements. The amendments in this Update eliminate Step 2 from the goodwill impairment test reducing the cost and complexity of evaluating goodwill for impairment. In computing the implied fair value of goodwill under Step 2, an entity had to perform procedures to determine the fair value at the impairment date of its assets and liabilities as would be required in a business combination. Instead, under the amendments in this Update, an entity should perform its goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. For public companies, the amendments in ASU 2017-01 are effective for the annual or any interim goodwill impairment tests for reporting periods beginning after December 15, 2019. This ASU should be applied prospectively and an entity is required to disclose the nature of and reason for the change in accounting principle upon transition. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. Management does not expect ASU 2017-04 to have a material impact on the Company's financial statements and disclosures.

COGNEX CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

NOTE 3: Fair Value Measurements

Financial Assets and Liabilities that are Measured at Fair Value on a Recurring Basis

The following table summarizes the financial assets and liabilities required to be measured at fair value on a recurring basis as of April 2, 2017 (in thousands):

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Assets:			
Money market instruments	\$ 3,895	\$ —	\$ —
Corporate bonds	—	323,635	—
Treasury bills	—	146,253	—
Asset-backed securities	—	101,696	—
Euro liquidity fund	—	73,868	—
Sovereign bonds	—	30,917	—
Agency bonds	—	10,348	—
Municipal bonds	—	2,160	—
Cash flow hedge forward contracts	—	25	—
Economic hedge forward contracts	—	7	—
Liabilities:			
Cash flow hedge forward contracts	—	(13)	—
Economic hedge forward contracts	—	(41)	—
Contingent consideration liabilities	—	—	(3,870)

The Company's money market instruments are reported at fair value based upon the daily market price for identical assets in active markets, and are therefore classified as Level 1.

The Company's debt securities and forward contracts are reported at fair value based upon model-driven valuations in which all significant inputs are observable or can be derived from or corroborated by observable market data for substantially the full term of the asset or liability, and are therefore classified as Level 2. Management is responsible for estimating the fair value of these financial assets and liabilities, and in doing so, considers valuations provided by a large, third-party pricing service. For debt securities, this service maintains regular contact with market makers, brokers, dealers, and analysts to gather information on market movement, direction, trends, and other specific data. They use this information to structure yield curves for various types of debt securities and arrive at the daily valuations. The Company's forward contracts are typically traded or executed in over-the-counter markets with a high degree of pricing transparency. The market participants are generally large commercial banks.

The Company did not record an other-than-temporary impairment of these financial assets during the three -month period ended April 2, 2017 .

The Company's contingent consideration liabilities are reported at fair value based upon probability-adjusted present values of the consideration expected to be paid, using significant inputs that are not observable in the market, and are therefore classified as Level 3. Key assumptions used in these estimates include probability assessments with respect to the likelihood of achieving certain revenue milestones, for the Manatee Works, Inc. (Manatee) and Chiaro Technologies LLC (Chiaro) acquisitions, and the likelihood of completing certain tasks for the EnShape GmbH (EnShape) acquisition. The fair values of these contingent consideration liabilities were calculated using discount rates consistent with the level of risk of achievement, and are remeasured each reporting period with changes in fair value recorded in "Other income (expense)" on the Consolidated Statements of Operations.

COGNEX CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

The following table summarizes the activity for the Company's liabilities measured at fair value using Level 3 inputs for the three-month period ended April 2, 2017 (in thousands):

Balance as of December 31, 2016	\$	4,173
Fair value adjustment to Manatee contingent consideration		(275)
Foreign exchange rate changes		(28)
Balance as of April 2, 2017	\$	3,870

Non-financial Assets that are Measured at Fair Value on a Non-recurring Basis

Non-financial assets such as property, plant and equipment, goodwill, and intangible assets are required to be measured at fair value only when an impairment loss is recognized. The Company did not record an impairment charge related to these assets during the three -month period ended April 2, 2017 .

NOTE 4: Cash, Cash Equivalents, and Investments

Cash, cash equivalents, and investments consisted of the following (in thousands):

	April 2, 2017	December 31, 2016
Cash	\$ 88,533	\$ 77,307
Money market instruments	3,895	2,334
Cash and cash equivalents	<u>92,428</u>	<u>79,641</u>
Corporate bonds	128,507	141,188
Treasury bills	92,883	67,175
Euro liquidity fund	73,868	46,499
Asset-backed securities	58,649	69,614
Sovereign bonds	12,340	7,298
Agency bonds	7,620	2,903
Municipal bonds	2,160	6,517
Short-term investments	<u>376,027</u>	<u>341,194</u>
Corporate bonds	195,128	169,952
Treasury bills	53,370	92,280
Asset-backed securities	43,047	26,946
Sovereign bonds	18,577	23,585
Agency bonds	2,728	10,339
Municipal bonds	—	1,233
Long-term investments	<u>312,850</u>	<u>324,335</u>
	\$ 781,305	\$ 745,170

Corporate bonds consist of debt securities issued by both domestic and foreign companies; treasury bills consist of debt securities issued by the U.S. government; the Euro liquidity fund invests in a portfolio of investment-grade bonds; asset-backed securities consist of debt securities collateralized by pools of receivables or loans with credit enhancement; sovereign bonds consist of direct debt issued by foreign governments; agency bonds consist of domestic or foreign obligations of government agencies and government sponsored enterprises that have government backing; and municipal bonds consist of debt securities issued by state and local government entities. The Euro liquidity fund is denominated in Euros, and the remaining securities are denominated in U.S. Dollars.

COGNEX CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

The following table summarizes the Company's available-for-sale investments as of April 2, 2017 (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Short-term:				
Corporate bonds	\$ 128,444	\$ 81	\$ (18)	\$ 128,507
Treasury bills	93,034	3	(154)	92,883
Euro liquidity fund	73,540	328	—	73,868
Asset-backed securities	58,657	15	(23)	58,649
Sovereign bonds	12,357	3	(20)	12,340
Agency bonds	7,600	20	—	7,620
Municipal bonds	2,160	—	—	2,160
Long-term:				
Corporate bonds	194,660	737	(269)	195,128
Treasury bills	53,459	3	(92)	53,370
Asset-backed securities	42,990	72	(15)	43,047
Sovereign bonds	18,658	2	(83)	18,577
Agency bonds	2,710	18	—	2,728
	\$ 688,269	\$ 1,282	\$ (674)	\$ 688,877

The following table summarizes the Company's gross unrealized losses and fair values for available-for-sale investments in an unrealized loss position as of April 2, 2017 (in thousands):

	Unrealized Loss Position For:					
	Less than 12 Months		12 Months or Greater		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Treasury bills	\$ 113,462	\$ (246)	\$ —	\$ —	\$ 113,462	\$ (246)
Corporate bonds	90,190	(286)	1,049	(1)	91,239	(287)
Asset-backed securities	45,185	(37)	2,961	(1)	48,146	(38)
Sovereign bonds	27,722	(103)	—	—	27,722	(103)
	\$ 276,559	\$ (672)	\$ 4,010	\$ (2)	\$ 280,569	\$ (674)

As of April 2, 2017, the Company did not recognize any other-than-temporary impairment of these investments. In its evaluation, management considered the type of security, the credit rating of the security, the length of time the security has been in a loss position, the size of the loss position, the Company's intent and ability to hold the security to expected recovery of value, and other meaningful information. The Company does not intend to sell, and is unlikely to be required to sell, any of these available-for-sale investments before their effective maturity or market price recovery.

