

CADENCE REPORTS FOURTH QUARTER AND FISCAL YEAR 2018

CADENCE DESIGN SYSTEMS, INC.

CFO COMMENTARY

February 19, 2019

Q4 2018 Key Takeaways

- Q4 results exceeded our expectations for revenue, operating margin, EPS and operating cash flow.
- Operating cash flow for the year was \$605 million, up 28% over 2017.
- Repurchased \$100 million of Cadence shares in Q4 and \$250 million for the year.

FY 2019 Outlook

- Revenue: \$2.270 - \$2.310 billion.
- GAAP operating margin: 20% - 21%.
- Non-GAAP operating margin: 30% - 31%.
- GAAP EPS: \$1.33 - \$1.43
- Non-GAAP EPS \$1.97 - \$2.07
- Operating cash flow: \$640 - \$690 million.
- Expect to repurchase approximately \$75 million of Cadence shares per quarter in 2019.

Q1 2019 Outlook

- Revenue : \$565 - \$575 million.
- GAAP operating margin: ~20%.
- Non-GAAP operating margin: ~30%.
- GAAP EPS: \$0.36 - \$0.38
- Non-GAAP EPS: \$0.48 - \$0.50

Financial Results Webcast

Our Q4 2018 financial results webcast will begin February 19, 2019 at 2:00 p.m. (Pacific). The webcast may be accessed at cadence.com/cadence/investor_relations. An archive of the webcast will be available on February 19, 2019 until 5:00 p.m. (Pacific) on March 15, 2019.

Q4 2018 KEY METRICS

- Revenue \$570 million
- GAAP operating margin 20%
- Non-GAAP operating margin 31%
- GAAP EPS \$0.35
- Non-GAAP EPS \$0.52
- Operating cash flow \$132 million

FY 2018 KEY METRICS

- Revenue \$2.138 billion
- GAAP operating margin 18.5%
- Non-GAAP operating margin 30.2%
- GAAP EPS \$1.23
- Non-GAAP EPS \$1.87
- Operating cash flow \$605 million

First Quarter 2019 Financial Outlook

	Q1 2018A	Q4 2018A	Q1 2019E
Total Revenue (\$ Million)	\$517.3	\$569.9	\$565 - \$575
Q/Q Growth		7%	(1)% - 1%
Y/Y Growth			9% - 11%
GAAP Operating Margin	17%	20%	~20%
Non-GAAP Operating Margin	28%	31%	~30%
GAAP EPS	\$0.26	\$0.35	\$0.36 - \$0.38
Q/Q Growth		0%	3% - 9%
Non-GAAP EPS	\$0.40	\$0.52	\$0.48 - \$0.50
Q/Q Growth		6%	(8)% - (4)%
Y/Y Growth			20% - 25%

Fiscal Year 2019 Financial Outlook

	FY 2018A	Current FY 2019E
Revenue Recognized Over Time	~90%	~90%
Total Revenue (\$ Billion)	\$2.138	\$2.270 - \$2.310
Y/Y Growth		6% - 8%
Revenue from Beginning Remaining Performance Obligations		~75%
GAAP Operating Margin	18.5%	20% - 21%
Non-GAAP Operating Margin	30.2%	30% - 31%
GAAP Other Income & Expense (\$ Million)	\$(19.8)	\$(23) - \$(33)
Non-GAAP Other Income & Expense (\$ Million)	\$(21.1)	\$(23) - \$(33)
GAAP Tax Rate	8%	~10%
Non-GAAP Tax Rate	16%	16%
Weighted Average Diluted Shares Outstanding (Million)	281.1	278 - 281
GAAP EPS	\$1.23	\$1.33 - \$1.43
Y/Y Growth		8% - 16%
Non-GAAP EPS	\$1.87	\$1.97 - \$2.07
Y/Y Growth		5% - 11%
Cash Flow from Operations (\$ Million)	\$605	\$640 - \$690
DSO	48	~45
Capital Expenditures (\$ Million)	\$62	~\$90

