**UNITED STATES**
**SECURITIES AND EXCHANGE COMMISSION**
**WASHINGTON, D.C. 20549**

# FORM 10-Q

**(Mark One)**

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended March 31, 2022
OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from_________ to _________
Commission File Number: 0-20853

# ANSYS, Inc.

**(Exact name of registrant as specified in its charter)**

| | |
|---|---|
| **Delaware** | **04-3219960** |
| (State or other jurisdiction of incorporation or organization) | (I.R.S. Employer Identification No.) |
| **2600 ANSYS Drive, Canonsburg, PA** | **15317** |
| (Address of Principal Executive Offices) | (Zip Code) |

**844-462-6797**
(Registrant's telephone number, including area code)
**N/A**
(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

| Title of each class | Trading Symbol(s) | Name of exchange on which registered |
|---|---|---|
| **Common Stock, $0.01 par value per share** | **ANSS** | **Nasdaq Stock Market LLC (Nasdaq Global Select Market)** |

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

| | | | |
|---|---|---|---|
| Large accelerated filer | ☒ | Accelerated filer | ☐ |
| Non-accelerated filer | ☐ | Smaller reporting company | ☐ |
| Emerging growth company | ☐ | | |

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes ☐ No ☒

The number of shares of the Registrant's Common Stock, $0.01 par value per share, outstanding as of April 30, 2022 was 86,990,120 shares.

**ANSYS, INC. AND SUBSIDIARIES**

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## PART I – FINANCIAL INFORMATION

**Item 1. Financial Statements:**

### ANSYS, INC. AND SUBSIDIARIES
### CONDENSED CONSOLIDATED BALANCE SHEETS
**(Unaudited)**

| *(in thousands, except share and per share data)* | March 31, 2022 | December 31, 2021 |
|---|---|---|
| **ASSETS** | | |
| Current assets: | | |
| Cash and cash equivalents | **$ 657,421** | $ 667,667 |
| Short-term investments | **344** | 361 |
| Accounts receivable, less allowance for doubtful accounts of $14,600 | **513,738** | 645,891 |
| Other receivables and current assets | **278,375** | 324,655 |
| Total current assets | **1,449,878** | 1,638,574 |
| Long-term assets: | | |
| Property and equipment, net | **84,678** | 87,914 |
| Operating lease right-of-use assets | **130,274** | 120,881 |
| Goodwill | **3,399,897** | 3,409,271 |
| Other intangible assets, net | **739,059** | 763,119 |
| Other long-term assets | **227,383** | 279,676 |
| Deferred income taxes | **22,014** | 24,879 |
| Total long-term assets | **4,603,305** | 4,685,740 |
| Total assets | **$ 6,053,183** | $ 6,324,314 |
| **LIABILITIES AND STOCKHOLDERS' EQUITY** | | |
| Current liabilities: | | |
| Accounts payable | **$ 17,102** | $ 10,863 |
| Accrued bonuses and commissions | **30,646** | 163,182 |
| Accrued income taxes | **7,065** | 8,410 |
| Current portion of long-term debt | **9,125** | — |
| Other accrued expenses and liabilities | **184,663** | 204,509 |
| Deferred revenue | **386,019** | 391,528 |
| Total current liabilities | **634,620** | 778,492 |
| Long-term liabilities: | | |
| Deferred income taxes | **99,439** | 105,548 |
| Long-term operating lease liabilities | **114,238** | 104,378 |
| Long-term debt | **744,575** | 753,576 |
| Other long-term liabilities | **96,360** | 98,272 |
| Total long-term liabilities | **1,054,612** | 1,061,774 |
| Commitments and contingencies | | |
| Stockholders' equity: | | |
| Preferred stock, $0.01 par value; 2,000,000 shares authorized; zero shares issued or outstanding | **—** | — |
| Common stock, $0.01 par value; 300,000,000 shares authorized; 95,267,307 shares issued | **953** | 953 |
| Additional paid-in capital | **1,415,407** | 1,465,694 |
| Retained earnings | **4,330,208** | 4,259,220 |
| Treasury stock, at cost: 8,285,245 and 8,188,331 shares, respectively | **(1,304,413)** | (1,185,707) |
| Accumulated other comprehensive loss | **(78,204)** | (56,112) |
| Total stockholders' equity | **4,363,951** | 4,484,048 |
| Total liabilities and stockholders' equity | **$ 6,053,183** | $ 6,324,314 |

The accompanying notes are an integral part of the condensed consolidated financial statements.

**ANSYS, INC. AND SUBSIDIARIES**
**CONDENSED CONSOLIDATED STATEMENTS OF INCOME**
**(Unaudited)**

| | Three Months Ended | |
|---|---|---|
| *(in thousands, except per share data)* | **March 31, 2022** | **March 31, 2021** |
| Revenue: | | |
| Software licenses | **$ 157,445** | $ 132,604 |
| Maintenance and service | **267,632** | 230,622 |
| Total revenue | **425,077** | 363,226 |
| Cost of sales: | | |
| Software licenses | **8,436** | 7,606 |
| Amortization | **17,252** | 14,949 |
| Maintenance and service | **39,072** | 39,548 |
| Total cost of sales | **64,760** | 62,103 |
| Gross profit | **360,317** | 301,123 |
| Operating expenses: | | |
| Selling, general and administrative | **169,755** | 146,215 |
| Research and development | **105,274** | 100,479 |
| Amortization | **4,125** | 4,407 |
| Total operating expenses | **279,154** | 251,101 |
| Operating income | **81,163** | 50,022 |
| Interest income | **527** | 517 |
| Interest expense | **(2,967)** | (3,315) |
| Other (expense) income, net | **(694)** | 399 |
| Income before income tax provision (benefit) | **78,029** | 47,623 |
| Income tax provision (benefit) | **7,041** | (24,775) |
| Net income | **$ 70,988** | $ 72,398 |
| Earnings per share – basic: | | |
| Earnings per share | **$ 0.81** | $ 0.83 |
| Weighted average shares | **87,122** | 86,808 |
| Earnings per share – diluted: | | |
| Earnings per share | **$ 0.81** | $ 0.82 |
| Weighted average shares | **87,750** | 87,986 |

The accompanying notes are an integral part of the condensed consolidated financial statements.

**ANSYS, INC. AND SUBSIDIARIES**
**CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**
**(Unaudited)**

| | Three Months Ended | |
|---|---|---|
| *(in thousands)* | **March 31, 2022** | **March 31, 2021** |
| Net income | **$ 70,988** | $ 72,398 |
| Other comprehensive loss: | | |
| Foreign currency translation adjustments | **(22,092)** | (19,264) |
| Comprehensive income | **$ 48,896** | $ 53,134 |

The accompanying notes are an integral part of the condensed consolidated financial statements.

**ANSYS, INC. AND SUBSIDIARIES**
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**
**(Unaudited)**

| *(in thousands)* | Three Months Ended March 31, 2022 | Three Months Ended March 31, 2021 |
|---|---|---|
| Cash flows from operating activities: | | |
| Net income | **$ 70,988** | $ 72,398 |
| Adjustments to reconcile net income to net cash provided by operating activities: | | |
| Depreciation and intangible assets amortization | **29,080** | 27,082 |
| Operating lease right-of-use assets expense | **5,553** | 5,699 |
| Deferred income tax benefit | **(861)** | (3,564) |
| Provision for bad debts | **2,326** | 18 |
| Stock-based compensation expense | **35,651** | 35,119 |
| Other | **919** | 975 |
| Changes in operating assets and liabilities: | | |
| Accounts receivable | **180,259** | 159,038 |
| Other receivables and current assets | **43,479** | (12,071) |
| Other long-term assets | **(5,983)** | (1,909) |
| Accounts payable, accrued expenses and current liabilities | **(143,883)** | (80,050) |
| Accrued income taxes | **(1,119)** | (20,954) |
| Deferred revenue | **455** | 1,204 |
| Other long-term liabilities | **(5,928)** | (11,878) |
| Net cash provided by operating activities | **210,936** | 171,107 |
| Cash flows from investing activities: | | |
| Acquisitions, net of cash acquired | **(4,915)** | (10,783) |
| Capital expenditures | **(5,062)** | (5,045) |
| Other investing activities | **13** | (35) |
| Net cash used in investing activities | **(9,964)** | (15,863) |
| Cash flows from financing activities: | | |
| Purchase of treasury stock | **(155,571)** | — |
| Restricted stock withholding taxes paid in lieu of issued shares | **(59,196)** | (86,049) |
| Proceeds from shares issued for stock-based compensation | **10,122** | 11,892 |
| Other financing activities | **—** | (51) |
| Net cash used in financing activities | **(204,645)** | (74,208) |
| Effect of exchange rate fluctuations on cash and cash equivalents | **(6,573)** | (6,281) |
| Net (decrease) increase in cash and cash equivalents | **(10,246)** | 74,755 |
| Cash and cash equivalents, beginning of period | **667,667** | 912,672 |
| Cash and cash equivalents, end of period | **$ 657,421** | $ 987,427 |
| Supplemental disclosure of cash flow information: | | |
| Income taxes paid | **$ 3,566** | $ 20,641 |
| Interest paid | **$ 2,626** | $ 2,956 |

The accompanying notes are an integral part of the condensed consolidated financial statements.

**ANSYS, INC. AND SUBSIDIARIES**
**CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**
**(Unaudited)**

| | Common Stock | | Additional Paid-In Capital | Retained Earnings | Treasury Stock | | Accumulated Other Comprehensive Loss | Total Stockholders' Equity |
|---|---|---|---|---|---|---|---|---|
| *(in thousands)* | Shares | Amount | | | Shares | Amount | | |
| Balance, January 1, 2022 | **95,267** | **$ 953** | **$ 1,465,694** | **$ 4,259,220** | **8,188** | **$ (1,185,707)** | **$ (56,112)** | **$ 4,484,048** |
| Treasury shares acquired | | | | | **500** | **(155,571)** | | **(155,571)** |
| Stock-based compensation activity | | | **(50,287)** | | **(403)** | **36,865** | | **(13,422)** |
| Other comprehensive loss | | | | | | | **(22,092)** | **(22,092)** |
| Net income | | | | **70,988** | | | | **70,988** |
| Balance, March 31, 2022 | **95,267** | **$ 953** | **$ 1,415,407** | **$ 4,330,208** | **8,285** | **$ (1,304,413)** | **$ (78,204)** | **$ 4,363,951** |

| | Common Stock | | Additional Paid-In Capital | Retained Earnings | Treasury Stock | | Accumulated Other Comprehensive Loss | Total Stockholders' Equity |
|---|---|---|---|---|---|---|---|---|
| *(in thousands)* | Shares | Amount | | | Shares | Amount | | |
| Balance, January 1, 2021 | 95,266 | $ 953 | $ 1,434,203 | $ 3,804,593 | 8,694 | $ (1,124,102) | $ (17,775) | $ 4,097,872 |
| Stock-based compensation activity | | | (87,602) | | (565) | 48,565 | | (39,037) |
| Other comprehensive loss | | | | | | | (19,264) | (19,264) |
| Net income | | | | 72,398 | | | | 72,398 |
| Balance, March 31, 2021 | 95,266 | $ 953 | $ 1,346,601 | $ 3,876,991 | 8,129 | $ (1,075,537) | $ (37,039) | $ 4,111,969 |

The accompanying notes are an integral part of the condensed consolidated financial statements.

