FINANCIAL SUPPLEMENT Q1 FY2020

February 19, 2020

SYNOPSYS®

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

	Q2FY2020	FY2020
Revenue (million)	$820 - $850	$3,600 - $3,650
GAAP Expenses (million)	$724 - $758	$2,951 - $3,000
Non-GAAP Expenses (million)	$645 - $665	$2,630 - $2,660
Other Income and Expense Net (million)	($3) – ($1)	($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	$0.49 - $0.62	$3.68 - $3.87
Non-GAAP Earnings Per Share	$0.96 - $1.01	$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)		~$225

(1) These targets were provided by Synopsys as of February 19, 2020.
(2) These targets do not assume any revenue from companies currently on the U.S. government's "Entity List."

RECENT ACQUISITIONS

Tinfoil Security

- Closed January 2020.
- Terms not disclosed; not material
- Expands our DAST portfolio and adds API testing capabilities, further strengthening our technology lead in application security and quality testing.

INVECAS Asset Acquisition

- Closed February 2020.
- Terms not disclosed; not material.
- Broadens DesignWare Logic Library, Embedded Memory, Interface & Analog IP portfolio for consumer, IoT and automotive designs; adds R&D team to accelerate physical IP roadmap across range of process technologies.

II. REVENUE BY PRODUCT GROUP (Unaudited)

($ millions)	**Q119**	**Q219**	**Q319**	**Q419**	**FY19**	**Q120**
EDA	500.8	492.7	481.6	489.2	1,964.3	492.6
% of Revenue	*61%*	*59%*	*56%*	*57%*	*58%*	*59%*
IP & System Integration	235.8	259.2	286.2	275.5	1,056.6	255.1
% of Revenue	*29%*	*31%*	*34%*	*32%*	*31%*	*31%*
Software Integrity	82.5	83.2	83.6	85.3	334.6	85.6
% of Revenue	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*
Other	1.3	1.1	1.6	1.1	5.2	1.1
Total	**820.4**	**836.2**	**853.0**	**851.1**	**3,360.7**	**834.4**

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.

III. REVENUE BY GEOGRAPHIC REGION (Unaudited)

($ millions)	**Q119**	**Q219**	**Q319**	**Q419**	**FY19**	**Q120**
North America	414.5	433.9	414.0	450.0	1,712.5	415.4
% of Revenue	*51%*	*52%*	*49%*	*53%*	*51%*	*50%*
Europe	83.9	83.5	90.1	91.5	349.0	94.4
% of Revenue	*10%*	*10%*	*11%*	*11%*	*10%*	*11%*
Japan	65.1	72.7	65.7	69.2	272.7	72.2
% of Revenue	*8%*	*9%*	*8%*	*8%*	*8%*	*9%*
Korea	102.7				353.4	89.5
% of Revenue	*13%*				*11%*	*11%*
Asia Pacific*	154.2	246.1	283.2	240.3	673.2	162.9
% of Revenue	*19%*	*29%*	*33%*	*28%*	*20%*	*20%*
Total	**820.4**	**836.2**	**853.0**	**851.1**	**3,360.7**	**834.4**

* We began reporting revenue from Korea separate from Asia Pacific revenue at the conclusion of fiscal 2019. For comparative purposes against the current quarter, revenue from Korea is reported separate from Asia Pacific revenue for the first quarter of fiscal 2019.

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.