Fourth Quarter and Fiscal Year Financial Results

Remaining Performance Obligations and Backlog

(In Billions)	
Backlog, December 30, 2017	\$ 2.7
Revenue contracts executed prior to December 29, 2018	\$ 2.3
Revenue for the year ended December 29, 2018	\$ (2.1)
Remaining Performance Obligations, December 29, 2018	\$ 2.9

Revenue

(In Thousands)	ASC 606 Q1 2018	ASC 606 Q2 2018	ASC 606 Q3 2018	ASC 606 Q4 2018
Product and Maintenance	\$480,609	\$487,870	\$494,990	\$534,418
Services	36,704	30,521	37,478	35,432
Total Revenue	<u>\$517,313</u>	<u>\$518,391</u>	<u>\$532,468</u>	<u>\$569,850</u>

(In Thousands)	ASC 605 Q4 2017	ASC 605 Q1 2018	ASC 605 Q2 2018	ASC 605 Q3 2018	ASC 605 Q4 2018
Product and Maintenance	\$467,504	\$486,789	\$483,254	\$489,485	\$539,390
Services	34,218	38,668	31,857	36,474	39,779
Total Revenue	<u>\$501,722</u>	<u>\$525,457</u>	<u>\$515,111</u>	<u>\$525,959</u>	<u>\$579,169</u>
Y/Y Growth	7%	10%	8%	8%	15%

(In Thousands)	ASC 606 2018
Product and Maintenance	\$1,997,887
Services	140,135
Total Revenue	<u>\$2,138,022</u>

(In Thousands)	ASC 605 2015	ASC 605 2016	ASC 605 2017	ASC 605 2018
Product and Maintenance	\$1,578,944	\$1,683,771	\$1,813,987	\$1,998,918
Services	123,147	132,312	129,045	146,778
Total Revenue	<u>\$1,702,091</u>	<u>\$1,816,083</u>	<u>\$1,943,032</u>	<u>\$2,145,696</u>
Y/Y Growth	8%	7%	7%	10%

Revenue Mix by Geography

<i>(% of Total Revenue)</i>	ASC 606 Q1 2018	ASC 606 Q2 2018	ASC 606 Q3 2018	ASC 606 Q4 2018
Americas	45%	46%	44%	44%
Asia	27%	26%	29%	31%
Europe, Middle East and Africa	20%	20%	19%	17%
Japan	8%	8%	8%	8%
Total	100%	100%	100%	100%

<i>(% of Total Revenue)</i>	ASC 605 Q4 2017	ASC 605 Q1 2018	ASC 605 Q2 2018	ASC 605 Q3 2018	ASC 605 Q4 2018
Americas	44%	45%	45%	43%	46%
Asia	28%	26%	26%	30%	29%
Europe, Middle East and Africa	20%	21%	21%	19%	17%
Japan	8%	8%	8%	8%	8%
Total	100%	100%	100%	100%	100%

<i>(% of Total Revenue)</i>	ASC 606 2018
Americas	45%
Asia	28%
Europe, Middle East and Africa	19%
Japan	8%
Total	100%

<i>(% of Total Revenue)</i>	ASC 605 2015	ASC 605 2016	ASC 605 2017	ASC 605 2018
Americas	47%	48%	44%	44%
Asia	24%	24%	27%	28%
Europe, Middle East and Africa	19%	19%	20%	20%
Japan	10%	9%	9%	8%
Total	100%	100%	100%	100%

Revenue Mix by Product Group

<i>(% of Total Revenue)</i>	ASC 606 Q1 2018	ASC 606 Q2 2018	ASC 606 Q3 2018	ASC 606 Q4 2018
Functional Verification	26%	23%	22%	25%
Digital IC Design and Signoff	30%	30%	30%	28%
Custom IC Design and Simulation	26%	26%	26%	25%
System Interconnect and Analysis	9%	9%	9%	9%
IP	9%	12%	13%	13%
Total	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>

<i>(% of Total Revenue)</i>	ASC 605 Q4 2017	ASC 605 Q1 2018	ASC 605 Q2 2018	ASC 605 Q3 2018	ASC 605 Q4 2018
Functional Verification	23%	26%	23%	21%	26%
Digital IC Design and Signoff	29%	29%	29%	30%	27%
Custom IC Design and Simulation	26%	26%	26%	27%	24%
System Interconnect and Analysis	10%	9%	10%	10%	9%
IP	12%	10%	12%	12%	14%
Total	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>

