

CADENCE REPORTS THIRD QUARTER 2017

CADENCE DESIGN SYSTEMS, INC.

CFO COMMENTARY

October 26, 2017

Q3 2017 Key Takeaways

- Strong, consistent financial results for Q3 with key metrics meeting or exceeding expectations.
- Increasing our Outlook for revenue, earnings per share and cash flow for fiscal 2017.
- Repurchased 1.3 million shares of stock for \$50 million. \$475 million remains on current authorization.

FY 2017 Outlook

- Revenue: \$1.931 - \$1.941 billion.
- GAAP operating margin: 17% to 18%.
- Non-GAAP operating margin: 27% to 28%.
- GAAP EPS: \$1.04 - \$1.06.
- Non-GAAP EPS \$1.39 - \$1.41.
- Operating cash flow: \$450 - \$480 million.

Q4 2017 Outlook

- Revenue : \$490 - \$500 million.
- GAAP operating margin: approximately 20%.
- Non-GAAP operating margin: approximately 30%.
- GAAP EPS: \$0.26 - \$0.28.
- Non-GAAP EPS: \$0.38 - \$0.40.

Financial Results Webcast

Our Q3 2017 financial results webcast will begin October 26, 2017 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 October 26, 2017 until 5:00 p.m. (Pacific) on December 15, 2017.

Q3 2017 KEY METRICS

- Revenue \$485 million, +9% y/y.
- GAAP operating margin 17%.
- Non-GAAP operating margin 28%.
- GAAP EPS \$0.29.
- Non-GAAP EPS \$0.35, +17% y/y.
- Operating cash flow \$89 million.

Fiscal Year 2017 Financial Outlook

| | FY 2016A | Previous FY 2017E | Current FY 2017E |
|---|---------------|------------------------|------------------------|
| Recurring Revenue | >90% | >90% | >90% |
| Total Revenue (\$ Billion) | \$1.816 | \$1.910 - \$1.950 | \$1.931 - \$1.941 |
| Y/Y Growth | 7% | 5% - 7% | 6% - 7% |
| Revenue from Beginning Backlog | ~70% | ~70% | ~70% |
| GAAP Operating Margin | 13.5% | ~17% | 17% to 18% |
| Non-GAAP Operating Margin | 25.8% | ~27% | 27% to 28% |
| Non-GAAP Other Income & Exp (\$ Million) | \$(12.4) | (\$28) - (\$20) | (\$26) - (\$22) |
| Non-GAAP Tax Rate | 23% | 23% | 23% |
| Weighted Average Diluted Shares Outstanding (Million) | 291.3 | 276 - 284 | 278 - 282 |
| GAAP EPS | \$0.70 | \$0.98 - \$1.04 | \$1.04 - \$1.06 |
| Non-GAAP EPS | \$1.21 | \$1.36 - \$1.42 | \$1.39 - \$1.41 |
| Y/Y Growth | 11% | 12% - 17% | 15% - 17% |
| Cash Flow from Operations (\$ Million) | \$444.9 | \$430 - \$470 | \$450 - \$480 |
| DSO | 33 | ~35 | ~35 |
| Capital Expenditures (\$ Million) | \$53.7 | ~\$50 | ~\$55 |

Fourth Quarter 2017 Financial Outlook

| | Q4 2016A | Q3 2017A | Current Q4 2017E |
|------------------------------|---------------|---------------|------------------------|
| Total Revenue (\$ Million) | \$469.0 | \$485.4 | \$490 - \$500 |
| Q/Q Growth | 5% | 1% | 1% - 3% |
| Y/Y Growth | 6% | 9% | 4% - 7% |
| GAAP Operating Margin | 11% | 17% | ~20% |
| Non-GAAP Operating Margin | 27% | 28% | ~30% |
| GAAP EPS | \$0.14 | \$0.29 | \$0.26 - \$0.28 |
| Non-GAAP EPS | \$0.34 | \$0.35 | \$0.38 - \$0.40 |
| Q/Q Growth | 13% | 3% | 9% - 14% |
| Y/Y Growth | 10% | 17% | 12% - 18% |

