
**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 July 1, 2018 or
- Transition Report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the transition period from _____ to _____

**Commission File Number 001-34218
COGNEX CORPORATION**

(Exact name of registrant as specified in its charter)

Massachusetts

(State or other jurisdiction of
incorporation or organization)

04-2713778

(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 <input checked="" type="checkbox"/>	Accelerated filer <input type="checkbox"/>
Non-accelerated filer <input type="checkbox"/>	(Do not check if a smaller reporting company)
	Smaller reporting company <input type="checkbox"/>
	Emerging growth company <input type="checkbox"/>

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

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

Yes No

As of July 1, 2018, there were 172,032,044 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		Six-months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
	(unaudited)		(unaudited)	
Revenue	\$ 211,264	\$ 178,080	\$ 380,831	\$ 317,119
Cost of revenue	54,169	42,164	94,367	74,696
Gross margin	157,095	135,916	286,464	242,423
Research, development, and engineering expenses	26,888	23,377	57,964	46,147
Selling, general, and administrative expenses	66,752	52,518	130,449	99,039
Operating income	63,455	60,021	98,051	97,237
Foreign currency gain (loss)	(195)	(184)	(329)	(447)
Investment income	3,559	2,138	6,799	4,150
Other income (expense)	(246)	(169)	31	101
Income before income tax expense	66,573	61,806	104,552	101,041
Income tax expense (benefit)	10,377	5,311	11,139	(925)
Net income	<u>\$ 56,196</u>	<u>\$ 56,495</u>	<u>\$ 93,413</u>	<u>\$ 101,966</u>
Net income per weighted-average common and common-equivalent share:				
Basic	<u>\$ 0.33</u>	<u>\$ 0.33</u>	<u>\$ 0.54</u>	<u>\$ 0.59</u>
Diluted	<u>\$ 0.32</u>	<u>\$ 0.32</u>	<u>\$ 0.52</u>	<u>\$ 0.57</u>
Weighted-average common and common-equivalent shares outstanding:				
Basic	<u>172,370</u>	<u>173,278</u>	<u>172,825</u>	<u>172,960</u>
Diluted	<u>177,149</u>	<u>179,228</u>	<u>178,418</u>	<u>178,904</u>
Cash dividends per common share	<u>\$ 0.0450</u>	<u>\$ 0.0425</u>	<u>\$ 0.0900</u>	<u>\$ 0.0800</u>

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

COGNEX CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In thousands)

	Three-months Ended		Six-months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
	(unaudited)		(unaudited)	
Net income	\$ 56,196	\$ 56,495	\$ 93,413	\$ 101,966
Other comprehensive income (loss), net of tax:				
Cash flow hedges:				
Net unrealized gain (loss), net of tax of \$0 and \$7 in the three-month periods and net of tax of \$0 and \$3 in the six-month periods, respectively	—	59	—	(12)
Reclassification of net realized (gain) loss into current operations	—	(9)	—	35
Net change related to cash flow hedges	—	50	—	23
Available-for-sale investments:				
Net unrealized gain (loss), net of tax of \$8 and \$58 in the three-month periods and net of tax of \$(106) and \$150 in the six-month periods, respectively	490	307	(702)	818
Reclassification of net realized (gain) loss into current operations	(247)	(42)	(269)	(107)
Net change related to available-for-sale investments	243	265	(971)	711
Foreign currency translation adjustments:				
Foreign currency translation adjustments	(7,253)	10,263	(3,197)	12,744
Net change related to foreign currency translation adjustments	(7,253)	10,263	(3,197)	12,744
Other comprehensive income (loss), net of tax	(7,010)	10,578	(4,168)	13,478
Total comprehensive income	<u>\$ 49,186</u>	<u>\$ 67,073</u>	<u>\$ 89,245</u>	<u>\$ 115,444</u>

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

COGNEX CORPORATION
CONSOLIDATED BALANCE SHEETS
(In thousands)

	July 1, 2018 (unaudited)	December 31, 2017
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 129,202	\$ 106,582
Short-term investments	353,740	297,961
Accounts receivable, less reserves of \$1,501 and \$1,568 in 2018 and 2017, respectively	136,084	119,388
Unbilled revenue	3,603	7,454
Inventories	89,556	67,923
Prepaid expenses and other current assets	47,362	30,683
Total current assets	759,547	629,991
Long-term investments	271,941	423,441
Property, plant, and equipment, net	87,893	78,048
Goodwill	113,208	113,208
Intangible assets, net	11,651	13,189
Deferred income taxes	29,892	27,385
Other assets	2,178	2,491
Total assets	\$ 1,276,310	\$ 1,287,753
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 12,588	\$ 23,463
Accrued expenses	58,654	68,249
Accrued income taxes	12,477	11,503
Deferred revenue and customer deposits	40,881	9,420
Total current liabilities	124,600	112,635
Deferred income taxes	304	312
Reserve for income taxes	7,399	6,488
Accrued income taxes	60,241	66,741
Other non-current liabilities	4,634	5,904
Total liabilities	197,178	192,080
Shareholders' equity:		
Common stock, \$.002 par value – Authorized: 300,000 and 200,000 shares in 2018 and 2017, respectively, issued and outstanding: 172,032 and 173,507 shares in 2018 and 2017, respectively	344	347
Additional paid-in capital	498,343	461,338
Retained earnings	619,212	668,587
Accumulated other comprehensive loss, net of tax	(38,767)	(34,599)
Total shareholders' equity	1,079,132	1,095,673
	\$ 1,276,310	\$ 1,287,753

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

COGNEX CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Six-months Ended	
	July 1, 2018	July 2, 2017
	(unaudited)	
Cash flows from operating activities:		
Net income	\$ 93,413	\$ 101,966
Adjustments to reconcile net income to net cash provided by operating activities:		
Stock-based compensation expense	22,196	15,329
Depreciation of property, plant, and equipment	8,874	6,288
Amortization of intangible assets	1,538	1,740
Amortization of discounts or premiums on investments	94	171
Realized (gain) loss on sale of investments	(269)	(107)
Revaluation of contingent consideration	(254)	(151)
Change in deferred income taxes	(2,385)	(972)
Change in operating assets and liabilities:		
Accounts receivable	(18,779)	(18,841)
Unbilled revenue	3,803	(3,315)
Inventories	(23,220)	(7,711)
Prepaid expenses and other current assets	(23,112)	(23,990)
Accounts payable	(10,889)	11,814
Accrued expenses	(5,666)	(157)
Accrued income taxes	(5,360)	(532)
Deferred revenue and customer deposits	32,470	9,080
Other	162	8
Net cash provided by operating activities	<u>72,616</u>	<u>90,620</u>
Cash flows from investing activities:		
Purchases of investments	(336,189)	(304,611)
Maturities and sales of investments	431,008	279,654
Purchases of property, plant, and equipment	(21,675)	(12,172)
Cash paid for acquisition of business	—	(25,519)
Legal fees paid from sale of discontinued business	—	(291)
Net cash provided by (used in) investing activities	<u>73,144</u>	<u>(62,939)</u>
Cash flows from financing activities:		
Issuance of common stock under stock plans	14,811	35,050
Repurchase of common stock	(121,308)	(62,343)
Payment of dividends	(15,524)	(13,864)
Payment of contingent consideration	(1,000)	—
Net cash provided by (used in) financing activities	<u>(123,021)</u>	<u>(41,157)</u>
Effect of foreign exchange rate changes on cash and cash equivalents	(119)	2,101
Net change in cash and cash equivalents	<u>22,620</u>	<u>(11,375)</u>
Cash and cash equivalents at beginning of period	<u>106,582</u>	<u>79,641</u>
Cash and cash equivalents at end of period	<u>\$ 129,202</u>	<u>\$ 68,266</u>