<i>(% of Total Revenue)</i>	ASC 606 2018
Functional Verification	24%
Digital IC Design and Signoff	29%
Custom IC Design and Simulation	26%
System Interconnect and Analysis	9%
IP	12%
Total	<u>100%</u>

<i>(% of Total Revenue)</i>	ASC 605 2015	ASC 605 2016	ASC 605 2017	ASC 605 2018
Functional Verification	23%	25%	22%	24%
Digital IC Design and Signoff	28%	29%	29%	29%
Custom IC Design and Simulation	26%	25%	27%	26%
System Interconnect and Analysis	11%	10%	10%	9%
IP	12%	11%	12%	12%
Total	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>

Total Costs and Expenses

(In Thousands)	ASC 606 Q1 2018	ASC 606 Q2 2018	ASC 606 Q3 2018	ASC 606 Q4 2018
Total GAAP Costs and Expenses	\$431,480	\$425,335	\$428,838	\$456,160
Total Non-GAAP Costs and Expenses	\$373,753	\$364,084	\$361,981	\$391,471

(In Thousands)	ASC 605 Q4 2017	ASC 605 Q1 2018	ASC 605 Q2 2018	ASC 605 Q3 2018	ASC 605 Q4 2018
Total GAAP Costs and Expenses	\$420,444	\$428,419	\$424,283	\$425,034	\$468,595
Y/Y Growth	1%	8%	7%	5%	11%
Total Non-GAAP Costs and Expenses	\$351,503	\$370,692	\$363,032	\$358,177	\$403,906
Y/Y Growth	2%	5%	4%	2%	15%

(In Thousands)	ASC 606 2018
Total GAAP Costs and Expenses	\$1,741,813
Total Non-GAAP Costs and Expenses	\$1,491,289

(In Thousands)	ASC 605 2015	ASC 605 2016	ASC 605 2017	ASC 605 2018
Total GAAP Costs and Expenses	\$1,416,661	\$1,571,182	\$1,619,077	\$1,746,331
Y/Y Growth	3%	11%	3%	8%
Total Non-GAAP Costs and Expenses	\$1,247,039	\$1,347,519	\$1,408,538	\$1,495,807
Y/Y Growth	6%	8%	5%	6%

Operating Margin

	ASC 606 Q1 2018	ASC 606 Q2 2018	ASC 606 Q3 2018	ASC 606 Q4 2018
GAAP Operating Margin	16.6%	18.0%	19.5%	20.0%
Non-GAAP Operating Margin	27.8%	29.8%	32.0%	31.3%

	ASC 605 Q4 2017	ASC 605 Q1 2018	ASC 605 Q2 2018	ASC 605 Q3 2018	ASC 605 Q4 2018
GAAP Operating Margin	16.2%	18.5%	17.6%	19.2%	19.1%
Non-GAAP Operating Margin	29.9%	29.5%	29.5%	31.9%	30.3%

	ASC 606 2018
GAAP Operating Margin	18.5%
Non-GAAP Operating Margin	30.2%

	ASC 605 2015	ASC 605 2016	ASC 605 2017	ASC 605 2018
GAAP Operating Margin	16.8%	13.5%	16.7%	18.6%
Non-GAAP Operating Margin	26.7%	25.8%	27.5%	30.3%

Earnings (Loss) Per Share

	ASC 606 Q1 2018	ASC 606 Q2 2018	ASC 606 Q3 2018	ASC 606 Q4 2018
GAAP Net Income Per Share	\$0.26	\$0.27	\$0.35	\$0.35
Non-GAAP Net Income Per Share	\$0.40	\$0.45	\$0.49	\$0.52

	ASC 605 Q4 2017	ASC 605 Q1 2018	ASC 605 Q2 2018	ASC 605 Q3 2018	ASC 605 Q4 2018
GAAP Net Income (Loss) Per Share	\$(0.05)	\$0.30	\$0.26	\$0.34	\$0.36
Y/Y Growth	(136)%	20%	4%	17%	820%
Non-GAAP Net Income Per Share	\$0.39	\$0.44	\$0.44	\$0.49	\$0.51
Y/Y Growth	15%	38%	29%	40%	31%