# ANSYS, INC. AND SUBSIDIARIES
## NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
**March 31, 2022**
**(Unaudited)**

### 1. Organization

ANSYS, Inc. (Ansys, we, us, our) develops and globally markets engineering simulation software and services widely used by engineers, designers, researchers and students across a broad spectrum of industries and academia, including high-tech, aerospace and defense, automotive, energy, industrial equipment, materials and chemicals, consumer products, healthcare, and construction.

As defined by the accounting guidance for segment reporting, we operate as one segment.

Given the integrated approach to the multi-discipline problem-solving needs of our customers, a single sale of software may contain components from multiple product areas and include combined technologies. We also have a multi-year product and integration strategy that will result in new, combined products or changes to the historical product offerings. As a result, it is impracticable for us to provide accurate historical or current reporting among our various product lines.

### 2. Accounting Policies

**Basis of Presentation**

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States for interim financial information for commercial and industrial companies, the instructions to Form 10-Q and Rule 10-01 of Regulation S-X. Accordingly, the accompanying unaudited condensed consolidated financial statements do not include all of the information and footnotes required by accounting principles generally accepted in the United States for complete financial statements. The accompanying unaudited condensed consolidated financial statements should be read in conjunction with our audited consolidated financial statements (and notes thereto) included in our Annual Report on Form 10-K for the year ended December 31, 2021 (2021 Form 10-K). The condensed consolidated December 31, 2021 balance sheet presented is derived from the audited December 31, 2021 balance sheet included in the 2021 Form 10-K. In our opinion, all adjustments considered necessary for a fair presentation of the financial statements have been included, and all adjustments are of a normal and recurring nature. Operating results for the three months ended March 31, 2022 are not necessarily indicative of the results that may be expected for any future period.

**Recently Adopted Accounting Guidance**

***Business combinations***: In October 2021, the Financial Accounting Standards Board issued ASU No. 2021-08, *Business Combinations* (Topic 805): *Accounting for Contract Assets and Contract Liabilities from Contracts with Customers* (ASU 2021-08). ASU 2021-08 requires contract assets and contract liabilities acquired in a business combination to be recognized and measured by the acquirer on the acquisition date in accordance with Accounting Standards Codification (ASC) 606, *Revenue from Contracts with Customers*, as if the acquirer had originated the contracts. We adopted the standard effective January 1, 2022. Under the prior guidance, such assets and liabilities were recognized by the acquirer at fair value on the acquisition date. The standard does not impact acquired contract assets or liabilities from business combinations that occurred prior to the effective date of adoption, and the impact in current and future periods will depend on the contract assets and contract liabilities acquired in business combinations after the effective date of adoption.

**Accounting Guidance Issued and Not Yet Adopted**

It is not expected that the future adoption of any recently issued accounting pronouncements will have a material impact on our financial position, results of operations or cash flows.

**Cash and Cash Equivalents**

Cash and cash equivalents consist primarily of highly liquid investments such as deposits held at major banks and money market funds. Cash equivalents are carried at cost, which approximates fair value. Our cash and cash equivalents balances comprise the following:

| | March 31, 2022 | | December 31, 2021 | |
|---|---|---|---|---|
| *(in thousands, except percentages)* | **Amount** | **% of Total** | **Amount** | **% of Total** |
| Cash accounts | **$ 572,768** | **87.1** | $ 580,047 | 86.9 |
| Money market funds | **84,653** | **12.9** | 87,620 | 13.1 |
| Total | **$ 657,421** | | $ 667,667 | |

Our money market fund balances are held in various funds of two issuers.

## 3. Revenue from Contracts with Customers

### Disaggregation of Revenue

The following table summarizes revenue:

| | Three Months Ended | |
|---|---|---|
| *(in thousands, except percentages)* | **March 31, 2022** | **March 31, 2021** |
| Revenue: | | |
| Subscription lease licenses | **$ 91,457** | $ 65,077 |
| Perpetual licenses | **65,988** | 67,527 |
| Software licenses | **157,445** | 132,604 |
| Maintenance | **247,241** | 213,674 |
| Service | **20,391** | 16,948 |
| Maintenance and service | **267,632** | 230,622 |
| Total revenue | **$ 425,077** | $ 363,226 |
| | | |
| Direct revenue, as a percentage of total revenue | **72.4 %** | 71.8 % |
| Indirect revenue, as a percentage of total revenue | **27.6 %** | 28.2 % |

Our software license revenue is recognized up front, while maintenance and service revenue is generally recognized over the term of the contract.

**Deferred Revenue**

Deferred revenue consists of billings made or payments received in advance of revenue recognition from customer agreements. The timing of revenue recognition may differ from the timing of billings to customers. Payment terms vary by the type and location of customer and the products or services offered. The time between invoicing and when payment is due is not significant.

The changes in deferred revenue, inclusive of both current and long-term deferred revenue, during the three months ended March 31, 2022 and 2021 were as follows:

| *(in thousands)* | 2022 | 2021 |
|---|---|---|
| Beginning balance – January 1 | **$ 412,781** | $ 388,810 |
| Acquired deferred revenue | **84** | — |
| Deferral of revenue | **423,649** | 362,043 |
| Recognition of revenue | **(425,077)** | (363,226) |
| Currency translation | **(6,317)** | (6,898) |
| Ending balance – March 31 | **$ 405,120** | $ 380,729 |

Total revenue allocated to remaining performance obligations as of March 31, 2022 will be recognized as revenue as follows:

| *(in thousands)* | |
|---|---|
| Next 12 months | **$ 746,037** |
| Months 13-24 | **251,667** |
| Months 25-36 | **139,907** |
| Thereafter | **65,564** |
| Total revenue allocated to remaining performance obligations | **$ 1,203,175** |

Revenue allocated to remaining performance obligations represents contracted revenue that has not yet been recognized, which includes both deferred revenue and backlog. Our backlog represents installment billings for periods beyond the current quarterly billing cycle. Revenue recognized during the three months ended March 31, 2022 and 2021 included amounts in deferred revenue and backlog at the beginning of the period of $244.6 million and $209.3 million, respectively.

**4. Acquisitions**

During the quarter ended March 31, 2022, we completed an acquisition for a purchase price of $5.1 million to enhance our solution offerings. The effects of the business combination were not material to our consolidated results of operations.

On October 1, 2021, we acquired 100% of the shares of Zemax, a leader in high-performance optical imaging system simulation, for a purchase price of $411.5 million, paid in cash, or $399.1 million net of cash acquired from Zemax. The acquisition expands the scope of our optical and photonics simulation portfolio by giving users comprehensive solutions that could drive innovation in healthcare, autonomy, consumer electronics and the industrial internet of things (IIoT).

Additionally, during the year ended December 31, 2021, we completed several other acquisitions to expand our solution offerings and enhance our customers' experience. These acquisitions were not individually significant. The combined purchase price of these acquisitions during the year ended December 31, 2021 was $110.7 million, which was paid in cash.

The operating results of each acquisition have been included in our condensed consolidated financial statements since each respective date of acquisition.

See Note 16, Subsequent Events, for information on our recent acquisitions.

## 5. Other Receivables and Current Assets and Other Accrued Expenses and Liabilities

Our other receivables and current assets and other accrued expenses and liabilities comprise the following balances:

| *(in thousands)* | March 31, 2022 | December 31, 2021 |
|---|---|---|
| Receivables related to unrecognized revenue | **$ 139,441** | $ 200,888 |
| Income taxes receivable, including overpayments and refunds | **68,962** | 71,332 |
| Prepaid expenses and other current assets | **69,972** | 52,435 |
| Total other receivables and current assets | **$ 278,375** | $ 324,655 |
| | | |
| Accrued vacation | **41,882** | 35,879 |
| Payroll-related accruals | **37,597** | 21,507 |
| Consumption, VAT and sales tax liabilities | **25,867** | 52,630 |
| Accrued expenses and other current liabilities | **79,317** | 94,493 |
| Total other accrued expenses and liabilities | **$ 184,663** | $ 204,509 |

Receivables related to unrecognized revenue represent the current portion of billings made for customer contracts that have not yet been recognized as revenue.

## 6. Earnings Per Share

Basic earnings per share (EPS) amounts are computed by dividing earnings by the weighted average number of common shares outstanding during the period. Diluted EPS amounts assume the issuance of common stock for all potentially dilutive equivalents outstanding. To the extent stock awards are anti-dilutive, they are excluded from the calculation of diluted EPS.

The details of basic and diluted EPS are as follows:

| | Three Months Ended | |
|---|---|---|
| *(in thousands, except per share data)* | March 31, 2022 | March 31, 2021 |
| Net income | **$ 70,988** | $ 72,398 |
| Weighted average shares outstanding – basic | **87,122** | 86,808 |
| Dilutive effect of stock plans | **628** | 1,178 |
| Weighted average shares outstanding – diluted | **87,750** | 87,986 |
| Basic earnings per share | **$ 0.81** | $ 0.83 |
| Diluted earnings per share | **$ 0.81** | $ 0.82 |
| Anti-dilutive shares | **65** | 27 |

## 7. Goodwill and Intangible Assets

Intangible assets are classified as follows:

| | March 31, 2022 | | December 31, 2021 | |
|---|---|---|---|---|
| *(in thousands)* | Gross Carrying Amount | Accumulated Amortization | Gross Carrying Amount | Accumulated Amortization |
| Finite-lived intangible assets: | | | | |
| Developed software and core technologies | **$ 983,973** | **$ (437,282)** | $ 985,685 | $ (422,797) |
| Customer lists | **200,957** | **(60,700)** | 203,072 | (57,175) |
| Trade names | **182,025** | **(130,271)** | 182,554 | (128,577) |
| Total | **$ 1,366,955** | **$ (628,253)** | $ 1,371,311 | $ (608,549) |
| Indefinite-lived intangible asset: | | | | |
| Trade name | **$ 357** | | $ 357 | |

Finite-lived intangible assets are amortized over their estimated useful lives of two years to seventeen years. Amortization expense for the intangible assets reflected above was $21.4 million and $19.4 million for the three months ended March 31, 2022 and 2021, respectively.

As of March 31, 2022, estimated future amortization expense for the intangible assets reflected above was as follows:

| *(in thousands)* | |
|---|---|
| Remainder of 2022 | **$ 62,556** |
| 2023 | **88,738** |
| 2024 | **89,805** |
| 2025 | **88,387** |
| 2026 | **86,831** |
| 2027 | **85,813** |
| Thereafter | **236,572** |
| Total intangible assets subject to amortization | **738,702** |
| Indefinite-lived trade name | **357** |
| Other intangible assets, net | **$ 739,059** |

The changes in goodwill during the three months ended March 31, 2022 and 2021 were as follows:

| *(in thousands)* | 2022 | 2021 |
|---|---|---|
| Beginning balance – January 1 | **$ 3,409,271** | $ 3,038,306 |
| Acquisitions and adjustments[1] | **1,961** | 8,215 |
| Currency translation | **(11,335)** | (9,738) |
| Ending balance – March 31 | **$ 3,399,897** | $ 3,036,783 |

[1] In accordance with the accounting for business combinations, we recorded adjustments to goodwill for the effect of changes in the provisional fair values of the assets acquired and liabilities assumed during the measurement period (up to one year from the acquisition date) as we obtained new information about facts and circumstances that existed as of the acquisition date that, if known, would have affected the measurement of the amounts recognized as of that date.

