

FINANCIAL SUPPLEMENT Q4 FY2019

December 4, 2019

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USEFUL LINKS

- [Press Release](#)
- [Webcast](#)
- [Form 10-K FY2019](#)

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I. FISCAL YEAR 2020 SELECTED FINANCIAL RESULTS & TARGETS ^{(1) (2)}

	Q1 FY2020	FY2020
Revenue (million)	\$805 - \$835	\$3,600 - \$3,650
GAAP Expenses (million)	\$715 - \$744	\$2,934 - \$2,983
Non-GAAP Expenses (million)	\$635 - \$655	\$2,630 - \$2,660
Other Income and Expense Net (million)	(\$5) - (\$3)	(\$16) - (\$12)
Annual Non-GAAP Tax Rate	16%	16%
Fully Diluted Outstanding Shares (million)	153 - 156	153 - 156
Implied GAAP Operating Margin at Midpoint		~18%
Implied Non-GAAP Operating Margin at Midpoint		~27%
GAAP Earnings Per Share	\$0.43 - \$0.54	\$3.72 - \$3.90
Non-GAAP Earnings Per Share	\$0.89 - \$0.94	\$5.18 - \$5.25
Cash Flow from Operations (million)		\$800 - \$825
Capital Expenditures (million)		~\$180
Average Renewable License Duration		~3 years
Stock-Based Compensation (million)		~\$215

(1) These targets were provided by Synopsys as of December 4, 2019.

(2) These targets do not assume any revenue from companies currently on the U.S. government's "Entity List."

RECENT ACQUISITIONS

eSilicon Asset Acquisition (Signed)

- Announced definitive agreement November 2019.
- Terms not disclosed; not material. Subject to Vietnamese regulatory approval and customary closing conditions. Expected to close in Q1 FY2020.
- Expanding embedded memory and memory interface IP portfolio; as well as R&D team to scale for growth areas including AI and cloud.

DINI Group (Closed)

- Announced November 2019.
- Terms not disclosed; not material
- Extends our leadership position in physical prototyping; and expands our FPGA solutions into new verticals and applications.

II. SUMMARY OF CERTAIN DISCRETE ITEMS

Income Statement: Certain Discrete Operating Items

Revenue FY17-FY18	FY17A ASC 605	FY18A ASC 605
Reported results	\$2,724.9	\$3,121.1
Extra week in Q1'18		~+\$46M
Black Duck impact (acquired Q1'18)		~+\$60M

Non-GAAP EPS FY17-FY18	FY17A ASC 605	FY18A ASC 605
Reported results	\$3.42	\$3.91
Extra week in Q1'18		~+7 cents
Black Duck impact (acquired Q1'18)		~(10 cents)

Revenue FY18-FY19	FY18A ASC 605	FY19A ASC 606
Reported results	\$3,121.1	\$3,360.7
Extra week in Q1'18		~+\$46M

Non-GAAP EPS FY18-FY19	FY18A ASC 605	FY19A ASC 606
Reported results	\$3.91	\$4.56
Extra week in Q1'18		~+7 cents

Cash Flow Statement: Certain Discrete Items

Operating Cash Flow One-time Items	FY18A	FY19A
Reported results	\$424.4	\$801M
Hungary tax dispute (Q1'18) ⁽¹⁾	~(\$66M)	
Repatriation tax (Q2'18) ⁽²⁾	~(\$33M)	
Siemens/Mentor litigation settlement (Q3'18) ⁽³⁾	~(\$65M)	
IP transfer tax (Q4'18) ⁽⁴⁾	~(\$67M)	
Litigation settlement (Q1'19) ⁽⁵⁾		~\$18M

(1) Outstanding dispute with Hungarian tax authorities; payment required in order to appeal ruling

(2) Tax on 4Q'17 repatriation of ~\$825M in offshore cash

(3) Conclusion of all outstanding patent litigation with Siemens/Mentor

(4) One-time tax payment on transfer of IP resulting from tax restructuring due to US tax reform

(5) Receipt from litigation settlement

Capital Expenditures Capital Projects	FY19A ⁽⁹⁾	FY20E ⁽¹⁰⁾
Reported results; Guidance	\$198M	~\$180M
Wuhan facility ⁽⁶⁾	~\$25M	~\$40M
Infrastructure ⁽⁷⁾	~\$98M	~\$100M
SV office consolidation ⁽⁸⁾	~\$75M	~\$40M