	ASC 606 2018
GAAP Net Income Per Share	\$1.23
Non-GAAP Net Income Per Share	\$1.87

	ASC 605 2015	ASC 605 2016	ASC 605 2017	ASC 605 2018
GAAP Net Income Per Share	\$0.81	\$0.70	\$0.73	\$1.25
Y/Y Growth	56%	(14)%	4%	71%
Non-GAAP Net Income Per Share	\$1.09	\$1.21	\$1.40	\$1.88
Y/Y Growth	16%	11%	16%	34%

Total DSO

	ASC 606 Q1 2018	ASC 606 Q2 2018	ASC 606 Q3 2018	ASC 606 Q4 2018
DSO	41	39	42	48

	ASC 605 Q4 2017	ASC 605 Q1 2018	ASC 605 Q2 2018	ASC 605 Q3 2018	ASC 605 Q4 2018
DSO	36	38	36	39	46

Balance Sheet and Cash Review**Cash Flow from Operating Activities**

<i>(In Thousands)</i>	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018
Net Cash from Operating Activities	\$126,856	\$157,647	\$205,266	\$109,954	\$131,884

<i>(In Thousands)</i>	2015	2016	2017	2018
Net Cash from Operating Activities	\$378,200	\$444,879	\$470,740	\$604,751

Capital Expenditures

<i>(In Thousands)</i>	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018
Capital Expenditures	\$18,225	\$13,128	\$17,977	\$10,656	\$19,742

<i>(In Thousands)</i>	2015	2016	2017	2018
Capital Expenditures	\$44,808	\$53,712	\$57,901	\$61,503

Cash and Cash Equivalents

<i>(In Thousands)</i>	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018
Cash and Cash Equivalents	\$688,087	\$746,968	\$819,540	\$544,585	\$533,298

- Approximately 25 percent of our cash and cash equivalents were in the U.S. at quarter-end.

<i>(In Thousands)</i>	2015	2016	2017	2018
Cash and Cash Equivalents	\$616,686	\$465,232	\$688,087	\$533,298

Stock Repurchase

<i>(In Thousands, Except Share Price)</i>	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018
Share Repurchase	\$50,012	\$50,013	\$50,012	\$50,011	\$100,023
Number of Shares	1,164	1,289	1,224	1,098	2,323
Average Share Price	\$42.97	\$38.80	\$40.86	\$45.55	\$43.06

<i>(In Thousands, Except Share Price)</i>	2015	2016	2017	2018
Share Repurchase	\$333,189	\$960,289	\$100,025	\$250,059
Number of Shares	16,255	40,493	2,495	5,934
Average Share Price	\$20.50	\$23.71	\$40.09	\$42.14

Employees

	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018
Headcount	7,214	7,229	7,288	7,417	7,499

	2015	2016	2017	2018
Headcount	6,664	7,094	7,214	7,499

Forward Looking Statements

The statements in this CFO Commentary contain forward-looking statements based on current expectations or beliefs and preliminary assumptions about future events that are subject to factors and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. These forward-looking statements are subject to a number of risks, uncertainties and other factors, many of which are outside Cadence's control, including, among others: (i) Cadence's ability to compete successfully in the electronic design automation product and the commercial electronic design and methodology services industries; (ii) the success of Cadence's efforts to improve operational efficiency and growth; (iii) the mix of products and services sold and the timing of significant orders for Cadence's products; (iv) change in customer demands, including those resulting from consolidation among Cadence's customers and the possibility that the restructurings and other efforts to improve operational efficiency of Cadence's customers could result in delays in purchases of Cadence's products and services; (v) economic and industry conditions in regions in which Cadence does business; (vi) fluctuations in rates of exchange between the U.S. dollar and the currencies of other countries in which Cadence does business; (vii) capital expenditure requirements, legislative or regulatory requirements, changes in tax laws, interest rates and Cadence's ability to access capital and debt markets; (viii) the acquisition of other companies or technologies or the failure to successfully integrate and operate these companies or technologies Cadence acquires, including the potential inability to retain customers, key employees or vendors; (ix) the effects of Cadence's efforts to improve operational efficiency in its business, including strategic, customer and supplier relationships, and its ability to retain key employees; (x) events that affect cash flow, liquidity, reserves or settlement assumptions Cadence may take from time to time with respect to accounts receivable, taxes and tax examinations, litigation or other matters; and (xi) the effects of any litigation or other proceedings to which Cadence is or may become a party. In addition, the timing and amount of Cadence's repurchase of its common stock under the authorizations will be subject to business and market conditions, corporate and regulatory requirements, stock price, acquisition opportunities and other factors.