During the first quarter of 2022, we completed the annual impairment test for goodwill and the indefinite-lived intangible asset and determined that these assets had not been impaired as of the test date, January 1, 2022. No other events or circumstances changed during the three months ended March 31, 2022 that would indicate that the fair values of our reporting unit and indefinite-lived intangible asset are below their carrying amounts.

## 8. Fair Value Measurement

The valuation hierarchy for disclosure of assets and liabilities reported at fair value prioritizes the inputs for such valuations into three broad levels:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2: quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument; or
- Level 3: unobservable inputs based on our own assumptions used to measure assets and liabilities at fair value.

A financial asset's or liability's classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement.

Our current and long-term debt is classified within Level 2 of the fair value hierarchy because these borrowings are not actively traded and have a variable interest rate structure based upon market rates. The carrying amount of our current and long-term debt approximates the estimated fair value. See Note 10, "Debt", for additional information on our borrowings.

The following tables provide the assets carried at fair value and measured on a recurring basis:

| | | Fair Value Measurements at Reporting Date Using: | | |
|---|---|---|---|---|
| *(in thousands)* | **March 31, 2022** | **Quoted Prices in Active Markets (Level 1)** | **Significant Other Observable Inputs (Level 2)** | **Significant Unobservable Inputs (Level 3)** |
| **Assets** | | | | |
| Cash equivalents | **$ 84,653** | **$ 84,653** | **$ —** | **$ —** |
| Short-term investments | **$ 344** | **$ —** | **$ 344** | **$ —** |
| Deferred compensation plan investments | **$ 1,600** | **$ 1,600** | **$ —** | **$ —** |
| Equity securities | **$ 2,313** | **$ 2,313** | **$ —** | **$ —** |

| | | Fair Value Measurements at Reporting Date Using: | | |
|---|---|---|---|---|
| *(in thousands)* | **December 31, 2021** | **Quoted Prices in Active Markets (Level 1)** | **Significant Other Observable Inputs (Level 2)** | **Significant Unobservable Inputs (Level 3)** |
| **Assets** | | | | |
| Cash equivalents | $ 87,620 | $ 87,620 | $ — | $ — |
| Short-term investments | $ 361 | $ — | $ 361 | $ — |
| Deferred compensation plan investments | $ 1,602 | $ 1,602 | $ — | $ — |
| Equity securities | $ 2,500 | $ 2,500 | $ — | $ — |

The cash equivalents in the preceding tables represent money market funds, valued at net asset value, with carrying values which approximate their fair values because of their short-term nature.

The short-term investments in the preceding tables represent deposits held by certain foreign subsidiaries. The deposits have fixed interest rates with original maturities ranging from three months to one year.

The deferred compensation plan investments in the preceding tables represent trading securities held in a rabbi trust for the benefit of non-employee directors. These securities consist of mutual funds traded in an active market with quoted prices. As a result, the plan assets are classified as Level 1 in the fair value hierarchy. The plan assets are recorded within other long-term assets on our condensed consolidated balance sheets.

The equity securities represent our investment in a publicly traded company. These securities are traded in an active market with quoted prices. As a result, the securities are classified as Level 1 in the fair value hierarchy. The securities are recorded within other long-term assets on our condensed consolidated balance sheets.

## 9. Leases

Our right-of-use (ROU) assets and lease liabilities primarily include operating leases for office space. Our executive offices and those related to certain domestic product development, marketing, production and administration are located in a 186,000 square foot office facility in Canonsburg, Pennsylvania. The term of the lease is 183 months, which began on October 1, 2014 and expires on December 31, 2029. The lease agreement includes options to renew the contract through August 2044, an option to lease additional space in January 2025 and an option to terminate the lease in December 2025. No options are included in the lease liability as renewal is not reasonably certain. In addition, we are reasonably certain we will not terminate the lease agreement. Absent the exercise of options in the lease, our remaining base rent (inclusive of property taxes and certain operating costs) is $4.5 million per annum through 2024 and $4.7 million per annum for 2025 - 2029.

The components of our global lease cost reflected in the condensed consolidated statements of income are as follows:

| | Three Months Ended | |
|---|---|---|
| *(in thousands)* | **March 31, 2022** | **March 31, 2021** |
| Lease liability cost | **$ 6,971** | $ 7,001 |
| Variable lease cost not included in the lease liability[1] | **1,084** | 1,282 |
| Total lease cost | **$ 8,055** | $ 8,283 |

[1] Variable lease cost includes common area maintenance, property taxes, utilities and fluctuations in rent due to a change in an index or rate.

Other information related to operating leases is as follows:

| | Three Months Ended | |
|---|---|---|
| *(in thousands)* | **March 31, 2022** | **March 31, 2021** |
| Cash paid for amounts included in the measurement of the lease liability: | | |
| Operating cash flows from operating leases | **$ (7,018)** | $ (6,827) |
| Right-of-use assets obtained in exchange for new operating lease liabilities | **$ 16,318** | $ 587 |

| | As of March 31, | |
|---|---|---|
| | **2022** | **2021** |
| Weighted-average remaining lease term of operating leases | **7.3 years** | 7.1 years |
| Weighted-average discount rate of operating leases | **2.9 %** | 3.1 % |

The maturity schedule of the operating lease liabilities as of March 31, 2022 is as follows:

| *(in thousands)* | |
|---|---|
| Remainder of 2022 | **$ 20,230** |
| 2023 | **22,610** |
| 2024 | **20,417** |
| 2025 | **18,625** |
| 2026 | **16,537** |
| Thereafter | **53,139** |
| Total future lease payments | **151,558** |
| Less: Present value adjustment | **(15,081)** |
| Present value of future lease payments[1] | **$ 136,477** |

[1] Includes the current portion of operating lease liabilities of $22.2 million, which is reflected in other accrued expenses and liabilities in the condensed consolidated balance sheets.

There were no material leases that have been signed but not yet commenced as of March 31, 2022.

**10. Debt**

In February 2019, we entered into a credit agreement for a $500.0 million unsecured revolving credit facility, which includes a $50.0 million sublimit for the issuance of letters of credit (Revolving Credit Facility), with Bank of America, N.A. as the Administrative Agent. The Revolving Credit Facility becomes payable in full on February 22, 2024 and is available for general corporate purposes, including, among others, to finance acquisitions and capital expenditures. The Revolving Credit Facility has never been utilized.

In connection with a 2019 acquisition, we amended our credit agreement (Amended Credit Agreement) on October 16, 2019. The amendment provided for a new $500.0 million unsecured term loan facility to partially finance the acquisition. The term loan was funded on November 1, 2019 and matures on November 1, 2024. Principal on the term loan is payable quarterly at a rate of 1.25% in 2022 and 2.50% thereafter. We repaid $75.0 million of the unsecured term loan balance in January 2020 prior to the scheduled maturity dates in 2022 ($25.0 million) and 2023 ($50.0 million). In June 2021, we repaid $26.0 million of the unsecured term loan balance prior to the scheduled maturity dates in 2024.

In connection with a 2020 acquisition, we entered into a credit agreement (2020 Credit Agreement) on November 9, 2020, with Bank of America, N.A. as the Administrative Agent. The 2020 Credit Agreement provided for a new $375.0 million unsecured term loan facility to finance a portion of the cash consideration for the acquisition. The term loan was funded on December 1, 2020 and matures on November 1, 2024. Principal on the term loan is payable quarterly at a rate of 1.25% in 2022 and 2.50% thereafter. We repaid $19.0 million of the unsecured term loan balance in June 2021 prior to the scheduled maturity dates in 2022 ($18.8 million) and 2023 ($0.2 million).

Borrowings under the Amended Credit Agreement and the 2020 Credit Agreement (collectively, the Credit Agreements) accrue interest at the Eurodollar rate plus an applicable margin or at the base rate, at our election. For the quarter ended March 31, 2022, we elected to apply the Eurodollar rate. The base rate is the applicable margin plus the highest of (i) the federal funds rate plus 0.500%, (ii) the Bank of America prime rate and (iii) the Eurodollar rate plus 1.000%. The applicable margin for these borrowings is a percentage per annum based on the lower of (1) a pricing level determined by our then-current consolidated leverage ratio and (2) a pricing level determined by our debt ratings (if such debt ratings exist). This results in a margin ranging from 1.125% to 1.750% and 0.125% to 0.750% for the Eurodollar rate and base rate, respectively.

The weighted average interest rate in effect for the three months ended March 31, 2022 and 2021 was 1.35% and 1.45%, respectively. As of March 31, 2022, the rate in effect for the Credit Agreements was 1.58%.

The Credit Agreements contain language in the event the Eurodollar rate is not available due to LIBOR changes. If this occurs, the base rate will be used for borrowings. However, we may work with the Administrative Agent to amend the Credit Agreements to replace the Eurodollar rate with (i) one or more rates based on the Secured Overnight Financing Rate (SOFR); or (ii) another alternative benchmark rate, subject to the lenders' approval.

The Credit Agreements contain customary representations and warranties, affirmative and negative covenants and events of default. The Credit Agreements also each contain a financial covenant requiring us to maintain a consolidated leverage ratio of indebtedness to earnings before interest, taxes, depreciation and amortization not exceeding 3.50 to 1.00 as of the end of any fiscal quarter (for the four-quarter period ending on such date) with an opportunity for a temporary increase in such consolidated leverage ratio to 4.00 to 1.00 upon the consummation of certain qualified acquisitions for which the aggregate consideration is at least $250.0 million.

As of March 31, 2022, the carrying value of the term loans was $753.7 million, of which $9.1 million is included in current portion of long-term debt and $744.6 million is included in long-term debt and is net of $1.3 million of unamortized debt issuance costs. As of December 31, 2021, the carrying value of the term loans was $753.6 million, which is net of $1.4 million of unamortized debt issuance costs and the total amount is included in long-term debt. We were in compliance with all covenants as of March 31, 2022 and December 31, 2021.

## 11. Income Taxes

Our income before income tax provision (benefit), income tax provision (benefit) and effective tax rates were as follows:

| *(in thousands, except percentages)* | Three Months Ended March 31, 2022 | Three Months Ended March 31, 2021 |
|---|---|---|
| Income before income tax provision (benefit) | **$ 78,029** | $ 47,623 |
| Income tax provision (benefit) | **$ 7,041** | $ (24,775) |
| Effective tax rate | **9.0 %** | (52.0)% |

Tax expense (benefit) for the three months ended March 31, 2022 and 2021 benefited due to deductions related to stock-based compensation, many of which were recognized discretely. These benefits were partially offset by non-deductible compensation. Discrete deductions relating to stock-based compensation were significantly higher for the three months ended March 31, 2021.

## 12. Stock Repurchase Program

Under our stock repurchase program, we repurchased shares as follows:

| *(in thousands, except per share data)* | Three Months Ended March 31, 2022 | Three Months Ended March 31, 2021 |
|---|---|---|
| Number of shares repurchased | **500** | — |
| Average price paid per share | **$ 311.14** | $ — |
| Total cost | **$ 155,571** | $ — |

As of March 31, 2022, 2.0 million shares remained available for repurchase under the program.