(6) Development costs associated with Wuhan, China facility

(7) IT and facility infrastructure upgrades to support growth

(8) Relocation of several Silicon Valley corporate offices to single location

(9) ~\$70M of planned ~\$270M in 2019 capital spending pushed out to 2020

(10) Reflects FY20 guidance provided on Dec. 4, 2019. Capital spending expected to decline in 2021

III. LONG-TERM FINANCIAL OBJECTIVES (EFFECTIVE DECEMBER 2019)

While the results in any given period may vary due to acquisitions or other near-term priorities, our primary long-term objective is to drive **double-digit non-GAAP EPS growth** on a multi-year basis, through a mix of the following elements:

- Grow **total revenue** generally in the **high single-digit range**
 - **EDA revenue** generally in the **mid-to-high single-digits**
 - **IP & System Integration revenue** generally in the **low double-digits**
 - **Software Integrity revenue** exceeding market growth, generally in the **15-20% range** as market evolves
- Drive non-GAAP operating margin into the **high-twenties by 2021**, and the **30% range longer-term**
- Utilize our strong **cash flow primarily for M&A and share buybacks**

IV. REVENUE BY PRODUCT GROUP (Unaudited)

(\$ millions)	FY17	Q118	Q218	Q318	Q418	FY18	Q119	Q219	Q319	Q419	FY19	Q119	Q219	Q319	Q419	FY19
	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 606	ASC 606	ASC 606	ASC 606	ASC 606
EDA	1,796.4	482.1	485.8	493.0	476.2	1,937.2	481.2	530.8	480.4	471.8	1,964.1	500.8	492.7	481.6	489.2	1,964.3
% of Revenue	66%	63%	63%	63%	60%	62%	60%	62%	59%	59%	60%	61%	59%	56%	57%	58%
IP & System Integration	753.4	219.3	222.1	214.2	241.0	896.6	234.2	236.9	244.7	240.8	956.7	235.8	259.2	286.2	275.5	1,056.6
% of Revenue	28%	28%	29%	27%	30%	29%	29%	28%	30%	30%	29%	29%	31%	34%	32%	31%
Software Integrity	173.8	64.1	67.8	71.3	77.3	280.5	78.3	86.1	80.1	85.1	329.6	82.5	83.2	83.6	85.3	334.6
% of Revenue	6%	8%	9%	9%	10%	9.0%	10%	10%	10%	11%	10%	10%	10%	10%	10%	10%
Other	1.3	3.9	1.2	1.1	0.5	6.8	4.3	-1.2	3.2	1.4	7.8	1.3	1.1	1.6	1.1	5.2
Total	2,724.9	769.4	776.8	779.7	795.1	3,121.1	798.1	852.6	808.4	799.1	3,258.2	820.4	836.2	853.0	851.1	3,360.7

Revenue from our products and services is categorized into four groups:

- EDA, which includes digital and custom integrated circuit (IC) design software, verification products, manufacturing-related products, and field-programmable gate array (FPGA) design software;
- IP & System Integration, which includes our DesignWare® IP portfolio, system-level design products, prototyping products, and general professional services;
- Software Integrity, which includes solutions that test software code for security vulnerabilities and quality defects, as well as professional and managed services; and
- Other, which includes university programs and the impact of gains and losses from foreign currency hedges.

Note: Amounts included in the table above may not foot due to rounding. Product revenue data for multi-product transactions reflect internal allocations based upon certain assumptions and management's methodology. In addition, we allocate maintenance revenue to the products to which those maintenance services relate.