For a detailed discussion of these and other cautionary statements related to Cadence's business, please refer to Cadence's filings with the U.S. Securities and Exchange Commission, which include Cadence's most recent reports on Form 10-K and Form 10-Q, including Cadence's future filings.

GAAP to Non-GAAP Reconciliation

Non-GAAP financial measures should not be considered as a substitute for or superior to measures of financial performance prepared in accordance with GAAP. Investors are encouraged to review the reconciliation of non-GAAP financial measures contained within this CFO Commentary with their most directly comparable GAAP financial results. Investors are also encouraged to look at the GAAP results as the best measure of financial performance. See our earnings press release issued today for further discussion of our non-GAAP financial measures, as well as the reconciliation provided in the Appendix to this CFO Commentary.

Cadence's management uses non-GAAP net income because it excludes items that are generally not directly related to the performance of the company's core business operations and therefore provides supplemental information to Cadence's management and investors regarding the performance of the business operations, facilitates comparisons to the historical operating results and allows the review of Cadence's business from the same perspective as Cadence's management, including forecasting and budgeting.

Cadence's non-GAAP net income for the fourth quarter of 2017 excludes the effect of the transition tax expense and income tax expense related to the reduction in value of the deferred tax assets caused by the U.S. corporate tax rate reduction. Cadence management believes it is useful to exclude these tax expenses since it does not expect these tax expenses to be recorded frequently.

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APPENDIX I

Reconciliation of GAAP to Non-GAAP Financial Measures (Unaudited)

Reconciliation of GAAP Total Expenses to Non-GAAP Total Expenses

<i>(In Thousands)</i>	ASC 606 Q1 2018	ASC 606 Q2 2018	ASC 606 Q3 2018	ASC 606 Q4 2018
GAAP total costs and expenses	\$431,480	\$425,335	\$428,838	\$456,160
Reconciling items to non-GAAP total costs and expenses				
Amortization of acquired intangibles	(13,907)	(13,509)	(12,975)	(12,942)
Stock-based compensation expense	(37,901)	(40,956)	(46,264)	(42,594)
Non-qualified deferred compensation (expenses) credits	(127)	(468)	(1,120)	3,186
Restructuring and other (charges) credits	1,991	447	172	(13,699)
Acquisition and integration-related (costs) credits	(7,783)	(6,765)	(6,670)	1,360
Non-GAAP total costs and expenses†	<u>\$373,753</u>	<u>\$364,084</u>	<u>\$361,981</u>	<u>\$391,471</u>

<i>(In Thousands)</i>	ASC 605 Q4 2017	ASC 605 Q1 2018	ASC 605 Q2 2018	ASC 605 Q3 2018	ASC 605 Q4 2018
GAAP total costs and expenses	\$420,444	\$428,419	\$424,283	\$425,034	\$468,595
Reconciling items to non-GAAP total costs and expenses					
Amortization of acquired intangibles	(13,741)	(13,907)	(13,509)	(12,975)	(12,942)
Stock-based compensation expense	(36,015)	(37,901)	(40,956)	(46,264)	(42,594)
Non-qualified deferred compensation (expenses) credits	(1,295)	(127)	(468)	(1,120)	3,186
Restructuring and other (charges) credits	(12,178)	1,991	447	172	(13,699)
Acquisition and integration-related (costs) credits	(5,712)	(7,783)	(6,765)	(6,670)	1,360
Non-GAAP total costs and expenses†	<u>\$351,503</u>	<u>\$370,692</u>	<u>\$363,032</u>	<u>\$358,177</u>	<u>\$403,906</u>

† The non-GAAP measures presented in the table above should not be considered a substitute for financial results and measures determined or calculated in accordance with GAAP.

