



**ANSYS, INC. THIRD QUARTER 2019
EARNINGS ANNOUNCEMENT
PREPARED REMARKS
November 6th, 2019**

We are providing a copy of our prepared remarks in connection with our earnings announcement. These remarks are offered to provide additional detail for analyzing our Q3 2019 results in advance of our quarterly conference call. These prepared remarks will not be read on the call.

**Conference call details:
November 7, 2019
8:30 a.m. Eastern Time**

- To access the live broadcast, please visit the Investor Relations section of ANSYS' website at <https://investors.ansys.com> and click on News & Events, then Events Calendar.
- The call can also be heard by dialing (855) 239-2942 (US) or (412) 542-4124 (CAN & INT'L) at least five minutes prior to the call and asking the operator to connect you to the ANSYS conference call.
- A replay will be available within two hours of the call's completion at <https://investors.ansys.com/news-and-events/events-calendar> or by dialing (877) 344-7529 (US), (855) 669-9658 (CAN) or (412) 317-0088 (INT'L) and referencing the access code 10135834.

SUPPLEMENTAL INFORMATION

In addition to our GAAP information, ANSYS has historically provided non-GAAP supplemental information. Our reasons for providing this information are described later in this document, as well as in our Q3 2019 earnings press release, which can be found on our website in the "About ANSYS - News Center" section. Reconciliations of GAAP to non-GAAP information are also provided. In line with our historical practice, the financial information below is presented on a supplemental, non-GAAP basis unless otherwise indicated.

Constant currency amounts exclude the effects of foreign currency fluctuations on the reported results. To present this information, the 2019 results for entities whose functional currency is a currency other than the U.S. Dollar were converted to U.S. Dollars at rates that were in effect for 2018, rather than the actual exchange rates in effect for 2019. The constant currency growth rates are calculated by adjusting the 2019 reported results to exclude the 2019 currency fluctuation impacts and comparing to the 2018 reported results.

THIRD QUARTER 2019 OVERVIEW

Our strong 2019 financial performance continued with double-digit revenue growth and earnings that exceeded the high end of our guidance. We reported third quarter consolidated non-GAAP revenue of \$345.5 million, an increase of 18% in reported currency and 19% in constant currency. We reported year-to-date (YTD) consolidated non-GAAP revenue of \$1,035.9 million, an increase of 17% in reported currency and 20% in constant currency. We also achieved non-GAAP EPS of \$1.42 and \$4.33 in the third quarter and YTD 2019, respectively, which represented 8% and 12% growth over the third quarter and YTD 2018, respectively. Our financial results included operating cash flows of \$120.4 million for the third quarter and \$360.5 million YTD.

The following are other notable comments related to Q3 2019 (non-GAAP):

- Lease license revenue grew 67% and 65%, both in constant currency, for the third quarter and YTD, respectively, driven primarily by an increase in multi-year lease contracts. Under the current accounting for revenue, the value and duration of multi-year lease contracts entered into during the period significantly impact the recognition of revenue. As a result, revenue may fluctuate significantly due to the timing of such contracts. Large swings in revenue growth rates are not necessarily indicative of customers' software usage changes or payments during the period.
- Maintenance revenue grew 13% and 14%, both in constant currency, for the third quarter and YTD, respectively. Our services revenue grew 55% and 49%, both in constant currency, for the third quarter and YTD, respectively. Service revenue growth was strongly influenced by projects to assist our customers with broader adoption of ANSYS simulation tools, as well as the contributions from recent acquisitions.
- Our direct and indirect channels contributed 77% and 23%, respectively, of third quarter revenue and 76% and 24%, respectively, of YTD revenue.
- Annual contract value (ACV) increased 14% and 11%, both in constant currency, for the third quarter and YTD, respectively. Both lease licenses and maintenance contracts contributed to a strong recurring ACV base at 73% of ACV for the third quarter and 77% of ACV YTD.
- Deferred revenue and backlog was \$650.4 million at September 30, 2019, an increase of 19% over September 30, 2018.
- Total headcount on September 30, 2019 was approximately 3,900 employees.

Other Recent Highlights

- On November 1, 2019, we acquired Livermore Software Technology Corporation (LSTC), the premier provider of explicit dynamics and other advanced finite element analysis technology. The acquisition will empower ANSYS customers to solve a new class of engineering challenges, including developing safer automobiles, aircraft and trains while reducing or even eliminating the need for costly physical testing. The transaction closed with a purchase price of \$779.9 million, which included \$472.7 million in cash and the issuance of 1.4 million shares of ANSYS common stock in an unregistered offering to the prior owners of LSTC. In conjunction with the transaction, ANSYS obtained \$500.0 million of term debt financing to fund the cash component of the purchase price.
- On November 1, 2019, we acquired Dynardo, a leading provider of multidisciplinary analysis and optimization technology, for a purchase price of approximately €30.0 million. This acquisition gives ANSYS customers access to a full suite of process integration and robust design tools — empowering users to identify optimal product designs faster and more economically.
- We released ANSYS® 2019 R3, which strengthens our autonomous vehicles (AV) solutions with the addition of ANSYS Autonomy. ANSYS Autonomy enables engineers to develop safer AV through advanced closed-loop scenario simulation, automated driving and control software development, functional safety analysis, and sensor, camera, lidar, and radar simulation. Among a number of other enhancements to our product portfolio, ANSYS 2019 R3 also includes the SPEOS Road Library for Sensors Simulation, a comprehensive, retro-reflecting materials database, as well as updates to ANSYS HFSS SBR+ that provide greater accuracy in predicting radar cross sections of large targets with curvatures.
- To enhance our product portfolio, ANSYS has announced key collaborations, as follows:

ANSYS and Autodesk will collaborate to help automotive companies combine visual design review and regulatory compliance validation in a connected workflow. The alliance will connect Autodesk's automotive 3D visualization and virtual prototyping software with our physics-based lighting simulation solutions, enabling automakers to complement hyper-realistic visualizations of vehicle interiors and exteriors with highly accurate lighting simulation.