## 13. Stock-Based Compensation

Total stock-based compensation expense and its net impact on basic and diluted earnings per share are as follows:

| *(in thousands, except per share data)* | Three Months Ended March 31, 2022 | Three Months Ended March 31, 2021 |
|---|---|---|
| Cost of sales: | | |
| Maintenance and service | **$ 2,563** | $ 3,562 |
| Operating expenses: | | |
| Selling, general and administrative | **20,444** | 17,223 |
| Research and development | **12,644** | 14,334 |
| Stock-based compensation expense before taxes | **35,651** | 35,119 |
| Related income tax benefits | **(24,888)** | (42,625) |
| Stock-based compensation expense, net of taxes | **$ 10,763** | $ (7,506) |
| Net impact on earnings per share: | | |
| Basic earnings per share | **$ (0.12)** | $ 0.09 |
| Diluted earnings per share | **$ (0.12)** | $ 0.09 |

Stock-based compensation was a net benefit for the three months ended March 31, 2021 as the tax benefits on stock-based compensation exceeded the gross stock-based compensation expense due to increased excess tax benefits recognized related to awards issued in prior periods that were either exercised or released in the period.

**14. Geographic Information**

Revenue to external customers is attributed to individual countries based upon the location of the customer. Revenue by geographic area is as follows:

| | Three Months Ended | |
|---|---|---|
| *(in thousands)* | March 31, 2022 | March 31, 2021 |
| United States | **$ 197,561** | $ 152,701 |
| Japan | **37,871** | 42,015 |
| Germany | **30,586** | 31,346 |
| China | **23,208** | 14,452 |
| South Korea | **21,940** | 22,398 |
| Other Europe, Middle East and Africa (EMEA) | **74,437** | 71,929 |
| Other international | **39,474** | 28,385 |
| Total revenue | **$ 425,077** | $ 363,226 |

Property and equipment by geographic area is as follows:

| *(in thousands)* | March 31, 2022 | December 31, 2021 |
|---|---|---|
| United States | **$ 60,909** | $ 62,880 |
| India | **6,104** | 6,144 |
| Germany | **3,840** | 4,434 |
| Other EMEA | **8,752** | 9,215 |
| Other international | **5,073** | 5,241 |
| Total property and equipment, net | **$ 84,678** | $ 87,914 |

**15. Contingencies and Commitments**

We are subject to various claims, investigations, and legal and regulatory proceedings that arise in the ordinary course of business, including, but not limited to, commercial disputes, labor and employment matters, tax audits, alleged infringement of third party's intellectual property rights and other matters. In our opinion, the resolution of pending matters is not expected to have a material adverse effect on our consolidated results of operations, cash flows or financial position. However, each of these matters is subject to various uncertainties and it is possible that an unfavorable resolution of one or more of these proceedings could materially affect our consolidated results of operations, cash flows or financial position.

Our Indian subsidiary has several service tax audits pending that have resulted in formal inquiries being received on transactions through mid-2012. We could incur tax charges and related liabilities of $7.4 million. As such charges are not probable at this time, a reserve has not been recorded on the condensed consolidated balance sheet as of March 31, 2022. The service tax issues raised in our notices and inquiries are very similar to the case, M/s Microsoft Corporation (I) (P) Ltd. Vs. Commissioner of Service Tax, New Delhi, wherein the Delhi Customs, Excise and Service Tax Appellate Tribunal (CESTAT) issued a favorable ruling to Microsoft. The Microsoft ruling was subsequently challenged in the Supreme Court by the Indian tax authority and a decision is still pending. We can provide no assurances on the impact that the present Microsoft case's decision will have on our cases, however, an unfavorable ruling in the Microsoft case may impact our assessment of probability and result in the recording of a $7.4 million reserve. We are uncertain as to when these service tax matters will be concluded.

We sell software licenses and services to our customers under contractual agreements. Such agreements generally include certain provisions indemnifying the customer against claims, by third parties, of infringement or misappropriation of their intellectual property rights arising from such customer's usage of our products or services. To date, payments related to these indemnification provisions have been immaterial. For several reasons, including the lack of prior material indemnification claims, we cannot determine the maximum amount of potential future payments, if any, related to such indemnification provisions.

### 16. Subsequent Events

In May 2022, we completed various strategic acquisitions for a combined purchase price of $249.0 million. These acquisitions were funded with existing cash balances. Due to the limited time since the acquisition dates, the initial accounting for these business combinations is incomplete. As a result, we are unable to provide the amounts recognized as of the acquisition dates for the major classes of assets acquired and liabilities assumed. We do not expect the operations to contribute meaningfully to our current year's financial results.

**Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations**

The following discussion should be read in conjunction with the accompanying unaudited condensed consolidated financial statements and notes thereto for the three months ended March 31, 2022, and with our audited consolidated financial statements and notes thereto for the year ended December 31, 2021 included in the 2021 Form 10-K filed with the Securities and Exchange Commission (SEC). The discussion and analysis of our financial condition and results of operations are based upon our condensed consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles (GAAP).

*Business:*

Ansys, a corporation formed in 1994, develops and globally markets engineering simulation software and services widely used by engineers, designers, researchers and students across a broad spectrum of industries and academia, including high-tech, aerospace and defense, automotive, energy, industrial equipment, materials and chemicals, consumer products, healthcare, and construction. Headquartered south of Pittsburgh, Pennsylvania, we employed 5,200 people as of March 31, 2022. We focus on the development of open and flexible solutions that enable users to analyze designs directly on the desktop and/or via the cloud, providing a common platform for fast, efficient and cost-conscious product development, from design concept to final-stage testing and validation. We distribute our suite of simulation technologies through direct sales offices in strategic, global locations and a global network of independent resellers and distributors (collectively, channel partners). It is our intention to continue to maintain this hybrid sales and distribution model.

Our strategy of Pervasive Engineering Simulation™ seeks to deepen the use of simulation in our core, to inject simulation throughout the product lifecycle and to embed simulation into our partners' ecosystems. The engineering software simulation market is strong and growing. The market growth is driven by customers' need for rapid, quality innovation in a cost efficient manner, enabling faster time to market of new products and lower warranty costs. We are investing in solutions to help engineers deal with increasing product complexity in:

- Electrification, including electric vehicles;
- Autonomy, including self-driving vehicles;
- 5G and telecommunications; and
- IIoT.

In the longer term, we are also investing in opportunities around digital twins and simulation for additive manufacturing. Our strategy of Pervasive Engineering Simulation is aligned with the market growth.

To support our strategy of Pervasive Engineering Simulation, we will continue to follow a series of pillars that we believe will drive future growth. We will reinforce and extend our leadership in core and the high-growth solutions. We will build and grow our offerings and expertise in adjacencies to our current core competencies. We will also continue to pursue a smart and strategic acquisition strategy to grow our business, and we will partner with other industry leaders to broaden pervasive simulation into other ecosystems. Importantly, we will continue to win in the right way, built on a culture of and commitment to diversity, equity, inclusion and belonging.

We license our technology to businesses, educational institutions and governmental agencies. We believe that the features, functionality and integrated multiphysics capabilities of our software products are as strong as they have ever been. However, the software business is generally characterized by long sales cycles. These long sales cycles increase the difficulty of predicting sales for any particular quarter. We make many operational and strategic decisions based upon short- and long-term sales forecasts that are impacted not only by these long sales cycles, but also by current global economic conditions. As a result, we believe that our overall performance is best measured by fiscal year results rather than by quarterly results.

Management addresses the competition and price pressure that it faces in the short- and long-term by focusing on expanding the breadth, depth, ease of use and quality of the technologies, features, functionality and integrated multiphysics capabilities of our software products as compared to our competitors; investing in research and development to develop new and innovative products and increase the capabilities of our existing products; supplying new products and services; focusing on customer needs, training, consulting and support; and enhancing our distribution channels. We also evaluate and execute strategic acquisitions to supplement our global engineering talent, product offerings and distribution channels.

*Overview:*

*Update on the Impact of the COVID-19 Pandemic*

We continued to employ measures intended to mitigate the effects of the COVID-19 pandemic on our business in the first quarter. Remote access remained the primary means of work for much of our workforce. Remote work arrangements have not adversely affected our ability to maintain effective financial operations, including our financial reporting systems, internal controls over financial reporting and disclosure controls and procedures. Our direct and indirect sales and support teams continue to use collaborative technology to access both Ansys' data centers and the public cloud, and to meet virtually with customers to mitigate disruptions to our sales pipeline. Our sales team continues to engage with customers around the world in a mix of virtual and in-person meetings, depending on the location specific guidelines and customer preferences. They continue to deliver customer value and generate business momentum.

Please see "Forward-Looking Information" herein and "Risk Factors" in Part I, Item 1A of our 2021 Form 10-K for discussion on additional business risks, including those associated with the COVID-19 pandemic.

*Overall GAAP and Non-GAAP Results*

This section includes a discussion of GAAP and non-GAAP results. For reconciliations of non-GAAP results to GAAP results, see the section titled "Non-GAAP Results" herein.

The non-GAAP results exclude the income statement effects of the acquisition accounting adjustments to deferred revenue from business combinations closed prior to 2022, stock-based compensation, excess payroll taxes related to stock-based compensation, amortization of acquired intangible assets, transaction expenses related to business combinations and adjustments for the income tax effect of the excluded items.

This section also includes a discussion of constant currency results, which we use for financial and operational decision-making and as a means to evaluate period-to-period comparisons by excluding the effects of foreign currency fluctuations on the reported results. Constant currency is a non-GAAP measure. All constant currency results presented in this Item 2 exclude the effects of foreign currency fluctuations on the reported results. To present this information, the 2022 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 the 2021 comparable period, rather than the actual exchange rates in effect for 2022. Constant currency growth rates are calculated by adjusting the 2022 reported revenue and operating income amounts by the 2022 currency fluctuation impacts and comparing to the 2021 comparable period reported revenue and operating income amounts.

Our GAAP and non-GAAP results for the three months ended March 31, 2022 as compared to the three months ended March 31, 2021 reflected the following variances:

| | Three Months Ended March 31, 2022 | |
|---|---|---|
| | **GAAP** | **Non-GAAP** |
| Revenue | **17.0 %** | 15.2 % |
| Operating income | **62.3 %** | 19.3 % |
| Diluted earnings per share | **(1.2)%** | 21.4 % |

Our results reflect an increase in revenue during the three months ended March 31, 2022 due to growth in subscription lease licenses, maintenance and service revenue. We also experienced increased operating expenses during the three months ended March 31, 2022, primarily due to increased personnel costs, partially offset by decreased costs related to foreign exchange translation due to a stronger U.S. Dollar.

*Impact of Foreign Currency*

Our comparative financial results were impacted by fluctuations in the U.S. Dollar during the three months ended March 31, 2022 as compared to the three months ended March 31, 2021. The impacts on our GAAP and non-GAAP revenue and operating income as a result of the fluctuations of the U.S. Dollar when measured against our primary foreign currencies are reflected in the table below. Amounts in brackets indicate an adverse impact from currency fluctuations.

| | Three Months Ended March 31, 2022 | |
|---|---|---|
| ***(in thousands)*** | **GAAP** | **Non-GAAP** |
| Revenue | **$ (11,325)** | $ (11,389) |
| Operating income | **$ (4,494)** | $ (5,071) |

In constant currency, our increases were as follows:

| | Three Months Ended March 31, 2022 | |
|---|---|---|
| | **GAAP** | **Non-GAAP** |
| Revenue | **20.1 %** | 18.2 % |
| Operating income | **71.2 %** | 23.4 % |

*Other Key Business Metric*

Annual Contract Value (ACV) is one of our key performance metrics and is useful to investors in assessing the strength and trajectory of our business. Given that revenue is more volatile due to the upfront revenue recognition of perpetual licenses and multi-year subscription lease license sales, we provide ACV as a supplemental metric to help evaluate the annual performance of the business. Summed over the long term, ACV and revenue are equal. However, there will be years in which ACV growth lags revenue growth and other years in which ACV growth leads revenue growth. It is used by management in financial and operational decision-making and in setting sales targets used for compensation. ACV should be viewed independently of revenue and deferred revenue as ACV is a performance metric and is not intended to be combined with any of these items. There is no GAAP measure comparable to ACV. ACV is composed of the following:

- the annualized value of maintenance and subscription 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.