Reconciliation of GAAP Operating Margin as Percent of Total Revenue to Non-GAAP Operating Margin as Percent of Total Revenue

	ASC 606 Q1 2018	ASC 606 Q2 2018	ASC 606 Q3 2018	ASC 606 Q4 2018	ASC 606 Q1 2019E
GAAP operating margin as percent of total revenue	17%	18%	19%	20%	~20%
Reconciling items to non-GAAP operating margin as a percent of total revenue					
Amortization of acquired intangibles	3%	3%	3%	2%	2%
Stock-based compensation expense	7%	8%	9%	7%	7%
Non-qualified deferred compensation expenses (credits)	0%	0%	0%	0%	0%
Restructuring and other charges (credits)	0%	0%	0%	2%	0%
Acquisition and integration-related costs (credits)	1%	1%	1%	0%	1%
Non-GAAP operating margin as percent of total revenue†	<u>28%</u>	<u>30%</u>	<u>32%</u>	<u>31%</u>	<u>~30%</u>

† The non-GAAP measures presented in the table above should not be considered a substitute for financial results and measures determined or calculated in accordance with GAAP.

	ASC 605 Q4 2017	ASC 605 Q1 2018	ASC 605 Q2 2018	ASC 605 Q3 2018	ASC 605 Q4 2018
GAAP operating margin as percent of total revenue	16%	18%	18%	19%	19%
Reconciling items to non-GAAP operating margin as a percent of total revenue					
Amortization of acquired intangibles	3%	3%	3%	3%	2%
Stock-based compensation expense	7%	7%	8%	9%	7%
Non-qualified deferred compensation expenses (credits)	0%	0%	0%	0%	0%
Restructuring and other charges (credits)	3%	0%	0%	0%	2%
Acquisition and integration-related costs (credits)	1%	1%	1%	1%	0%
Non-GAAP operating margin as percent of total revenue†	<u>30%</u>	<u>29%</u>	<u>30%</u>	<u>32%</u>	<u>30%</u>

† The non-GAAP measures presented in the table above should not be considered a substitute for financial results and measures determined or calculated in accordance with GAAP.

Reconciliation of GAAP Operating Margin as Percent of Total Revenue to Non-GAAP Operating Margin as Percent of Total Revenue

	ASC 605 2016	ASC 605 2017	ASC 605 2018	ASC 606 2018	ASC 606 2019E
GAAP operating margin as percent of total revenue	13%	17%	19%	19%	20% - 21%
Reconciling items to non-GAAP operating margin as a percent of total revenue					
Amortization of acquired intangibles	4%	3%	2%	2%	2%
Stock-based compensation expense	6%	7%	8%	8%	8%
Non-qualified deferred compensation expenses (credits)	0%	0%	0%	0%	0%
Restructuring and other charges (credits)	2%	1%	0%	0%	0%
Acquisition and integration-related costs	1%	0%	1%	1%	0%
Non-GAAP operating margin as percent of total revenue†	<u>26%</u>	<u>28%</u>	<u>30%</u>	<u>30%</u>	<u>30% - 31%</u>

† The non-GAAP measures presented in the table above should not be considered a substitute for financial results and measures determined or calculated in accordance with GAAP.

Reconciliation of GAAP Diluted Net Income Per Share to Non-GAAP Diluted Net Income Per Share