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

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

	<u>Common Stock</u>		<u>Additional Paid-in Capital</u>	<u>Retained Earnings</u>	<u>Accumulated Other Comprehensive Loss</u>	<u>Total Shareholders' Equity</u>
	<u>Shares</u>	<u>Par Value</u>				
Balance as of December 31, 2017	173,507	\$ 347	\$ 461,338	\$ 668,587	\$ (34,599)	\$ 1,095,673
Issuance of common stock under stock plans	881	2	14,809	—	—	14,811
Repurchase of common stock	(2,356)	(5)	—	(121,303)	—	(121,308)
Stock-based compensation expense	—	—	22,196	—	—	22,196
Payment of dividends	—	—	—	(15,524)	—	(15,524)
Adjustment as a result of the adoption of ASU 2016-06 "Income Taxes - Intra-Entity Transfers Other than Inventory" (Note 12)	—	—	—	(5,961)	—	(5,961)
Net income	—	—	—	93,413	—	93,413
Net unrealized gain (loss) on available-for-sale investments, net of tax of \$(106)	—	—	—	—	(702)	(702)
Reclassification of net realized (gain) loss on the sale of available-for-sale investments	—	—	—	—	(269)	(269)
Foreign currency translation adjustment	—	—	—	—	(3,197)	(3,197)
Balance as of July 1, 2018 (unaudited)	172,032	\$ 344	\$ 498,343	\$ 619,212	\$ (38,767)	\$ 1,079,132

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). As a result of the adoption of ASC 606 "Revenue from Contracts with Customers," Cognex Corporation (the "Company") has provided new disclosures related to revenue recognition 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, 2017 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, necessary to present fairly the Company's financial position as of July 1, 2018, and the results of its operations for the three-month and six-month periods ended July 1, 2018 and July 2, 2017, 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 and six-month periods ended July 1, 2018 are not necessarily indicative of the results to be expected for the full year.

Revenue Recognition

The Company recognizes revenue in accordance with Accounting Standards Codification (ASC) 606, "Revenue from Contracts with Customers." The core principle of ASC 606 is to recognize revenue in a manner that depicts the transfer of promised goods or services to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services. The framework in support of this core principle includes: (1) identifying the contract with the customer; (2) identifying the performance obligations in the contract; (3) determining the transaction price; (4) allocating the transaction price to the performance obligations; and (5) recognizing revenue when (or as) the performance obligations are satisfied.

Identifying the Contract with the Customer

The Company identifies contracts with customers as agreements that create enforceable rights and obligations, which typically take the form of customer contracts or purchase orders.

Identifying the Performance Obligations in the Contract

The Company identifies performance obligations as promises in contracts to transfer distinct goods or services. Standard products and services that the Company regularly sells separately are accounted for as distinct performance obligations. Application-specific customer solutions that are comprised of a combination of products and services are accounted for as one performance obligation to deliver a total solution to the customer. On-site support services that are provided to the customer after the solution is deployed are accounted for as a separate performance obligation. These solutions are provided to customers in a variety of industries, including the consumer electronics, logistics, and automotive industries.

Shipping and handling activities for which the Company is responsible under the terms and conditions of the sale are not accounted for as performance obligations but as fulfillment costs. These activities are required to fulfill the Company's promise to transfer the goods and are expensed when revenue is recognized.

The Company does not assess whether promised goods or services are performance obligations if they are immaterial in the context of the contract. If revenue is recognized before immaterial promises have been completed, then the costs related to such immaterial promises are accrued at the time of sale.

Determining the Transaction Price

The Company determines the transaction price as the amount of consideration it expects to receive in exchange for transferring promised goods or services to the customer. Amounts collected from customers for sales taxes are excluded from the transaction price.

If a contract includes a variable amount, such as a rebate, then the Company estimates the transaction price using either the expected value or the most likely amount of consideration to be received, depending upon the specific facts and circumstances. The Company includes estimated variable consideration in the transaction price only to the extent it is probable that a significant reversal of revenue will not occur when the uncertainty is resolved. The Company

updates its estimate of variable consideration at the end of each reporting period to reflect changes in facts and circumstances.

Allocating the Transaction Price to the Performance Obligations

The Company allocates the transaction price to each performance obligation at contract inception based on a relative stand-alone selling price basis, or the price at which the Company would sell the good or service separately to similar customers in similar circumstances.

Recognizing Revenue When (or As) the Performance Obligations are Satisfied

The Company recognizes revenue when it transfers the promised goods or services to the customer. Revenue for standard products is recognized at the point in time when the customer obtains control of the goods, which is typically upon delivery when the customer has legal title, physical possession, the risks and rewards of ownership, and an enforceable obligation to pay for the products. Revenue for services, which are not material, is typically recognized over the time the service is provided.

Revenue for application-specific customer solutions is recognized at the point in time when the solution is validated, which is the point in time when the Company can objectively determine that the agreed-upon specifications in the contract have been met and the customer will accept the performance obligations in the arrangement. Although the customer may have taken legal title and physical possession of the goods when they arrived at the customer's designated site, the significant risks and rewards of ownership transfer to the customer only upon validation. Revenue for on-site support services related to these solutions is recognized over the time the service is provided.

In certain instances, an arrangement may include customer-specified acceptance provisions or performance guarantees that allow the customer to accept or reject delivered products that do not meet the customer's specifications. If the Company can objectively determine that control of a good or service has been transferred to the customer in accordance with the agreed-upon specifications in the contract, then customer acceptance is a formality. If acceptance provisions are presumed to be substantive, then revenue is deferred until customer acceptance.

For the Company's standard products and services, revenue recognition and billing typically occur at the same time. For application-specific customer solutions, however, the agreement with the customer may provide for billing terms which differ from revenue recognition criteria, resulting in either deferred revenue or unbilled revenue. Credit assessments are performed to determine payment terms, which vary by region, industry, and customer. Prepayment terms result in contract liabilities for customer deposits. When credit is granted to customers, payment is typically due 30 to 90 days from billing. The Company's contracts have an original expected duration of less than one year, and therefore as a practical expedient, the Company has elected to ignore the impact of the time value of money on a contract and to expense sales commissions. The Company recognizes an asset for costs to fulfill a contract if the costs relate directly to the contract and to future performance, and the costs are expected to be recovered.

Management exercises judgment when determining the amount of revenue to be recognized each period. Such judgments include, but are not limited to, assessing the customer's ability and intention to pay substantially all of the contract consideration when due, determining when two or more contracts should be combined and accounted for as a single contract, determining whether a contract modification has occurred, assessing whether promises are immaterial in the context of the contract, determining whether material promises in a contract represent distinct performance obligations, estimating the transaction price for a contract that contains variable consideration, determining the stand-alone selling price of each performance obligation, determining whether control is transferred over time or at a point in time for performance obligations, and assessing whether formal customer acceptance provisions are substantive.

