

# FINANCIAL SUPPLEMENT Q3 FY2019

August 21, 2019

## CONTENTS

- I. [Financial Targets](#)
- II. [Summary of Certain Discrete Items](#)
- III. [Long-Term Financial Objectives](#)
- IV. [Revenue by Product Group](#)
- V. [Revenue by Geographic Region](#)
- VI. [Selected Financial and Operating Metrics](#)
- VII. [ASC Topic 606 – Description of Changes](#)
- VIII. [Reconciliations and Adjustments](#)
- IX. [Notice to Investors](#)

## USEFUL LINKS

- [Press Release](#)
- [Webcast](#)
- [Form 10-K FY2018](#)
- [Form 10-Q Q3 FY2019](#)

## CONTACT

Synopsys, Inc.  
Investor Relations  
Phone: (650) 584-4257  
Email: [invest-info@synopsys.com](mailto:invest-info@synopsys.com)

## I. FISCAL YEAR 2019 SELECTED FINANCIAL RESULTS & TARGETS <sup>(1) (2) (3)</sup>

	Q4 FY2019 ASC 606	FY2019 ASC 606
Revenue (million)	\$830 - \$860	\$3,340 - \$3,370
GAAP Expenses (million)	\$701 - \$733	\$2,820 - \$2,852
Non-GAAP Expenses (million)	\$630 - \$650	\$2,512 - \$2,532
Other Income and Expense Net (million)	(\$2) - \$0	(\$4) - (\$2)
Annual Non-GAAP Tax Rate	16%	16%
Fully Diluted Outstanding Shares (million)	153 - 156	153 - 156
GAAP Earnings Per Share	\$0.69 - \$0.82	\$3.11 - \$3.24
Non-GAAP Earnings Per Share	\$1.10 - \$1.15	\$4.52 - \$4.57
Cash Flow from Operations (million)		~\$750
Capital Expenditures (million)		~\$230
Average Renewable License Duration		~3 years
Stock-Based Compensation (million)		~\$160

- (1) These targets were provided by Synopsys as of August 21, 2019.
- (2) We operate and plan the business under current ASC 606 rules and regulations. In previous quarters, we provided a set of FY19 comparative metrics based on the former ASC 605 rules. However, our estimates of what revenue would have been under the previous rules have become increasingly inconsistent with, and therefore do not reflect, the underlying fundamentals of the business. Nevertheless, we estimate that FY19 target revenue using the previous ASC 605 would be approximately \$80 million less than our actual target range under the current ASC 606. Given the lack of relevance, we no longer provide detailed comparative metrics.
- (3) These targets reflect the status of certain companies currently on the U.S. government's "Entity List," and do not assume any revenue in the fourth fiscal quarter from these companies.

## RECENT ACQUISITION

### QTronic GmbH

- Announced Aug. 2019. Subject to certain foreign regulatory filings. Expected to close in Q4'19.
- Acquisition terms not disclosed; not material to Synopsys financials.
- A leader in simulation, test tools, and services for automotive software and systems development. Broadens Synopsys' virtual prototyping solution. Expands presence in automotive Tier 1 and OEM companies.

## II. SUMMARY OF CERTAIN DISCRETE ITEMS

### Income Statement: Certain Discrete Operating Items

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

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

Revenue FY18-FY19	FY18A ASC 605	FY19E* ASC 606 <sup>(6)</sup>
<b>Reported results; Guidance midpoint</b>	<b>\$3,121.1</b>	<b>\$3,355.0</b>
Extra week in Q1'18		~+\$46M

Non-GAAP EPS FY18-FY19	FY18A ASC 605	FY19E* ASC 606
<b>Reported results; Guidance midpoint</b>	<b>\$3.91</b>	<b>\$4.55</b>
Extra Week in Q1'18		~+7 cents