<i>(In Thousands, Except Per Share Data)</i>	ASC 606 Q1 2018	ASC 606 Q2 2018	ASC 606 Q3 2018	ASC 606 Q4 2018	ASC 606 Q1 2019E
Diluted net income per share on a GAAP basis	\$0.26	\$0.27	\$0.35	\$0.35	\$0.36 - \$0.38
Amortization of acquired intangibles	0.05	0.05	0.05	0.05	0.05
Stock-based compensation expense	0.13	0.14	0.16	0.15	0.15
Non-qualified deferred compensation expenses (credits)	—	—	—	(0.01)	—
Restructuring and other charges (credits)	(0.01)	—	—	0.05	—
Acquisition and integration-related costs (credits)	0.03	0.02	0.02	(0.01)	0.01
Other income or expense related to investments and non-qualified deferred compensation plan assets *	—	—	—	—	—
Income tax effect of non-GAAP adjustments	(0.06)	(0.03)	(0.09)	(0.06)	(0.09)
Diluted net income per share on a non-GAAP basis †	<u>\$0.40</u>	<u>\$0.45</u>	<u>\$0.49</u>	<u>\$0.52</u>	<u>\$0.48 - \$0.50</u>
Shares used in calculation of diluted net income per share - GAAP **	281,651	280,774	281,646	280,321	
Shares used in calculation of diluted net income per share - non-GAAP **	281,651	280,774	281,646	280,321	

† The non-GAAP measures presented in the table above should not be considered a substitute for financial results and measures determined or calculated in accordance with GAAP.

* Includes, as applicable, equity in losses or income from investments, write-down of investments, gains or losses on investments and gains or losses on non-qualified deferred compensation plan assets recorded in other income or expense.

** Shares used in the calculation of GAAP net income per share are expected to be the same as shares used in the calculation of non-GAAP net income per share, except when the company reports a GAAP net loss and non-GAAP net income, or GAAP net income and a non-GAAP net loss.

Reconciliation of GAAP Diluted Net Income (Loss) Per Share to Non-GAAP Diluted Net Income Per Share

<i>(In Thousands, Except Per Share Data)</i>	ASC 605 Q4 2017	ASC 605 Q1 2018	ASC 605 Q2 2018	ASC 605 Q3 2018	ASC 605 Q4 2018
Diluted net income (loss) per share on a GAAP basis	\$(0.05)	\$0.30	\$0.26	\$0.34	\$0.36
Amortization of acquired intangibles	0.05	0.05	0.05	0.05	0.05
Stock-based compensation expense	0.13	0.13	0.14	0.16	0.15
Non-qualified deferred compensation expenses (credits)	—	—	—	—	(0.01)
Restructuring and other charges (credits)	0.04	(0.01)	—	—	0.05
Acquisition and integration-related costs (credits)	0.02	0.03	0.02	0.02	(0.01)
Other income or expense related to investments and non-qualified deferred compensation plan assets *	(0.01)	—	—	—	—
Income tax related to transition tax	0.24	—	—	—	—
Income tax related to tax rate change	0.09	—	—	—	—
Income tax effect of non-GAAP adjustments	(0.12)	(0.06)	(0.03)	(0.08)	(0.08)
Diluted net income per share on a non-GAAP basis †	<u>\$0.39</u>	<u>\$0.44</u>	<u>\$0.44</u>	<u>\$0.49</u>	<u>\$0.51</u>
Shares used in calculation of diluted net income (loss) per share - GAAP **	273,157	281,651	280,774	281,646	280,321
Shares used in calculation of diluted net income per share - non-GAAP **	282,206	281,651	280,774	281,646	280,321

† The non-GAAP measures presented in the table above should not be considered a substitute for financial results and measures determined or calculated in accordance with GAAP.

* Includes, as applicable, equity in losses or income from investments, write-down of investments, gains or losses on investments and gains or losses on non-qualified deferred compensation plan assets recorded in other income or expense.

** Shares used in the calculation of GAAP net income (loss) per share are expected to be the same as shares used in the calculation of non-GAAP net income per share, except when the company reports a GAAP net loss and non-GAAP net income, or GAAP net income and a non-GAAP net loss.