NOTE 2: New Pronouncements

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 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 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 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. Although this ASU is required to be applied using a modified retrospective approach, the Financial Accounting Standards Board is reportedly in the final stages of issuing an optional transition method allowing entities to apply the amendments of this Update as a cumulative-effect adjustment to retained earnings.

Management will continue to monitor the final implementation guidance to determine the adoption method. As of the date of this report, management has determined the scope of leases subject to the new accounting requirements and has selected a software package to assist with compliance. Management is in the process of reviewing all leases in scope, completing the implementation of the lease accounting software, and drafting the internal lease accounting policy and the related processes, internal controls, and disclosures.

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 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) 2017-08, "Receivables - Nonrefundable Fees and Other Costs - Premium Amortization on Purchased Callable Debt Securities "

ASU 2017-08 applies to all reporting entities that hold investments in callable debt securities that have an amortized cost basis in excess of the amount that is repayable by the issuer at the earliest call date (that is, at a premium). The amendments in this Update shorten the amortization period for certain callable debt securities held at a premium. Specifically, the amendments require the premium to be amortized to the earliest call date. The amendments do not require an accounting change for securities held at a discount; the discount continues to be amortized to maturity. Under current GAAP, premiums and discounts on callable debt securities generally are amortized to the maturity date. If that callable debt security is subsequently called, the entity records a loss equal to the unamortized premium. The amendments in this Update more closely align the amortization period of premiums and discounts to expectations incorporated in market pricing on the underlying securities. For public companies, the amendments in ASU 2017-08 are effective for annual periods beginning after December 15, 2019, and interim reporting periods within annual years beginning after December 15, 2020. 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, and, in the period of adoption, the entity is required to provide disclosures about the change in accounting principle. Early adoption is permitted, including adoption in an interim period. Management does not expect ASU 2017-08 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2017-12, "Derivatives and Hedging - Targeted Improvements to Accounting for Hedging Activities"

ASU 2017-12 applies to all reporting entities that elect to apply hedge accounting. The hedge accounting requirements under current GAAP sometimes do not permit an entity to properly recognize the economic results of the hedging strategy in the financial statements, and they are difficult to understand and interpret. The amendments in this Update make certain targeted improvements to simplify the application of the hedge accounting guidance. Also, they better align the risk management activities and financial reporting for hedging relationships through changes to both 1) the designation and measurement guidance for qualifying hedging relationships and 2) the presentation of hedge results. For public companies, the amendments in ASU 2017-12 are effective for annual reporting periods beginning after December 15, 2018, and interim reporting periods within those annual periods. Early adoption is permitted including adoption in any interim period after issuance of the Update. All transition requirements and elections should be applied to hedging relationships existing on the date of adoption. The entity should apply a cumulative-effect adjustment related to eliminating the separate measurement of ineffectiveness to accumulated other comprehensive income with a corresponding adjustment to the opening balance of retained earnings as of the beginning of the fiscal year that an entity adopts the amendments in this Update. The amended presentation and disclosure guidance is required only prospectively. Management does not expect ASU 2017-12 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2018-01, "Land Easement Practical Expedient for Transition to Topic 842"

ASU 2018-01 applies to entities with land easements that exist or expired before an entity's adoption of Topic 842, provided that the entity does not account for those land easements as leases under Topic 840. The amendments in this Update permit an entity to elect an optional transition practical expedient to not evaluate under Topic 842 land

easements that exist or expired before the entity's adoption of Topic 842 and that were not previously accounted for as leases under Topic 840. An entity that elects this practical expedient should apply the practical expedient consistently to all of its existing or expired land easements that were not previously accounted for as leases under Topic 840. Once an entity adopts Topic 842, it should apply that Topic prospectively to all new (or modified) land easements to determine whether the arrangement should be accounted for as a lease. An entity that does not elect this practical expedient should evaluate all existing or expired land easements in connection with the adoption of the new lease requirements in Topic 842 to assess whether they meet the definition of a lease. The amendments in this Update affect the amendments in Update 2016-02, which are not yet effective but may be early adopted. The effective date and transition requirements for the amendments are the same as the effective date and transition requirements in Update 2016-02, which is for annual periods beginning after December 15, 2018, and interim periods within those annual periods. Management does not expect ASU 2018-01 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2018-02, "Income Statement - Reporting Comprehensive Income"

ASU 2018-02 applies to entities required to apply the provisions of Topic 220, Income Statement - Reporting Comprehensive Income, and has items of other comprehensive income for which the related tax effects are presented in other comprehensive income as required by GAAP. The amendments in this Update allow a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act of 2017 (the "Tax Act"). Consequently, the amendments eliminate the stranded tax effects resulting from the Tax Act and will improve the usefulness of information reported to financial statement users. However, because the amendments only relate to the reclassification of the income tax effects of the Tax Act, the underlying guidance that requires the effect of a change in tax laws or rates to be included in income from continuing operations is not affected. The amendments in this Update also require certain disclosures about stranded tax effects. The amendments in this Update are effective for all entities for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption of the amendments in this Update is permitted, including adoption in any interim period. The amendments in this Update should be applied either in the period of adoption or retrospectively to each period (or periods) in which the effect of the change in the U.S. federal corporate income tax rate in the Tax Act is recognized. Management does not expect ASU 2018-02 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2018-07, "Compensation - Stock Compensation - Improvements to Nonemployee Share-Based Payment Accounting"

ASU 2018-07 applies to all entities that enter into share-based payment transactions for acquiring goods and services from nonemployees. The amendments in this Update expand the scope of Topic 718, Compensation - Stock Compensation, to include share-based payments transactions to nonemployees. Changes to the accounting for nonemployee awards as a result of this Update include: 1) equity-classified nonemployee share-based payment awards are measured at the grant date, instead of the previous requirement to remeasure the awards through the performance completion date, 2) for awards with performance conditions, compensation cost is recognized when the achievement of the performance condition is probable, rather than upon achievement, and 3) the current requirement to reassess the classification (equity or liability) for nonemployee awards upon vesting is eliminated. This Update clarifies that Topic 718 does not apply to financing transactions or awards granted to customers as part of a contract accounted for under Topic 606, Revenue from Contracts with Customers. The amendments in this Update are effective for public business entities for fiscal years beginning after December 15, 2018, and interim periods within that fiscal year. An entity should only remeasure liability-classified awards that have not been settled by the date of adoption and equity-classified awards for which the measurement date has not been established through a cumulative-effect adjustment to retained earnings as of the beginning of the fiscal year of adoption. Management does not expect ASU 2018-07 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 July 1, 2018 (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	\$ 5,055	\$ —	\$ —
Corporate bonds	—	324,801	—
Treasury bills	—	136,377	—
Asset-backed securities	—	102,980	—
Agency bonds	—	35,181	—
Sovereign bonds	—	16,346	—
Municipal bonds	—	9,996	—
Economic hedge forward contracts	—	88	—
Liabilities:			
Economic hedge forward contracts	—	(86)	—
Contingent consideration liabilities	—	—	2,303

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 six-month period ended July 1, 2018.

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. 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.