### Cash Flow Statement: Certain Discrete Items

Operating Cash Flow One-time Items	FY18A	FY19E*
<b>Reported results; Guidance midpoint</b>	<b>\$424.2</b>	<b>~\$750M</b>
Hungary tax dispute (Q1'18) <sup>(1)</sup>	~(\$66M)	
Repatriation tax (Q2'18) <sup>(2)</sup>	~(\$33M)	
Siemens/Mentor litigation settlement (Q3'18) <sup>(3)</sup>	~(\$65M)	
IP transfer tax (Q4'18) <sup>(4)</sup>	~(\$67M)	
Litigation settlement (Q1'19) <sup>(5)</sup>		~\$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

(6) We operate and plan the business under current ASC 606 rules and regulations. In previous quarters, we provided a set of FY19 comparative metrics based on the former ASC 605 rules.

However, our estimates of what revenue would have been under the previous rules have become increasingly inconsistent with, and therefore do not reflect, the underlying fundamentals of the business. Nevertheless, we estimate that FY19 target revenue using the previous ASC 605 would be approximately \$80 million less than our actual target range under the current ASC 606. Given the lack of relevance, we no longer provide detailed comparative metrics.

\* Midpoint of FY19 targets

Capital Expenditures 2019 Capital Projects	FY19E
<b>Guidance</b>	<b>~\$230M</b>
Wuhan facility <sup>(7)</sup>	~\$50M
Infrastructure <sup>(8)</sup>	~\$110M
SV office consolidation <sup>(9)</sup>	~\$70M

(7) Development costs associated with Wuhan, China facility

(8) IT and facility infrastructure upgrades to support growth

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

## III. LONG-TERM FINANCIAL OBJECTIVES (EFFECTIVE APRIL 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** generally in the **20% range**
- 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	Q119	Q219	Q319
	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	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	500.8	492.7	481.6
<i>% of Revenue</i>	66%	63%	63%	63%	60%	62%	60%	62%	59%	61%	59%	56%
IP & System Integration	753.4	219.3	222.1	214.2	241.0	896.6	234.2	236.9	244.7	235.8	259.2	286.2
<i>% of Revenue</i>	28%	28%	29%	27%	30%	29%	29%	28%	30%	29%	31%	34%
Software Integrity	173.8	64.1	67.8	71.3	77.3	280.5	78.3	86.1	80.1	82.5	83.2	83.6
<i>% of Revenue</i>	6%	8%	9%	9%	10%	9%	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	1.3	1.1	1.6
<b>Total</b>	<b>2,724.9</b>	<b>769.4</b>	<b>776.8</b>	<b>779.7</b>	<b>795.1</b>	<b>3,121.1</b>	<b>798.1</b>	<b>852.6</b>	<b>808.4</b>	<b>820.4</b>	<b>836.2</b>	<b>853.0</b>

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	Q119	Q219	Q319
	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	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	414.5	433.9	414.0
<i>% of Revenue</i>	51%	52%	50%	48%	49%	50%	48%	53%	51%	51%	52%	49%
Europe	308.4	85.5	97.0	90.7	96.0	369.1	86.9	89.2	85.3	83.9	83.5	90.1
<i>% of Revenue</i>	11%	11%	12%	12%	12%	12%	11%	10%	11%	10%	10%	11%
Japan	247.6	68.4	70.4	72.0	72.5	283.3	70.2	69.3	77.2	65.1	72.7	65.7
<i>% of Revenue</i>	9%	9%	9%	9%	9%	9%	9%	8%	10%	8%	9%	8%
Asia Pacific	784.5	215.1	221.8	243.3	238.9	919.0	254.7	240.5	237.4	256.9	246.1	283.2
<i>% of Revenue</i>	29%	28%	29%	31%	30%	29%	32%	28%	29%	31%	29%	33%
<b>Total</b>	<b>2,724.9</b>	<b>769.4</b>	<b>776.8</b>	<b>779.7</b>	<b>795.1</b>	<b>3,121.1</b>	<b>798.1</b>	<b>852.6</b>	<b>808.4</b>	<b>820.4</b>	<b>836.2</b>	<b>853.0</b>