ANSYS and Edge Case Research, a global leader in autonomy safety assessment software, are collaborating to engineer the next generation of AV with state-of-the-art hazard detection capabilities. Through this collaboration, Edge Case Research integrates its powerful AV artificial intelligence perception stress testing and risk analysis system, Hologram, within our comprehensive AV simulation solution, delivering a leading-edge solution to help maximize the safety of autonomous vehicles.

ANSYS and Analytical Graphics, Inc. (AGI) are enabling customer incorporation of high-fidelity, multiphysics simulations with multi-domain mission-level modeling into early stages of missile defense system development to engineer the U.S. military's next-generation missile defense system. This advancement will help enable warfighters to combat high-speed, highly maneuverable hypersonic weapons in the future.

ANSYS is creating a powerful, design-to-validation workflow for electric machines through an agreement with Motor Design Limited (MDL) to distribute Motor-CAD, a software which enables design engineers to evaluate motor topologies and concepts across the full operating range and to produce designs that are optimized for performance, efficiency and size. By combining the leading electric motor design software tool with our multiphysics analysis capabilities, we are extending simulation into the design phase of the electric machine product lifecycle.

DEFERRED REVENUE AND BACKLOG

<i>(in thousands)</i>	September 30, 2019	June 30, 2019	September 30, 2018	June 30, 2018
Current Deferred Revenue	\$ 291,385	\$ 321,060	\$ 272,872	\$ 306,879
Current Backlog	154,549	175,837	139,241	126,187
Total Current Deferred Revenue and Backlog	445,934	496,897	412,113	433,066
Long-Term Deferred Revenue	11,930	14,324	13,581	16,658
Long-Term Backlog	192,523	206,093	119,021	137,178
Total Long-Term Deferred Revenue and Backlog	204,453	220,417	132,602	153,836
Total Deferred Revenue and Backlog	\$ 650,387	\$ 717,314	\$ 544,715	\$ 586,902

The table above represents GAAP deferred revenue and backlog. As a result of the fair value provisions applicable to the accounting for business combinations, the Company typically records acquired deferred revenue at an amount that is lower than the historical carrying value. The expected impacts on reported revenue, including an estimate for the Company's Q4 acquisitions, range from \$3.9 million to \$4.5 million and \$10.1 million to \$10.7 million for the quarter and the year ending December 31, 2019, respectively. The Company has not yet performed a valuation of the acquired deferred revenue for its Q4 acquisitions. Until such valuation is completed, the expected impacts on revenue will remain preliminary estimates that are likely to change.

ACV

<i>(in thousands, except percentages)</i>	Q3 QTD 2019	Q3 QTD 2018	% Change	% Change in Constant Currency
ACV	\$ 290,856	\$ 257,824	12.8%	14.1%
Recurring ACV as a percentage of ACV	72.6%	73.7%		

<i>(in thousands, except percentages)</i>	Q3 YTD 2019	Q3 YTD 2018	% Change	% Change in Constant Currency
ACV	\$ 920,491	\$ 844,724	9.0%	11.4%
Recurring ACV as a percentage of ACV	76.8%	76.3%		

NON-GAAP REVENUE HIGHLIGHTS

<i>(in thousands, except percentages)</i>	Q3 QTD 2019	% of Total	Q3 QTD 2018	% of Total	% Change	% Change in Constant Currency
Lease	\$ 70,914	20.5%	\$ 43,202	14.7%	64.1%	66.9%
Perpetual	66,452	19.2%	65,901	22.5%	0.8%	2.1%
Maintenance	194,561	56.3%	175,011	59.7%	11.2%	12.5%
Service	13,568	3.9%	8,852	3.0%	53.3%	54.7%
Total	<u>\$ 345,495</u>		<u>\$ 292,966</u>		17.9%	19.5%

<i>(in thousands, except percentages)</i>	Q3 YTD 2019	% of Total	Q3 YTD 2018	% of Total	% Change	% Change in Constant Currency
Lease	\$ 240,335	23.2%	\$ 148,837	16.8%	61.5 %	64.9 %
Perpetual	190,960	18.4%	201,501	22.8%	(5.2)%	(3.3)%
Maintenance	565,401	54.6%	507,817	57.4%	11.3 %	13.8 %
Service	39,217	3.8%	26,946	3.0%	45.5 %	48.8 %
Total	<u>\$ 1,035,913</u>		<u>\$ 885,101</u>		17.0 %	19.5 %

As a result of the Company's application of the fair value provisions applicable to the accounting for business combinations, there were adverse impacts on GAAP revenue of \$1.6 million and \$3.5 million for the third quarters of 2019 and 2018, respectively. The adverse impacts on GAAP revenue were \$6.2 million and \$6.9 million for YTD 2019 and 2018, respectively.

The Company continues to experience increased interest by some of its larger customers in enterprise agreements that often include longer-term, time-based licenses involving a larger number of the Company's software products. While these arrangements typically involve a higher overall transaction price, the upfront recognition of license revenue related to these larger, multi-year transactions can result in significantly higher lease license revenue volatility. As software products, across a large variety of applications and industries, become increasingly distributed in software-as-a-service, cloud and other subscription environments in which the licensing approach is time-based rather than perpetual, the Company is also experiencing a shifting preference from perpetual licenses to time-based licenses across a broader spectrum of its customers.