The following table summarizes the activity for the Company's liability measured at fair value using Level 3 inputs for the six-month period ended July 1, 2018 (in thousands):

Balance as of December 31, 2017	\$ 3,557
Fair value adjustment to Manatee contingent consideration	(1,350)
Fair value adjustment to GVi contingent consideration	988
Fair value adjustment to Chiaro contingent consideration	108
Payment of GVi contingent consideration	(1,000)
Balance as of July 1, 2018	<u>\$ 2,303</u>

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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 six-month periods ended July 1, 2018 and July 2, 2017.

NOTE 4: Cash, Cash Equivalents, and Investments

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

	July 1, 2018	December 31, 2017
Cash	\$ 124,147	\$ 97,951
Money market instruments	5,055	8,631
Cash and cash equivalents	<u>129,202</u>	<u>106,582</u>
Treasury bills	136,377	150,371
Corporate bonds	116,347	47,395
Asset-backed securities	55,240	59,203
Agency bonds	29,247	10,608
Municipal bonds	9,154	8,805
Sovereign bonds	7,375	21,579
Short-term investments	<u>353,740</u>	<u>297,961</u>
Corporate bonds	208,454	296,014
Asset-backed securities	47,740	71,727
Sovereign bonds	8,971	13,147
Agency bonds	5,934	14,890
Municipal bonds	842	4,204
Treasury bills	—	23,459
Long-term investments	<u>271,941</u>	<u>423,441</u>
	<u>\$ 754,883</u>	<u>\$ 827,984</u>

Treasury bills consist of debt securities issued by the U.S. government; corporate bonds consist of debt securities issued by both domestic and foreign companies; asset-backed securities consist of debt securities collateralized by pools of receivables or loans with credit enhancement; agency bonds consist of domestic or foreign obligations of government agencies and government sponsored enterprises that have government backing; municipal bonds consist of debt securities issued by state and local government entities; and sovereign bonds consist of direct debt issued by foreign governments. All securities are denominated in U.S. Dollars.

The following table summarizes the Company's available-for-sale investments as of July 1, 2018 (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Short-term:				
Treasury bills	\$ 136,706	\$ 3	\$ (332)	136,377
Corporate bonds	116,659	59	(371)	116,347
Asset-backed securities	55,459	—	(219)	55,240
Agency bonds	29,248	—	(1)	29,247
Municipal bonds	9,165	—	(11)	9,154
Sovereign bonds	7,400	1	(26)	7,375
Long-term:				
Corporate bonds	208,382	636	(564)	208,454
Asset-backed securities	48,033	12	(305)	47,740
Sovereign bonds	8,977	35	(41)	8,971
Agency bonds	5,930	4	—	5,934
Municipal bonds	855	—	(13)	842
	<u>\$ 626,814</u>	<u>\$ 750</u>	<u>\$ (1,883)</u>	<u>\$ 625,681</u>

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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 July 1, 2018 (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
Corporate bonds	\$ 139,225	\$ (713)	\$ 22,908	\$ (222)	\$ 162,133	\$ (935)
Treasury bills	84,309	(149)	48,464	(183)	132,773	(332)
Asset-backed securities	90,411	(496)	4,462	(28)	94,873	(524)
Agency bonds	29,246	(1)	—	—	29,246	(1)
Sovereign bonds	3,562	(9)	4,581	(58)	8,143	(67)
Municipal bonds	3,692	(24)	—	—	3,692	(24)
	<u>\$ 350,445</u>	<u>\$ (1,392)</u>	<u>\$ 80,415</u>	<u>\$ (491)</u>	<u>\$ 430,860</u>	<u>\$ (1,883)</u>

As of July 1, 2018, 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 \$308,000 and \$61,000, respectively, during the three-month period ended July 1, 2018 and \$55,000 and \$13,000, respectively, during the three-month period ended July 2, 2017. The Company recorded gross realized gains and gross realized losses on the sale of debt securities totaling \$363,000 and \$94,000, respectively, during the six-month period ended July 1, 2018 and \$143,000 and \$36,000, respectively, during the six-month period ended July 2, 2017. 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 accumulated other comprehensive income (loss).

The following table presents the effective maturity dates of the Company's available-for-sale investments as of July 1, 2018 (in thousands):

	<1 year	1-2 Years	2-3 Years	3-4 Years	4-5 Years	5-7 Years	Total
Corporate bonds	\$ 116,347	\$ 96,004	\$ 71,890	\$ 29,491	\$ 7,704	\$ 3,365	\$ 324,801
Treasury bills	136,377	—	—	—	—	—	136,377
Asset-backed securities	55,240	31,023	2,178	4,320	5,809	4,410	102,980
Agency bonds	29,247	—	—	—	5,934	—	35,181
Sovereign bonds	7,375	5,963	3,008	—	—	—	16,346
Municipal bonds	9,154	—	842	—	—	—	9,996
	<u>\$ 353,740</u>	<u>\$ 132,990</u>	<u>\$ 77,918</u>	<u>\$ 33,811</u>	<u>\$ 19,447</u>	<u>\$ 7,775</u>	<u>\$ 625,681</u>

NOTE 5: Inventories

Inventories consisted of the following (in thousands):

	July 1, 2018	December 31, 2017
Raw materials	\$ 46,020	\$ 33,927
Work-in-process	—	2,114
Finished goods	43,536	31,882
	<u>\$ 89,556</u>	<u>\$ 67,923</u>

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NOTE 6: Intangible Assets

Amortized intangible assets consisted of the following (in thousands):

	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
Distribution networks	\$ 38,060	\$ 38,060	\$ —
Completed technologies	13,687	5,400	8,287
Customer relationships	8,607	5,459	3,148
Non-compete agreements	370	154	216
Balance as of July 1, 2018	<u>\$ 60,724</u>	<u>\$ 49,073</u>	<u>\$ 11,651</u>

	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
Distribution networks	\$ 38,060	\$ 38,060	\$ —
Completed technologies	13,687	4,181	9,506
Customer relationships	8,607	5,202	3,405
Non-compete agreements	370	92	278
Balance as of December 31, 2017	<u>\$ 60,724</u>	<u>\$ 47,535</u>	<u>\$ 13,189</u>

As of July 1, 2018, estimated future amortization expense related to intangible assets is as follows (in thousands):

Year Ended December 31,	Amount
Remainder of fiscal 2018	\$ 1,538
2019	2,701
2020	2,185
2021	2,017
2022	1,691
2023	989
Thereafter	530
	<u>\$ 11,651</u>

NOTE 7: 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, 2017	\$ 4,701
Provisions for warranties issued during the period	2,222
Fulfillment of warranty obligations	(1,559)
Foreign exchange rate changes	(117)
Balance as of July 1, 2018	<u>\$ 5,247</u>

NOTE 8: 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

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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 the Company's budgeted revenues and expenses against foreign currency exchange rate changes compared to its 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	July 1, 2018		December 31, 2017	
	Notional Value	USD Equivalent	Notional Value	USD Equivalent
<i>Derivatives Not Designated as Hedging Instruments:</i>				
Euro	17,000	\$ 19,897	—	\$ —
Japanese Yen	790,000	8,423	455,000	4,049
Swiss Franc	2,425	2,879	1,365	1,401
Hungarian Forint	655,000	2,756	545,000	2,110
British Pound	2,430	2,142	1,650	2,232
Korean Won	1,875,000	1,968	1,825,000	1,708
Taiwanese Dollar	47,600	1,837	37,725	1,278
Canadian Dollar	855	753	—	—
Singapore Dollar	700	602	—	—