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
	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 606	ASC 606	ASC 606
Revenue License Type (millions) <sup>(1)</sup>									
- Time-Based Products	\$2,021.8	\$570.9	\$556.8	\$570.1	\$605.6	\$2,303.3	\$553.7	\$558.3	\$537.6
- Upfront Products	\$338.2	\$91.6	\$100.0	\$99.6	\$66.6	\$357.7	\$130.5	\$143.4	\$177.6
- Maintenance and Service <sup>(2)</sup>	\$364.9	\$106.9	\$120.1	\$110.1	\$123.0	\$460.0	\$136.2	\$134.5	\$137.8
Revenue Mix (% of total revenue) <sup>(1)</sup>									
- Recurring Revenue <sup>(3)</sup>	88%	88%	87%	87%	92%	89%	89%	90%	88%
- Non-Recurring Revenue	12%	12%	13%	13%	8%	11%	11%	10%	12%
Avg renewable license duration (yrs) <sup>(4)</sup>	-2.7	-3.0	-2.6	-2.5	-2.7	-2.7	-2.9	-2.7	-2.4
Non-GAAP Operating Margin <sup>(5)</sup>	23.8%	25.5%	24.5%	21.5%	17.1%	22.1%	24.5%	25.1%	25.4%
Cash, Cash Equivalents & Short-term Investments (millions)	\$1,048	\$606	\$571	\$741	\$723	\$723	\$592	\$631	\$687
- % held in U.S.	53%	24%	23%	18%	25%	25%	23%	28%	24%
Outstanding Debt	\$144	\$572	\$524	\$622	\$469	\$469	\$542	\$292	\$142
Operating Cash Flow <sup>(1),(6)</sup>	\$635	(\$59)	\$63	\$289	\$131	\$424	(\$144)	\$353	\$370
Capital Expenditures <sup>(1)</sup>	\$70.3	\$28.3	\$20.3	\$21.9	\$29.0	\$99.0	\$29.0	\$40.0	\$53.0
Share Repurchases (millions) <sup>(1)</sup>									
- Number of Shares	5.4	2.3	0.4	1.8	-	4.5	0.3	0.8	0.8
- Gross Share Repurchases	(\$400)	(\$200)	(\$35)	(\$165)	-	(\$400)	(\$29)	(\$100)	(\$100)
- Remaining Repurchase Authorization	\$400	\$200	\$490	\$325	\$325	\$325	\$296	\$196	\$500
DSO		64	67	59	64		85	57	49
Employee Headcount		~12,290	~12,590	~13,030	~13,250		~13,450	~13,580	~13,860
Revenue by Segment (millions) <sup>(7)(8)</sup>									
- Semiconductor & System Design						\$2,840.6	\$737.9	\$753.0	\$769.4
% of Total						91%	90%	90%	90%
- Software Integrity						\$280.5	\$82.5	\$83.2	\$83.6
% of Total						9%	10%	10%	10%
Adjusted Op Income by Segment (millions) <sup>(7)(8)</sup>									
- Semiconductor & System Design						\$701.3	\$195.3	\$201.4	\$207.8
- Software Integrity						-\$10.6	\$5.6	\$8.4	\$8.8
Adjusted Operating Margin by Segment <sup>(7)(8)</sup>									
- Semiconductor & System Design						24.7%	26.5%	26.8%	27.0%
- Software Integrity						-3.8%	6.8%	10.1%	10.5%

- (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 August 21, 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 increases 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 VIII 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. ASC TOPIC 606 – DESCRIPTION OF CHANGES

“Accounting Standards Codification Topic 606 – Revenue from Contracts with Customers” (implemented in Q1 FY19)

In May 2014, the Financial Accounting Standards Board issued new revenue recognition requirements that became effective for Synopsys in FY19. We adopted these changes using the “modified retrospective method,” under which the cumulative effect of initially applying the new recognition standards is recognized at the date of initial application (Q1 of FY19). The estimated transition impact described below is based on calculations that remain ongoing and will likely change throughout the year.