Third Quarter Financial Results

Revenue

| (In Thousands) | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 |
|-----------------------|-----------|-----------|-----------|-----------|-----------|
| Product & Maintenance | \$415,370 | \$436,694 | \$451,407 | \$443,847 | \$451,229 |
| Services | 30,850 | 32,286 | 25,504 | 35,154 | 34,169 |
| Total Revenue | \$446,220 | \$468,980 | \$476,911 | \$479,001 | \$485,398 |
| Y/Y Growth | 3% | 6% | 6% | 6% | 9% |

Revenue Mix by Geography

| (% of Total Revenue) | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 |
|--------------------------------|---------|---------|---------|---------|---------|
| Americas | 46% | 48% | 45% | 45% | 45% |
| Asia | 27% | 25% | 26% | 28% | 27% |
| Europe, Middle East and Africa | 19% | 19% | 20% | 19% | 19% |
| Japan | 8% | 8% | 9% | 8% | 9% |
| Total | 100% | 100% | 100% | 100% | 100% |

Revenue Mix by Product Group

| (% of Total Revenue) | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 |
|----------------------------------|---------|---------|---------|---------|---------|
| Functional Verification | 24% | 25% | 23% | 23% | 21% |
| Digital IC Design and Signoff | 28% | 30% | 29% | 30% | 30% |
| Custom IC Design | 27% | 25% | 26% | 26% | 28% |
| System Interconnect and Analysis | 10% | 9% | 10% | 10% | 10% |
| IP | 11% | 11% | 12% | 11% | 11% |
| Total | 100% | 100% | 100% | 100% | 100% |

Total Costs and Expenses

| (In Thousands) | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 |
|--|------------------|------------------|------------------|------------------|------------------|
| Total GAAP Costs & Expenses | \$379,378 | \$415,863 | \$397,309 | \$396,311 | \$405,013 |
| Y/Y Growth | 7% | 16% | 2% | 3% | 7% |
| Total Non-GAAP Costs & Expenses | \$332,035 | \$343,839 | \$354,601 | \$350,647 | \$351,787 |
| Y/Y Growth | 5% | 9% | 6% | 4% | 6% |

Operating Margin

| | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 |
|------------------------------|--------------|--------------|--------------|--------------|--------------|
| GAAP Operating Margin | 15.0% | 11.3% | 16.7% | 17.3% | 16.6% |
| Non-GAAP Operating Margin | 25.6% | 26.7% | 25.6% | 26.8% | 27.5% |

Earnings Per Share

| | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 |
|----------------------------------|---------------|---------------|---------------|---------------|---------------|
| GAAP Net Income Per Share | \$0.23 | \$0.14 | \$0.25 | \$0.25 | \$0.29 |
| Y/Y Growth | (8)% | (46)% | 47% | 47% | 26% |
| Non-GAAP Net Income Per Share | \$0.30 | \$0.34 | \$0.32 | \$0.34 | \$0.35 |
| Y/Y Growth | 7% | 10% | 14% | 17% | 17% |

Total DSO

| | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 |
|-----|---------|---------|---------|---------|---------|
| DSO | 34 | 33 | 37 | 31 | 34 |

Balance Sheet and Cash Review

Cash Flow from Operating Activities

| <i>(In Thousands)</i> | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 |
|------------------------------------|----------|-----------|----------|-----------|----------|
| Net Cash from Operating Activities | \$84,460 | \$196,862 | \$92,430 | \$162,140 | \$89,314 |

Capital Expenditures

| <i>(In Thousands)</i> | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 |
|-----------------------|----------|----------|----------|----------|----------|
| Capital Expenditures | \$14,165 | \$11,260 | \$14,843 | \$12,645 | \$12,188 |

Cash and Short-Term Investments

| <i>(In Thousands)</i> | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 |
|---------------------------------|-----------|-----------|-----------|-----------|-----------|
| Cash and Short-Term Investments | \$532,836 | \$468,289 | \$547,607 | \$659,227 | \$682,419 |

- Approximately 27 percent of our cash and short-term investments were in the U.S. at quarter-end.