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	
		July 1, 2018	December 31, 2017		July 1, 2018	December 31, 2017
<i>Derivatives Not Designated as Hedging Instruments:</i>						
Economic hedge forward contracts	Prepaid expenses and other current assets	\$ 88	\$ 16	Accrued expenses	\$ 86	\$ 13

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	
	July 1, 2018	December 31, 2017	July 1, 2018	December 31, 2017
Gross amounts of recognized assets	\$ 88	\$ 16	Gross amounts of recognized liabilities	\$ 86 \$ 13
Gross amounts offset	—	—	Gross amounts offset	—
Net amount of assets presented	\$ 88	\$ 16	Net amount of liabilities presented	\$ 86 \$ 13

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

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

<u>Location in Financial Statements</u>	<u>Three-months Ended</u>		<u>Six-months Ended</u>		
	<u>July 1, 2018</u>	<u>July 2, 2017</u>	<u>July 1, 2018</u>	<u>July 2, 2017</u>	
<i>Derivatives Designated as Hedging Instruments:</i>					
Gains (losses) recorded in shareholders' equity (effective portion)	Accumulated other comprehensive income (loss), net of tax	\$ —	\$ 60	\$ —	\$ 60
Gains (losses) reclassified from accumulated other comprehensive income (loss) into current operations (effective portion)	Revenue	\$ —	\$ 9	\$ —	\$ (46)
	Research, development, and engineering expenses	—	—	—	3
	Selling, general, and administrative expenses	—	—	—	8
	Total gains (losses) reclassified from accumulated other comprehensive income (loss) into current operations	\$ —	\$ 9	\$ —	\$ (35)
Gains (losses) recognized in current operations (ineffective portion and discontinued derivatives)	Foreign currency gain (loss)	\$ —	\$ —	\$ —	\$ —
<i>Derivatives Not Designated as Hedging Instruments:</i>					
Gains (losses) recognized in current operations	Foreign currency gain (loss)	\$ (354)	\$ 177	\$ (665)	\$ 96

NOTE 9: Revenue Recognition

On January 1, 2018, the Company adopted Accounting Standards Codification (ASC) 606, "Revenue from Contracts with Customers," using the full retrospective method to present all periods reported on a consistent basis. Accordingly, prior-period results have been restated to apply the provisions of this ASC.

As a result of this adoption, revenue for software-only products sold as part of multiple-deliverable arrangements are no longer deferred when vendor-specific objective evidence of fair value does not exist for the undelivered elements of the arrangement. This change results in earlier recognition of revenue. In addition, certain of the Company's product accessory sales, which were reported on a net basis, are now 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 results 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 do not change. Furthermore, for arrangements that include customer-specified acceptance criteria, revenue is recognized when the Company can objectively determine that control has been transferred to the customer in accordance with the agreed-upon specifications in the contract, which may occur before formal customer acceptance. This change primarily impacts revenue recognition for arrangements in the logistics industry where certain customer solutions include installed products and results in earlier recognition of revenue.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

The adoption of the standard impacted our previously-reported results as follows (in thousands):

Statement of Operations

	Three-months Ended			Six-months Ended		
	July 2, 2017			July 2, 2017		
	As previously reported	Adjustment	As restated	As previously reported	Adjustment	As restated
Revenue	\$ 172,904	\$ 5,176	\$ 178,080	\$ 307,846	\$ 9,273	\$ 317,119
Cost of revenue	37,471	4,693	42,164	65,696	9,000	74,696
Gross margin	135,433	483	135,916	242,150	273	242,423
Operating income	59,538	483	60,021	96,964	273	97,237
Income before income tax expense	61,323	483	61,806	100,768	273	101,041
Income tax expense (benefit)	5,251	60	5,311	(959)	34	(925)
Net income	\$ 56,072	\$ 423	\$ 56,495	\$ 101,727	\$ 239	\$ 101,966
Net income per weighted-average common and common-equivalent share:						
Basic	\$ 0.32	\$ 0.01	\$ 0.33	\$ 0.59	\$ —	\$ 0.59
Diluted	\$ 0.31	\$ 0.01	\$ 0.32	\$ 0.57	\$ —	\$ 0.57

Balance Sheet

	December 31, 2017		
	As previously reported	Adjustment	As restated
Prepaid expenses and other current assets	\$ 30,800	\$ (117)	\$ 30,683
Accrued income taxes	11,391	112	11,503
Deferred revenue and customer deposits	9,969	(549)	9,420
Retained earnings	668,267	320	668,587

The following table summarizes disaggregated revenue information by geographic area based upon the customer's country of domicile (in thousands):

	Three-months Ended		Six-months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
Americas	\$ 71,812	\$ 58,535	131,029	101,075
Europe	70,366	63,048	126,569	106,156
Greater China	41,175	26,512	68,334	49,218
Other Asia	27,911	29,985	54,899	60,670
	\$ 211,264	\$ 178,080	\$ 380,831	\$ 317,119

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The following table summarizes disaggregated revenue information by revenue type (in thousands):

	Three-months Ended		Six-months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
Standard products and services	\$ 183,627	\$ 160,466	\$ 342,026	\$ 293,483
Application-specific customer solutions	27,637	17,614	38,805	23,636
	<u>\$ 211,264</u>	<u>\$ 178,080</u>	<u>\$ 380,831</u>	<u>\$ 317,119</u>

Costs to Fulfill a Contract

Costs to fulfill a contract are included in "Prepaid expenses and other current assets" on the Consolidated Balance Sheet and amounted to \$15,257,000 and \$3,230,000 as of July 1, 2018 and December 31, 2017, respectively.

Accounts Receivable, Contract Assets, and Contract Liabilities

Accounts receivable represent amounts billed and currently due from customers which are reported at their net estimated realizable value. The Company maintains reserves against its accounts receivable for potential credit losses. Credit losses recognized on accounts receivable were immaterial for the three-month and six-month periods ended July 1, 2018 and July 2, 2017, respectively. Contract assets consist of unbilled revenue which arises when revenue is recognized in advance of billing for certain application-specific customer solutions contracts. Contract liabilities consist of deferred revenue and customer deposits which arise when amounts are billed to or collected from customers in advance of revenue recognition.

The following table summarizes the deferred revenue and customer deposits activity for the six-month period ended July 1, 2018 (in thousands):

	Amount
Balance as of December 31, 2017	\$ 9,420
Increases to deferred revenue and customer deposits	48,171
Recognition of revenue	(15,803)
Foreign exchange rate changes	(907)
Balance as of July 1, 2018	<u>\$ 40,881</u>

As a practical expedient, the Company has elected not to disclose the aggregate amount of the transaction price allocated to unsatisfied performance obligations, as our contracts have an original expected duration of less than one year.

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 July 1, 2018, the Company had 20,388,502 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 or five 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 not be less than one year and three years, respectively; however, awards with time-based vesting may become vested incrementally over such three-year period.