GEOGRAPHIC NON-GAAP REVENUE HIGHLIGHTS

<i>(in thousands, except percentages)</i>	Q3 QTD 2019	% of Total	Q3 QTD 2018	% of Total	% Change	% Change in Constant Currency
Americas	\$ 153,005	44.3%	\$ 113,646	38.8%	34.6 %	34.7 %
Germany	37,688	10.9%	28,291	9.7%	33.2 %	39.8 %
United Kingdom	9,800	2.8%	11,492	3.9%	(14.7)%	(10.2)%
Other EMEA	52,778	15.3%	49,018	16.7%	7.7 %	12.0 %
EMEA	100,266	29.0%	88,801	30.3%	12.9 %	18.0 %
Japan	35,760	10.4%	37,217	12.7%	(3.9)%	(7.5)%
Other Asia-Pacific	56,464	16.3%	53,302	18.2%	5.9 %	8.3 %
Asia-Pacific	92,224	26.7%	90,519	30.9%	1.9 %	1.8 %
Total	\$ 345,495		\$ 292,966		17.9 %	19.5 %

<i>(in thousands, except percentages)</i>	Q3 YTD 2019	% of Total	Q3 YTD 2018	% of Total	% Change	% Change in Constant Currency
Americas	\$ 445,944	43.0%	\$ 346,319	39.1%	28.8 %	28.9%
Germany	94,404	9.1%	98,042	11.1%	(3.7)%	2.1%
United Kingdom	32,611	3.1%	28,463	3.2%	14.6 %	20.6%
Other EMEA	158,270	15.3%	154,457	17.5%	2.5 %	7.7%
EMEA	285,285	27.5%	280,962	31.7%	1.5 %	7.1%
Japan	116,772	11.3%	110,835	12.5%	5.4 %	5.1%
Other Asia-Pacific	187,912	18.1%	146,985	16.6%	27.8 %	32.2%
Asia-Pacific	304,684	29.4%	257,820	29.1%	18.2 %	20.5%
Total	\$ 1,035,913		\$ 885,101		17.0 %	19.5%

Industry and Regional Commentary

Under the current accounting for revenue, the value and duration of multi-year contracts entered into during the period significantly impact the recognition of revenue. As a result, regional quarterly revenue may fluctuate significantly due to the timing of such contracts. Large swings in revenue growth rates are not necessarily indicative of customers' software usage changes or payments in the regions during the periods presented.

The Americas led the regions in constant currency revenue growth, on both a QTD and YTD basis, as the industry trends from the first half of 2019 continued into the third quarter of 2019. EMEA reported double-digit revenue growth for the quarter, with strong constant currency growth in Germany and France. While Asia-Pacific's YTD performance remains strong, the current quarter's revenue results were affected by a reduction in lease revenue related to the timing of multi-year lease contracts, as well as increased trade restrictions in China.

From an industry perspective, the high-tech industry continues to show strong performance, led by semiconductors with market drivers such as 5G, connectivity and autonomy. The ever-increasing chip complexity and associated cost of failure is requiring more analysis and simulation. At the same time, the proliferation of semiconductors in

safety-critical, high-reliability applications (e.g. autonomous vehicles and data centers) makes reliability paramount. During Q3, a large semiconductor company focused on next-generation automotive and industrial applications, signed an 8-figure multi-year deal with ANSYS to help solve signal and power-integrity, electromagnetic interference, electro-thermal, and thermo-mechanical challenges. Notably, ANSYS' reputation and leadership within the electro-thermal and thermo-mechanical disciplines were key factors associated with winning their business.

Defense spending continues to support growth in the U.S. aerospace and defense (A&D) industry driven by government projects focused on additive manufacturing, and autonomous and communication systems. EMEA's performance in aerospace was relatively flat due to the absence of new commercial aircraft programs, which is affecting the entire A&D ecosystem.

The automotive industry also remained strong during Q3, as companies continue to invest in the primary areas of autonomous vehicles, electrification and embedded software. In general, automakers and suppliers are striving to become more nimble in the face of these disruptive trends and are relying more on digitalization. In Q3 ANSYS strengthened its relationships in core automotive applications at a leading European auto OEM and two tier 1 suppliers. OPTIS continues to gain momentum as automotive companies expand high-tech features in automobiles such as smart headlamps. The medini and SCADE product families both exhibited strong growth as the volume of safety-critical software in autos is growing along with the increasing need for ISO 26262 compliance and functional safety.

The oil and gas industry continues to be influenced by low oil prices; however, the dual challenges of more energy and lower emissions is leading to increased investment and innovation in the low-carbon sector. Oil and gas companies are focusing on reducing emissions from their operations through techniques such as carbon capture and sequestration. In the quarter we saw increased customer engagements around ANSYS solutions for predictive analytics, material intelligence, additive manufacturing and simulation process data management.

Impact of China Trade Discussions:

In connection with the ongoing trade discussions between the United States and China, we note the following with respect to the magnitude of our revenue derived from China, as well as the impact on our financial guidance:

- In fiscal year 2018, total non-GAAP revenue attributed to China was \$58.1 million, or 4.5% of total non-GAAP revenue. Through nine months of 2019, total non-GAAP revenue attributed to China was \$44.1 million, or 4.3% of total non-GAAP revenue.
- The financial guidance included under the "Outlook" section later in this document includes the impact of reduced expectations from our business in China. These reduced expectations from China are based upon our current estimate of the impact of existing trade restrictions, including restrictions on selling to certain prospective customers.
- While we do not expect the impact of the existing restrictions to materially affect our 2019 financial results, future changes in trade restrictions, or a further deterioration in the trade environment, could have a material adverse impact on our business.