V. REVENUE BY GEOGRAPHIC REGION (Unaudited)

(\$ millions)	FY17	Q118	Q218	Q318	Q418	FY18	Q119	Q219	Q319	Q419	FY19	Q119	Q219	Q319	Q419	FY19
	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 606	ASC 606	ASC 606	ASC 606	ASC 606
North America	1,384.4	400.5	387.6	373.8	387.7	1,549.6	386.3	453.6	408.5	420.2	1,668.6	414.5	433.9	414.0	450.0	1,712.5
% of Revenue	51%	52%	50%	48%	49%	50%	48%	53%	51%	53%	51%	51%	52%	49%	53%	51%
Europe	308.4	85.5	97.0	90.7	96.0	369.1	86.9	89.2	85.3	96.1	357.5	83.9	83.5	90.1	91.5	349.0
% of Revenue	11%	11%	12%	12%	12%	12%	11%	10%	11%	12%	11%	10%	10%	11%	11%	10%
Japan	247.6	68.4	70.4	72.0	72.5	283.3	70.2	69.3	77.2	69.4	286.1	65.1	72.7	65.7	69.2	272.7
% of Revenue	9%	9%	9%	9%	9%	9%	9%	8%	10%	9%	9%	8%	9%	8%	8%	8%
Asia Pacific*	784.5	215.1	221.8	243.3	238.9	919.0	254.7	240.5	237.4	213.4	945.9	256.9	246.1	283.2	240.3	1,026.5
% of Revenue	29%	28%	29%	31%	30%	29%	32%	28%	29%	27%	29%	31%	29%	33%	28%	31%
Total	2,724.9	769.4	776.8	779.7	795.1	3,121.1	798.1	852.6	808.4	799.1	3,258.2	820.4	836.2	853.0	851.1	3,360.7

* Korea revenue totaled \$353M, \$308M and \$291M for FY19, FY18 and FY17, respectively.

Note: Amounts included in the table above may not foot due to rounding. Geographic revenue data for multi-regional, multi-product transactions reflect internal allocations and are based upon certain assumptions and management's methodology.

VI. SELECTED FINANCIAL AND OPERATING METRICS

	FY17	Q118	Q218	Q318	Q418	FY18	Q119	Q219	Q319	Q419	FY19
	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 606	ASC 606	ASC 606	ASC 606	ASC 606
Revenue License Type (millions) ⁽¹⁾											
- Time-Based Products	\$2,021.8	\$570.9	\$556.8	\$570.1	\$605.6	\$2,303.3	\$553.7	\$558.3	\$537.6	\$548.4	\$2,198.0
- Upfront Products	\$338.2	\$91.6	\$100.0	\$99.6	\$66.6	\$357.7	\$130.5	\$143.4	\$177.6	\$168.3	\$619.8
- Maintenance and Service ⁽²⁾	\$364.9	\$106.9	\$120.1	\$110.1	\$123.0	\$460.0	\$136.2	\$134.5	\$137.8	\$134.4	\$542.9
Revenue Mix (% of total revenue) ⁽¹⁾											
- Recurring Revenue ⁽³⁾	88%	88%	87%	87%	92%	89%	89%	90%	88%	89%	88%
- Non-Recurring Revenue	12%	12%	13%	13%	8%	11%	11%	10%	12%	11%	12%
Avg renewable license duration (yrs) ⁽⁴⁾	~2.7	~3.0	~2.6	~2.5	~2.7	~2.7	~2.9	~2.7	~2.4	~2.7	~2.7
Non-GAAP Operating Margin ⁽⁵⁾	23.8%	25.5%	24.5%	21.5%	17.1%	22.1%	24.5%	25.1%	25.4%	24.8%	25.0%
Cash, Cash Equivalents & Short-term Investments (millions)	\$1,048	\$606	\$571	\$741	\$723	\$723	\$592	\$631	\$687	\$729	\$729
- % held in U.S.	53%	24%	23%	18%	25%	25%	23%	28%	24%	26%	26%
Outstanding Debt	\$144	\$572	\$524	\$622	\$469	\$469	\$542	\$292	\$142	\$138	\$138
Operating Cash Flow ^{(1),(6)}	\$635	(\$59)	\$63	\$289	\$131	\$424	(\$144)	\$353	\$370	\$221	\$801
Capital Expenditures ⁽¹⁾	\$70	\$28	\$20	\$22	\$29	\$99	\$29	\$40	\$53	\$76	\$198
Share Repurchases (millions) ⁽¹⁾											
- Number of Shares	5.4	2.3	0.4	1.8	-	4.5	0.3	0.8	0.8	0.8	2.7
- Gross Share Repurchases	(\$400)	(\$200)	(\$35)	(\$165)	-	(\$400)	(\$29)	(\$100)	(\$100)	(\$100)	(\$329)
- Remaining Repurchase Authorization	\$400	\$200	\$490	\$325	\$325	\$325	\$296	\$196	\$500	\$400	\$400
DSO		64	67	59	64		85	57	49	59	
Employee Headcount		~12,290	~12,590	~13,030	~13,250		~13,450	~13,580	~13,860	~13,895	
Revenue by Segment (millions) ⁽⁷⁾⁽⁸⁾											
- Semiconductor & System Design		\$705.3	\$709.0	\$708.4	\$717.9	\$2,840.6	\$737.9	\$753.0	\$769.4	\$765.8	\$3,026.1
% of Total		92%	91%	91%	90%	91%	90%	90%	90%	90%	90%
- Software Integrity		\$64.1	\$67.8	\$71.3	\$77.3	\$280.5	\$82.5	\$83.2	\$83.6	\$85.3	\$334.6
% of Total		8%	9%	9%	10%	9%	10%	10%	10%	10%	10%
Adjusted Op Income by Segment (millions) ⁽⁷⁾⁽⁸⁾											
- Semiconductor & System Design		\$199.1	\$195.7	\$169.8	\$136.7	\$701.3	\$195.3	\$201.4	\$207.8	\$202.1	\$806.6
- Software Integrity		(\$3.2)	(\$5.6)	(\$2.0)	\$0.2	(\$10.6)	\$5.6	\$8.4	\$8.8	\$9.4	\$32.2
Adjusted Operating Margin by Segment ⁽⁷⁾⁽⁸⁾											
- Semiconductor & System Design		28.2%	27.6%	24.0%	19.0%	24.7%	26.5%	26.8%	27.0%	26.4%	26.7%
- Software Integrity		(5.0%)	(8.3%)	(2.8%)	0.3%	(3.8%)	6.8%	10.1%	10.5%	11.0%	9.6%

