

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

FORM 10-Q

- ☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the quarterly period ended June 30, 2020
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 No. 001-34220



3D SYSTEMS CORPORATION

(Exact name of Registrant as specified in its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

95-4431352
(I.R.S. Employer
Identification No.)

333 Three D Systems Circle
Rock Hill, South Carolina 29730
(Address of Principal Executive Offices and Zip Code)

(Registrant's Telephone Number, Including Area Code): **(803) 326-3900**

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, par value \$0.001 per share	DDD	New York Stock Exchange

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, 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. (Check one):

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 Securities Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act.) Yes ☐ No ☒

APPLICABLE ONLY TO CORPORATE ISSUERS:

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.
Shares of Common Stock, par value \$0.001, outstanding as of July 31, 2020: 121,135,104

3D SYSTEMS CORPORATION
Form 10-Q
For the Quarter and Six Months Ended June 30, 2020

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PART I — FINANCIAL INFORMATION

Item 1. Financial Statements.

3D SYSTEMS CORPORATION CONDENSED CONSOLIDATED BALANCE SHEETS

<i>(In thousands, except par value)</i>	June 30, 2020 (unaudited)	December 31, 2019
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 63,922	\$ 133,665
Accounts receivable, net of reserves — \$9,408 and \$8,762	97,708	109,408
Inventories	125,077	111,106
Prepaid expenses and other current assets	38,737	18,991
Total current assets	325,444	373,170
Property and equipment, net	85,727	92,940
Intangible assets, net	40,269	48,338
Goodwill	221,446	223,176
Right of use assets	48,043	36,890
Deferred income tax asset	5,327	5,408
Other assets, net	24,955	27,390
Total assets	\$ 751,211	\$ 807,312
LIABILITIES AND EQUITY		
Current liabilities:		
Current portion of long-term debt	\$ 1,465	\$ 2,506
Current right of use liabilities	9,760	9,569
Accounts payable	52,172	49,851
Accrued and other liabilities	63,003	63,095
Customer deposits	4,749	5,712
Deferred revenue	39,499	32,231
Total current liabilities	170,648	162,964
Long-term debt, net of deferred financing costs	20,063	45,215
Long-term right of use liabilities	46,339	35,402
Deferred income tax liability	3,275	4,027
Other liabilities	47,458	45,808
Total liabilities	287,783	293,416
Commitments and contingencies (Note 13)		
Stockholders' equity:		
Common stock, \$0.001 par value, authorized 220,000 shares; issued 124,252 and 121,266	124	120
Additional paid-in capital	1,377,468	1,371,564
Treasury stock, at cost — 4,543 shares and 3,670 shares	(22,590)	(18,769)
Accumulated deficit	(850,584)	(793,709)
Accumulated other comprehensive loss	(40,990)	(37,047)
Total 3D Systems Corporation stockholders' equity	463,428	522,159
Noncontrolling interests	—	(8,263)
Total stockholders' equity	463,428	513,896
Total liabilities, redeemable noncontrolling interests and stockholders' equity	\$ 751,211	\$ 807,312

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

<i>(in thousands, except per share amounts)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Revenue:				
Products	\$ 61,496	\$ 93,758	\$ 140,305	\$ 186,105
Services	50,564	63,514	106,460	123,147
Total revenue	112,060	157,272	246,765	309,252
Cost of sales:				
Products	52,489	53,005	101,385	108,765
Services	24,404	30,968	53,081	61,483
Total cost of sales	76,893	83,973	154,466	170,248
Gross profit	35,167	73,299	92,299	139,004
Operating expenses:				
Selling, general and administrative	52,042	71,654	108,148	136,761
Research and development	16,997	20,811	36,241	42,714
Total operating expenses	69,039	92,465	144,389	179,475
Loss from operations	(33,872)	(19,166)	(52,090)	(40,471)
Interest and other (expense) income, net	(2,615)	(2,755)	(5,179)	(3,957)
Loss before income taxes	(36,487)	(21,921)	(57,269)	(44,428)
(Provision) benefit for income taxes	(1,464)	(1,938)	394	(3,782)
Net loss	(37,951)	(23,859)	(56,875)	(48,210)
Less: net income attributable to noncontrolling interests	—	70	—	114
Net loss attributable to 3D Systems Corporation	\$ (37,951)	\$ (23,929)	\$ (56,875)	\$ (48,324)
Net loss per share available to 3D Systems Corporation common stockholders - basic and diluted	\$ (0.33)	\$ (0.21)	\$ (0.49)	\$ (0.43)