Stock Repurchase

| <i>(In Thousands, Except Share Price)</i> | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 |
|---|-----------|-----------|---------|---------|----------|
| Share Repurchase | \$240,096 | \$240,093 | — | — | \$50,013 |
| Number of Shares | 9,596 | 9,315 | — | — | 1,331 |
| Average Share Price | \$25.02 | \$25.77 | — | — | \$37.58 |

Employees

| | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 |
|-----------|---------|---------|---------|---------|---------|
| Headcount | 7,113 | 7,094 | 7,101 | 7,190 | 7,233 |

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, 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 actual timing and amount of Cadence's repurchase of its common stock under the existing authorization will be subject to business and market conditions, corporate and regulatory requirements, 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.

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APPENDIX

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

Reconciliation of GAAP Total Expenses to Non-GAAP Total Expenses

| <i>(In Thousands)</i> | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 |
|--|------------------|------------------|------------------|------------------|------------------|
| GAAP total costs and expenses | \$379,378 | \$415,863 | \$397,309 | \$396,311 | \$405,013 |
| Reconciling items to non-GAAP total costs & expenses | | | | | |
| Amortization of acquired intangibles | (14,482) | (14,474) | (14,434) | (14,704) | (13,618) |
| Stock-based compensation expense | (29,998) | (29,231) | (27,436) | (30,482) | (36,090) |
| Non-qualified deferred compensation expenses | (921) | (544) | (1,269) | (756) | (2,825) |
| Restructuring and other (charges) credits | (101) | (26,342) | 1,788 | 929 | 55 |
| Acquisition and integration-related costs | (1,841) | (1,433) | (1,357) | (651) | (748) |
| Non-GAAP total costs and expenses† | <u>\$332,035</u> | <u>\$343,839</u> | <u>\$354,601</u> | <u>\$350,647</u> | <u>\$351,787</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

| | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 | Forecast Q4 2017 |
|--|------------|------------|------------|------------|------------|---------------------|
| GAAP operating margin as percent of total revenue | 15% | 11% | 17% | 17% | 17% | ~20% |
| Reconciling items to non-GAAP operating margin as a percent of total revenue | | | | | | |
| Amortization of acquired intangibles | 3% | 3% | 3% | 3% | 3% | 3% |
| Stock-based compensation expense | 7% | 6% | 6% | 7% | 7% | 7% |
| Non-qualified deferred compensation expenses | 0% | 0% | 0% | 0% | 1% | 0% |
| Restructuring and other charges (credits) | 0% | 6% | 0% | 0% | 0% | 0% |
| Acquisition and integration-related costs | 1% | 1% | 0% | 0% | 0% | 0% |
| Non-GAAP operating margin as percent of total revenue† | <u>26%</u> | <u>27%</u> | <u>26%</u> | <u>27%</u> | <u>28%</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.

| | 2015 | 2016 | Forecast 2017 |
|--|------------|------------|------------------|
| GAAP operating margin as percent of total revenue | 17% | 13% | 17% -18% |
| Reconciling items to non-GAAP operating margin as a percent of total revenue | | | |
| Amortization of acquired intangibles | 4% | 4% | 3% |
| Stock-based compensation expense | 5% | 6% | 7% |
| Non-qualified deferred compensation expenses (credits) | 0% | 0% | 0% |
| Restructuring and other charges (credits) | 0% | 2% | 0% |
| Acquisition and integration-related costs | 1% | 1% | 0% |
| Special charges * | 0% | 0% | 0% |
| Non-GAAP operating margin as percent of total revenue† | <u>27%</u> | <u>26%</u> | <u>27% - 28%</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.

* Comprised of executive severance costs.