NON-GAAP INCOME STATEMENT HIGHLIGHTS

	Three Months Ended		Nine Months Ended	
	September 30, 2019	September 30, 2018	September 30, 2019	September 30, 2018
Gross margin	90.1%	90.0%	90.7%	90.0%
Operating margin	43.3%	44.0%	44.0%	45.5%
Effective tax rate	20.7%	13.9%	20.2%	18.6%

BALANCE SHEET AND CASH FLOW HIGHLIGHTS

- Cash and short-term investments totaled \$732.9 million as of September 30, 2019, of which 69% was held domestically.
- Operating cash flows were \$120.4 million for the third quarter of 2019 as compared to \$110.0 million for the third quarter of 2018. Operating cash flows were \$360.5 million for YTD 2019 as compared to \$353.5 million for YTD 2018.
- Cash paid for acquisitions, net of cash acquired, totaled \$295.0 million for YTD 2019 as compared to \$283.0 million for YTD 2018.
- During the fourth quarter of 2019, the Company completed the acquisitions of LSTC and Dynardo for \$779.9 million and €30.0 million, respectively. In conjunction with the LSTC transaction, ANSYS obtained \$500.0 million of term debt financing and issued 1.4 million shares of common stock in an unregistered offering.
- Capital expenditures totaled \$8.8 million and \$25.8 million for the third quarter and YTD 2019, respectively. We are currently planning total 2019 capital expenditures in the range of \$44 - \$50 million. The capital spending plan in 2019 includes \$9.5 million to acquire the corporate headquarters building in connection with the acquisition of LSTC.

SHARE COUNT AND SHARE REPURCHASES

We had 85.7 million fully diluted weighted average shares outstanding in Q3. We repurchased 0.3 million shares during the first nine months at an average price of \$179.41 per share. Those repurchases occurred during the first half of 2019; there were no repurchases during the third quarter. As of September 30, 2019, the Company had 3.5 million shares remaining available for repurchase under its authorized share repurchase program.

STOCK-BASED COMPENSATION EXPENSE

<i>(in thousands, except per share data)</i>	Three Months Ended		Nine Months Ended	
	September 30, 2019	September 30, 2018	September 30, 2019	September 30, 2018
Cost of sales:				
Maintenance and service	\$ 2,422	\$ 1,438	\$ 6,024	\$ 3,880
Operating expenses:				
Selling, general and administrative	16,774	13,484	44,408	33,288
Research and development	12,666	8,061	34,352	21,719
Stock-based compensation expense before taxes	31,862	22,983	84,784	58,887
Related income tax benefits	(9,847)	(8,611)	(30,075)	(30,311)
Stock-based compensation expense, net of taxes	\$ 22,015	\$ 14,372	\$ 54,709	\$ 28,576
Net impact on earnings per share:				
Diluted earnings per share	\$ (0.26)	\$ (0.17)	\$ (0.64)	\$ (0.33)

CURRENCY

CURRENCY IMPACTS: The third quarter and YTD 2019 revenue and operating income, as compared to the third quarter and YTD 2018, were impacted by fluctuations in the exchange rates of foreign currencies against the U.S. Dollar. The impacts on non-GAAP revenue and operating income are reflected in the table below. Amounts in brackets indicate an adverse impact from currency fluctuations.

<i>(in thousands)</i>	Non-GAAP	
	Three Months Ended September 30, 2019	Nine Months Ended September 30, 2019
Revenue	\$ (4,543)	\$ (22,110)
Operating income	\$ (2,246)	\$ (10,039)

The unfavorable foreign exchange impacts on deferred revenue and backlog were \$8.3 million and \$8.9 million for the third quarter and YTD 2019, respectively.

OUTLOOK

We are updating our Q4 and FY 2019 forecast based on our results through Q3 2019, current sales visibility and expense expectations in the fourth quarter, the assumption of a continuation of a similar business climate to that which we experienced in the third quarter and the inclusion of the impacts of the fourth quarter acquisitions. We are currently forecasting:

Q4 2019 OUTLOOK:

(in millions, except percentages and per share data)

	GAAP	non-GAAP
Revenue	\$449.6 - \$475.2	\$454.1 - \$479.1
Operating margin	34.0% - 38.0%	45.0% - 46.5%
Effective tax rate	18.0% - 18.5%	20.0% - 21.0%
Diluted earnings per share	\$1.44 - \$1.67	\$1.87 - \$2.05

FY 2019 OUTLOOK:

(in millions, except percentages and per share data)

	GAAP	non-GAAP
Revenue	\$1,479.3 - \$1,504.9	\$1,490.0 - \$1,515.0
Operating margin	33.0% - 34.0%	44.5% - 45.0%
Effective tax rate	16.0% - 16.5%	20.0% - 20.5%
Diluted earnings per share	\$4.78 - \$5.01	\$6.20 - \$6.38

In addition, we are updating our forecast to the following for FY 2019:

(in millions)

	Other Financial Metrics
ACV	\$1,460.0 - \$1,480.0
Operating cash flows	\$485.0 - \$510.0

We are currently expecting approximately 87.0 million and 86.0 million fully diluted shares outstanding for Q4 2019 and FY 2019, respectively.