Our ACV was as follows:

| | Three Months Ended March 31, | | | | | | |
|---|---|---|---|---|---|---|---|
| ***(in thousands, except percentages)*** | **2022** | | **2021** | **Change** | | | |
| | **Actual** | **Constant Currency** | **Actual** | **Actual** | | **Constant Currency** | |
| | | **Amount** | | **Amount** | **%** | **Amount** | **%** |
| ACV | **$ 344,145** | $ 353,792 | $ 319,382 | $ 24,763 | 7.8 | $ 34,410 | 10.8 |

Our trailing twelve-month recurring ACV was as follows:

| | Twelve Months Ended March 31, | | Change | |
|---|---|---|---|---|
| ***(in thousands, except percentages)*** | **2022** | **2021** | **Amount** | **%** |
| Recurring ACV* | **$ 1,529,385** | $ 1,319,384 | $ 210,001 | 15.9 |

*All periods are converted from the functional currency to U.S. Dollars at the 2021 monthly average exchange rates.

Recurring ACV includes both subscription lease license and maintenance ACV, and excludes perpetual license and service ACV.

*Industry Commentary:*

The industry trends from 2021 carried into the first quarter of 2022 as high-tech, automotive, and aerospace and defense continue to be our leading industries. Our leading product portfolio remains attractive to customers as they continue investing in simulation to reduce costs and time-to-market while advancing digital transformation and sustainability initiatives. In the high-tech and semiconductor industry, growth was driven by customers seeking advanced simulation tools for 5G, high-performance computing, IoT and increasingly complex chip designs. Digital transformation initiatives continue to be a tailwind for simulation, particularly in the defense sector, where model-based systems engineering and our core solvers support defense modernization.

*Geographic Trends:*

The following tables present our GAAP and non-GAAP geographic revenue variances using actual and constant currency rates during the three months ended March 31, 2022 as compared to the three months ended March 31, 2021:

| | Three Months Ended March 31, 2022 | | | |
|---|---|---|---|---|
| | GAAP | | Non-GAAP | |
| | Actual | Constant Currency | Actual | Constant Currency |
| Americas | **28.3 %** | 28.4 % | 23.4 % | 23.4 % |
| EMEA | **1.7 %** | 7.4 % | 2.2 % | 7.9 % |
| Asia-Pacific | **14.8 %** | 20.2 % | 15.0 % | 20.3 % |
| Total | **17.0 %** | 20.1 % | 15.2 % | 18.2 % |

The value and duration of multi-year subscription lease contracts executed during the period significantly impact the recognition of revenue. As a result, revenue may fluctuate significantly, particularly on a quarterly basis, due to the timing of such contracts, relative differences in duration of long-term contracts from quarter to quarter and changes in the mix of license types sold compared to the prior year. Large swings in revenue growth rates are not necessarily indicative of customers' software usage changes or cash flows during the periods presented.

To drive growth, we continue to focus on a number of sales improvement activities across our geographic regions, including sales hiring, pipeline building, productivity initiatives and customer engagement activities.

Trade restrictions limited our ability to deliver products and services to customers in Russia and Belarus and certain entities in China. For context, the combined 2021 revenue for all customers in Russia and Belarus was $15.1 million, less than 1% of our total 2021 revenue. Additional restrictions or a further deterioration in the trade environment in China or other parts of the world could have a material adverse impact on our business, results of operations or financial condition. China's 2021 revenue represented 4.3% of our total 2021 revenue. Refer to additional details in Part I, "Item 1A. Risk Factors" in our 2021 Form 10-K and Part II, Item 1A of this Quarterly Report on Form 10-Q for a discussion of additional business risks, including those associated with the Russian invasion of Ukraine.

*Use of Estimates:*

The preparation of our financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates, including those related to contract revenue, standalone selling prices of our products and services, allowance for doubtful accounts receivable, valuation of goodwill and other intangible assets, useful lives for depreciation and amortization, acquired deferred revenue, operating lease assets and liabilities, fair values of stock awards, deferred compensation, income taxes, uncertain tax positions, tax valuation reserves, and contingencies and litigation. We base our estimates on historical experience, market experience, estimated future cash flows and various other assumptions that management believes are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

*Forward-Looking Information:*

This Quarterly Report on Form 10-Q 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. 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 update forward-looking statements, whether as a result of new information, future events or otherwise.

The risks associated with the following, among others, could cause actual results to differ materially from those described in any forward-looking statements:

- adverse conditions in the macroeconomic environment, including high inflation, and volatility in equity and foreign exchange markets; political, economic and regulatory uncertainties in the countries and regions in which we operate (including the Russian invasion of Ukraine);

- our ability to timely recruit and retain key personnel in a highly competitive labor market for skilled personnel, including potential financial impacts of wage inflation;

- impacts from tariffs, trade sanctions, export license requirements or other trade barriers (including impacts from changes to diplomatic relations and trade policy between the United States and Russia (or the United States and other countries that may support Russia or take similar actions) due to the Russian invasion of Ukraine);

- constrained credit and liquidity due to disruptions in the global economy and financial markets, that may limit or delay availability of credit under our existing or new credit facilities, or that may limit our ability to obtain credit or financing on acceptable terms or at all;

- current and future impacts of a natural disaster or catastrophe, including the COVID-19 pandemic and actions taken to address the pandemic by our customers, suppliers, regulatory authorities, and our business, on the global economy and our business and consolidated financial statements, and other public health and safety risks; and government actions or mandates surrounding the COVID-19 pandemic;

- declines in our customers' businesses resulting in adverse changes in procurement patterns; disruptions in accounts receivable and cash flow due to customers' liquidity challenges and commercial deterioration; uncertainties regarding demand for our products and services in the future and our customers' acceptance of new products; delays or declines in anticipated sales due to reduced or altered sales and marketing interactions with customers; and potential variations in our sales forecast compared to actual sales;

- increased volatility in our revenue due to the timing, duration and value of multi-year subscription lease contracts; and our reliance on high renewal rates for annual subscription lease and maintenance contracts;

- our ability to protect our proprietary technology; cybersecurity threats or other security breaches, including in relation to an increased level of our activity that is occurring from remote global off-site locations; and disclosure and misuse of employee or customer data whether as a result of a cybersecurity incident or otherwise;

- the quality of our products, including the strength of features, functionality and integrated multi-physics capabilities; our ability to develop and market new products to address the industry's rapidly changing technology; failures or errors in our products and services; and increased pricing pressure as a result of the competitive environment in which we operate;
- 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; and the impact indebtedness incurred in connection with any acquisition could have on our operations;

- investments in global sales and marketing organizations and global business infrastructure; and dependence on our channel partners for the distribution of our products;

- operational disruptions generally or specifically in connection with transitions to and from remote work environments; and the failure of our technological infrastructure or those of the service providers upon whom we rely including for infrastructure and cloud services;

- our ability and our channel partners' ability to comply with laws and regulations in relevant jurisdictions; and the outcome of contingencies, including legal proceedings, government or regulatory investigations and service tax audit cases;

- our intention to repatriate previously taxed earnings in excess of working capital needs and to reinvest all other earnings of our non-U.S. subsidiaries;

- plans for future capital spending; the extent of corporate benefits from such spending including with respect to customer relationship management; and higher than anticipated costs for research and development or slowdown in our research and development activities;

- uncertainty regarding income tax estimates in the jurisdictions in which we operate; and the effect of changes in tax laws and regulations in the jurisdictions in which we operate; and

- other risks and uncertainties described in our reports filed from time to time with the SEC.

**Results of Operations**

The results of operations discussed below are on a GAAP basis unless otherwise stated.

**Three Months Ended March 31, 2022 Compared to Three Months Ended March 31, 2021**

*Revenue:*

| *(in thousands, except percentages)* | Three Months Ended March 31, 2022 | | 2021 | Change | | | |
|---|---|---|---|---|---|---|---|
| | GAAP | Constant Currency | GAAP | GAAP | | Constant Currency | |
| | Amount | | | Amount | % | Amount | % |
| Revenue: | | | | | | | |
| Subscription lease licenses | **$ 91,457** | $ 93,283 | $ 65,077 | $ 26,380 | 40.5 | $ 28,206 | 43.3 |
| Perpetual licenses | **65,988** | 67,577 | 67,527 | (1,539) | (2.3) | 50 | 0.1 |
| Software licenses | **157,445** | 160,860 | 132,604 | 24,841 | 18.7 | 28,256 | 21.3 |
| Maintenance | **247,241** | 254,671 | 213,674 | 33,567 | 15.7 | 40,997 | 19.2 |
| Service | **20,391** | 20,871 | 16,948 | 3,443 | 20.3 | 3,923 | 23.1 |
| Maintenance and service | **267,632** | 275,542 | 230,622 | 37,010 | 16.0 | 44,920 | 19.5 |
| Total revenue | **$ 425,077** | $ 436,402 | $ 363,226 | $ 61,851 | 17.0 | $ 73,176 | 20.1 |

Revenue for the quarter ended March 31, 2022 increased 17.0% compared to the quarter ended March 31, 2021, or 20.1% in constant currency. The growth rate was favorably impacted by our continued investment in our global sales, support and marketing organizations, and the timing and duration of our multi-year subscription lease contracts. Subscription lease license revenue increased 40.5%, or 43.3% in constant currency, as compared to the prior-year quarter. Annual maintenance contracts that were sold with new perpetual licenses, maintenance contracts for new perpetual licenses sold in previous quarters, maintenance renewals and the maintenance portion of subscription lease license contracts collectively contributed to maintenance revenue growth of 15.7%, or 19.2% in constant currency. Service revenue increased 20.3%, or 23.1% in constant currency, as compared to the prior-year quarter. Perpetual license revenue, which is derived from new sales during the quarter, decreased 2.3%, or was flat in constant currency, as compared to the prior-year quarter.

We continue to experience increased demand from our customers for contracts that often include longer-term, time-based licenses involving a larger number of our software products. These arrangements typically involve a higher overall transaction price. The upfront recognition of license revenue related to these larger transactions can result in significant subscription lease license revenue volatility. Software products, across a large variety of applications and industries, are increasingly distributed in software-as-a-service, cloud and other subscription environments in which the licensing approach is time-based rather than perpetual. This preference could result in a shift from perpetual licenses to time-based licenses, such as subscription leases, over the long term.

With respect to revenue, on average for the quarter ended March 31, 2022, the U.S. Dollar was 6.4% stronger, when measured against our primary foreign currencies, than for the quarter ended March 31, 2021. The table below presents the net impacts of currency fluctuations on revenue for the quarter ended March 31, 2022. Amounts in brackets indicate an adverse impact from currency fluctuations.

| *(in thousands)* | Three Months Ended March 31, 2022 |
|---|---|
| Euro | **(5,648)** |
| Japanese Yen | **(3,440)** |
| South Korean Won | **(1,655)** |
| Other | **(582)** |
| Total | **$ (11,325)** |

The impacts from currency fluctuations resulted in decreased operating income of $4.5 million for the quarter ended March 31, 2022 as compared to the quarter ended March 31, 2021.