- (1) Amounts may not foot due to rounding.
- (2) Includes maintenance on term and perpetual licenses.
- (3) We define recurring revenue as revenue generated from time-based products, multi-period IP contracts, and maintenance and services, for which revenue is recognized over time. Prior to ASC 606 adoption, multi-period IP contracts covering unspecified titles were recognized ratably and considered time-based revenue. Beginning in Q1'19 with the adoption of ASC 606, revenue from these contracts is considered upfront revenue. However, revenue from these contracts is still recognized over the duration of the contract as the customer draws down the contract balance.
- (4) Weighted average duration of the license arrangements closed in the period reported.
- (5) Should be read in conjunction with our Form 8-K filed with the SEC on December 4, 2019 and the reconciliations of the non-GAAP financial measures to their comparable GAAP measures found in this Financial Supplement.
- (6) Will typically track earnings before interest, taxes, depreciation and amortization (EBITDA) over time (less cash taxes). As operating cash flow is inherently lumpy, it is important to look at multi-year averages. FY2018 operating cash flow reflected approximately \$230 million of one-time payments, while Q1'19 operating cash flow included approximately \$18 million of one-time inflows, as summarized in the Operating Cash Flow: Certain Discrete Items table on page 2 of this Financial Supplement.
- (7) We manage the business on a long-term, annual basis, and consider quarterly fluctuations of revenue and profitability as a normal element of our business. Quarterly variability, which increased as a result of ASC 606, should be expected.
- (8) These segment results are consistent with the information required by ASC 280. They are presented to reflect the information that is considered by Synopsys' chief operating decision maker (CODM) to evaluate the operating performance of its segments. The CODM does not allocate certain operating expenses managed at a consolidated level to our reportable segments, and as a result, the reported operating income and operating margin do not include these unallocated expenses. Such unallocated expenses consist of stock-based compensation expense, amortization of intangible assets, restructuring, litigation and acquisition-related costs. Refer to Section VII for detailed information about these unallocated expenses. Management excludes these same expenses to arrive at non-GAAP measures used to evaluate and make decisions about Synopsys as a whole.

VII. RECONCILIATIONS AND ADJUSTMENTS

SUPPLEMENTAL GAAP TO NON-GAAP INFORMATION – ASC 606 ⁽¹⁾

(Unaudited and in thousands, except per share amounts)

	Three Months Ended October 31, 2019		
	GAAP	Adjustments ⁽²⁾	Non-GAAP
Cost of revenue:			
Products	\$ 112,964	\$ (4,718)	\$ 108,246
Maintenance and service	56,083	(1,767)	54,316
Amortization of intangible assets	13,696	(13,696)	-
Operating expenses:			
Research and development	\$ 290,503	\$ (21,650)	\$ 268,853
Sales and marketing	161,170	(7,536)	153,634
General and administrative	63,424	(8,844)	54,580
Amortization of intangible assets	10,080	(10,080)	-
Restructuring charges	13,440	(13,440)	-
Operating income	\$ 129,721	\$ 81,731	\$ 211,452
Other income (expense), net	\$ 1,902	\$ (2,559)	\$ (657)
Provision (benefit) for income taxes	\$ (29,091)	\$ 62,818	\$ 33,727
Net income	\$ 160,714	\$ 16,354	\$ 177,068
Net income per share (Diluted)	\$ 1.04	\$ 0.11	\$ 1.15

Shares used in computing per share amounts:

Diluted	154,532	154,532
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(1) Synopsys' fourth quarter of fiscal year 2019 ended on November 2, 2019. For presentation purposes, we refer to the closest calendar month end.