The Company recorded gross realized gains and gross realized losses on the sale of debt securities totaling \$88,000 and \$23,000, respectively, during the three-month period ended April 2, 2017 and \$84,000 and \$97,000, respectively, during the three-month period ended April 3, 2016. These gains and losses are included in "Investment income" on the Consolidated Statement of Operations. Prior to the sale of these securities, unrealized gains and losses for these debt securities, net of tax, are recorded in shareholders' equity as other comprehensive income (loss).

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The following table presents the effective maturity dates of the Company's available-for-sale investments as of April 2, 2017 (in thousands):

	<1 year	1-2 Years	2-3 Years	3-4 Years	4-5 Years	5-7 Years	Total
Corporate bonds	\$ 128,507	\$ 87,341	\$ 82,646	\$ 3,928	\$ 21,213	\$ —	\$ 323,635
Treasury bills	92,883	53,370	—	—	—	—	146,253
Asset-backed securities	58,649	9,960	23,850	5,656	21	3,560	101,696
Euro liquidity fund	73,868	—	—	—	—	—	73,868
Sovereign bonds	12,340	13,988	4,589	—	—	—	30,917
Agency bonds	7,620	—	2,728	—	—	—	10,348
Municipal bonds	2,160	—	—	—	—	—	2,160
	<u>\$ 376,027</u>	<u>\$ 164,659</u>	<u>\$ 113,813</u>	<u>\$ 9,584</u>	<u>\$ 21,234</u>	<u>\$ 3,560</u>	<u>\$ 688,877</u>

NOTE 5: Inventories

Inventories consisted of the following (in thousands):

	April 2, 2017	December 31, 2016
Raw materials	\$ 22,476	\$ 18,224
Work-in-process	3,281	2,760
Finished goods	6,858	6,000
	<u>\$ 32,615</u>	<u>\$ 26,984</u>

NOTE 6: Warranty Obligations

The Company records the estimated cost of fulfilling product warranties at the time of sale based upon historical costs to fulfill claims. Obligations may also be recorded subsequent to the time of sale whenever specific events or circumstances impacting product quality become known that would not have been taken into account using historical data. While we engage in extensive product quality programs and processes, including actively monitoring and evaluating the quality of our component suppliers and third-party contract manufacturers, the Company's warranty obligation is affected by product failure rates, material usage, and service delivery costs incurred in correcting a product failure. An adverse change in any of these factors may result in the need for additional warranty provisions. Warranty obligations are included in "Accrued expenses" on the Consolidated Balance Sheets.

The changes in the warranty obligation were as follows (in thousands):

Balance as of December 31, 2016	\$ 4,335
Provisions for warranties issued during the period	710
Fulfillment of warranty obligations	(596)
Foreign exchange rate changes	65
Balance as of April 2, 2017	<u>\$ 4,514</u>

NOTE 7: Contingencies

Various claims and legal proceedings generally incidental to the normal course of business are pending or threatened on behalf of or against the Company. While we cannot predict the outcome of these matters, we believe that any liability arising from them will not have a material adverse effect on our financial position, liquidity, or results of operations.

NOTE 8: Indemnification Provisions

Except as limited by Massachusetts law, the by-laws of the Company require it to indemnify certain current or former directors, officers, and employees of the Company against expenses incurred by them in connection with each proceeding in which he or she is involved as a result of serving or having served in certain capacities. Indemnification is not available with respect to a proceeding as to which it has been adjudicated that the person did not act in good faith in the reasonable belief that the action was in the best interests of the Company. The maximum potential amount of future payments the Company could be required to make under these provisions is unlimited. The Company has never incurred significant costs related to these indemnification provisions. As a result, the Company believes the estimated fair value of these provisions is not material.

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In the ordinary course of business, the Company may accept standard limited indemnification provisions in connection with the sale of its products, whereby it indemnifies its customers for certain direct damages incurred in connection with third-party patent or other intellectual property infringement claims with respect to the use of the Company's products. The maximum potential amount of future payments the Company could be required to make under these provisions is generally subject to fixed monetary limits. The Company has never incurred significant costs to defend lawsuits or settle claims related to these indemnification provisions. As a result, the Company believes the estimated fair value of these provisions is not material.

In the ordinary course of business, the Company also accepts limited indemnification provisions from time to time, whereby it indemnifies customers for certain direct damages incurred in connection with bodily injury and property damage arising from the installation of the Company's products. The maximum potential amount of future payments the Company could be required to make under these provisions is generally limited and is likely recoverable under the Company's insurance policies. As a result of this coverage, and the fact that the Company has never incurred significant costs to defend lawsuits or settle claims related to these indemnification provisions, the Company believes the estimated fair value of these provisions is not material.

NOTE 9: Derivative Instruments

The Company's foreign currency risk management strategy is principally designed to mitigate the potential financial impact of changes in the value of transactions and balances denominated in foreign currencies resulting from changes in foreign currency exchange rates. Currently, the Company enters into two types of hedges to manage this risk. The first are economic hedges which utilize foreign currency forward contracts with maturities of up to 45 days to manage the exposure to fluctuations in foreign currency exchange rates arising primarily from foreign-denominated receivables and payables. The gains and losses on these derivatives are intended to be offset by the changes in the fair value of the assets and liabilities being hedged. These economic hedges are not designated as hedging instruments for hedge accounting treatment. The second are cash flow hedges which utilize foreign currency forward contracts with maturities of up to 18 months to hedge specific forecasted transactions of the Company's foreign subsidiaries with the goal of protecting our budgeted revenues and expenses against foreign currency exchange rate changes compared to our budgeted rates. These cash flow hedges are designated as hedging instruments for hedge accounting treatment.