IV. SELECTED FINANCIAL AND OPERATING METRICS

	Q119	Q219	Q319	Q419	FY19	Q120
Revenue License Type (millions) [1]						
- Time-based Products	$553.7	$558.3	$537.6	$548.4	$2,198.0	$556.4
- Upfront Products	$130.5	$143.4	$177.6	$168.3	$619.8	$150.7
- Maintenance and Service [2]	$136.2	$134.5	$137.8	$134.4	$542.9	$127.2
Recurring Revenue (% of Total Revenue) [3]	*89%*	*90%*	*88%*	*89%*	*89%*	*87%*
Avg Renewable License Duration (yrs) [4]	~2.9	~2.7	~2.4	~2.7	~2.7	~2.5
Non-GAAP Operating Margin [5]	24.5%	25.1%	25.4%	24.8%	25.0%	22.4%
Cash, Cash Equivalents & Short-term Investments (millions)	$592	$631	$687	$729	$729	$700
- % held in U.S.	23%	28%	24%	26%	26%	31%
Outstanding Debt	$542	$292	$142	$138	$138	$331
Operating Cash Flow [1],[6]	($144)	$353	$370	$221	$801	$10
Capital Expenditures [1]	$29	$40	$53	$76	$198	$55
Share Repurchases (millions) [1]						
- Number of Shares	0.3	0.8	0.8	0.8	2.7	0.6
- Gross Share Repurchases	($29)	($100)	($100)	($100)	($329)	($100)
- Remaining Repurchase Authorization	$296	$196	$500	$400	$400	$300
DSO	85	57	49	59		87
Employee Headcount	~13,450	~13,580	~13,860	~13,895		~14,280
Revenue by Segment (millions) [7][8]						
- Semiconductor & System Design	$737.9	$753.0	$769.4	$765.8	$3,026.1	$748.8
% of Total	*90%*	*90%*	*90%*	*90%*	*90%*	*90%*
- Software Integrity	$82.5	$83.2	$83.6	$85.3	$334.6	$85.6
% of Total	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*
Adjusted Op Income by Segment (millions) [7][8]						
- Semiconductor & System Design	$195.3	$201.4	$207.8	$202.1	$806.6	$178.8
- Software Integrity	$5.6	$8.4	$8.8	$9.4	$32.2	$8.1
Adjusted Operating Margin by Segment [7][8]						
- Semiconductor & System Design	26.5%	26.8%	27.0%	26.4%	26.7%	23.9%
- Software Integrity	6.8%	10.1%	10.5%	11.0%	9.6%	9.4%

(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 Q119 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 February 19, 2020 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.

(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 makers (CODMs) to evaluate the operating performance of its segments. The CODMs do 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.

V. RECONCILIATIONS AND ADJUSTMENTS

SUPPLEMENTAL GAAP TO NON-GAAP INFORMATION (1)

(Unaudited and in thousands, except per share amounts)

	Three Months Ended January 31, 2020		
	GAAP	Adjustments (2)	Non-GAAP
Cost of revenue:			
Products	$ 117,784	$ (6,744)	$ 111,040
Maintenance and service	61,915	(2,240)	59,675
Amortization of intangible assets	13,169	(13,169)	-
Operating expenses:			
Research and development	$ 314,283	$ (33,380)	$ 280,903
Sales and marketing	152,855	(11,389)	141,466
General and administrative	68,744	(14,380)	54,364
Amortization of intangible assets	9,364	(9,364)	-
Restructuring charges	8,751	(8,751)	-
Operating income	$ 87,516	$ 99,417	$ 186,933
Other income (expense), net	$ 12,057	$ (12,473)	$ (416)
Provision (benefit) for income taxes	$ (4,488)	$ 34,331	$ 29,843
Net income	$ 104,061	$ 52,613	$ 156,674
Net income per share (Diluted)	$ 0.67	$ 0.34	$ 1.01
Shares used in computing per share amounts:			
Diluted	154,504		154,504

(1) Synopsys' first quarter of fiscal year 2020 ended on Feburary 1, 2020. 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 $51.9 million, amortization of intangible assets of $22.5 million, restructuring charges of $8.8 million, acquisition-related costs of $3.8 million, changes in the fair value of the non-qualified deferred compensation plan of ($12.5) million, and tax effect of non-GAAP adjustments of ($34.3) million.