(2) The adjustments to the various line items resulted from excluding the following from non-GAAP measures: stock compensation of \$40.2 million, amortization of intangible assets of \$23.8 million, restructuring charges of \$13.4 million, acquisition-related costs of \$1.8 million, changes in the fair value of the non-qualified deferred compensation plan of (\$2.6) million, and tax effect of non-GAAP adjustments of (\$62.8) million.

GAAP TO NON-GAAP OPERATING MARGIN RECONCILIATION – ASC 606 ⁽¹⁾

(Unaudited)

	Three Months Ended October 31, 2019
GAAP operating margin	15.2%
Amortization of intangible assets	2.8%
Stock compensation	4.7%
Acquisition-related costs	0.2%
Restructuring charges	1.6%
Legal matters	0.0%
Change in value of non-qualified deferred compensation	0.3%
Non-GAAP operating margin	<u>24.8%</u>

(1) Synopsys' fourth quarter of fiscal year 2019 ended on November 2, 2019. For presentation purposes, we refer to the closest calendar month end.

SUPPLEMENTAL GAAP TO NON-GAAP INFORMATION – ASC 606 ⁽¹⁾

(Unaudited and in thousands, except per share amounts)

	Twelve Months Ended October 31, 2019		
	GAAP	Adjustments ⁽²⁾	Non-GAAP
Cost of revenue:			
Products	\$ 459,127	\$ (19,474)	\$ 439,653
Maintenance and service	234,196	(6,990)	227,206
Amortization of intangible assets	59,623	(59,623)	-
Operating expenses:			
Research and development	\$ 1,136,932	\$ (93,599)	\$ 1,043,333
Sales and marketing	632,890	(34,168)	598,722
General and administrative	229,218	(16,259)	212,959
Amortization of intangible assets	41,291	(41,291)	-
Restructuring charges	47,186	(47,186)	-
Operating income	\$ 520,231	\$ 318,590	\$ 838,821
Other income (expense), net	\$ 25,275	\$ (27,759)	\$ (2,484)
Provision (benefit) for income taxes	\$ 13,139	\$ 120,675	\$ 133,814
Net income	\$ 532,367	\$ 170,156	\$ 702,523
Net income per share (Diluted)	\$ 3.45	\$ 1.11	\$ 4.56

Shares used in computing per share amounts:

Diluted	154,190	154,190
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(1) Synopsys' fiscal year 2019 ended on November 2, 2019. For presentation purposes, we refer to the closest calendar month end.

(2) The adjustments to the various line items resulted from excluding the following from non-GAAP measures: stock compensation of \$155.0 million, amortization of intangible assets of \$100.9 million, restructuring charges of \$47.2 million, legal matter of (\$18.0) million, acquisition-related costs of \$5.7 million, changes in the fair value of the non-qualified deferred compensation plan of (\$27.8) million, tax settlement of \$17.4 million, and tax effect of non-GAAP adjustments of (\$138.1) million.

GAAP TO NON-GAAP OPERATING MARGIN RECONCILIATION – ASC 606 ⁽¹⁾

(Unaudited)

	Twelve Months Ended October 31, 2019
GAAP operating margin	15.5%
Amortization of intangible assets	3.0%
Stock compensation	4.6%
Acquisition-related costs	0.2%
Restructuring charges	1.4%
Legal matters	-0.5%
Change in value of non-qualified deferred compensation	0.8%
Non-GAAP operating margin	<u>25.0%</u>

(1) Synopsys' fiscal year ended on November 2, 2019. For presentation purposes, we refer to the closest calendar month end.