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The following table summarizes the Company's stock option activity for the six-month period ended July 1, 2018:

	Shares (in thousands)	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2017	12,726	\$ 25.24		
Granted	2,119	56.03		
Exercised	(881)	16.82		
Forfeited or expired	(373)	32.68		
Outstanding as of July 1, 2018	13,591	\$ 30.39	7.62	\$ 223,515
Exercisable as of July 1, 2018	4,781	\$ 19.98	6.17	\$ 117,767
Options vested or expected to vest as of July 1, 2018 (1)	12,177	\$ 29.20	7.49	\$ 210,965

(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		Six-months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
Risk-free rate	2.9%	2.4%	2.9%	2.4%
Expected dividend yield	0.32%	0.39%	0.32%	0.39%
Expected volatility	39%	41%	39%	41%
Expected term (in years)	5.4	5.2	5.3	5.3

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 applies an estimated annual forfeiture rate of 8% to all unvested options for senior management and a rate of 12% for all other employees. Each year during the first quarter, the company revises its estimated forfeiture rate. This resulted in an increase to compensation expense of \$1,283,000 in 2018 and a decrease to compensation expense of \$673,000 in 2017.

The weighted-average grant-date fair values of stock options granted during the three-month periods ended July 1, 2018 and July 2, 2017 were \$21.63 and \$15.51, respectively. The weighted-average grant-date fair values of stock options granted during the six-month periods ended July 1, 2018 and July 2, 2017 were \$21.62 and \$14.98, respectively.

The total intrinsic values of stock options exercised for the three-month periods ended July 1, 2018 and July 2, 2017 were \$4,902,000 and \$19,408,000, respectively. The total intrinsic values of stock options exercised for the six-month

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periods ended July 1, 2018 and July 2, 2017 were \$32,991,000 and \$72,451,000, respectively. The total fair values of stock options vested for the three-month periods ended July 1, 2018 and July 2, 2017 were \$887,000 and \$725,000, respectively. The total fair values of stock options vested for the six-month periods ended July 1, 2018 and July 2, 2017 were \$26,560,000 and \$18,713,000, respectively.

As of July 1, 2018, total unrecognized compensation expense related to non-vested stock options was \$56,124,000, which is expected to be recognized over a weighted-average period of 1.80 years.

The following table summarizes the Company's restricted stock activity for the six-month period ended July 1, 2018:

	Shares (in thousands)	Weighted-Average Grant Fair Value	Aggregate Intrinsic Value (in thousands)
Nonvested as of December 31, 2017	20	\$ 17.03	
Granted	—	—	
Vested	(20)	17.03	993
Forfeited or expired	—	—	
Nonvested as of July 1, 2018	—	\$ —	\$ —

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 was then amortized over the period of vesting until the restrictions lapsed. These restricted shares became fully vested in 2018. Participants were entitled to dividends on restricted stock awards, but only receive those amounts if the shares vest. The sale or transfer of these shares was restricted during the vesting period.

The total stock-based compensation expense and the related income tax benefit recognized for the three-month period ended July 1, 2018 were \$9,002,000 and \$1,607,000, respectively, and for the three-month period ended July 2, 2017 were \$7,846,000 and \$2,583,000, respectively. The total stock-based compensation expense and the related income tax benefit recognized for the six-month period ended July 1, 2018 were \$22,196,000 and \$3,954,000, respectively, and for the six-month period ended July 2, 2017 were \$15,329,000 and \$5,022,000, respectively. No compensation expense was capitalized as of July 1, 2018 or December 31, 2017.

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		Six-months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
Cost of revenue	\$ 557	\$ 454	\$ 1,354	\$ 884
Research, development, and engineering	3,154	2,715	7,969	5,325
Selling, general, and administrative	5,291	4,677	12,873	9,120
	\$ 9,002	\$ 7,846	\$ 22,196	\$ 15,329

NOTE 11: Stock Repurchase Program

In April 2017, the Company's Board of Directors authorized the repurchase of \$100,000,000 of the Company's common stock. As of July 1, 2018, the Company had repurchased 1,744,000 shares at a cost of \$100,000,000 under this program, including 803,000 shares at a cost of \$45,200,000 in the three-month period ended April 1, 2018. Stock repurchases under this April 2017 program were completed in the three-month period ended April 1, 2018. In February 2018, the Company's Board of Directors authorized the repurchase of an additional \$150,000,000 of the Company's common stock. As of July 1, 2018, the Company had repurchased 1,553,000 shares at a cost of \$76,108,000 under this program, leaving a remaining authorized balance of \$73,892,000. Total stock repurchases in the six-month period ended July 1, 2018 amounted to \$121,308,000. 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.

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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		Six-months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
Income tax provision at federal statutory corporate tax rate	21 %	35 %	21 %	35 %
State income taxes, net of federal benefit	2 %	1 %	2 %	1 %
Foreign tax rate differential	(7)%	(18)%	(7)%	(18)%
Tax credit	(1)%	(1)%	(1)%	(1)%
Discrete tax benefit related to stock option exercises	(1)%	(9)%	(5)%	(19)%
Other	2 %	1 %	1 %	1 %
Income tax provision	<u>16 %</u>	<u>9 %</u>	<u>11 %</u>	<u>(1)%</u>

On December 22, 2017, the United States Congress passed and the President signed into law the Tax Act. The Tax Act included a decrease in the U.S. federal statutory corporate tax rate from 35% to 21%, a one-time transition tax on unrepatriated foreign earnings, and limits on certain deductions. The Company made what it considers to be a reasonable estimate of the impact of the Tax Act in its financial statements for the year ended December 31, 2017. The Company has not recorded any changes to this estimate for the three-month and six-month periods ended July 1, 2018.

The Securities and Exchange Commission (SEC) released Staff Accounting Bulletin (SAB) No. 118 to provide guidance to companies on how to implement the accounting and disclosure changes as a result of the Tax Act. The SEC staff guidance has recognized that, due to the complexity and timing of the release of the Tax Act, the accounting for this change in the law may be incomplete upon issuance of a company's financial statements. This significant estimate is highly judgmental and changes to this estimate could result in material charges or credits in future reporting periods. U.S. Treasury regulations and administrative guidance have not been finalized as of the date of these financial statements. The issuance of final regulations may require the Company to revise its estimates of earnings and profits, as well as certain deferred taxes as required. The Tax Act subjects the Company to current tax on Global Intangible Low-Taxed Income (GILTI) earned by certain foreign subsidiaries. The Company can make an accounting policy election to either recognize deferred taxes for temporary differences expected to reverse as GILTI in future years or provide for the tax expense related to GILTI resulting from those items in the year the tax is incurred. As of the date of this report, the Company is still evaluating the guidance and has not made a policy election related to the treatment of the GILTI tax. The Company will continue to gather and analyze information on historical unrepatriated foreign earnings and to monitor state laws relating to this income to finalize both the federal and state tax impact.

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 21%. 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, although the reduced taxes overseas have been partially offset by changes in U.S. tax law. These differences resulted in a decrease in the effective tax rate by 7 percentage points for the three-month and six-month periods ended July 1, 2018, and a decrease in the effective tax rate by 18 percentage points for the three-month and six-month periods ended July 2, 2017.

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 1 and 9 percentage points for the three-month periods ended July 1, 2018 and July 2, 2017, respectively, and a decrease of the effective tax rate by 5 and 19 percentage points for the six-month periods ended July 1, 2018 and July 2, 2017, respectively.

On January 1, 2018, the Company adopted Accounting Standard Update (ASU) 2016-16, "Income Taxes - Intra-Entity Transfers of Assets Other than Inventory." This Update requires the recognition of deferred income taxes for an intra-entity transfer of an asset other than inventory. As a result of this ASU, the Company recorded \$5,961,000 through a cumulative-effect adjustment directly to retained earnings at the beginning of fiscal year 2018.