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

| <i>(In Thousands, Except Per Share Data)</i> | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 | Forecast Q4 2017 |
|--|---------------|---------------|---------------|---------------|---------------|------------------------|
| Diluted net income per share on a GAAP basis | \$0.23 | \$0.14 | \$0.25 | \$0.25 | \$0.29 | \$0.26 - \$0.28 |
| Amortization of acquired intangibles | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| Stock-based compensation expense | 0.10 | 0.10 | 0.10 | 0.11 | 0.13 | 0.13 |
| Non-qualified deferred compensation expenses | — | — | — | — | 0.01 | — |
| Restructuring and other charges (credits) | — | 0.09 | (0.01) | — | — | — |
| Acquisition and integration-related costs | 0.01 | 0.01 | — | — | — | — |
| Other income or expense related to investments and non-qualified deferred compensation plan assets * | — | — | — | — | (0.04) | — |
| Income tax effect of non-GAAP adjustments | (0.09) | (0.05) | (0.07) | (0.07) | (0.09) | (0.06) |
| Diluted net income per share on a non-GAAP basis † | <u>\$0.30</u> | <u>\$0.34</u> | <u>\$0.32</u> | <u>\$0.34</u> | <u>\$0.35</u> | <u>\$0.38 - \$0.40</u> |
| Shares used in calculation of diluted net income per share - GAAP ** | 287,473 | 278,917 | 277,736 | 279,526 | 281,400 | |
| Shares used in calculation of diluted net income per share - non-GAAP ** | 287,473 | 278,917 | 277,736 | 279,526 | 281,400 | |

† 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 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 Per Share to Non-GAAP Diluted Net Income Per Share

| <i>(In Thousands, Except Per Share Data)</i> | 2013 | 2014 | 2015 | 2016 | Forecast 2017 |
|---|---------------|---------------|---------------|---------------|--------------------------|
| Diluted net income per share on a GAAP basis | \$0.56 | \$0.52 | \$0.81 | \$0.70 | \$1.04 - \$1.06 |
| Amortization of acquired intangibles | 0.15 | 0.20 | 0.21 | 0.21 | 0.20 |
| Stock-based compensation expense | 0.23 | 0.27 | 0.30 | 0.37 | 0.46 |
| Non-qualified deferred compensation expenses (credits) | 0.01 | 0.01 | — | 0.01 | 0.02 |
| Restructuring and other charges (credits) | 0.06 | 0.03 | 0.01 | 0.14 | (0.01) |
| Acquisition and integration-related costs | 0.11 | 0.08 | 0.03 | 0.04 | 0.01 |
| Special charges * | — | 0.04 | — | — | — |
| Amortization of debt discount on convertible notes | 0.08 | 0.06 | 0.02 | — | — |
| Other income or expense related to investments and non-qualified deferred compensation plan assets ** | (0.02) | (0.01) | (0.01) | (0.02) | (0.05) |
| Income tax benefit due to a release of an uncertain tax position | (0.11) | — | — | — | — |
| Income tax effect of non-GAAP adjustments | (0.21) | (0.26) | (0.28) | (0.24) | (0.28) |
| Diluted net income per share on a non-GAAP basis † | <u>\$0.86</u> | <u>\$0.94</u> | <u>\$1.09</u> | <u>\$1.21</u> | <u>\$1.39 - \$1.41</u> |
| Shares used in calculation of diluted net income per share - GAAP *** | 294,564 | 306,775 | 312,302 | 291,256 | |
| Shares used in calculation of diluted net income per share - non-GAAP *** | 294,564 | 306,775 | 312,302 | 291,256 | |

† 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.

* Comprised of costs related to a voluntary retirement program and executive severance costs.

** Includes, as applicable, equity in losses or income from investments, write-down of investments, 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 2016A | Previous FY 2017E | Current FY 2017E |
|---|----------------|------------------------|------------------------|
| GAAP total other income and expense | \$(7.7) | \$(26) - \$(18) | \$(12) - \$(8) |
| Reconciling items to non-GAAP total income and expense | | | |
| Other income or expense related to investments and non-qualified deferred compensation plan assets* | (4.7) | (2) | (14) |
| Non-GAAP total other income and expense† | <u>\$12.4</u> | <u>\$(28) - \$(20)</u> | <u>\$(26) - \$(22)</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 non-qualified deferred compensation plan assets recorded in other income or expense.