### Description:

- Adoption of ASC 606 is an accounting change regarding the rules of revenue recognition for multi-product contracts.
- ASC 606 will have no impact on cash flow or compensation plans, and revenue from the majority of our contracts will be unchanged, although they may be more variable from period to period.

### What changes:

- **One-time:** using the “modified retrospective method,” a portion of our contracted but unsatisfied performance obligations (“backlog”) was recast at the beginning of FY19.
- **Ongoing:** our time-based revenue from multi-period IP license contracts that was previously recognized ratably (as time-based revenue) will instead be recognized in the period in which the IP is delivered (as upfront revenue), resulting in greater quarterly variability.  
*However, there is no change to our IP arrangements, the economic value of those arrangements, or the cash flow they generate.*

Metric	Primary Accounting Treatment		Impact
	ASC 605	ASC 606	
Software License Revenue	Time-based	Time-based	n/m*
IP License Revenue	Majority time-based	Recognized on delivery throughout contract term; recorded as Upfront <i>(see below example)</i>	Moderate
Hardware Revenue	Upfront	Upfront	n/m*
Maint & Service Revenue	Time-based	Time-based	n/m*
Commission Expense	On shipment	Over contract term	n/m*

\* Not material

Example: Customer signs contract for use of \$9 million worth of IP licenses over 3-year period			
	Year 1	Year 2	Year 3
Customer Activity:	5 IP titles delivered to customer with total value of \$3M	7 IP titles delivered to customer with total value of \$4M	3 IP titles delivered to customer with total value of \$2M
<b>Revenue Recognized:</b>			
Under previous ASC 605 rules:	\$3M <i>(1/3 of 3-year contract)</i>	\$3M <i>(1/3 of 3-year contract)</i>	\$3M <i>(1/3 of 3-year contract)</i>
Under new ASC 606 rules:	\$3M <i>(value of IP used in period)</i>	\$4M <i>(value of IP used in period)</i>	\$2M <i>(value of IP used in period)</i>

## VIII. RECONCILIATIONS AND ADJUSTMENTS

### SUPPLEMENTAL GAAP TO NON-GAAP INFORMATION – ASC 606 <sup>(1)</sup>

(Unaudited and in thousands, except per share amounts)

	Three Months Ended July 31, 2019		
	GAAP	Adjustments <sup>(2)</sup>	Non-GAAP
<b>Cost of revenue:</b>			
Products	\$ 113,533	\$ (4,875)	\$ 108,658
Maintenance and service	59,496	(1,799)	57,697
Amortization of intangible assets	13,603	(13,603)	-
<b>Operating expenses:</b>			
Research and development	\$ 284,804	\$ (22,256)	\$ 262,548
Sales and marketing	157,109	(8,260)	148,849
General and administrative	67,382	(8,745)	58,637
Amortization of intangible assets	10,111	(10,111)	-
Restructuring	19,338	(19,338)	-
Operating income	\$ 127,594	\$ 88,987	\$ 216,581
Other income (expense), net	\$ 5,317	\$ (4,686)	\$ 631
Provision (benefit) for income taxes	\$ 32,982	\$ 1,772	\$ 34,754
Net income	\$ 99,929	\$ 82,529	\$ 182,458
Net income per share (Diluted)	\$ 0.65	\$ 0.53	\$ 1.18

Shares used in computing per share amounts:

Diluted	154,600	154,600
---------	---------	---------

(1) Synopsys' third quarter of fiscal year 2019 ended on August 3, 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 \$39.5 million, amortization of intangible assets of \$23.7 million, restructuring charge of \$19.3 million, acquisition-related costs of \$1.8 million, changes in the fair value of the non-qualified deferred compensation plan of \$4.7 million, and tax effect of non-GAAP adjustments of (\$1.8) million.