The Company had the following outstanding forward contracts (in thousands):

Currency	April 2, 2017		December 31, 2016	
	Notional Value	USD Equivalent	Notional Value	USD Equivalent
<i>Derivatives Designated as Hedging Instruments:</i>				
Japanese Yen	187,500	\$ 1,695	342,500	\$ 2,960
Hungarian Forint	—	—	39,000	130
Singapore Dollar	—	—	150	97
<i>Derivatives Not Designated as Hedging Instruments:</i>				
Japanese Yen	712,500	\$ 6,366	650,000	\$ 5,554
British Pound	1,540	1,920	1,350	1,658
Korean Won	1,900,000	1,702	1,750,000	1,450
Hungarian Forint	445,000	1,541	425,000	1,448
Singapore Dollar	1,760	1,258	1,350	929
Taiwanese Dollar	26,150	863	26,000	802

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Information regarding the fair value of the outstanding forward contracts was as follows (in thousands):

	Asset Derivatives				Liability Derivatives			
	Balance Sheet Location	Fair Value		Balance Sheet Location	Fair Value			
		April 2, 2017	December 31, 2016		April 2, 2017	December 31, 2016		
<i>Derivatives Designated as Hedging Instruments:</i>								
Cash flow hedge forward contracts	Prepaid expenses and other current assets	\$ 25	\$ 43	Accrued expenses	\$ 13	\$ —		
<i>Derivatives Not Designated as Hedging Instruments:</i>								
Economic hedge forward contracts	Prepaid expenses and other current assets	\$ 7	\$ 1	Accrued expenses	\$ 41	\$ 11		

The following table presents the gross activity for all derivative assets and liabilities which were presented on a net basis on the Consolidated Balance Sheets due to the right of offset with each counterparty (in thousands):

	Asset Derivatives			Liability Derivatives	
	April 2, 2017	December 31, 2016		April 2, 2017	December 31, 2016
Gross amounts of recognized assets	\$ 32	\$ 117	Gross amounts of recognized liabilities	\$ 78	\$ 11
Gross amounts offset	—	(73)	Gross amounts offset	(24)	—
Net amount of assets presented	\$ 32	\$ 44	Net amount of liabilities presented	\$ 54	\$ 11

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Information regarding the effect of derivative instruments on the consolidated financial statements was as follows (in thousands):

	Location in Financial Statements	Three-months Ended	
		April 2, 2017	April 3, 2016
<i>Derivatives Designated as Hedging Instruments:</i>			
Gains (losses) recorded in shareholders' equity (effective portion)	Accumulated other comprehensive income (loss), net of tax	\$ 10	\$ (375)
Gains (losses) reclassified from accumulated other comprehensive income (loss) into current operations (effective portion)	Revenue	\$ (55)	\$ (3)
	Research, development, and engineering expenses	3	2
	Selling, general, and administrative expenses	8	5
	Total gains (losses) reclassified from accumulated other comprehensive income (loss) into current operations	\$ (44)	\$ 4
Gains (losses) recognized in current operations (ineffective portion and discontinued derivatives)	Foreign currency gain (loss)	\$ —	\$ —
Gains (losses) recognized in current operations	Foreign currency gain (loss)	\$ (81)	\$ (360)

The following table provides the changes in accumulated other comprehensive income (loss), net of tax, related to derivative instruments (in thousands):

Balance as of December 31, 2016	\$ 37
Net unrealized loss on cash flow hedges	(71)
Reclassification of net realized loss on cash flow hedges into current operations	44
Balance as of April 2, 2017	\$ 10

Net gains expected to be reclassified from accumulated other comprehensive income (loss), net of tax, into current operations within the next twelve months are \$10,000 .

NOTE 10: Stock-Based Compensation Expense

The Company's share-based payments that result in compensation expense consist of stock option grants and restricted stock awards. As of April 2, 2017 , the Company had 6,258,551 shares available for grant. Stock options are granted with an exercise price equal to the market value of the Company's common stock at the grant date and generally vest over four years based upon continuous service and expire ten years from the grant date. Restricted stock awards are granted with an exercise price equal to the market value of the Company's common stock at the time of grant. Conditions of the award may be based on continuing employment and/or achievement of pre-established performance goals and objectives. Vesting for performance-based restricted stock awards and time-based restricted stock awards must be greater than one year and three years, respectively.

COGNEX CORPORATION
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The following table summarizes the Company's stock option activity for the three -month period ended April 2, 2017 :

	Shares (in thousands)	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2016	6,433	\$ 32.16		
Granted	1,849	76.78		
Exercised	(1,087)	26.81		
Forfeited or expired	(29)	36.01		
Outstanding as of April 2, 2017	7,166	\$ 44.47	8.02	\$ 282,876
Exercisable as of April 2, 2017	2,256	\$ 26.49	5.95	\$ 129,647
Options vested or expected to vest as of April 2, 2017 (1)	6,167	\$ 42.66	7.82	\$ 254,614

(1) In addition to the vested options, the Company expects a portion of the unvested options to vest at some point in the future. Options expected to vest are calculated by applying an estimated forfeiture rate to the unvested options.

The fair values of stock options granted in each period presented were estimated using the following weighted-average assumptions:

	Three-months Ended	
	April 2, 2017	April 3, 2016
Risk-free rate	2.4%	1.7%
Expected dividend yield	0.39%	0.84%
Expected volatility	41%	41%
Expected term (in years)	5.3	5.5

Risk-free rate

The risk-free rate was based upon a treasury instrument whose term was consistent with the contractual term of the option.

Expected dividend yield

Generally, the current dividend yield is calculated by annualizing the cash dividend declared by the Company's Board of Directors and dividing that result by the closing stock price on the grant date.

Expected volatility

The expected volatility was based upon a combination of historical volatility of the Company's common stock over the contractual term of the option and implied volatility for traded options of the Company's stock.

Expected term

The expected term was derived from the binomial lattice model from the impact of events that trigger exercises over time.

The Company stratifies its employee population into two groups: one consisting of senior management and another consisting of all other employees. The Company currently expects that approximately 75% of its stock options granted to senior management and 72% of its options granted to all other employees will actually vest. Therefore, the Company currently applies an estimated annual forfeiture rate of 10% to all unvested options for senior management and a rate of 12% for all other employees. The Company revised its estimated forfeiture rates in the first quarter of 2017, resulting in a decrease to compensation expense of \$673,000 . The Company also revised its estimated forfeiture rates in the first quarter of 2016, resulting in an increase to compensation expense of \$334,000 .

The weighted-average grant-date fair values of stock options granted during the three-month periods ended April 2, 2017 and April 3, 2016 were \$29.90 and \$12.25 , respectively.