TOTAL ADJUSTED SEGMENT OPERATING INCOME RECONCILIATION ^{(1) (2)}

(in millions)

	Three Months Ended January 31, 2018 ⁽³⁾	Three Months Ended April 30, 2018 ⁽³⁾	Three Months Ended July 31, 2018 ⁽³⁾	Three Months Ended October 31, 2018 ⁽³⁾
	ASC 605	ASC 605	ASC 605	ASC 605
GAAP total operating income – as reported	\$ 107.7	\$ 127.0	\$ 64.0	\$ 61.5
Other expenses managed at consolidated level				
-Amortization of intangible assets	28.5	31.2	30.8	35.1
-Stock compensation	32.3	33.0	37.3	37.5
-Fair value changes in executive deferred compensation plan	13.4	(7.2)	8.4	(10.0)
-Acquisition-related costs	14.2	4.0	1.4	1.6
-Restructuring	(0.3)	2.2	-	11.0
-Legal matters	-	-	26.0	-
Total adjusted segment operating income	\$ 195.9	\$ 190.1	\$ 167.8	\$ 136.9

(3) Synopsys' first quarter of fiscal year 2018 ended on February 3, 2018, its second quarter of fiscal year 2018 ended on May 5, 2018 its third quarter of fiscal year 2018 ended on August 4, 2018 and its fourth quarter of fiscal year 2018 ended on November 3, 2018. For presentation purposes, we refer to the closest calendar month end. The first quarter of fiscal 2018 included an extra week.

	Three Months Ended January 31, 2019 ⁽³⁾	Three Months Ended April 30, 2019 ⁽³⁾	Three Months Ended July 31, 2019 ⁽³⁾	Three Months Ended October 31, 2019 ⁽³⁾
	ASC 606	ASC 606	ASC 606	ASC 606
GAAP total operating income – as reported	\$ 147.4	\$ 115.5	\$ 127.6	\$ 129.7
Other expenses managed at consolidated level				
-Amortization of intangible assets	28.2	25.2	23.7	23.8
-Stock compensation	38.5	36.9	39.5	40.2
-Fair value changes in executive deferred compensation plan	4.3	16.2	4.7	2.6
-Acquisition-related costs	0.6	1.6	1.8	1.8
-Restructuring	-	14.4	19.3	13.4
-Legal matters	(18.0)	-	-	-
Total adjusted segment operating income	\$ 200.9	\$ 209.8	\$ 216.6	\$ 211.5

(3) Synopsys' first quarter of fiscal year 2019 ended on February 2, 2019, its second quarter of fiscal year 2019 ended on May 4, 2019 its third quarter of fiscal year 2019 ended on August 3, 2019 and its fourth quarter of fiscal year 2019 ended on November 2, 2019. For presentation purposes, we refer to the closest calendar month end.

	Twelve Months Ended October 31, 2018 ⁽³⁾	Twelve Months Ended October 31, 2019 ⁽³⁾
	ASC 605	ASC 606
GAAP total operating income – as reported	\$ 360.2	\$ 520.2
Other expenses managed at consolidated level		
-Amortization of intangible assets	125.7	100.9
-Stock compensation	140.0	155.0
-Fair value changes in executive deferred compensation plan	4.6	27.8
-Acquisition-related costs	21.2	5.7
-Restructuring	12.9	47.2
-Legal matters	26.0	(18.0)
Total adjusted segment operating income	\$ 690.7	\$ 838.8

(3) Synopsys' fiscal year 2018 ended on November 3, 2018 and its fiscal year 2019 ended on November 2, 2019. For presentation purposes, we refer to the closest calendar month end. The first quarter of fiscal 2018 included an extra week.

(1) Synopsys manages the business on a long-term, annual basis, and considers quarterly fluctuations of revenue and profitability as normal elements of our business. Quarterly variability, which increased as a result of ASC 606, should be expected.

(2) These segment results are consistent with the information required by ASC 280, Segment Reporting. They are presented to reflect the information that is considered by Synopsys' chief operating decision maker (CODM) to evaluate the operating performance of its segments. The CODM does not allocate certain operating expenses managed at a consolidated level to our reportable segments, and as a result, the reported operating income and operating margin do not include these unallocated expenses as shown in the table above. Amounts may not foot due to rounding.