Q4 ACQUISITION IMPACTS: The impacts of the most recent acquisitions on key guidance metrics are presented below. The impacts of the acquisitions include the expected operating results of the acquired entities, one-time integration costs and the impact of the capital deployment that would have otherwise resulted in interest income and a lower share count.

Q4 2019:

<i>(in millions, except per share data)</i>	ANSYS Standalone	Impact of Q4 Acquisitions	Financial Guidance
GAAP revenue	\$443.1 - \$468.7	\$6.5	\$449.6 - \$475.2
Non-GAAP revenue	\$444.1 - \$469.1	\$10.0	\$454.1 - \$479.1
GAAP diluted earnings per share	\$1.51 - \$1.74	(\$0.07)	\$1.44 - \$1.67
Non-GAAP diluted earnings per share	\$1.88 - \$2.06	(\$0.01)	\$1.87 - \$2.05

FY 2019:

<i>(in millions, except per share data)</i>	ANSYS Standalone	Impact of Q4 Acquisitions	Financial Guidance
GAAP revenue	\$1,472.8 - \$1,498.4	\$6.5	\$1,479.3 - \$1,504.9
Non-GAAP revenue	\$1,480.0 - \$1,505.0	\$10.0	\$1,490.0 - \$1,515.0
GAAP diluted earnings per share	\$4.85 - \$5.08	(\$0.07)	\$4.78 - \$5.01
Non-GAAP diluted earnings per share	\$6.21 - \$6.39	(\$0.01)	\$6.20 - \$6.38

CURRENCY OUTLOOK: The Company's results have been, and will continue to be, impacted by currency fluctuations, particularly by rate movements in the Euro, British Pound and Japanese Yen. Our currency rate assumptions are as follows:

	Euro	British Pound	Japanese Yen
Q4 2019	1.10 - 1.13	1.27 - 1.30	106 - 109

The outlook presented above factors in actual and planned increases in sales and channel capacity, our current visibility around major account activity, sales pipelines and forecasts. However, as we have said in the past, and will continue to reiterate, there are many factors over which we have no control, including the macro-economic environment, customer procurement patterns, government and tax policies, and currency rate volatility. We do, however, have the benefit of a solid, repeatable business base; a diversified geographic and industry footprint; and a world-class customer base that have helped us to succeed and to deliver on our commitments.

GLOSSARY OF TERMS

Annual Contract Value (ACV): ACV is composed of the following:

- the annualized value of maintenance and lease contracts with start dates or anniversary dates during the period, plus
- the value of perpetual license contracts with start dates during the period, plus
- the annualized value of fixed-term services contracts with start dates or anniversary dates during the period, plus
- the value of work performed during the period on fixed-deliverable services contracts.

Example 1: A \$300,000 lease or maintenance contract with a term of January 1, 2019 - December 31, 2021 would contribute \$100,000 to ACV in each of fiscal years 2019, 2020 and 2021.

Example 2: A perpetual license valued at \$200,000 with a contract start date of March 1, 2019 sold in connection with three years of annual maintenance valued at a total of \$120,000 would contribute to ACV as follows: fiscal year 2019: \$240,000 (\$200,000 + \$40,000); fiscal years 2020 and 2021: \$40,000 in each year.

Backlog: Installment billings for periods beyond the current quarterly billing cycle.

Deferred Revenue: Billings made or payments received in advance of revenue recognition.

Lease or Time-Based License: A license of a stated product of the Company's software that is granted to a customer for use over a specified time period, which can be months or years in length. In addition to the use of the software, the customer is provided with access to maintenance (unspecified version upgrades and technical support) without additional charge. The revenue related to these contracts is recognized ratably over the contract period for the maintenance portion and up front for the license portion.

Perpetual / Paid-Up License: A license of a stated product and version of the Company's software that is granted to a customer for use in perpetuity. The revenue related to this type of license is typically recognized up front.

Maintenance: A contract, typically one year in duration, that is purchased by the owner of a perpetual license and that provides access to unspecified version upgrades and technical support during the duration of the contract. The revenue from these contracts is recognized ratably over the contract period.

FORWARD-LOOKING STATEMENTS AND RISK FACTORS

This document contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that provide current expectations or forecasts of future events based on certain assumptions. Forward-looking statements are subject to risks, uncertainties, and factors relating to our business which could cause our actual results to differ materially from the expectations expressed in or implied by such forward-looking statements. Forward-looking statements use words such as "anticipate," "believe," "could," "estimate," "expect," "forecast," "intend," "likely," "may," "outlook," "plan," "predict," "project," "should," "target," or other words of similar meaning. Forward-looking statements include those about market opportunity, including our total addressable market. Risks, uncertainties, and factors that could cause actual results to differ materially from those implied by these forward-looking statements include: adverse changes in global economic and/or political conditions; declines in our customers' businesses resulting in adverse changes in customer procurement patterns; uncertainties regarding demand for our products and services in the future and our customers' acceptance of new products; plans for future capital spending; investments in complementary companies, products, services and technologies; our ability to complete and successfully integrate our acquisitions