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The total intrinsic values of stock options exercised for the three-month periods ended April 2, 2017 and April 3, 2016 were \$53,043,000 and \$3,724,000, respectively. The total fair values of stock options vested for the three-month periods ended April 2, 2017 and April 3, 2016 were \$17,987,000 and \$15,337,000, respectively.

As of April 2, 2017, total unrecognized compensation expense related to non-vested stock options was \$54,233,000, which is expected to be recognized over a weighted-average period of 2.10 years.

The following table summarizes the Company's restricted stock activity for the three-month period ended April 2, 2017:

	Shares (in thousands)	Weighted-Average Grant Fair Value	Aggregate Intrinsic Value (in thousands)(1)
Nonvested as of December 31, 2016	20	\$ 34.05	
Granted	—	—	
Vested	—	—	
Forfeited or expired	—	—	
Nonvested as of April 2, 2017	20	\$ 34.05	\$ 1,679

(1) Fair market value as of April 2, 2017.

The fair values of restricted stock awards granted were determined based upon the market value of the Company's common stock at the time of grant. The initial cost is then amortized over the period of vesting until the restrictions lapse. These restricted shares will be fully vested in 2018. Participants are entitled to dividends on restricted stock awards, but only receive those amounts if the shares vest. The sale or transfer of these shares is restricted during the vesting period.

The total stock-based compensation expense and the related income tax benefit recognized for the three-month period ended April 2, 2017 were \$7,483,000 and \$2,439,000, respectively, and for the three-month period ended April 3, 2016 were \$6,804,000 and \$2,228,000, respectively. No compensation expense was capitalized as of April 2, 2017 or December 31, 2016.

The following table presents the stock-based compensation expense by caption for each period presented on the Consolidated Statements of Operations (in thousands):

	Three-months Ended	
	April 2, 2017	April 3, 2016
Cost of revenue	\$ 430	\$ 293
Research, development, and engineering	2,610	2,179
Selling, general, and administrative	4,443	4,332
	\$ 7,483	\$ 6,804

NOTE 11: Stock Repurchase Program

In November 2015, the Company's Board of Directors authorized the repurchase of \$100,000,000 of the Company's common stock. As of April 2, 2017, the Company repurchased 919,000 shares at a cost of \$61,152,000 under this program, including 380,000 shares at a cost of \$30,067,000 in the first quarter of 2017, leaving a remaining authorized balance of \$38,848,000. The Company may repurchase shares under the November 2015 program in future periods depending upon a variety of factors, including, among other things, the impact of dilution from employee stock options, stock price, share availability, and cash requirements.

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NOTE 12: Taxes

A reconciliation of the United States federal statutory corporate tax rate to the Company's income tax expense, or effective tax rate, was as follows:

	Three-months Ended	
	April 2, 2017	April 3, 2016
Income tax provision at federal statutory corporate tax rate	35 %	35 %
State income taxes, net of federal benefit	1 %	1 %
Foreign tax rate differential	(18)%	(17)%
Tax credit	(1)%	(1)%
Discrete tax benefit related to stock option exercises	(33)%	(3)%
Other discrete tax events	(1)%	— %
Other	1 %	— %
Income tax provision	<u>(16)%</u>	<u>15 %</u>

The majority of income earned outside of the United States is permanently reinvested to provide funds for international expansion. The Company is tax resident in numerous jurisdictions around the world and has identified its major jurisdictions as the United States, Ireland, and China. The statutory tax rate is 12.5% in Ireland and 25% in China, compared to the U.S. federal statutory corporate tax rate of 35%. International rights to certain of the Company's intellectual property are held by a subsidiary whose legal jurisdiction does not tax this income, resulting in a foreign effective tax rate that is lower than the above mentioned statutory rates. These differences resulted in a decrease in the effective tax rate by 18 and 17 percentage points in the first quarters of 2017 and 2016, respectively.

The excess tax benefit arising from the difference between the deduction for tax purposes and the compensation cost recognized for financial reporting purposes from stock option exercises resulted in a decrease of the effective tax rate by 33 and 3 percentage points for the first quarters of 2017 and 2016, respectively.

During the three -month period ended April 2, 2017 , the Company recorded a \$246,000 increase in reserves for income taxes, net of deferred tax benefit. Estimated interest and penalties included in these amounts totaled \$36,000 for the three -month period ended April 2, 2017 .

The Company's reserve for income taxes, including gross interest and penalties, was \$6,669,000 as of April 2, 2017 , which included \$5,641,000 classified as a non-current liability and \$1,028,000 recorded as a reduction to non-current deferred tax assets. The amount of gross interest and penalties included in these balances was \$730,000 . If the Company's tax positions were sustained or the statutes of limitations related to certain positions expired, these reserves would be released and income tax expense would be reduced in a future period. As a result of the expiration of certain statutes of limitations, there is a potential that a portion of these reserves could be released, which would decrease income tax expense by approximately \$800,000 to \$900,000 over the next twelve months.

The Company has defined its major tax jurisdictions as the United States, Ireland and China, and within the United States, Massachusetts and California. Within the United States, the tax years 2013 through 2016 remain open to examination by the Internal Revenue Service and various state tax authorities. The tax years 2012 through 2016 remain open to examination by various taxing authorities in other jurisdictions in which the Company operates.

NOTE 13: Weighted-Average Shares

Weighted-average shares were calculated as follows (in thousands):

	Three-months Ended	
	April 2, 2017	April 3, 2016
Basic weighted-average common shares outstanding	86,323	84,943
Effect of dilutive stock options	2,854	1,598
Weighted-average common and common-equivalent shares outstanding	<u>89,177</u>	<u>86,541</u>

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Stock options to purchase 824,000 and 4,248,000 shares of common stock, on a weighted-average basis, were outstanding during the three-month periods ended April 2, 2017 and April 3, 2016, respectively, but were not included in the calculation of dilutive net income per share because they were anti-dilutive.

NOTE 16: Subsequent Events

On April 4, 2017, the Company acquired all of the outstanding shares of ViDi Systems SA, a privately-held maker of deep learning software for industrial machine vision based in Switzerland. On April 12, 2017, the Company acquired selected assets and assumed selected liabilities of GVi Ventures, Inc., a privately-held maker of pre-configured vision solutions for solving common automotive applications based in the United States. Neither of these acquisitions is material to the Company's financial position or operating results. Given the timing of these acquisitions, the Company is in the process of completing the purchase price allocation, which will be recorded in the second quarter of 2017. Transaction costs are immaterial and are being expensed as incurred.

On April 28, 2017, the Company's Board of Directors authorized the repurchase of an additional \$100,000,000 of the Company's common stock. This new authorization will commence once the Company completes the November 2015 program.