COGNEX CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

During the six-month period ended July 1, 2018, the Company recorded a \$879,000 increase in reserves for income taxes, net of deferred tax benefit. Estimated interest and penalties included in these amounts totaled \$136,000 for the six-month period ended July 1, 2018.

The Company's reserve for income taxes, including gross interest and penalties, was \$8,427,000 as of July 1, 2018, which included \$7,399,000 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 \$924,000. 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 \$1,100,000 to \$1,200,000 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. Within the United States, the tax years 2014 through 2017 remain open to examination by the Internal Revenue Service and various state tax authorities. The tax years 2013 through 2017 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		Six-months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
Basic weighted-average common shares outstanding	172,370	173,278	172,825	172,960
Effect of dilutive stock options	4,779	5,950	5,593	5,944
Weighted-average common and common-equivalent shares outstanding	177,149	179,228	178,418	178,904

Stock options to purchase 2,959,000 and 2,032,000 shares of common stock, on a weighted-average basis, were outstanding during the three-month and six-month periods ended July 1, 2018, respectively, and 3,792,000 and 2,715,000 for the same periods in 2017, but were not included in the calculation of dilutive net income per share because they were anti-dilutive.

NOTE 14: Subsequent Events

On July 30, 2018, the Company's Board of Directors declared a cash dividend of \$0.045 per share. The dividend is payable August 31, 2018 to all shareholders of record as of the close of business on August 17, 2018.

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 and timing of related revenue, expected areas of growth, emerging markets, future product mix, research and development activities, investments, strategic plans and tax matters, 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 failure to effectively manage our growth; (10) the reliance upon key suppliers to manufacture and deliver critical components for our products; (11) the failure to effectively manage product transitions or accurately forecast customer demand; (12) the inability to design and manufacture high-quality products; (13) the technological obsolescence of current products and the inability to develop new products; (14) the failure to properly manage the distribution of products and services; (15) the inability to protect our proprietary technology and intellectual property; (16) our involvement in time-consuming and costly litigation; (17) the impact of competitive pressures; (18) the challenges in integrating and achieving expected results from acquired businesses; (19) potential impairment charges with respect to our investments or for acquired intangible assets or goodwill; and (20) 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, 2017. 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. Most manufacturers 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.

On January 1, 2018, the Company adopted Accounting Standards Codification (ASC) 606, "Revenue from Contracts with Customers," using the full retrospective method to present all periods reported on a consistent basis. Accordingly, prior period revenue, cost of revenue, and gross profit have been restated to apply the provisions of this ASC.

Revenue for the second quarter of 2018 totaled \$211,264,000, representing an increase of 19% from the second quarter of 2017 driven primarily by strong sales in the logistics and automotive industries. The gross margin percentage

declined to 74% of revenue in the second quarter of 2018 from 76% of revenue in the second quarter of 2017 due primarily to a higher percentage of revenue related to application-specific customer solutions. Operating expenses increased by 23% over the second quarter of 2017 due principally to the impact of headcount additions to support the higher revenue level and future growth plans. Operating income increased by 6% over the second quarter of 2017; however, a lower tax benefit related to stock option exercises than the prior year resulted in relatively flat net income. Net income per diluted share was \$0.32 in both the second quarter of 2018 and 2017.

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 increased by \$33,184,000, or 19%, for the three-month period and increased by \$63,712,000, or 20%, for the six-month period. Changes in foreign currency exchange rates, primarily related to the translation of Euro-denominated revenue to U.S. Dollars, accounted for approximately 4% of the revenue increase in both periods. The remaining constant-currency revenue increases came from higher sales in a variety of industries, with the largest contributions coming from the logistics and automotive industries.

As of the date of this report, we expect revenue for the third quarter of 2018 to increase sequentially from the second quarter of 2018. Although we expect this growth to come from a variety of industries, the most notable increase is expected to come from the consumer electronics industry due to the quarterly timing of revenue from large customer orders in this industry. The future quarterly timing of revenue in the consumer electronics industry will depend upon a number of factors, including the product introduction cycles of these customers. Despite the level of quarterly revenue currently anticipated from customers in the consumer electronics industry in the third quarter of 2018, we expect consumer electronics revenue to be lower than the third quarter of 2017 and for the full year 2018 as compared to 2017.

Gross Margin

Gross margin as a percentage of revenue was 74% and 75% for the three-month and six-month periods in 2018, respectively, compared to 76% for both periods in 2017. Although a higher volume of products sold resulted in manufacturing efficiencies, this favorable impact was offset by a greater percentage of revenue related to application-specific customer solutions. These solutions typically have lower gross margins due to the application configuration and deployment services included as part of the solution, as well as on-site support services provided after the solution is deployed. In addition, these solutions are often provided to large customers that may receive favorable pricing.

The Company's gross margin percentage has ranged in the mid 70s for the past several years. As of the date of this report, we expect the gross margin percentage to be relatively flat for the third quarter of 2018 as compared to the second quarter of 2018.

Operating Expenses

Research, development, and engineering (RD&E) expenses increased by \$3,511,000, or 15%, for the three-month period and increased by \$11,817,000, or 26%, for the six-month period as detailed in the table below (in thousands).

	Three-month period	Six-month period
RD&E expense in 2017	\$ 23,377	\$ 46,147
Personnel-related costs	2,854	5,593
Stock-based compensation expense	416	2,545
Prototyping materials	418	1,472
Foreign currency exchange rate changes	532	1,448
Other	(709)	759
RD&E expenses in 2018	<u>\$ 26,888</u>	<u>\$ 57,964</u>

RD&E expenses increased due to higher personnel-related costs resulting primarily from headcount additions to support new product initiatives and the higher revenue level. The Company also incurred higher spending on prototyping materials to support new product initiatives. In addition, stock-based compensation expense was higher than the prior year due to a higher valuation of stock options granted, as well as a decrease in the estimated forfeiture rate during the first quarter of 2018. Changes in foreign currency exchange rates also contributed to the increase, as expenses denominated in foreign currencies were translated to U.S. Dollars.

RD&E expenses as a percentage of revenue were 13% for the three-month periods in both 2018 and 2017 and 15% for the six-month periods in both 2018 and 2017. 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 \$14,234,000, or 27%, for the three-month period and increased by \$31,410,000, or 32%, for the six-month period as detailed in the table below (in thousands).

	Three-month period	Six-month period
SG&A expenses in 2017	\$ 52,518	\$ 99,039
Personnel-related costs	9,953	19,409
Stock-based compensation expense	584	3,597
Foreign currency exchange rate changes	1,660	3,742
Sales demonstration equipment	1,506	2,126
Depreciation expense	827	1,883
Other	(296)	653
SG&A expenses in 2018	<u>\$ 66,752</u>	<u>\$ 130,449</u>

SG&A expenses increased due to higher personnel-related costs resulting primarily from headcount additions, principally sales personnel. In addition to salaries and fringe benefits, these personnel-related costs included sales commissions and travel expenses related to the additional headcount. In addition, stock-based compensation expense was higher than the prior year due to a higher valuation of stock options granted, as well as a decrease in the estimated forfeiture rate during the first quarter of 2018. Changes in foreign currency exchange rates also contributed to the increase, as expenses denominated in foreign currencies were translated to U.S. Dollars. The Company also increased its spending on sales demonstration equipment related to new products and incurred higher depreciation expense due primarily to information technology investments in infrastructure, security, and business applications.