### GAAP TO NON-GAAP OPERATING MARGIN RECONCILIATION – ASC 606 <sup>(1)</sup>

(Unaudited)

	Three Months Ended July 31, 2019
GAAP operating margin	15.0%
Amortization of intangible assets	2.8%
Stock compensation	4.6%
Acquisition-related costs	0.2%
Restructuring	2.3%
Legal matters	0.0%
Change in value of non-qualified deferred compensation	0.5%
Non-GAAP operating margin	<u>25.4%</u>

(1) Synopsys' third quarter of fiscal year 2019 ended on August 3, 2019. For presentation purposes, we refer to the closest calendar month end.

## TOTAL ADJUSTED SEGMENT OPERATING INCOME RECONCILIATION <sup>(1) (2)</sup>

(in millions)

	Three Months Ended July 31, 2019 <sup>(3)</sup>	
	ASC 606	
GAAP total operating income – as reported	\$	127.6
Other expenses managed at consolidated level		
-Amortization of intangible assets		23.7
-Stock compensation		39.5
-Fair value changes in executive deferred compensation plan		4.7
-Acquisition-related costs		1.8
-Restructuring		19.3
-Legal matters		-
Total adjusted segment operating income	\$	216.6

(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 increases 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.

(3) Synopsys' third quarter of fiscal year 2019 ended on August 3, 2019. For presentation purposes, we refer to the closest calendar month end.



## UNAUDITED RECONCILIATION OF CONSOLIDATED STATEMENT OF OPERATIONS UNDER ASC 606 AND ASC 605 <sup>(1)</sup>

(in thousands, except per share amounts)

	Three Months Ended July 31, 2019		
	As reported under ASC 606	Adjustments	Balances under ASC 605
Revenue:			
Time-based products	\$ 537,569	\$ 55,604	\$ 593,173
Upfront products	177,552	(73,267)	104,285
Maintenance and service	137,849	(26,914)	110,935
Total revenue	<u>852,970</u>	<u>(44,577)</u>	<u>808,393</u>
Cost of revenue:			
Products	113,533		113,533
Maintenance and service	59,496		59,496
Amortization of intangible assets	13,603		13,603
Total cost of revenue	<u>186,632</u>	<u>-</u>	<u>186,632</u>
Gross margin	666,338	(44,577)	621,761
Operating expenses:			
Research and development	284,804		284,804
Sales and marketing	157,109	(2,731)	154,378
General and administrative	67,382		67,382
Amortization of intangible assets	10,111		10,111
Restructuring	19,338		19,338
Total operating expenses	<u>538,744</u>	<u>(2,731)</u>	<u>536,013</u>
Operating income	127,594	(41,846)	85,748
Other income (expense), net	5,317	-	5,317
Income before income taxes	132,911	(41,846)	91,065
Provision (benefit) for income taxes	32,982	(9,127)	23,855
Net income (loss)	<u>\$ 99,929</u>	<u>\$ (32,719)</u>	<u>\$ 67,210</u>
Net income (loss) per share:			
Basic	\$ 0.67	\$ (0.22)	\$ 0.45
Diluted	\$ 0.65	\$ (0.22)	\$ 0.43
Shares used in computing per share amounts:			
Basic	<u>150,123</u>		<u>150,123</u>
Diluted	<u>154,600</u>		<u>154,600</u>

(1) Synopsys' third quarter of fiscal year 2019 ended on August 3, 2019. For presentation purposes, we refer to the closest calendar month end.



## GAAP TO NON-GAAP RECONCILIATION OF THIRD QUARTER FISCAL YEAR 2019 TARGETS <sup>(1)</sup>

(in thousands, except per share amounts)

	ASC 606	
	Range for Three Months	
	Ending October 31, 2019 <sup>(2)</sup>	
	Low	High
Target GAAP expenses	\$ 701,000	\$ 733,000
Adjustments:		
Estimated impact of amortization of intangible assets	(23,000)	(26,000)
Estimated impact of stock compensation	(39,000)	(42,000)
Estimated impact of restructuring	(9,000)	(15,000)
Target non-GAAP expenses	\$ 630,000	\$ 650,000