In addition, on April 28, 2017, the Company's Board of Directors declared a cash dividend of \$0.085 per share. The dividend is payable June 16, 2017 to all shareholders of record as of the close of business on June 2, 2017 .

ITEM 2: MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Forward-Looking Statements

Certain statements made in this report, as well as oral statements made by the Company from time to time, constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Readers can identify these forward-looking statements by our use of the words "expects," "anticipates," "estimates," "believes," "projects," "intends," "plans," "will," "may," "shall," "could," "should," and similar words and other statements of a similar sense. These statements are based upon our current estimates and expectations as to prospective events and circumstances, which may or may not be in our control and as to which there can be no firm assurances given. These forward-looking statements, which include statements regarding business and market trends, future financial performance, customer order rates, the timing for recognition of revenue, expected areas of growth, emerging markets, future product mix, research and development activities, the Company's new Enterprise Resource Planning (ERP) system, investments, and strategic plans, involve known and unknown risks and uncertainties that could cause actual results to differ materially from those projected. Such risks and uncertainties include: (1) the loss of a large customer; (2) current and future conditions in the global economy; (3) the reliance on revenue from the consumer electronics or automotive industries; (4) the inability to penetrate new markets; (5) the inability to achieve significant international revenue; (6) fluctuations in foreign currency exchange rates and the use of derivative instruments; (7) information security breaches or business system disruptions; (8) the inability to attract and retain skilled employees; (9) the reliance upon key suppliers to manufacture and deliver critical components for our products; (10) the failure to effectively manage product transitions or accurately forecast customer demand; (11) the inability to design and manufacture high-quality products; (12) the technological obsolescence of current products and the inability to develop new products; (13) the failure to properly manage the distribution of products and services; (14) the inability to protect our proprietary technology and intellectual property; (15) our involvement in time-consuming and costly litigation; (16) the impact of competitive pressures; (17) the challenges in integrating and achieving expected results from acquired businesses; (18) potential impairment charges with respect to our investments or for acquired intangible assets or goodwill; and (19) exposure to additional tax liabilities. The foregoing list should not be construed as exhaustive and we encourage readers to refer to the detailed discussion of risk factors included in Part I - Item 1A of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2016. The Company cautions readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made. The Company disclaims any obligation to subsequently revise forward-looking statements to reflect the occurrence of anticipated or unanticipated events or circumstances after the date such statements are made.

Executive Overview

Cognex Corporation is a leading worldwide provider of machine vision products that capture and analyze visual information in order to automate tasks, primarily in manufacturing processes, where vision is required. In addition to product revenue derived from the sale of machine vision products, the Company also generates revenue by providing maintenance and support, consulting, and training services to its customers; however, service revenue accounted for less than 10% of total revenue for all periods presented.

The Company's customers are predominantly in the factory automation market. Factory automation customers purchase Cognex products and incorporate them into their manufacturing processes. Customers in the consumer electronics and automotive industries contribute the largest percentage to the Company's factory automation revenue. Virtually every manufacturer can achieve better quality and manufacturing efficiency by using machine vision, and therefore, this market also includes a broad base of customers across a variety of other industries, including consumer products, food and beverage, medical devices, and pharmaceuticals. Factory automation customers also purchase Cognex products for use outside of the manufacturing process, such as using ID products in logistics automation for package sorting and distribution. A small percentage of the Company's customers are in the semiconductor and electronics capital equipment market. These customers purchase Cognex products and integrate them into the automation equipment that they manufacture and then sell to their customers to either make semiconductor chips or assemble printed circuit boards.

Revenue for the first quarter of 2017 totaled \$134,942,000, representing an increase of \$38,737,000, or 40%, from the first quarter of 2016 driven primarily by strong consumer electronics sales in Asia. Manufacturing efficiencies achieved from the higher sales volume resulted in a gross margin of 79% of revenue for the first quarter of 2017 compared to 78% of revenue for the first quarter of 2016. Operating expenses increased by \$10,398,000, or 18%, from the first quarter of 2016 due principally to higher personnel-related costs and incentive compensation plan accruals. The significant increase in revenue resulted in an operating income margin of 28% of revenue for the first quarter of

2017 compared to 17% of revenue for the first quarter of 2016. A substantial tax benefit related to stock option exercises in the first quarter of 2017 further contributed to a net income margin of 34% of revenue for the first quarter of 2017 compared to 15% of revenue for the first quarter of 2016. Net income per diluted share was \$0.51 in the first quarter of 2017 compared to \$0.17 in the first quarter of 2016.

Results of Operations

As foreign currency exchange rates are a factor in understanding period-to-period comparisons, we believe the presentation of results on a constant-currency basis in addition to reported results helps improve investors' ability to understand our operating results and evaluate our performance in comparison to prior periods. We also use results on a constant-currency basis as one measure to evaluate our performance. Constant-currency information compares results between periods as if exchange rates had remained constant period-over-period. We generally refer to such amounts calculated on a constant-currency basis as excluding the impact of foreign currency exchange rate changes. Results on a constant-currency basis are not in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) and should be considered in addition to, and not as a substitute for, results prepared in accordance with U.S. GAAP.

Revenue

Revenue for the first quarter of 2017 totaled \$134,942,000, representing an increase of \$38,737,000, or 40%, from the first quarter of 2016. Changes in foreign currency exchange rates did not have a material impact on revenue. Revenue for all of the Company's major regions experienced double-digit growth rates for the three-month period over the prior year, including a 14% increase in revenue from customers based in the Americas and a 23% increase in revenue from customers based in Europe. The largest dollar and percentage growth, however, came from customers based in Asia, where revenue increased by 101% from the first quarter of 2016. The revenue increase came from a variety of industries, with the largest dollar increases coming from the consumer electronics and automotive industries.

As of the date of this report, we expect revenue for the second quarter of 2017 to increase sequentially from the first quarter of 2017 due primarily to anticipated higher revenue from customers in the consumer electronics and logistics industries. We also expect revenue for the second quarter of 2017 to increase over the second quarter of 2016 driven by broad-based factory automation growth. Although we expect consumer electronics revenue to be higher than the first quarter of 2017, we expect revenue from this industry to be lower than the second quarter of 2016 due to the timing of large customer orders. In 2017, we expect more of these large orders to be recognized as revenue during the second half of the year, while revenue from large orders in this industry was more evenly split between the second and third quarters in 2016. The future quarterly timing of revenue in the consumer electronics industry will depend upon a number of factors, including the product introduction cycles of our large customers in this industry.

Gross Margin

Gross margin as a percentage of revenue was 79% for the first quarter of 2017 compared to 78% for the first quarter of 2016. The increase was primarily due to manufacturing efficiencies achieved from a higher volume of machine vision products sold, as fixed manufacturing costs were spread over a larger revenue base.