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(Unaudited)

<i>(in thousands, except per share amounts)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Net loss	\$ (37,951)	\$ (23,859)	\$ (56,875)	\$ (48,210)
Other comprehensive income (loss), net of taxes:				
Pension adjustments	13	24	177	116
Derivative financial instruments	1,235	—	(424)	—
Foreign currency translation	7,037	1,999	(3,135)	1,247
Total other comprehensive income (loss), net of taxes	8,285	2,023	(3,382)	1,363
Total comprehensive loss, net of taxes	(29,666)	(21,836)	(60,257)	(46,847)
Comprehensive income attributable to noncontrolling interests	—	44	—	68
Comprehensive loss attributable to 3D Systems Corporation	<u>\$ (29,666)</u>	<u>\$ (21,880)</u>	<u>\$ (60,257)</u>	<u>\$ (46,915)</u>

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

<i>(in thousands)</i>	Six Months Ended June 30,	
	2020	2019
Cash flows from operating activities:		
Net loss	\$ (56,875)	\$ (48,210)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:		
Depreciation and amortization	23,059	26,574
Stock-based compensation	13,606	13,592
Provision for inventory obsolescence and revaluation	10,894	—
Loss on hedge accounting de-designation	1,235	—
Provision for bad debts	1,198	1,169
Loss on the disposition of property, equipment and other assets	(134)	1,103
Provision for deferred income taxes	(671)	(852)
Impairment of assets	1,100	1,728
Changes in operating accounts:		
Accounts receivable	12,639	11,213
Inventories	(24,544)	(3,124)
Prepaid expenses and other current assets	(19,976)	(1,494)
Accounts payable	2,470	(7,560)
Deferred revenue and customer deposits	6,678	9,300
Accrued and other current liabilities	3,637	(2,333)
All other operating activities	4,666	2,445
Net cash (used in) provided by operating activities	(21,018)	3,551
Cash flows from investing activities:		
Purchases of property and equipment	(7,162)	(14,353)
Proceeds from sale of assets	552	—
Purchase of noncontrolling interest	(12,500)	(2,500)
Other investing activities	(474)	105
Net cash used in investing activities	(19,584)	(16,748)
Cash flows from financing activities:		
Proceeds from borrowings	—	100,000
Repayment of borrowings/long-term debt	(26,254)	(45,000)
Proceeds from inventory financing agreements	2,509	—
Payments related to net-share settlement of stock-based compensation	(3,821)	—
Other financing activities	296	(1,898)
Net cash (used in) provided by financing activities	(27,270)	53,102
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(1,856)	517
Net (decrease) increase in cash, cash equivalents and restricted cash	(69,728)	40,422
Cash, cash equivalents and restricted cash at the beginning of the period ^(a)	134,617	110,919
Cash, cash equivalents and restricted cash at the end of the period ^(a)	\$ 64,889	\$ 151,341

Supplemental cash flow information

Cash interest payments	\$ 1,519	\$ 1,975
Cash income tax payments, net	\$ 2,617	\$ 6,739
Transfer of equipment from inventory to property and equipment, net ^(b)	\$ 575	\$ 2,034

Noncash financing activity

Purchase of noncontrolling interest ^(c)	\$ —	\$ (11,000)
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- (a) The amounts for cash and cash equivalents shown above include restricted cash of \$967 and \$944 as of June 30, 2020 and 2019, respectively, and \$952 and \$921 as of December 31, 2019, and 2018, respectively, which were included in Other assets, net, in the condensed consolidated balance sheets.
- (b) Inventory is transferred from inventory to property and equipment at cost when we require additional machines for training or demonstration or for placement into on demand manufacturing services locations.
- (c) Purchase of noncontrolling interest to be paid in installments over a four-year period recorded to Accrued and other liabilities and Other liabilities on the condensed consolidated balance sheets.