and realize the financial and business benefits of the transactions; political, economic, and regulatory risks and uncertainties in the countries and regions in which we operate; impacts from tariffs, trade sanctions, export license requirements or other trade barriers; the effect of changes in currency exchange rates and changes in interest rates; potential variations in our sales forecasts compared to actual sales; the volatility of our stock price; failures or errors in our products and services; our industry's rapidly changing technology; the quality of our products, including the strength of features, functionality and integrated multi-physics capabilities; lease license volatility; the investment of more resources in research and development than anticipated; increased pricing pressure as a result of the competitive environment in which we operate; our ability to recruit and retain key personnel; our ability to protect our proprietary technology; cybersecurity threats or other security breaches; disclosure and misuse of customer data whether as a result of a cybersecurity incident or otherwise; implementation of our new IT systems; investments in global sales and marketing organizations and global business infrastructure; dependence on our channel partners for the distribution of our products; increased variability in our revenue due to the adoption of Accounting Standards Codification 606; our reliance on high renewal rates for annual lease and maintenance contracts; catastrophic events which may damage our facilities or otherwise disrupt our business; operational disruptions or the failure of our technological infrastructure; periodic reorganization of our sales force; the repatriation of previously taxed earnings in excess of working capital and capital expenditure requirements; a loss of revenue if contracts with the U.S. government or foreign governments are canceled; the outcome of contingencies, including legal proceedings and government or regulatory investigations and service tax audit cases; uncertainty regarding income tax estimates in the jurisdictions in which we operate; the effect of changes in tax laws and regulations in the jurisdictions in which we operate; changes in accounting principles or standards; the uncertainty of estimates relating to the impact on reported revenue related to the acquisition accounting treatment of deferred revenue; and other risks and uncertainties described in our reports filed from time to time with the Securities and Exchange Commission. We caution readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date they are made. We undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

RECONCILIATION OF GAAP TO NON-GAAP MEASURES

ANSYS, INC. AND SUBSIDIARIES Reconciliation of Non-GAAP Measures (Unaudited)

Three Months Ended

<i>(in thousands, except percentages and per share data)</i>	September 30, 2019			September 30, 2018		
	GAAP Results	Adjustments	Non-GAAP Results	GAAP Results	Adjustments	Non-GAAP Results
Total revenue	\$ 343,899	\$ 1,596 (1)	\$ 345,495	\$ 289,418	\$ 3,548 (4)	\$ 292,966
Operating income	105,047	44,675 (2)	149,722	93,024	35,889 (5)	128,913
Operating profit margin	30.5%		43.3%	32.1%		44.0%
Net income	\$ 89,463	\$ 32,245 (3)	\$ 121,708	\$ 89,336	\$ 23,557 (6)	\$ 112,893
Earnings per share – diluted:						
Earnings per share	\$ 1.04		\$ 1.42	\$ 1.04		\$ 1.31
Weighted average shares	85,733		85,733	86,043		86,043

- (1) Amount represents the revenue not reported during the period as a result of the acquisition accounting adjustment associated with the accounting for deferred revenue in business combinations.
- (2) Amount represents \$31.9 million of stock-based compensation expense, \$0.1 million of excess payroll taxes related to stock-based awards, \$8.5 million of amortization expense associated with intangible assets acquired in business combinations, \$2.5 million of transaction expenses related to business combinations and the \$1.6 million adjustment to revenue as reflected in (1) above.
- (3) Amount represents the impact of the adjustments to operating income referred to in (2) above, decreased for the related income tax impact of \$12.4 million.
- (4) Amount represents the revenue not reported during the period as a result of the acquisition accounting adjustment associated with the accounting for deferred revenue in business combinations.
- (5) Amount represents \$23.0 million of stock-based compensation expense, \$0.3 million of excess payroll taxes related to stock-based awards, \$9.0 million of amortization expense associated with intangible assets acquired in business combinations and the \$3.5 million adjustment to revenue as reflected in (4) above.
- (6) Amount represents the impact of the adjustments to operating income referred to in (5) above, decreased for the related income tax impact of \$11.7 million, adjustments related to the transition tax associated with the Tax Cuts and Jobs Act of \$0.5 million, and rabbi trust income of \$0.1 million.

ANSYS, INC. AND SUBSIDIARIES
Reconciliation of Non-GAAP Measures
(Unaudited)

Nine Months Ended

<i>(in thousands, except percentages and per share data)</i>	September 30, 2019			September 30, 2018		
	GAAP Results	Adjustments	Non-GAAP Results	GAAP Results	Adjustments	Non-GAAP Results
Total revenue	\$ 1,029,664	\$ 6,249 (1)	\$ 1,035,913	\$ 878,204	\$ 6,897 (4)	\$ 885,101
Operating income	329,324	126,597 (2)	455,921	296,638	105,796 (5)	402,434
Operating profit margin	32.0%		44.0%	33.8%		45.5%
Net income	\$ 285,443	\$ 84,841 (3)	\$ 370,284	\$ 266,212	\$ 65,591 (6)	\$ 331,803
Earnings per share – diluted:						
Earnings per share	\$ 3.34		\$ 4.33	\$ 3.09		\$ 3.86
Weighted average shares	85,570		85,570	86,060		86,060

- (1) Amount represents the revenue not reported during the period as a result of the acquisition accounting adjustment associated with the accounting for deferred revenue in business combinations.
- (2) Amount represents \$84.8 million of stock-based compensation expense, \$4.5 million of excess payroll taxes related to stock-based awards, \$25.4 million of amortization expense associated with intangible assets acquired in business combinations, \$5.6 million of transaction expenses related to business combinations and the \$6.2 million adjustment to revenue as reflected in (1) above.
- (3) Amount represents the impact of the adjustments to operating income referred to in (2) above, decreased for the related income tax impact of \$39.7 million, adjustments related to the transition tax associated with the Tax Cuts and Jobs Act of \$1.8 million, and rabbi trust income of \$0.3 million.
- (4) Amount represents the revenue not reported during the period as a result of the acquisition accounting adjustment associated with the accounting for deferred revenue in business combinations.
- (5) Amount represents \$58.9 million of stock-based compensation expense, \$3.8 million of excess payroll taxes related to stock-based awards, \$33.8 million of amortization expense associated with intangible assets acquired in business combinations, \$2.4 million of transaction expenses related to business combinations and the \$6.9 million adjustment to revenue as reflected in (4) above.
- (6) Amount represents the impact of the adjustments to operating income referred to in (5) above, decreased for the related income tax impact of \$41.0 million and rabbi trust income of \$0.1 million, and increased for adjustments related to the transition tax associated with the Tax Cuts and Jobs Act of \$0.9 million.