The Company's gross margin percentage has ranged from the mid-to-high 70s for the past several years. We expect the gross margin percentage to be closer to the mid-point of this range in the second quarter of 2017 due to anticipated higher revenue from a material customer under a preferred pricing arrangement, as well as a greater percentage of revenue in the logistics industry where certain customer solutions include installed ID products at relatively lower margins.

Operating Expenses

Research, Development, and Engineering Expenses increased by \$2,215,000, or 11%, for the three-month period as detailed in the table below (in thousands).

	Three-month period
RD&E expenses in the first quarter of 2016	\$ 20,555
Personnel-related costs	1,598
Incentive compensation plans	591
Stock-based compensation expense	456
Outsourced engineering costs	(532)
Other	102
RD&E expenses in the first quarter of 2017	\$ 22,770

RD&E expenses increased due to higher personnel-related costs resulting primarily from headcount additions to support new product initiatives and the higher business level. These headcount additions included engineering talent from four business acquisitions completed during the second half of 2016 that are expected to help accelerate the development of future products. In addition, higher incentive compensation plan accruals were recorded in the first quarter of 2017 as a result of the additional headcount and higher achievement levels based upon the Company's performance. Stock-based compensation expense was also higher than the prior year due to a higher valuation of stock options granted during the first quarter of 2017. These increases were partially offset by lower outsourced engineering costs.

RD&E expenses as a percentage of revenue were 17% and 21% for the first quarters of 2017 and 2016, respectively. We believe that a continued commitment to RD&E activities is essential in order to maintain or achieve product leadership with our existing products and to provide innovative new product offerings, as well as to provide engineering support for large customers. In addition, we consider our ability to accelerate time to market for new products to be critical to our revenue growth. Therefore, we expect to continue to make significant RD&E investments in the future, and we target our RD&E spending to be between 10% and 15% of revenue on an annual basis. This quarterly percentage is impacted by revenue levels and investing cycles.

Selling, General, and Administrative Expenses

Selling, general, and administrative (SG&A) expenses increased by \$8,183,000, or 21%, for the three-month period as detailed in the table below (in thousands).

	Three-month period	
SG&A expenses in the first quarter of 2016	\$	38,338
Personnel-related costs		2,625
Incentive compensation plans		2,335
Travel expenses		1,062
ERP professional fees		440
Other		1,721
SG&A expenses in the first quarter of 2017	\$	46,521

SG&A expenses increased due to higher personnel-related costs resulting primarily from headcount additions, principally sales personnel. In addition, higher incentive compensation plan accruals, including sales commission and bonus plans, were recorded in the first quarter of 2017 as a result of the additional headcount and higher achievement levels based upon the Company's performance. Travel expenses were also higher than the prior year due to the additional sales personnel and the higher business level.

During the first quarter of 2017, the Company incurred consulting and legal fees related to the selection of a vendor for a new Enterprise Resource Planning (ERP) system, which is the management information system that integrates the Company's manufacturing, order fulfillment, and financial activities. Although consulting services will continue to be incurred for the remainder of 2017, we expect a large portion of these fees to be capitalized as part of the application development of the new ERP system, which we expect to place into service in the first half of 2018.

Non-operating Income (Expense)

The Company recorded foreign currency losses of \$263,000 and \$100,000 for the first quarters of 2017 and 2016, respectively. Foreign currency gains and losses result primarily from the revaluation and settlement of accounts receivable, accounts payable, and intercompany balances that are reported in one currency and collected in another.

Investment income increased by \$875,000, or 77%, from the first quarter of 2016. The increase was due to additional funds available for investment, as well as higher yields on the Company's portfolio of debt securities.

The Company recorded other income of \$270,000 and \$207,000 for the first quarters of 2017 and 2016, respectively. Other income included a benefit of \$275,000 in the first quarter of 2017 and \$263,000 in the first quarter of 2016 resulting from a decrease in the fair value of the contingent consideration liability that arose from a 2015 business combination. Other income (expense) also included rental income, net of associated expenses, from leasing space in buildings adjacent to the Company's corporate headquarters.

Income Tax Expense

The Company's effective tax rate was a benefit of 16% of pre-tax income for the first quarter of 2017 and an expense of 15% of pre-tax income for the first quarter of 2016.

The effective tax rate included a decrease in tax expense of \$13,167,000 in the first quarter of 2017 and \$463,000 in the first quarter of 2016 from the excess tax benefit arising from the difference between the deduction for tax purposes and the compensation cost recognized for financial reporting purposes from stock option exercises. The Company cannot predict the level of stock option exercises by employees in future periods.

Excluding the impact of these discrete tax events, the Company's effective tax rate was approximately 18% for both the first quarters of 2017 and 2016. The majority of income earned outside of the United States is permanently reinvested to provide funds for international expansion. The Company is tax resident in numerous jurisdictions around the world and has identified its major tax jurisdictions as the United States, Ireland, and China. The statutory tax rate is 12.5% in Ireland and 25% in China, compared to the U.S. federal statutory corporate tax rate of 35%. International rights to certain of the Company's intellectual property are held by a subsidiary whose legal jurisdiction does not tax this income, resulting in a foreign effective tax rate that is lower than the above mentioned statutory rates.

Liquidity and Capital Resources

The Company has historically been able to generate positive cash flow from operations, which has funded its operating activities and other cash requirements and has resulted in an accumulated cash and investment balance of \$781,305,000 as of April 2, 2017. The Company has established guidelines relative to credit ratings, diversification, and maturities of its investments that maintain liquidity.

The Company's cash requirements during the first quarter of 2017 were met with positive cash flows from operations, investment maturities, and the proceeds from stock option exercises. Cash requirements consisted of operating activities, investment purchases, the repurchase of common stock, the payment of dividends, and capital expenditures. Significant operating cash outflows included the payment of company bonuses that were earned and accrued in 2016 and the prepayment of estimated 2017 income taxes. Capital expenditures totaled \$6,095,000 and consisted primarily of computer hardware, computer software, manufacturing test equipment related to new product introductions, and improvements made to the Company's headquarters building in Natick, Massachusetts and the Company's distribution center in Cork, Ireland.

During the first quarter of 2017, the Company incurred \$440,000 in professional fees related to the selection of a vendor for a new Enterprise Resource Planning (ERP) system. During the remainder of 2017, the Company expects cash outflows related to this project to be approximately \$9,000,000, with a large portion of these costs to be capitalized as part of the new system, which the Company expects to place into service in the first half of 2018.