As a percentage of revenue, our international and domestic revenues, and our direct and indirect revenues, were as follows:

| | Three Months Ended March 31, | |
|---|---|---|
| | 2022 | 2021 |
| International | **53.5 %** | 58.0 % |
| Domestic | **46.5 %** | 42.0 % |
| | | |
| Direct | **72.4 %** | 71.8 % |
| Indirect | **27.6 %** | 28.2 % |

In valuing deferred revenue on the balance sheets of our recent acquisitions as of their respective acquisition dates, we applied the fair value provisions applicable to the accounting for business combinations closed prior to 2022, resulting in a reduction of deferred revenue as compared to the historical carrying amount. As a result, our post-acquisition revenue will be less than the sum of what would have otherwise been reported by us and each acquiree absent the acquisitions. The impacts on reported revenue were $3.6 million and $8.9 million for the quarters ended March 31, 2022 and 2021, respectively. The expected impacts on reported revenue are $2.1 million and $7.4 million for the quarter ending June 30, 2022 and the year ending December 31, 2022, respectively.

*Deferred Revenue and Backlog:*

Deferred revenue consists of billings made or payments received in advance of revenue recognition from customer agreements. The deferred revenue on our condensed consolidated balance sheets does not represent the total value of annual or multi-year, noncancellable agreements. Our backlog represents installment billings for periods beyond the current quarterly billing cycle. Our deferred revenue and backlog as of March 31, 2022 and December 31, 2021 consisted of the following:

| | Balance at March 31, 2022 | | |
|---|---|---|---|
| *(in thousands)* | Total | Current | Long-Term |
| Deferred revenue | **$ 405,120** | **$ 386,019** | **$ 19,101** |
| Backlog | **798,055** | **360,018** | **438,037** |
| Total | **$ 1,203,175** | **$ 746,037** | **$ 457,138** |

| | Balance at December 31, 2021 | | |
|---|---|---|---|
| *(in thousands)* | Total | Current | Long-Term |
| Deferred revenue | $ 412,781 | $ 391,528 | $ 21,253 |
| Backlog | 845,079 | 373,334 | 471,745 |
| Total | $ 1,257,860 | $ 764,862 | $ 492,998 |

Revenue associated with deferred revenue and backlog that will be recognized in the subsequent twelve months is classified as current in the tables above.

*Cost of Sales and Operating Expenses:*

The tables below reflect our operating results on both a GAAP and constant currency basis. Amounts included in the discussions that follow each table are provided in constant currency and are inclusive of costs related to our acquisitions. The impact of foreign exchange translation is discussed separately, where material.

| | Three Months Ended March 31, | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2022 | | | | 2021 | | Change | | | |
| | GAAP | | Constant Currency | | GAAP | | GAAP | | Constant Currency | |
| *(in thousands, except percentages)* | Amount | % of Revenue | Amount | % of Revenue | Amount | % of Revenue | Amount | % | Amount | % |
| Cost of sales: | | | | | | | | | | |
| Software licenses | **$ 8,436** | **2.0** | $ 8,457 | 1.9 | $ 7,606 | 2.1 | $ 830 | 10.9 | $ 851 | 11.2 |
| Amortization | **17,252** | **4.1** | 17,434 | 4.0 | 14,949 | 4.1 | 2,303 | 15.4 | 2,485 | 16.6 |
| Maintenance and service | **39,072** | **9.2** | 40,233 | 9.2 | 39,548 | 10.9 | (476) | (1.2) | 685 | 1.7 |
| Total cost of sales | **64,760** | **15.2** | 66,124 | 15.2 | 62,103 | 17.1 | 2,657 | 4.3 | 4,021 | 6.5 |
| Gross profit | **$ 360,317** | **84.8** | $ 370,278 | 84.8 | $ 301,123 | 82.9 | $ 59,194 | 19.7 | $ 69,155 | 23.0 |

*Software Licenses:* The increase in the cost of software licenses was primarily due to increased third-party royalties of $1.0 million.

*Amortization:* The increase in amortization expense was primarily due to the amortization of newly acquired intangible assets.

*Maintenance and Service:* The net decrease in maintenance and service costs was primarily due to the following:

- Decreased costs related to foreign exchange translation of $1.2 million due to a stronger U.S. Dollar.
- Decreased stock-based compensation of $1.0 million.
- Increased salaries, incentive compensation and other headcount-related costs of $1.0 million.
- Increased IT maintenance and software hosting costs of $0.7 million.

The improvement in gross profit was a result of the increase in revenue, partially offset by the increase in the cost of sales.

| (in thousands, except percentages) | Three Months Ended March 31, 2022 GAAP Amount | % of Revenue | 2022 Constant Currency Amount | % of Revenue | 2021 GAAP Amount | % of Revenue | Change GAAP Amount | % | Change Constant Currency Amount | % |
|---|---|---|---|---|---|---|---|---|---|---|
| Operating expenses: | | | | | | | | | | |
| Selling, general and administrative | **$ 169,755** | **39.9** | $ 173,290 | 39.7 | $ 146,215 | 40.3 | $ 23,540 | 16.1 | $ 27,075 | 18.5 |
| Research and development | **105,274** | **24.8** | 107,087 | 24.5 | 100,479 | 27.7 | 4,795 | 4.8 | 6,608 | 6.6 |
| Amortization | **4,125** | **1.0** | 4,244 | 1.0 | 4,407 | 1.2 | (282) | (6.4) | (163) | (3.7) |
| Total operating expenses | **279,154** | **65.7** | 284,621 | 65.2 | 251,101 | 69.1 | 28,053 | 11.2 | 33,520 | 13.3 |
| Operating income | **$ 81,163** | **19.1** | $ 85,657 | 19.6 | $ 50,022 | 13.8 | $ 31,141 | 62.3 | $ 35,635 | 71.2 |

*Selling, General and Administrative:* The net increase in selling, general and administrative costs was primarily due to the following:

- Increased salaries, incentive compensation and other headcount-related costs of $14.0 million.
- Increased stock-based compensation of $3.2 million.
- Increased consulting costs of $2.5 million.
- Increased bad debt expense of $2.3 million due to the write-off of receivables due from Russian customers as a result of sanctions imposed related to Russia's invasion of Ukraine.
- Increased business travel of $2.1 million as in-person meetings and live attendance at trade events have continued to expand.
- Increased marketing expenses of $1.9 million.
- Increased IT maintenance and software hosting costs of $1.3 million.
- Decreased costs related to foreign exchange translation of $3.5 million due to a stronger U.S. Dollar.

We anticipate that we will continue to make targeted investments in our global sales and marketing organizations and our global business infrastructure to enhance and support our revenue-generating activities.

*Research and Development:* The net increase in research and development costs was primarily due to the following:

- Increased salaries, incentive compensation and other headcount-related costs of $6.3 million.
- Increased IT maintenance and software hosting costs of $1.4 million.
- Decreased costs related to foreign exchange translation of $1.8 million due to a stronger U.S. Dollar.
- Decreased stock-based compensation of $1.7 million.

We have traditionally invested significant resources in research and development activities and intend to continue to make investments in expanding the ease of use and capabilities of our broad portfolio of simulation software products.

*Interest Income:* Interest income was $0.5 million for the quarters ended March 31, 2022 and March 31, 2021. The higher interest rate environment and the increase in the average rate of return on invested cash balances was offset by a lower invested cash balance.

*Interest Expense:* Interest expense for the quarter ended March 31, 2022 was $3.0 million as compared to $3.3 million for the quarter ended March 31, 2021 due to a lower interest rate and lower principal balances on our term loans.

*Other (Expense) Income, net:* Other expense for the quarter ended March 31, 2022 was $0.7 million as compared to other income of $0.4 million for the quarter ended March 31, 2021. Other (expense) income consisted primarily of foreign currency exchange activity.

*Income Tax Provision (Benefit):* Our income before income tax provision (benefit), income tax provision (benefit) and effective tax rates were as follows:

| | Three Months Ended March 31, | |
|---|---|---|
| *(in thousands, except percentages)* | **2022** | **2021** |
| Income before income tax provision (benefit) | **$ 78,029** | $ 47,623 |
| Income tax provision (benefit) | **$ 7,041** | $ (24,775) |
| Effective tax rate | **9.0 %** | (52.0)% |

The increase in the effective tax rate from the first quarter of 2021 was primarily due to decreased benefits related to stock-based compensation.

When compared to the federal and state combined statutory rate for each respective period, the effective tax rates for the quarters ended March 31, 2022 and 2021 were favorably impacted by tax benefits from stock-based compensation, the foreign-derived intangible income deduction and research and development credits, partially offset by the impact of non-deductible compensation.

*Net Income:* Our net income, diluted earnings per share and weighted average shares used in computing diluted earnings per share were as follows:

| | Three Months Ended March 31, | |
|---|---|---|
| *(in thousands, except per share data)* | **2022** | **2021** |
| Net income | **$ 70,988** | $ 72,398 |
| Diluted earnings per share | **$ 0.81** | $ 0.82 |
| Weighted average shares outstanding - diluted | **87,750** | 87,986 |

**Non-GAAP Results**

We provide non-GAAP revenue, non-GAAP gross profit, non-GAAP gross profit margin, 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 our operational performance. These financial measures exclude the impact of certain items and, therefore, have not been calculated in accordance with GAAP. A detailed explanation and a reconciliation of each non-GAAP financial measure to its most comparable GAAP financial measure are included below.

**ANSYS, INC. AND SUBSIDIARIES**
**Reconciliations of GAAP to Non-GAAP Measures**
**(Unaudited)**

| | Three Months Ended March 31, 2022 | | | | | | |
|---|---|---|---|---|---|---|---|
| *(in thousands, except percentages and per share data)* | Revenue | Gross Profit | % | Operating Income | % | Net Income | EPS - Diluted[1] |
| Total GAAP | $ 425,077 | $ 360,317 | 84.8 % | $ 81,163 | 19.1 % | $ 70,988 | $ 0.81 |
| Acquisition accounting for deferred revenue | 3,560 | 3,560 | 0.1 % | 3,560 | 0.7 % | 3,560 | 0.04 |
| Stock-based compensation expense | — | 2,563 | 0.6 % | 35,651 | 8.3 % | 35,651 | 0.41 |
| Excess payroll taxes related to stock-based awards | — | 417 | 0.1 % | 5,053 | 1.2 % | 5,053 | 0.06 |
| Amortization of intangible assets from acquisitions | — | 17,252 | 4.0 % | 21,377 | 5.0 % | 21,377 | 0.24 |
| Transaction expenses related to business combinations | — | — | — % | 1,738 | 0.4 % | 1,738 | 0.02 |
| Adjustment for income tax effect | — | — | — % | — | — % | (19,132) | (0.22) |
| Total non-GAAP | $ 428,637 | $ 384,109 | 89.6 % | $ 148,542 | 34.7 % | $ 119,235 | $ 1.36 |

[1] Diluted weighted average shares were 87,750.

| | Three Months Ended March 31, 2021 | | | | | | |
|---|---|---|---|---|---|---|---|
| *(in thousands, except percentages and per share data)* | Revenue | Gross Profit | % | Operating Income | % | Net Income | EPS - Diluted[1] |
| Total GAAP | $ 363,226 | $ 301,123 | 82.9 % | $ 50,022 | 13.8 % | $ 72,398 | $ 0.82 |
| Acquisition accounting for deferred revenue | 8,923 | 8,923 | 0.4 % | 8,923 | 2.0 % | 8,923 | 0.10 |
| Stock-based compensation expense | — | 3,562 | 1.0 % | 35,119 | 9.5 % | 35,119 | 0.41 |
| Excess payroll taxes related to stock-based awards | — | 865 | 0.2 % | 9,135 | 2.5 % | 9,135 | 0.10 |
| Amortization of intangible assets from acquisitions | — | 14,949 | 4.0 % | 19,356 | 5.2 % | 19,356 | 0.22 |
| Transaction expenses related to business combinations | — | — | — % | 1,970 | 0.5 % | 1,970 | 0.02 |
| Adjustment for income tax effect | — | — | — % | — | — % | (47,979) | (0.55) |
| Total non-GAAP | $ 372,149 | $ 329,422 | 88.5 % | $ 124,525 | 33.5 % | $ 98,922 | $ 1.12 |

[1] Diluted weighted average shares were 87,986.