UNAUDITED RECONCILIATION OF CONSOLIDATED STATEMENT OF OPERATIONS UNDER ASC 606 AND ASC 605 ⁽¹⁾

(in thousands, except per share amounts)

	Three Months Ended October 31, 2019		
	As reported under ASC 606	Adjustments	Balances under ASC 605
Revenue:			
Time-based products	\$ 548,375	\$ 48,682	\$ 597,057
Upfront products	168,325	(84,288)	84,037
Maintenance and service	134,381	(16,330)	118,051
Total revenue	<u>851,081</u>	<u>(51,936)</u>	<u>799,145</u>
Cost of revenue:			
Products	112,964		112,964
Maintenance and service	56,083		56,083
Amortization of intangible assets	13,696		13,696
Total cost of revenue	<u>182,743</u>	<u>-</u>	<u>182,743</u>
Gross margin	668,338	(51,936)	616,402
Operating expenses:			
Research and development	290,503		290,503
Sales and marketing	161,170	(6,274)	154,896
General and administrative	63,424		63,424
Amortization of intangible assets	10,080		10,080
Restructuring charges	13,440		13,440
Total operating expenses	<u>538,617</u>	<u>(6,274)</u>	<u>532,343</u>
Operating income	129,721	(45,662)	84,059
Other income (expense), net	1,902	-	1,902
Income before income taxes	131,623	(45,662)	85,961
Provision (benefit) for income taxes	(29,091)	(6,301)	(35,392)
Net income (loss)	<u>\$ 160,714</u>	<u>\$ (39,361)</u>	<u>\$ 121,353</u>
Net income (loss) per share:			
Basic	\$ 1.07	\$ (0.26)	\$ 0.81
Diluted	\$ 1.04	\$ (0.25)	\$ 0.79
Shares used in computing per share amounts:			
Basic	<u>150,367</u>		<u>150,367</u>
Diluted	<u>154,532</u>		<u>154,532</u>

(1) Synopsys' fourth quarter of fiscal year 2019 ended on November 2, 2019. For presentation purposes, we refer to the closest calendar month end.

GAAP TO NON-GAAP RECONCILIATION OF FIRST QUARTER FISCAL YEAR 2020 TARGETS ⁽¹⁾

(in thousands, except per share amounts)

	Range for Three Months	
	Ending January 31, 2020	
	Low	High
Target GAAP expenses	\$ 715,000	\$ 744,000
Adjustments:		
Estimated impact of amortization of intangible assets	(22,000)	(25,000)
Estimated impact of stock compensation	(49,000)	(52,000)
Estimated impact of restructuring charges	(9,000)	(12,000)
Target non-GAAP expenses	\$ 635,000	\$ 655,000

	Range for Three Months	
	Ending January 31, 2020	
	Low	High
Target GAAP earnings per share	\$ 0.43	\$ 0.54
Adjustments:		
Estimated impact of amortization of intangible assets	0.16	0.14
Estimated impact of stock compensation	0.34	0.32
Estimated impact of restructuring charges	0.08	0.06
Estimated impact of tax adjustments	(0.12)	(0.12)
Target non-GAAP earnings per share	\$ 0.89	\$ 0.94
Shares used in non-GAAP calculation (midpoint of target range)	154,500	154,500

GAAP TO NON-GAAP RECONCILIATION OF FULL FISCAL YEAR 2020 TARGETS ⁽¹⁾

(in thousands, except per share amounts)

	Range for Fiscal Year	
	October 31, 2020	
	Low	High
Target GAAP expenses	\$ 2,934,000	\$ 2,983,000
Adjustments:		
Estimated impact of amortization of intangible assets	(83,000)	(88,000)
Estimated impact of stock compensation	(212,000)	(217,000)
Estimated impact of restructuring charges	(9,000)	(18,000)
Target non-GAAP expenses	\$ 2,630,000	\$ 2,660,000

	Range for Fiscal Year	
	October 31, 2020	
	Low	High
Target GAAP earnings per share	\$ 3.72	\$ 3.90
Adjustments:		
Estimated impact of amortization of intangible assets	0.57	0.54
Estimated impact of stock compensation	1.40	1.37
Estimated impact of restructuring charges	0.12	0.06
Impact of tax adjustments	(0.63)	(0.62)
Target non-GAAP earnings per share	\$ 5.18	\$ 5.25
Shares used in non-GAAP calculation (midpoint of target range)	154,500	154,500

(1) Synopsys' first fiscal quarter and fiscal year will end on February 1, 2020 and October 31, 2020, respectively. For presentation purposes, we refer to the closest calendar month end.