In November 2015, the Company's Board of Directors authorized the repurchase of \$100,000,000 of the Company's common stock. As of April 2, 2017, the Company repurchased 919,000 shares at a cost of \$61,152,000 under this program, including 380,000 shares at a cost of \$30,067,000 during the first quarter of 2017. The Company may repurchase shares under this program in future periods depending upon a variety of factors, including, among other things, the impact of dilution from employee stock options, stock price, share availability, and cash requirements.

The Company's Board of Directors declared and paid a cash dividend of \$0.075 per share in the first quarter of 2017, amounting to \$6,497,000. Future dividends will be declared at the discretion of the Company's Board of Directors and will depend upon such factors as the Board deems relevant including, among other things, the Company's ability to generate positive cash flows from operations.

The Company's business strategy includes selective expansion into new machine vision markets and applications through the acquisition of businesses and technologies. The Company has completed a series of business acquisitions since August 2015, none of which are material individually or in the aggregate to the Company's financial position or operating results. Certain of these acquisitions have contractual obligations for deferred cash payments, contingent cash payments tied to performance, and special incentive cash payments tied to employment, none of which are material individually or in the aggregate to the Company's cash flows.

The Company believes that its existing cash and investment balances, together with cash flow from operations, will be sufficient to meet its operating, investing, and financing activities for the next twelve months. As of April 2, 2017, the Company had \$781,305,000 in cash and investments. In addition, the Company has no debt and does not anticipate needing debt financing in the near future. We believe that our strong cash position has put us in a relatively good position with respect to our longer-term liquidity needs.

New Pronouncements

Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers"

The amendments in ASU 2014-09 will supersede and replace all currently existing U.S. GAAP, including industry-specific revenue recognition guidance, with a single, principle-based revenue recognition framework. The concept guiding this new model is that revenue recognition will depict transfer of control to the customer in an amount that reflects consideration to which an entity expects to be entitled. The core principles supporting this framework include (1) identifying the contract with a customer, (2) identifying separate performance obligations within the contract, (3) determining the transaction price, (4) allocating the transaction price to the performance obligations, and (5) recognizing revenue. This new framework will require entities to apply significantly more judgment. This increase in management judgment will require expanded disclosure on estimation methods, inputs, and assumptions for revenue recognition.

In March 2016, ASU 2016-08, "Principal versus Agent Considerations (Reporting Revenue Gross versus Net)," was issued, in April 2016, ASU 2016-10, "Identifying Performance Obligations and Licensing," was issued, in May 2016, ASU 2016-12, "Narrow-Scope Improvements and Practical Expedients," was issued, and in December 2016, ASU 2016-20, "Technical Corrections and Improvements," was issued. These Updates do not change the core principle of the guidance under ASU 2014-09, but rather provide implementation guidance. ASU 2015-14, "Deferral of the effective date," amended the effective date of ASU 2014-09 for public companies to annual reporting periods beginning after December 15, 2017. Early adoption is permitted, but only beginning after December 15, 2016. The Financial Accounting Standards Board may release additional implementation guidance in future periods.

We expect to adopt this standard using the full retrospective method to present all periods reported on a consistent basis. Upon adoption, revenue for software-only products sold as part of multiple-deliverable arrangements will no longer be deferred when vendor-specific objective evidence of fair value does not exist for undelivered elements of the arrangement. This change will likely result in earlier recognition of revenue. In addition, we expect certain of the Company's product accessory sales, which are currently reported on a net basis, to be reported on a gross basis as a result of applying the expanded guidance in the new standard related to principal versus agent considerations. This change will result in the Company reporting higher revenue and higher cost of revenue when these sales are reported on a gross basis, although the gross margin dollars will not change. We do not expect either of these changes to have a material impact on total revenue. Management will continue to evaluate the impact of this standard .

Accounting Standards Update (ASU) 2016-01, "Financial Instruments - Recognition and Measurement of Financial Assets and Financial Liabilities"

ASU 2016-01 provides guidance related to certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The amendments in this Update affect all entities that hold financial assets or owe financial liabilities. This ASU requires equity investments (except those accounted under the equity method) to be measured at fair value with changes in fair value recognized in net income. However, an entity may choose to measure equity investments that do not have readily determinable fair values at cost minus impairment. This ASU also eliminates the requirement for public companies to disclose the methods and significant assumptions used to estimate the fair value for financial instruments measured at amortized cost on the balance sheet, and it requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset on the balance sheet or the accompanying notes to the financial statements. For public companies, the guidance in ASU 2016-01 is effective for annual periods beginning after December 15, 2017, and interim periods within those annual periods. Early adoption is not permitted except for certain amendments in this Update. Management does not expect ASU 2016-01 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2016-02, "Leases"

ASU 2016-02 creates Topic 842, Leases. The objective of this Update is to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet, and disclosing key information about leasing arrangements. This ASU applies to any entity that enters into a lease, although lessees will see the most significant changes. The main difference between current U.S. GAAP and Topic 842 is the recognition of lease assets and lease liabilities on the balance sheet for those leases classified as operating leases under current U.S. GAAP. Topic 842 distinguishes between finance leases and operating leases, which are substantially similar to the classification criteria for distinguishing between capital leases and operating leases under current U.S. GAAP. For public companies, the guidance in ASU 2016-02 is effective for annual periods beginning after December 15, 2018, and interim periods within those annual periods. This ASU should be applied using a modified retrospective approach. Management is in the process of evaluating the impact of this Update.

Accounting Standards Update (ASU) 2016-13, "Financial Instruments - Measurement of Credit Losses"

ASU 2016-13 applies to all reporting entities holding financial assets that are not accounted for at fair value through net income (debt securities). The amendments in this Update eliminate the probable initial recognition threshold to recognize a credit loss under current U.S. GAAP and, instead, reflect an entity's current estimate of all expected credit losses. In addition, this Update broadens the information an entity must consider in developing the credit loss estimate, including the use of reasonable and supportable forecasted information. The amendments in this Update require that credit losses on available-for-sale debt securities be presented as an allowance rather than as a write-down and an entity will be able to record reversals of credit losses in current period net income. For public companies, the guidance in ASU 2016-13 is effective for annual periods beginning after December 15, 2019, and interim periods within those annual periods. This ASU should be applied through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. Management does not expect ASU 2016-13 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2016-16, "Income Taxes - Intra-Entity Transfers of Assets Other than Inventory"

ASU 2016-16 applies to all reporting entities with intra-entity transfers of assets other than inventory. The amendments in this Update allow the recognition of deferred income taxes for an intra-entity transfer of an asset other than inventory when the transfer occurs, as opposed to when the asset has been sold to an outside party under current U.S. GAAP. Two common examples of assets included in the scope of this Update are intellectual property and property, plant, and equipment. For public companies, the amendments in ASU 2016-16 are effective for annual reporting periods beginning after December 15, 2017, and interim reporting periods within those annual periods. Early adoption is permitted for all entities as of the beginning of an annual reporting period for which financial statements (interim or annual) have not been issued or made available for issuance. This ASU should be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. Management is in the process of evaluating the impact of this Update.