Reconciliation of GAAP Diluted Net Income Per Share to Non-GAAP Diluted Net Income Per Share

<i>(In Thousands, Except Per Share Data)</i>	ASC 605 2016	ASC 605 2017	ASC 605 2018	ASC 606 2018	ASC 606 2019E
Diluted net income per share on a GAAP basis	\$0.70	\$0.73	\$1.25	\$1.23	\$1.33 - \$1.43
Amortization of acquired intangibles	0.21	0.20	0.19	0.19	0.19
Stock-based compensation expense	0.37	0.46	0.60	0.60	0.65
Non-qualified deferred compensation expenses (credits)	0.01	0.02	(0.01)	(0.01)	—
Restructuring and other charges	0.14	0.03	0.04	0.04	—
Acquisition and integration-related costs	0.04	0.03	0.07	0.07	0.03
Other income or expense related to investments and non-qualified deferred compensation plan assets *	(0.02)	(0.05)	—	—	—
Income tax related to transition tax	—	0.24	—	—	—
Income tax related to tax rate change	—	0.09	—	—	—
Income tax effect of non-GAAP adjustments	(0.24)	(0.35)	(0.26)	(0.25)	(0.23)
Diluted net income per share on a non-GAAP basis †	<u>\$1.21</u>	<u>\$1.40</u>	<u>\$1.88</u>	<u>\$1.87</u>	<u>\$1.97 - \$2.07</u>
Shares used in calculation of diluted net income per share - GAAP **	291,256	280,221	281,144	281,144	278 - 281M
Shares used in calculation of diluted net income per share - non-GAAP **	291,256	280,221	281,144	281,144	278 - 281M

† The non-GAAP measures presented in the table above should not be considered a substitute for financial results and measures determined or calculated in accordance with GAAP.

* Includes, as applicable, equity in losses or income from investments, write-down of investments, gains or losses on investments and gains or losses on non-qualified deferred compensation plan assets recorded in other income or expense.

** Shares used in the calculation of GAAP net income per share are expected to be the same as shares used in the calculation of non-GAAP net income per share, except when the company reports a GAAP net loss and non-GAAP net income, or GAAP net income and a non-GAAP net loss.

Reconciliation of GAAP Total Other Income and Expense to Non-GAAP Total Other Income and Expense

(In Millions)	FY 2017	FY 2018	FY 2019E
GAAP total other income and expense	\$(8.9)	\$(19.8)	\$(23) - \$(33)
Reconciling items to non-GAAP total income and expense			
Other income or expense related to investments and non-qualified deferred compensation plan assets*	(15.7)	(1.3)	—
Non-GAAP total other income and expense†	<u>\$(24.6)</u>	<u>\$(21.1)</u>	<u>\$(23) - \$(33)</u>

† The non-GAAP measures presented in the table above should not be considered a substitute for financial results and measures determined or calculated in accordance with GAAP.

* Includes, as applicable, equity in losses or income from investments, write-down of investments, gains or losses on investments and gains or losses on non-qualified deferred compensation plan assets recorded in other income or expense.

APPENDIX II

The following table summarizes the effects of adopting Topic 606 on Cadence's condensed consolidated balance sheet as of December 29, 2018:

(In Thousands)	As reported under Topic 606	Adjustments	Balances under Prior GAAP
Receivables, net	\$ 297,082	\$ (12,099)	\$ 284,983
Prepaid expenses and other	92,550	(10,055)	82,495
Long-term receivables	5,972	(623)	5,349
Other assets	371,231	(17,013)	354,218
Accounts payable and accrued liabilities*	256,526	(17,438)	239,088
Current portion of deferred revenue	352,456	45,119	397,575
Long-term portion of deferred revenue	48,718	17,637	66,355
Retained earnings	772,709	(86,120)	686,589
Accumulated other comprehensive loss	(24,780)	1,012	(23,768)

* Cadence has certain arrangements under which consideration is received from customers prior to identifying the specific goods or services to be delivered under the contract. Cadence records an accrued liability on a contract-by-contract basis at the end of each reporting period for cash consideration received.

The following table summarizes the effects of adopting Topic 606 on Cadence's condensed consolidated income statement for fiscal 2018:

(In Thousands)	As reported under Topic 606	Adjustments	Balances under Prior GAAP
Product and maintenance revenue	\$ 1,997,887	\$ 1,031	\$ 1,998,918
Services revenue	140,135	6,643	146,778
Cost of product and maintenance	173,011	571	173,582
Marketing and sales expense	439,669	3,947	443,616
Provision for income taxes	30,613	(2,364)	28,249
Net income	345,777	5,520	351,297
Net income per share - basic	1.26	0.02	1.28
Net income per share - diluted	1.23	0.02	1.25