GAAP TO NON-GAAP OPERATING MARGIN RECONCILIATION (1)

(Unaudited)

	Three Months Ended January 31, 2020
GAAP operating margin	10.5%
Amortization of intangible assets	2.7%
Stock compensation	6.2%
Acquisition-related costs	0.5%
Restructuring charges	1.0%
Change in value of non-qualified deferred compensation	1.5%
Non-GAAP operating margin	22.4%

(1) Synopsys' first quarter of fiscal year 2020 ended on February 1, 2020. 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, 2020 [(3)]
GAAP total operating income – as reported	$ 87.5
Other expenses managed at consolidated level	
-Amortization of intangible assets	22.5
-Stock compensation	51.9
-Fair value changes in executive deferred compensation plan	12.5
-Acquisition-related costs	3.8
-Restructuring	8.8
-Legal matters	-
Total adjusted segment operating income	186.9

(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 makers (CODMs) to evaluate the operating performance of its segments. The CODMs do 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' first quarter of fiscal year 2020 ended on February 1, 2020. For presentation purposes, we refer to the closest calendar month end.

GAAP TO NON-GAAP RECONCILIATION OF SECOND QUARTER FISCAL YEAR 2020 TARGETS [1]

(in thousands, except per share amounts)

	Range for Three Months Ending April 30, 2020	
	Low	High
Target GAAP expenses	$ 724,000	$ 758,000
Adjustments:		
Estimated impact of amortization of intangible assets	(23,000)	(25,000)
Estimated impact of stock compensation	(56,000)	(59,000)
Estimated impact of restructuring charges	-	(9,000)
Target non-GAAP expenses	$ 645,000	$ 665,000

	Range for Three Months Ending April 30, 2020	
	Low	High
Target GAAP earnings per share	$ 0.49	$ 0.62
Adjustments:		
Estimated impact of amortization of intangible assets	0.16	0.15
Estimated impact of stock compensation	0.38	0.36
Estimated impact of restructuring charges	0.06	-
Estimated impact of tax adjustments	(0.13)	(0.12)
Target non-GAAP earnings per share	$ 0.96	$ 1.01
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	$ 2,950,777	$ 2,999,777
Adjustments:		
Estimated impact of amortization of intangible assets	(86,000)	(91,000)
Estimated impact of stock compensation	(222,000)	(227,000)
Acquisition-related costs	(3,777)	(3,777)
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	$ 3.68	$ 3.87
Adjustments:		
Estimated impact of amortization of intangible assets	0.59	0.56
Estimated impact of stock compensation	1.47	1.44
Acquisition-related costs	0.02	0.02
Estimated impact of restructuring charges	0.12	0.06
Impact of tax adjustments	(0.70)	(0.70)
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' second fiscal quarter and fiscal year will end on May 2, 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	17.9%
Amortization of intangible assets	2.4%
Stock compensation	6.2%
Acquisition-related costs	0.1%
Restructuring charges	0.4%
Target non-GAAP expenses	27.0%

(1) These numbers represent the midpoint of targets in the prepared remarks provided on February 19, 2020, and do not represent official guidance for fiscal 2020.

NOTICE TO INVESTORS

GAAP TO NON-GAAP RECONCILIATIONS

Please see our Current Report on Form 8-K filed with the SEC on February 19, 2020 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 first quarter of fiscal 2020 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 February 19, 2020. 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 second quarter and full fiscal year 2020, the GAAP to non-GAAP reconciliations of such financial targets, 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; risks and compliance obligations relating to the global nature of our operations; 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; 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; product errors or defects; 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; 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, 2019 and in its latest Quarterly Report on Form 10-Q.

EFFECTIVENESS OF INFORMATION

The information provided herein is as of February 19, 2020. Although this Supplement will remain available on Synopsys' website through the date of the second quarter of fiscal 2020 earnings call in May 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 second quarter of fiscal 2020 or comment to analysts or investors on, or otherwise update, the information contained in this Supplement.