In the fourth quarter and fiscal year 2019 guidance, the expected impacts of non-GAAP adjustments associated with the acquisition accounting for deferred revenue, including an estimate for the Company's Q4 acquisitions, range from \$3.9 million to \$4.5 million and \$10.1 million to \$10.7 million, respectively. Over the same periods, the impacts of non-GAAP adjustments associated with stock-based compensation result in a higher non-GAAP effective tax rate. See below for a reconciliation of GAAP to non-GAAP operating margins and diluted earnings per share:

ANSYS, INC. AND SUBSIDIARIES
Reconciliation of Forward-Looking Guidance
Quarter Ending December 31, 2019

	Operating Margin	Earnings Per Share Range - Diluted
U.S. GAAP expectation	34.0% - 38.0%	\$1.44 - \$1.67
Adjustment to exclude acquisition adjustments to deferred revenue	0.8% - 1.0%	\$0.04
Adjustment to exclude acquisition-related amortization	1.8% - 2.1%	\$0.07 - \$0.08
Adjustment to exclude stock-based compensation	5.8% - 7.7%	\$0.26 - \$0.30
Adjustment to exclude acquisition-related transaction expenses	0.1% - 0.2%	\$0.01
Non-GAAP expectation	45.0% - 46.5%	\$1.87 - \$2.05

ANSYS, INC. AND SUBSIDIARIES
Reconciliation of Forward-Looking Guidance
Year Ending December 31, 2019

	Operating Margin	Earnings Per Share Range - Diluted
U.S. GAAP expectation	33.0% - 34.0%	\$4.78 - \$5.01
Adjustment to exclude acquisition adjustments to deferred revenue	0.7%	\$0.09 - \$0.10
Adjustment to exclude acquisition-related amortization	2.2% - 2.4%	\$0.30 - \$0.31
Adjustment to exclude stock-based compensation	7.7% - 8.0%	\$0.94 - \$0.97
Adjustment to exclude acquisition-related transaction expenses	0.4%	\$0.06
Adjustment to exclude transition tax adjustments related to the Tax Cuts and Jobs Act	-	(\$0.02)
Non-GAAP expectation	44.5% - 45.0%	\$6.20 - \$6.38

NON-GAAP MEASURES

The Company provides non-GAAP revenue, non-GAAP operating income, non-GAAP operating profit margin, non-GAAP net income and non-GAAP diluted earnings per share as supplemental measures to GAAP regarding the Company's operational performance. These financial measures exclude the impact of certain items and, therefore, have not been calculated in accordance with GAAP. A detailed explanation of each of the adjustments to such financial measures is described below. These prepared remarks also contain a reconciliation of each of these non-GAAP financial measures to its most comparable GAAP financial measure.

Management uses non-GAAP financial measures (a) to evaluate the Company's historical and prospective financial performance as well as its performance relative to its competitors, (b) to set internal sales targets and spending budgets, (c) to allocate resources, (d) to measure operational profitability and the accuracy of forecasting, (e) to assess financial discipline over operational expenditures and (f) as an important factor in determining variable compensation for management and its employees. In addition, many financial analysts that follow the Company focus on and publish both historical results and future projections based on non-GAAP financial measures. The Company believes that it is in the best interest of its investors to provide this information to analysts so that they

accurately report the non-GAAP financial information. Moreover, investors have historically requested, and the Company has historically reported, these non-GAAP financial measures as a means of providing consistent and comparable information with past reports of financial results.

While management believes that these non-GAAP financial measures provide useful supplemental information to investors, there are limitations associated with the use of these non-GAAP financial measures. These non-GAAP financial measures are not prepared in accordance with GAAP, are not reported by all the Company's competitors and may not be directly comparable to similarly titled measures of the Company's competitors due to potential differences in the exact method of calculation. The Company compensates for these limitations by using these non-GAAP financial measures as supplements to GAAP financial measures and by reviewing the reconciliations of the non-GAAP financial measures to their most comparable GAAP financial measures.

The adjustments to these non-GAAP financial measures, and the basis for such adjustments, are outlined below:

Acquisition accounting for deferred revenue and its related tax impact. Historically, the Company has consummated acquisitions in order to support its strategic and other business objectives. In accordance with the fair value provisions applicable to the accounting for business combinations, acquired deferred revenue is often recorded on the opening balance sheet at an amount that is lower than the historical carrying value. Although this acquisition accounting requirement has no impact on the Company's business or cash flow, it adversely impacts the Company's reported GAAP revenue in the reporting periods following an acquisition. In order to provide investors with financial information that facilitates comparison of both historical and future results, the Company provides non-GAAP financial measures which exclude the impact of the acquisition accounting adjustment. The Company believes that this non-GAAP financial adjustment is useful to investors because it allows investors to (a) evaluate the effectiveness of the methodology and information used by management in its financial and operational decision-making, and (b) compare past and future reports of financial results of the Company as the revenue reduction related to acquired deferred revenue will not recur when related annual lease licenses and software maintenance contracts are renewed in future periods.