We use non-GAAP financial measures (a) to evaluate our historical and prospective financial performance as well as our performance relative to our 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 employees. In addition, many financial analysts that follow us focus on and publish both historical results and future projections based on non-GAAP financial measures. We believe that it is in the best interest of our investors to provide this information to analysts so that they accurately report the non-GAAP financial information. Moreover, investors have historically requested, and we have historically reported, these non-GAAP financial measures as a means of providing consistent and comparable information with past reports of financial results.

While we believe 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 our competitors and may not be directly comparable to similarly titled measures of our competitors due to potential differences in the exact method of calculation. We compensate 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.** Historically, we have consummated acquisitions in order to support our strategic and other business objectives. Under prior accounting guidance, a fair value provision resulted in acquired deferred revenue that was often recorded on the opening balance sheet at an amount that was lower than the historical carrying value. Although this fair value provision has no impact on our business or cash flow, it adversely impacts our reported GAAP revenue in the reporting periods following an acquisition. In 2022, we adopted accounting guidance which eliminates the fair value provision that resulted in the deferred revenue adjustment on a prospective basis. In order to provide investors with financial information that facilitates comparison of both historical and future results, we provide non-GAAP financial measures which exclude the impact of the acquisition accounting adjustment for acquisitions prior to the adoption of the new guidance in 2022. We believe 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 us in our financial and operational decision-making, and (b) compare our past and future reports of financial results as the revenue reduction related to acquired deferred revenue will not recur when related subscription lease licenses and software maintenance contracts are renewed in future periods.

**Amortization of intangible assets from acquisitions.** We incur amortization of intangible assets, included in our GAAP presentation of amortization expense, related to various acquisitions we have made. We exclude these expenses for the purpose of calculating non-GAAP gross profit, non-GAAP gross profit margin, non-GAAP operating income, non-GAAP operating profit margin, non-GAAP net income and non-GAAP diluted earnings per share when we evaluate our continuing operational performance 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 us after the acquisition. Accordingly, we do not consider these expenses for purposes of evaluating our performance during the applicable time period after the acquisition, and we exclude such expenses when making decisions to allocate resources. We believe 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 us in our financial and operational decision-making, and (b) compare our past reports of financial results as we have historically reported these non-GAAP financial measures.

**Stock-based compensation expense**. We incur expense related to stock-based compensation included in our GAAP presentation of 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. Although stock-based compensation is an expense and viewed as a form of compensation, we exclude these expenses for the purpose of calculating non-GAAP gross profit, non-GAAP gross profit margin, non-GAAP operating income, non-GAAP operating profit margin, non-GAAP net income and non-GAAP diluted earnings per share when we evaluate our continuing operational performance. Specifically, we exclude stock-based compensation during our annual budgeting process and our quarterly and annual assessments of our performance. The annual budgeting process is the primary mechanism whereby we allocate resources to various initiatives and operational requirements. Additionally, the annual review by our board of directors during which it compares our 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 our senior management and department managers, charges related to stock-based compensation are excluded from expenditure and profitability results. In fact, we record stock-based compensation expense into a stand-alone cost center for which no single operational manager is responsible or accountable. In this way, we 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. We believe that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate our operating results and the effectiveness of the methodology used by us to review our operating results, and (b) review historical comparability in our financial reporting as well as comparability with competitors' operating results.

**Transaction expenses related to business combinations.** We incur expenses for professional services rendered in connection with business combinations, which are included in our GAAP presentation of selling, general and administrative expense. These expenses are generally not tax-deductible. We exclude 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 we evaluate our continuing operational performance, as we generally would not have otherwise incurred these expenses in the periods presented as a part of our operations. We believe that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate our operating results and the effectiveness of the methodology used by us to review our operating results, and (b) review historical comparability in our financial reporting as well as comparability with competitors' operating results.

**Non-GAAP tax provision.** We utilize a normalized non-GAAP annual effective tax rate (AETR) to calculate non-GAAP measures. This methodology provides better consistency across interim reporting periods by eliminating the effects of non-recurring items and aligning the non-GAAP tax rate with our expected geographic earnings mix. To project this rate, we analyzed our historic and projected non-GAAP earnings mix by geography along with other factors such as our current tax structure, recurring tax credits and incentives, and expected tax positions. On an annual basis we will re-evaluate this rate for significant items that may materially affect our projections.

Non-GAAP financial measures are not in accordance with, or an alternative for, GAAP. Our 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 our consolidated financial statements prepared in accordance with GAAP.

We have provided a reconciliation of the non-GAAP financial measures to the most directly comparable GAAP financial measures as listed below:

| GAAP Reporting Measure | Non-GAAP Reporting Measure |
|---|---|
| Revenue | Non-GAAP Revenue |
| Gross Profit | Non-GAAP Gross Profit |
| Gross Profit Margin | Non-GAAP Gross Profit Margin |
| Operating Income | Non-GAAP Operating Income |
| Operating Profit Margin | Non-GAAP Operating Profit Margin |
| Net Income | Non-GAAP Net Income |
| Diluted Earnings Per Share | Non-GAAP Diluted Earnings Per Share |

**Constant currency.** In addition to the non-GAAP financial measures detailed above, we use constant currency results for financial and operational decision-making and as a means to evaluate period-to-period comparisons by excluding the effects of foreign currency fluctuations on the reported results. To present this information, the 2022 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 the 2021 comparable period, rather than the actual exchange rates in effect for 2022. Constant currency growth rates are calculated by adjusting the 2022 reported amounts by the 2022 currency fluctuation impacts and comparing the adjusted amounts to the 2021 comparable period reported amounts. We believe 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 us in our financial and operational decision-making, and (b) compare our reported results to our past reports of financial results without the effects of foreign currency fluctuations.

**Liquidity and Capital Resources**

| *(in thousands)* | | March 31, 2022 | | December 31, 2021 | | Change |
|---|---|---|---|---|---|---|
| Cash, cash equivalents and short-term investments | **$** | **657,765** | $ | 668,028 | $ | (10,263) |
| Working capital | **$** | **815,258** | $ | 860,082 | $ | (44,824) |

***Cash, Cash Equivalents and Short-Term Investments***

Cash and cash equivalents consist primarily of highly liquid investments such as money market funds and deposits held at major banks. Short-term investments consist primarily of deposits held by certain of our foreign subsidiaries with original maturities of three months to one year. The following table presents our foreign and domestic holdings of cash, cash equivalents and short-term investments as of March 31, 2022 and December 31, 2021:

| *(in thousands, except percentages)* | | March 31, 2022 | % of Total | | December 31, 2021 | % of Total |
|---|---|---|---|---|---|---|
| Domestic | **$** | **336,413** | **51.1** | $ | 365,390 | 54.7 |
| Foreign | | **321,352** | **48.9** | | 302,638 | 45.3 |
| Total | **$** | **657,765** | | $ | 668,028 | |

In general, it is our intention to permanently reinvest all earnings in excess of previously taxed amounts. Substantially all of the pre-2018 earnings of our non-U.S. subsidiaries were taxed through the transition tax and post-2018 current earnings are taxed as part of global intangible low-taxed income tax expense. These taxes increase our previously taxed earnings and allow for the repatriation of the majority of our foreign earnings without any residual U.S. federal tax. While we believe that the financial reporting bases may be greater than the tax bases of investments in foreign subsidiaries for any earnings in excess of previously taxed amounts, such amounts are considered permanently reinvested. The cumulative temporary difference related to such permanently reinvested earnings is $61.6 million and we would anticipate the tax effect on those earnings to be immaterial.

The amount of cash, cash equivalents and short-term investments held by foreign subsidiaries is subject to translation adjustments caused by changes in foreign currency exchange rates as of the end of each respective reporting period, the offset to which is recorded in accumulated other comprehensive loss on our condensed consolidated balance sheet.

***Cash Flows from Operating Activities***

| | Three Months Ended March 31, | | | | | |
|---|---|---|---|---|---|---|
| *(in thousands)* | | 2022 | | 2021 | | Change |
| Net cash provided by operating activities | **$** | **210,936** | $ | 171,107 | $ | 39,829 |

Net cash provided by operating activities increased during the three months ended March 31, 2022 compared to the three months ended March 31, 2021 due to increased net income (net of non-cash operating adjustments) of $5.9 million and increased net cash flows from operating assets and liabilities of $33.9 million. The growth in net cash provided by operating activities was a result of increased customer receipts due to a strong close to 2021 and lower tax payments, partially offset by additional cash outflows related to increased operating expenses as compared to the three months ended March 31, 2021.

***Cash Flows from Investing Activities***

| | Three Months Ended March 31, | | | | | |
|---|---|---|---|---|---|---|
| *(in thousands)* | | 2022 | | 2021 | | Change |
| Net cash used in investing activities | **$** | **(9,964)** | $ | (15,863) | $ | 5,899 |

Net cash used in investing activities decreased by $5.9 million during the three months ended March 31, 2022 compared to the three months ended March 31, 2021 due to decreased acquisition-related net cash outlays of $5.9 million. We currently plan capital spending of $25.0 million to $35.0 million during fiscal year 2022 as compared to the $23.0 million that was spent in fiscal year 2021. The level of spending will depend on various factors, including the growth of the business and general economic conditions.

***Cash Flows from Financing Activities***

| | Three Months Ended March 31, | | |
|---|---|---|---|
| *(in thousands)* | 2022 | 2021 | Change |
| Net cash used in financing activities | **$ (204,645)** | $ (74,208) | $ (130,437) |

Net cash used in financing activities increased during the three months ended March 31, 2022 compared to the three months ended March 31, 2021 due to increased stock repurchases of $155.6 million, partially offset by decreased restricted stock withholding taxes paid in lieu of issued shares of $26.9 million.

***Other Cash Flow Information***

As of March 31, 2022, the carrying value of our term loans was $753.7 million, with $9.1 million in principal payments due in the next twelve months. Borrowings under the term loans accrue interest at the Eurodollar rate plus an applicable margin or at the base rate, at our election. The base rate is the applicable margin plus the highest of (i) the federal funds rate plus 0.500%, (ii) the Bank of America prime rate and (iii) the Eurodollar rate plus 1.000%. The applicable margin for these borrowings is a percentage per annum based on the lower of (1) a pricing level determined by our then-current consolidated leverage ratio and (2) a pricing level determined by our debt ratings (if such debt ratings exist).