GAAP TO NON-GAAP RECONCILIATION OF OPERATING MARGIN AT MIDPOINT OF FULL FISCAL YEAR 2020 TARGETS ⁽¹⁾

	Twelve Months Ended
	October 31, 2020
At midpoint of revenue and expense guidance ranges:	
GAAP operating margin	18.4%
Amortization of intangible assets	2.4%
Stock compensation	5.9%
Acquisition-related costs	0.0%
Restructuring charges	0.4%
Legal matters	0.0%
Change in value of non-qualified deferred compensation	0.0%
Non-GAAP operating margin	<u>27.0%</u>

(1) These numbers represent the midpoint of targets in the prepared remarks provided on December 4, 2019, and do not represent official guidance for fiscal 2020.

GAAP TO NON-GAAP RECONCILIATIONS

Please see our Current Report on Form 8-K filed with the SEC on December 4, 2019 available at <http://www.sec.gov> for the reasons why Synopsys believes that the presentation of non-GAAP financial measures provides useful information to our shareholders regarding our financial condition and results of operations and the purposes for which management uses such non-GAAP financial measures. Certain non-GAAP data used by management, as well as the reconciliation of such data to its most directly comparable GAAP measures, is contained in the fourth quarter and fiscal year 2019 earnings release available on Synopsys' website at <https://www.synopsys.com/company/investor-relations/financial-news.html> and our Current Report on Form 8-K filed with the SEC on December 4, 2019. In addition to the adjustments described in the Current Report on Form 8-K, the non-GAAP financial measures provided in this Supplement also exclude changes in the fair value of our non-qualified deferred compensation plans since such changes typically do not require current cash settlement and because they are not used by us in assessing the profitability of our business operations.

FORWARD-LOOKING STATEMENTS

This Supplement contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, including, but not limited to, financial targets for the first quarter and full fiscal year 2020, the GAAP to non-GAAP reconciliations of projections, as well as statements related to our long-term revenue, non-GAAP EPS and non-GAAP operating margin objectives, discrete items in fiscal year 2020, the expected normalized tax rate, and the expected impact of the recent U.S. government action on Synopsys' financial results. These statements involve known and unknown risks, uncertainties and other factors that could cause actual results to differ materially from those expressed or implied in our forward-looking statements. Accordingly, we caution stockholders and prospective investors not to place undue reliance on these statements. Such risks, uncertainties and factors include, but are not limited to: additional administrative, legislative or regulatory action by the U.S. or foreign governments, such as the imposition of additional tariffs or export restrictions, which could further interfere with our ability to provide products and services in certain countries; the response by current or potential customers and their willingness to purchase products and services from us in the future; uncertainty in the growth of the semiconductor and electronics industries; consolidation among our customers and our dependence on a relatively small number of large customers; uncertainty in the global economy; fluctuation of our operating results; increased variability in our revenue due to the adoption of ASC 606, including the resulting increase in recognizing upfront revenue as a percentage of total revenue; our highly competitive industries and our ability to meet our customers' demand for innovative technology at lower costs; risks and compliance obligations relating to the global nature of our operations; cybersecurity threats or other security breaches; our ability to protect our proprietary technology; our ability to realize the potential financial or strategic benefits of acquisitions we complete; our ability to carry out our new product and technology initiatives; investment of more resources in research and development than anticipated; increased risks resulting from an increase in sales of our hardware products, including increased variability in upfront revenue; changes in accounting principles or standards; changes in our effective tax rate; liquidity requirements in our U.S. operations; claims that our products infringe on third-party intellectual property rights; litigation; product errors or defects; the ability to obtain licenses to third-party software and intellectual property on reasonable terms or at all; the ability to timely recruit and retain senior management and key employees; the inherent limitations on the effectiveness of our controls and compliance programs; the impairment of our investment portfolio by the deterioration of capital markets; the accuracy of certain assumptions, judgments and estimates that affect amounts reported in our financial statements; and the impact of catastrophic events. More information on potential risks, uncertainties and other factors that could affect Synopsys' results is included in filings it makes with the Securities and Exchange Commission from time to time, including in the sections entitled "Risk Factors" in its Annual Report on Form 10-K for the fiscal year ended October 31, 2018 and in its latest Quarterly Report on Form 10-Q.

EFFECTIVENESS OF INFORMATION

The information provided herein is as of December 4, 2019. Although this Supplement will remain available on Synopsys' website through the date of the first quarter of fiscal 2020 earnings call in February 2020, its continued availability through such date does not mean that Synopsys is reaffirming or confirming its continued validity. Synopsys does not currently intend to, and assumes no obligation to, report on its progress during the first quarter of fiscal 2020 or comment to analysts or investors on, or otherwise update, the information contained in this Supplement.