Amortization of intangible assets from acquisitions and its related tax impact. The Company incurs amortization of intangible assets, included in its GAAP presentation of amortization expense, related to various acquisitions it has made. Management excludes these expenses and their related tax impact for the purpose of calculating non-GAAP operating income, non-GAAP operating profit margin, non-GAAP net income and non-GAAP diluted earnings per share when it evaluates the continuing operational performance of the Company because these costs are fixed at the time of an acquisition, are then amortized over a period of several years after the acquisition and generally cannot be changed or influenced by management after the acquisition. Accordingly, management does not consider these expenses for purposes of evaluating the performance of the Company during the applicable time period after the acquisition, and it excludes such expenses when making decisions to allocate resources. The Company believes that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate the effectiveness of the methodology and information used by management in its financial and operational decision-making, and (b) compare past reports of financial results of the Company as the Company has historically reported these non-GAAP financial measures.

Stock-based compensation expense and its related tax impact. The Company incurs expense related to stock-based compensation included in its GAAP presentation of cost of software licenses; cost of maintenance and service; research and development expense; and selling, general and administrative expense. This non-GAAP adjustment also includes excess payroll tax expense related to stock-based compensation. Stock-based compensation expense (benefit) incurred in connection with the Company's deferred compensation plan held in a rabbi trust includes an offsetting benefit (charge) recorded in other income (expense). Although stock-based compensation is an expense of the Company and viewed as a form of compensation, management excludes these expenses for the purpose of calculating non-GAAP operating income, non-GAAP operating profit margin, non-GAAP net income and non-GAAP diluted earnings per share when it evaluates the continuing operational performance of the Company. Management similarly excludes income (expense) related to assets held in a rabbi trust in connection with the Company's deferred compensation plan. Specifically, the Company excludes stock-

based compensation and income (expense) related to assets held in the deferred compensation plan rabbi trust during its annual budgeting process and its quarterly and annual assessments of the Company's and management's performance. The annual budgeting process is the primary mechanism whereby the Company allocates resources to various initiatives and operational requirements. Additionally, the annual review by the board of directors during which it compares the Company's historical business model and profitability to the planned business model and profitability for the forthcoming year excludes the impact of stock-based compensation. In evaluating the performance of senior management and department managers, charges related to stock-based compensation are excluded from expenditure and profitability results. In fact, the Company records stock-based compensation expense into a stand-alone cost center for which no single operational manager is responsible or accountable. In this way, management can review, on a period-to-period basis, each manager's performance and assess financial discipline over operational expenditures without the effect of stock-based compensation. The Company believes that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate the Company's operating results and the effectiveness of the methodology used by management to review the Company's operating results, and (b) review historical comparability in the Company's financial reporting as well as comparability with competitors' operating results.

Restructuring charges and the related tax impact. The Company occasionally incurs expenses for restructuring its workforce included in its GAAP presentation of cost of software licenses; cost of maintenance and service; research and development expense; and selling, general and administrative expense. Management excludes these expenses for the purpose of calculating non-GAAP operating income, non-GAAP operating profit margin, non-GAAP net income and non-GAAP diluted earnings per share when it evaluates the continuing operational performance of the Company, as it generally does not incur these expenses as a part of its operations. The Company believes that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate the Company's operating results and the effectiveness of the methodology used by management to review the Company's operating results, and (b) review historical comparability in the Company's financial reporting as well as comparability with competitors' operating results.

Transaction costs related to business combinations. The Company incurs expenses for professional services rendered in connection with business combinations, which are included in its GAAP presentation of selling, general and administrative expense. These expenses are generally not tax-deductible. Management excludes these acquisition-related transaction expenses, derived from announced acquisitions, for the purpose of calculating non-GAAP operating income, non-GAAP operating profit margin, non-GAAP net income and non-GAAP diluted earnings per share when it evaluates the continuing operational performance of the Company, as it generally would not have otherwise incurred these expenses in the periods presented as a part of its operations. The Company believes that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate the Company's operating results and the effectiveness of the methodology used by management to review the Company's operating results, and (b) review historical comparability in the Company's financial reporting as well as comparability with competitors' operating results.

Tax Cuts and Jobs Act. The Company recorded impacts to its income tax provision related to the enactment of the Tax Cuts and Jobs Act, specifically for the transition tax related to unrepatriated cash and the impacts of the tax rate change on net deferred tax assets. Management excludes these impacts for the purpose of calculating non-GAAP net income and non-GAAP diluted earnings per share when it evaluates the continuing operational performance of the Company, as (i) the charges are not expected to recur as part of its normal operations and (ii) the charges resulted from the extremely infrequent event of major U.S. tax reform, the last such reform having occurred in 1986. The Company believes that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate the Company's operating results and the effectiveness of the methodology used by management to review the Company's operating results, and (b) review historical comparability in the Company's financial reporting.

Non-GAAP financial measures are not in accordance with, or an alternative for, GAAP. The Company's non-GAAP financial measures are not meant to be considered in isolation or as a substitute for comparable GAAP financial

measures and should be read only in conjunction with the Company's consolidated financial statements prepared in accordance with GAAP.

The Company has provided a reconciliation of the non-GAAP financial measures to the most directly comparable GAAP financial measures as listed below:

GAAP Reporting Measure

Revenue
Operating Income
Operating Profit Margin
Net Income
Diluted Earnings Per Share

Non-GAAP Reporting Measure

Non-GAAP Revenue
Non-GAAP Operating Income
Non-GAAP Operating Profit Margin
Non-GAAP Net Income
Non-GAAP Diluted Earnings Per Share

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