	ASC 606	
	Range for Three Months	
	Ending October 31, 2019 <sup>(2)</sup>	
	Low	High
Target GAAP earnings per share	\$ 0.69	\$ 0.82
Adjustments:		
Estimated impact of amortization of intangible assets	0.17	0.15
Estimated impact of stock compensation	0.27	0.25
Estimated impact of restructuring	0.10	0.06
Estimated impact of tax adjustments	(0.13)	(0.13)
Target non-GAAP earnings per share	\$ 1.10	\$ 1.15

Shares used in non-GAAP calculation (midpoint of target range) 154,500 154,500

## GAAP TO NON-GAAP RECONCILIATION OF FULL FISCAL YEAR 2019 TARGETS <sup>(1)</sup>

(in thousands, except per share amounts)

	ASC 606	
	Range for Fiscal Year	
	October 31, 2019 <sup>(2)</sup>	
	Low	High
Target GAAP expenses	\$ 2,820,148	\$ 2,852,148
Adjustments:		
Estimated impact of amortization of intangible assets	(100,000)	(103,000)
Estimated impact of stock compensation	(154,000)	(157,000)
Acquisition-related costs	(3,948)	(3,948)
Estimated impact of restructuring	(43,000)	(49,000)
Legal matters	18,000	18,000
Fair value changes in executive deferred compensation plan	(25,200)	(25,200)
Target non-GAAP expenses	\$ 2,512,000	\$ 2,532,000

	ASC 606	
	Range for Fiscal Year	
	October 31, 2019 <sup>(2)</sup>	
	Low	High
Target GAAP earnings per share	\$ 3.11	\$ 3.24
Adjustments:		
Estimated impact of amortization of intangible assets	0.67	0.65
Estimated impact of stock compensation	1.02	1.00
Acquisition-related costs	0.03	0.03
Estimated impact of restructuring	0.32	0.28
Legal matters	(0.12)	(0.12)
Tax settlement	0.11	0.11
Impact of tax adjustments	(0.62)	(0.62)
Target non-GAAP earnings per share	\$ 4.52	\$ 4.57

Shares used in non-GAAP calculation (midpoint of target range) 154,500 154,500

(1) Synopsys adopted new revenue recognition guidance ASC 606, *Revenue from Contracts with Customers*, at the beginning of fiscal 2019 under the modified retrospective method.

(2) Synopsys' fourth fiscal quarter and fiscal year will end on November 2, 2019. 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 2019 TARGETS <sup>(1) (2)</sup>

	<b>ASC 606</b>
	<b>October 31, 2019 <sup>(3)</sup></b>
At midpoint of revenue and expense guidance ranges:	
GAAP operating margin	15.5%
Amortization of intangible assets	3.0%
Stock compensation	4.6%
Acquisition-related costs	0.1%
Restructuring	1.4%
Legal matters	-0.5%
Change in value of non-qualified deferred compensation	0.8%
Non-GAAP operating margin	<u>24.8%</u>

(1) Synopsys adopted new revenue recognition guidance *ASC 606, Revenue from Contracts with Customers*, at the beginning of fiscal 2019 under the modified retrospective method.

(2) These numbers represent the midpoint of targets in the prepared remarks provided on August 21, 2019, and do not represent official guidance for fiscal 2019.

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

## GAAP TO NON-GAAP RECONCILIATIONS

Please see our Current Report on Form 8-K filed with the SEC on August 21, 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 third quarter of fiscal 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 August 21, 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 fourth quarter and full fiscal year 2019, 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, the expected impact of ASC 606, discrete items in fiscal year 2019, the expected normalized tax rate, and the expected impact of the recent U.S. government action on Synopsys' fiscal 2019 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 August 21, 2019. Although this Supplement will remain available on Synopsys' website through the date of the fourth quarter of fiscal 2019 earnings call in December 2019, 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 third quarter of fiscal 2019 or comment to analysts or investors on, or otherwise update, the information contained in this Supplement.