We previously entered into operating lease commitments, primarily for our domestic and international offices. The commitments related to these operating leases is $151.6 million, of which $25.8 million is due in the next twelve months.

In May 2022, we completed various strategic acquisitions for a combined purchase price of $249.0 million. These acquisitions were funded with existing cash balances.

We believe that existing cash and cash equivalent balances after these acquisitions, together with cash generated from operations and access to the $500.0 million Revolving Credit Facility, will be sufficient to meet our working capital and capital expenditure requirements through the next twelve months. Our cash requirements in the future may also be financed through additional equity or debt financings. However, future disruptions in the capital markets could make financing more challenging, and there can be no assurance that such financing can be obtained on commercially reasonable terms, or at all.

Under our stock repurchase program, we repurchased shares as follows:

| | Three Months Ended | |
|---|---|---|
| *(in thousands, except per share data)* | March 31, 2022 | March 31, 2021 |
| Number of shares repurchased | **500** | — |
| Average price paid per share | **$ 311.14** | $ — |
| Total cost | **$ 155,571** | $ — |

As of March 31, 2022, 2.0 million shares remained available for repurchase under the program.

The authorized repurchase program does not have an expiration date, and the pace of the repurchase activity will depend on factors such as working capital needs, cash requirements for acquisitions, our stock price, and economic and market conditions. Our stock repurchases may be effected from time to time through open market purchases including pursuant to a Rule 10b5-1 plan.

We continue to generate positive cash flows from operating activities and believe that the best uses of our excess cash are to invest in the business; acquire or make investments in complementary companies, products, services and technologies; and make payments on our outstanding debt balances. Any future acquisitions may be funded by available cash and investments, cash generated from operations, debt financing, or the issuance of additional securities. Additionally, we have in the past, and expect in the future, to repurchase stock in order to both offset dilution and return capital, in excess of our requirements, to stockholders with the goal of increasing stockholder value.

**Contractual and Other Obligations**

There were no material changes to our significant contractual and other obligations during the three months ended March 31, 2022 as compared to those previously reported within "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our 2021 Form 10-K.

**Critical Accounting Estimates**

During the first quarter of 2022, we completed the annual impairment test for goodwill and the indefinite-lived intangible asset and determined that these assets had not been impaired as of the test date, January 1, 2022. No other events or circumstances changed during the three months ended March 31, 2022 that would indicate that the fair values of our reporting unit and indefinite-lived intangible asset are below their carrying amounts.

No significant changes have occurred to our critical accounting estimates as previously reported within "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our 2021 Form 10-K.

### Item 3. Quantitative and Qualitative Disclosures About Market Risk

***Foreign Currency Exchange Risk.*** As we operate in international regions, a portion of our revenue, expenses, cash, accounts receivable and payment obligations are denominated in foreign currencies. As a result, changes in currency exchange rates will affect our financial position, results of operations and cash flows. We seek to reduce our currency exchange transaction risks primarily through our normal operating and treasury activities, including the use of derivative instruments.

With respect to revenue, on average for the quarter ended March 31, 2022, the U.S. Dollar was 6.4% stronger, when measured against our primary foreign currencies, than for the quarter ended March 31, 2021. The table below presents the net impacts of currency fluctuations on revenue for the three months ended March 31, 2022. Amounts in brackets indicate a net adverse impact from currency fluctuations.

| *(in thousands)* | Three Months Ended March 31, 2022 |
|---|---|
| Euro | $ **(5,648)** |
| Japanese Yen | **(3,440)** |
| South Korean Won | **(1,655)** |
| Other | **(582)** |
| Total | $ **(11,325)** |

The impacts from currency fluctuations resulted in decreased operating income of $4.5 million for the quarter ended March 31, 2022 as compared to the quarter ended March 31, 2021.

A hypothetical 10% strengthening in the U.S. Dollar against other currencies would have decreased our revenue by $17.7 million and decreased our operating income by $4.3 million for the three months ended March 31, 2022.

The most meaningful currency impacts on revenue and operating income are typically attributable to U.S. Dollar exchange rate changes against the Euro and Japanese Yen. Historical exchange rates for these currency pairs are reflected in the charts below:

| | Period-End Exchange Rates | |
|---|---|---|
| **As of** | **EUR/USD** | **USD/JPY** |
| **March 31, 2022** | **1.11** | **121.71** |
| December 31, 2021 | 1.14 | 115.11 |
| March 31, 2021 | 1.17 | 110.73 |

| | Average Exchange Rates | |
|---|---|---|
| **Three Months Ended** | **EUR/USD** | **USD/JPY** |
| **March 31, 2022** | **1.12** | **116.23** |
| March 31, 2021 | 1.21 | 105.91 |

***Interest Rate Risk***. Changes in the overall level of interest rates affect the interest income that is generated from our cash, cash equivalents and short-term investments and the interest expense that is generated from our outstanding borrowings. For the three months ended March 31, 2022, interest income was $0.5 million and interest expense was $3.0 million.

Cash and cash equivalents consist primarily of highly liquid investments such as money market funds and deposits held at major banks. Short-term investments consist primarily of deposits held by certain foreign subsidiaries with original maturities of three months to one year. A hypothetical 100 basis point change in interest rates on these holdings would have an immaterial impact on our interest income.

Our outstanding borrowings of $755.0 million as of March 31, 2022 accrue interest at the Eurodollar rate plus an applicable margin or at the base rate, at our election. The base rate is the applicable margin plus the highest of (i) the federal funds rate plus 0.500%, (ii) the Bank of America prime rate and (iii) the Eurodollar rate plus 1.000%. The applicable margin for these borrowings is a percentage per annum based on the lower of (1) a pricing level determined by our then-current consolidated leverage ratio and (2) a pricing level determined by our debt ratings (if such debt ratings exist). This results in a margin ranging from 1.125% to 1.750% and 0.125% to 0.750% for the Eurodollar rate and base rate, respectively. Because interest rates applicable to the outstanding borrowings are variable, we are exposed to interest rate risk from changes in the underlying index rates, which affects our interest expense. A hypothetical increase of 100 basis points in interest rates would result in an increase in interest expense and a corresponding decrease in cash flows of $7.6 million over the next twelve months, based on outstanding borrowings at March 31, 2022.

No other material change has occurred in our market risk subsequent to December 31, 2021.

**Item 4. Controls and Procedures**

***Evaluation of Disclosure Controls and Procedures***. As required by Rules 13a-15 and 15d-15 of the Exchange Act, we have evaluated, with the participation of management, including the Chief Executive Officer and the Chief Financial Officer, the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this report. Based on such evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that such disclosure controls and procedures are effective, as defined in Rule 13a-15(e) and Rule 15d-15(e) of the Exchange Act.

We believe, based on our knowledge, that the financial statements and other financial information included in this report fairly present, in all material respects, our financial condition, results of operations and cash flows as of and for the periods presented in this report. We are committed to both a sound internal control environment and to good corporate governance.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate.

From time to time, we review the disclosure controls and procedures, and may periodically make changes to enhance their effectiveness and to ensure that our systems evolve with our business.

***Changes in Internal Control***. There were no changes in our internal control over financial reporting that occurred during the three months ended March 31, 2022 that materially affected, or that are reasonably likely to materially affect, our internal control over financial reporting.

## PART II – OTHER INFORMATION

### Item 1. Legal Proceedings

We are subject to various claims, investigations and legal and regulatory proceedings that arise in the ordinary course of business, including, but not limited to, commercial disputes, labor and employment matters, tax audits, alleged infringement of third parties' intellectual property rights and other matters. Use or distribution of our products could generate product liability, regulatory infraction, or claims by our customers, end users, channel partners, government entities or third parties. Sales and marketing activities that impact processing of personal data, as well as measures taken to ensure license compliance against pirated or unauthorized usage of our commercial product, may also result in claims by customers and individual employees of customers or by non-customers using pirated versions of our products. Each of these matters is subject to various uncertainties, and it is possible that an unfavorable resolution of one or more of these matters could have a significant adverse effect on our condensed consolidated financial statements as well as cause reputational damage. In our opinion, the resolution of pending matters is not expected to have a material adverse effect on our financial position, results of operations or cash flows.

### Item 1A. Risk Factors

We face a number of risks that could materially and adversely affect our business, financial position, results of operations and cash flows. A discussion of our risk factors can be found in Part I, Item 1A "Risk Factors" in our 2021 Form 10-K. The risk factor set forth below includes additional information relating to the Russian invasion of Ukraine and should be read together with the risk factors disclosed in our 2021 Form 10-K.

**Escalating global tensions, including the conflict between Russia and Ukraine, could negatively impact us.**

Escalating global tensions, including the ongoing conflict between Russia and Ukraine, could lead to disruption, instability and volatility in global markets and industries that could negatively impact our operations. The U.S. government and other governments in jurisdictions in which we operate have imposed sanctions and export controls against Russia and Russian interests and threatened additional sanctions and controls. The impact of these measures, as well as other changes in diplomatic relations and trade policy, including between the United States and Russia (or the United States and other countries that may support Russia or take similar actions) is currently unknown and they could adversely affect our business.

### Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

**Issuer Purchases of Equity Securities**

| Period | Total Number of Shares Purchased | Average Price Paid per Share | Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs | Maximum Number of Shares that May Yet Be Purchased Under Plans or Programs[1] |
|---|---|---|---|---|
| January 1 - January 31, 2022 | — | $ — | — | 2,459,495 |
| February 1 - February, 28 2022 | — | $ — | — | 2,459,495 |
| March 1 - March 31, 2022 | 500,000 | $ 311.14 | 500,000 | 1,959,495 |
| Total | 500,000 | $ 311.14 | 500,000 | 1,959,495 |

[1] We initially announced our stock repurchase program in February 2000, and subsequently announced various amendments to the program. The most recent amendment to the program, authorizing the repurchase of up to 5.0 million shares, was approved by our Board of Directors in February 2018. There is no expiration date for the stock repurchase program.

### Item 3. Defaults Upon Senior Securities

None.

### Item 4. Mine Safety Disclosures

Not applicable.

### Item 5. Other Information

None.

## Item 6. Exhibits

| Exhibit No. | Exhibit |
|---|---|
| 31.1 | Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 31.2 | Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 32.1 | Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |
| 32.2 | Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |
| 101.INS | Inline XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document) |
| 101.SCH | Inline XBRL Taxonomy Extension Schema |
| 101.CAL | Inline XBRL Taxonomy Extension Calculation Linkbase |
| 101.DEF | Inline XBRL Taxonomy Extension Definition Linkbase |
| 101.LAB | Inline XBRL Taxonomy Extension Label Linkbase |
| 101.PRE | Inline XBRL Taxonomy Extension Presentation Linkbase |
| 104 | Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101) |

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**ANSYS, Inc.**

| | | | |
|---|---|---|---|
| Date: | May 4, 2022 | By: | /s/ *Ajei S. Gopal* |
| | | | Ajei S. Gopal<br>President and Chief Executive Officer<br>(Principal Executive Officer) |
| Date: | May 4, 2022 | By: | /s/ *Nicole Anasenes* |
| | | | Nicole Anasenes<br>Chief Financial Officer and Senior Vice President, Finance<br>(Principal Financial Officer and Principal Accounting Officer) |