Accounting Standards Update (ASU) 2017-01, "Business Combinations - Clarifying the Definition of a Business"

ASU 2017-01 applies to all reporting entities that must determine whether they have acquired or sold a business. The amendments in this Update clarify the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. For public companies, the amendments in ASU 2017-01 are effective for annual reporting periods beginning after December 15, 2017, and interim reporting periods within those annual periods. This ASU should be applied prospectively on or after the effective date and no disclosures are required at transition. Early adoption is permitted for transactions for which the acquisition date occurs before the issuance date or effective date of the amendments in this Update, only when the transaction has not been reported in financial statements that have been issued. Management is in the process of evaluating the impact of this Update.

Accounting Standards Update (ASU) 2017-04, "Intangibles - Goodwill and Other - Simplifying the Test for Goodwill Impairment"

ASU 2017-04 applies to all reporting entities that have goodwill reported in their financial statements. The amendments in this Update eliminate Step 2 from the goodwill impairment test reducing the cost and complexity of evaluating goodwill for impairment. In computing the implied fair value of goodwill under Step 2, an entity had to perform procedures to determine the fair value at the impairment date of its assets and liabilities as would be required in a business combination. Instead, under the amendments in this Update, an entity should perform its goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. For public companies, the amendments in ASU 2017-01 are effective for the annual or any interim goodwill impairment tests for reporting periods beginning after December 15, 2019. This ASU should be applied prospectively and an entity is required to disclose the nature of and reason for the change in accounting principle upon transition. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. Management does not expect ASU 2017-04 to have a material impact on the Company's financial statements and disclosures.

ITEM 3: QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

There have been no material changes to the Company's exposures to market risk since December 31, 2016 .

ITEM 4: CONTROLS AND PROCEDURES

As required by Rules 13a-15 and 15d-15 of the Securities Exchange Act of 1934, the Company has evaluated, with the participation of management, including the Chief Executive Officer and the Chief Financial Officer, the effectiveness of its disclosure controls and procedures (as defined in such rules) as of the end of the period covered by this report. Based on such evaluation, the Chief Executive Officer and Chief Financial Officer concluded that such disclosure controls and procedures were effective as of that date. From time to time, the Company reviews its disclosure controls and procedures, and may from time to time make changes aimed at enhancing their effectiveness and to ensure that the Company's systems evolve with its business. There was no change in the Company's internal control over financial reporting that occurred during the quarter ended April 2, 2017 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II: OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Various claims and legal proceedings generally incidental to the normal course of business are pending or threatened on behalf of or against the Company. While we cannot predict the outcome of these matters, we believe that any liability arising from them will not have a material adverse effect on our financial position, liquidity, or results of operations.

ITEM 1A. RISK FACTORS

For a list of factors that could affect the Company's business, results of operations, and financial condition, see the risk factors discussion provided in Part I—Item 1A of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2016 .

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

The following table sets forth information with respect to purchases by the Company of shares of its common stock during the three-month period ended April 2, 2017:

	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
January 1 - January 29, 2017	—	\$ —	—	\$ 68,915,000
January 30 - February 26, 2017	20,000	\$ 77.17	20,000	\$ 67,371,000
February 27 - April 2, 2017	360,000	\$ 79.23	360,000	\$ 38,848,000
Total	380,000	\$ 79.12	380,000	\$ 38,848,000

(1) In November 2015, the Company's Board of Directors authorized the repurchase of \$100,000,000 of the Company's common stock. Purchases under this program commenced in September 2016.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

<u>Exhibit Number</u>	
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a) under the Securities Exchange Act of 1934*
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a)/15d-14(a) under the Securities Exchange Act of 1934*
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**
101	xBRL (Extensible Business Reporting Language)
	The following materials from Cognex Corporation's Quarterly Report on Form 10-Q for the period ended April 2, 2017, formatted in xBRL: (i) Consolidated Statements of Operations for the three-month periods ended April 2, 2017 and April 3, 2016; (ii) Consolidated Statements of Comprehensive Income for the three-month periods ended April 2, 2017 and April 3, 2016; (iii) Consolidated Balance Sheets as of April 2, 2017 and December 31, 2016; (iv) Consolidated Statements of Cash Flows for the three-month periods ended April 2, 2017 and April 3, 2016; (v) Consolidated Statement of Shareholders' Equity for the three-month period ended April 2, 2017; and (vi) Notes to Consolidated Financial Statements.
*	Filed herewith
**	Furnished herewith

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.

Date: May 1, 2017

COGNEX CORPORATION

By: /s/ Robert J. Willett

Robert J. Willett
President and Chief Executive Officer
(principal executive officer)

By: /s/ John J. Curran

John J. Curran
Senior Vice President of Finance
and Chief Financial Officer
(principal financial and accounting officer)

CERTIFICATION

I, Robert J. Willett, certify that:

- 1 I have reviewed this quarterly report on Form 10-Q of Cognex Corporation;
- 2 Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3 Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4 The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5 The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 1, 2017

By: /s/ Robert J. Willett

Robert J. Willett

President and Chief Executive Officer

CERTIFICATION

I, John J. Curran, certify that:

- 1 I have reviewed this quarterly report on Form 10-Q of Cognex Corporation;
- 2 Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3 Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4 The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5 The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 1, 2017

By: /s/ John J. Curran

John J. Curran
Senior Vice President of Finance
and Chief Financial Officer

CERTIFICATION PURSUANT TO
18 U.S.C. 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

The undersigned officer of Cognex Corporation (the "Company") hereby certifies to his knowledge that the Company's quarterly report on Form 10-Q for the quarterly period ended April 2, 2017 (the "Report"), as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 1, 2017

By: /s/ Robert J. Willett

Robert J. Willett

President and Chief Executive Officer

(principal executive officer)

* This certification shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

CERTIFICATION PURSUANT TO
18 U.S.C. 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

The undersigned officer of Cognex Corporation (the "Company") hereby certifies to his knowledge that the Company's quarterly report on Form 10-Q for the quarterly period ended April 2, 2017 (the "Report"), as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 1, 2017

By: /s/ John J. Curran

John J. Curran

Senior Vice President of Finance

and Chief Financial Officer

(principal financial officer)

* This certification shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.