Non-operating Income (Expense)

The Company recorded foreign currency losses of \$195,000 and \$329,000 for the three-month and six-month periods in 2018, respectively, compared to foreign currency losses of \$184,000 and \$447,000 for the three-month and six-month period in 2017. 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 \$1,421,000, or 66%, for the three-month period and increased by \$2,649,000, or 64%, for the six-month period. The increase was due to higher yields on the Company's portfolio of debt securities, as well as additional funds available for investment.

The Company recorded other expense of \$246,000 and other income of \$31,000 for the three-month and six-month periods in 2018, respectively, compared to other expense of \$169,000 and other income of \$101,000 for the same periods in 2017. Other income (expense) includes fair value adjustments of contingent consideration liabilities arising from business acquisitions, as well as 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 an expense of 16% and 11% of pre-tax income for the three-month and six-month periods in 2018, respectively, compared to an expense of 9% of pre-tax income and a benefit of 1% of pre-tax income for the same periods in 2017.

The effective tax rate included a decrease in tax expense of \$654,000 and \$5,589,000 for the three-month and six-month periods in 2018, respectively, and \$5,787,000 and \$18,954,000 for the same periods in 2017 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 tax benefits related to stock option exercises, the Company's effective tax rate was 17% and 16% for the three-month and six-month periods in 2018, respectively, compared to 18% for the same periods in 2017. This decrease in the effective tax rate was primarily due to the impact of the Tax Act. The Tax Act included a decrease in the U.S. federal statutory corporate tax rate from 35% to 21%.

The majority of income earned outside of the United States is indefinitely 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. 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 lower than the above mentioned statutory rates. The Company has not yet determined how the Tax Act will impact its financial statement assertion related to indefinite reinvestment in future years.

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 \$754,883,000 as of July 1, 2018. 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 six months ended July 1, 2018 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. Operating cash outflows included the purchase of inventory for large customer orders already received or anticipated to be received that are expected to ship and generate revenue later in 2018.

Capital expenditures in the six-month period ended July 1, 2018 totaled \$21,675,000 and consisted primarily of computer hardware and software, manufacturing test equipment related to new product introductions, and improvements made to the Company's headquarters building in Natick, Massachusetts and distribution center in Cork, Ireland. Cumulative capital expenditures since the second quarter of 2017 related to application development activities for a new Enterprise Resource Planning (ERP) system totaled approximately \$10,000,000 as of July 1, 2018. This capital asset has been placed into service in the third quarter of 2018 and will be depreciated over a ten year estimated useful life.

In April 2017, the Company's Board of Directors authorized the repurchase of \$100,000,000 of the Company's common stock. As of July 1, 2018, the Company repurchased 1,744,000 shares at a cost of \$100,000,000 under this program, including 803,000 shares at a cost of \$45,200,000 in the first quarter of 2018. Stock repurchases under this April 2017 program were completed in the first quarter of 2018. In February, 2018, the Company's Board of Directors authorized the repurchase of an additional \$150,000,000 of the Company's common stock. Purchases under this February 2018 program commenced during the first quarter of 2018. As of July 1, 2018, the Company repurchased 1,553,000 shares at a cost of \$76,108,000 under this program, leaving a remaining authorized balance of \$73,892,000. Total stock repurchases in the six-month period ended July 1, 2018 amounted to \$121,308,000. The Company may repurchase

shares under this program in future periods depending on 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 \$0.0450 per share in the first and second quarters of 2018, amounting to \$15,524,000 for the six-month period ended July 1, 2018. 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. Certain of the Company's business 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 July 1, 2018, the Company had \$754,883,000 in cash and investments. In addition, Cognex has no long-term 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

Refer to Part I - Note 2 within this Form 10-Q, for a full description of recently issued accounting pronouncements including the expected dates of adoption and the expected impact on the financial position and results of operations of the Company.

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, 2017.

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 July 1, 2018 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, 2017.

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 July 1, 2018:

	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
April 2 - April 29, 2018	—	\$ —	—	\$ 125,998,000
April 30 - May 27, 2018	1,099,901	47.37	1,099,901	73,892,000
May 28 - July 1, 2018	—	—	—	73,892,000
Total	1,099,901	\$ 47.37	1,099,901	\$ 73,892,000

(1) In February 2018, the Company's Board of Directors authorized the repurchase of \$150,000,000 of the Company's common stock. Purchases under this program commenced in February 2018.

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>	
3.1	<u>Restated Articles of Organization of Cognex Corporation effective June 27, 1989, as amended through May 5, 2016 (incorporated herein by reference to Exhibit 3.1 of Cognex's Quarterly Report on Form 10-Q for the fiscal quarter ended July 3, 2016, as filed on August 1, 2016).</u>
3.2	<u>Articles of Amendment to Articles of Organization of Cognex Corporation establishing Series E Junior Participating Cumulative Preferred Stock (incorporated herein by reference to Exhibit 3.2 of Cognex's Quarterly Report on Form 10-Q for the fiscal quarter ended July 3, 2016, as filed on August 1, 2016).</u>
3.3	<u>Articles of Amendment to Restated Articles of Organization of Cognex Corporation, effective May 2, 2018 (incorporated herein by reference to Exhibit 4.2 of Cognex's Registration Statement on Form S-8 (Registration No. 333-224716) as filed on May 7, 2018).</u>
10.1	<u>Cognex Corporation 2001 General Stock Option Plan, as Amended and Restated (incorporated herein by reference to Exhibit 99.1 of Cognex's Registration Statement on Form S-8 (Registration No. 333-224716) as filed on May 7, 2018).</u>
31.1	<u>Certification of Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a) under the Securities Exchange Act of 1934*</u>
31.2	<u>Certification of Chief Financial Officer pursuant to Rule 13a-14(a)/15d-14(a) under the Securities Exchange Act of 1934*</u>
32.1	<u>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**</u>
32.2	<u>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**</u>
101	xBRL (Extensible Business Reporting Language) The following materials from Cognex Corporation's Quarterly Report on Form 10-Q for the period ended July 1, 2018, formatted in xBRL: (i) Consolidated Statements of Operations for the three-month and six-month periods ended July 1, 2018 and July 2, 2017; (ii) Consolidated Statements of Comprehensive Income for the three-month and six-month periods ended July 1, 2018 and July 2, 2017; (iii) Consolidated Balance Sheets as of July 1, 2018 and December 31, 2017; (iv) Consolidated Statements of Cash Flows for the six-month periods ended July 1, 2018 and July 2, 2017; (v) Consolidated Statement of Shareholders' Equity for the six-month period ended July 1, 2018; 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: July 30, 2018

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, Chief Financial Officer, and
Treasurer

(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: July 30, 2018

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: July 30, 2018

By: /s/ John J. Curran

John J. Curran

Senior Vice President of Finance, Chief Financial Officer, and Treasurer

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 July 1, 2018 (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: July 30, 2018

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 July 1, 2018 (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: July 30, 2018

By: /s/ John J. Curran

John J. Curran

Senior Vice President of Finance, Chief Financial Officer, and Treasurer
(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.