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited)

	Quarters Ended June 30, 2020 and 2019							
	Common Stock				Accumulated Other Comprehensive Income (Loss)	Total 3D Systems Corporation Stockholders' Equity	Equity Attributable to Noncontrolling Interests	Total Stockholders' Equity
(in thousands, except par value)	Par Value \$0.001	Additional Paid In Capital	Treasury Stock	Accumulated Deficit				
March 31, 2020	\$ 121	\$ 1,370,174	\$ (19,718)	\$ (812,633)	\$ (49,275)	\$ 488,669	\$ —	\$ 488,669
Issuance (repurchase) of stock	3	—	(2,872)	—	—	(2,869)	—	(2,869)
Stock-based compensation expense	—	7,294	—	—	—	7,294	—	7,294
Net income (loss)	—	—	—	(37,951)	—	(37,951)	—	(37,951)
Pension adjustment	—	—	—	—	13	13	—	13
De-designation of derivative instrument	—	—	—	—	1,235	1,235	—	1,235
Foreign currency translation adjustment	—	—	—	—	7,037	7,037	—	7,037
June 30, 2020	<u>\$ 124</u>	<u>\$ 1,377,468</u>	<u>\$ (22,590)</u>	<u>\$ (850,584)</u>	<u>\$ (40,990)</u>	<u>\$ 463,428</u>	<u>\$ —</u>	<u>\$ 463,428</u>
March 31, 2019	\$ 118	\$ 1,354,683	\$ (16,056)	\$ (747,096)	\$ (39,362)	\$ 552,287	\$ (8,430)	\$ 543,857
Issuance (repurchase) of stock	2	—	(463)	—	—	(461)	—	(461)
Stock-based compensation expense	—	6,886	—	—	—	6,886	—	6,886
Net income (loss)	—	—	—	(23,929)	—	(23,929)	70	(23,859)
Pension adjustment	—	—	—	—	24	24	—	24
Foreign currency translation adjustment	—	—	—	—	2,025	2,025	(26)	1,999
June 30, 2019	<u>\$ 120</u>	<u>\$ 1,361,569</u>	<u>\$ (16,519)</u>	<u>\$ (771,025)</u>	<u>\$ (37,313)</u>	<u>\$ 536,832</u>	<u>\$ (8,386)</u>	<u>\$ 528,446</u>

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (Continued)
(Unaudited)

Six Months Ended June 30, 2020 and 2019								
<i>(in thousands, except par value)</i>	Common Stock					Total 3D Systems Corporation Stockholders' Equity	Equity Attributable to Noncontrolling Interests	Total Stockholders' Equity
	Par Value \$0.001	Additional Paid In Capital	Treasury Stock	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)			
December 31, 2019	\$ 120	\$ 1,371,564	\$ (18,769)	\$ (793,709)	\$ (37,047)	\$ 522,159	\$ (8,263)	\$ 513,896
Issuance (repurchase) of stock	4	—	(3,821)	—	—	(3,817)	—	(3,817)
Acquisition of non-controlling interest	—	(7,702)	—	—	(561)	(8,263)	8,263	—
Stock-based compensation expense	—	13,606	—	—	—	13,606	—	13,606
Net income (loss)	—	—	—	(56,875)	—	(56,875)	—	(56,875)
Pension adjustment	—	—	—	—	177	177	—	177
Derivative financial instrument loss	—	—	—	—	(1,659)	(1,659)	—	(1,659)
De-designation of derivative instrument	—	—	—	—	1,235	1,235	—	1,235
Foreign currency translation adjustment	—	—	—	—	(3,135)	(3,135)	—	(3,135)
June 30, 2020	\$ 124	\$ 1,377,468	\$ (22,590)	\$ (850,584)	\$ (40,990)	\$ 463,428	\$ —	\$ 463,428
December 31, 2018	\$ 117	\$ 1,355,503	\$ (15,572)	\$ (722,701)	\$ (38,978)	\$ 578,369	\$ (2,382)	\$ 575,987
Issuance (repurchase) of stock	3	—	(947)	—	—	(944)	—	(944)
Acquisition of non-controlling interest	—	(7,526)	—	—	256	(7,270)	(6,072)	(13,342)
Stock-based compensation expense	—	13,592	—	—	—	13,592	—	13,592
Net income (loss)	—	—	—	(48,324)	—	(48,324)	114	(48,210)
Pension adjustment	—	—	—	—	116	116	—	116
Foreign currency translation adjustment	—	—	—	—	1,293	1,293	(46)	1,247
June 30, 2019	\$ 120	\$ 1,361,569	\$ (16,519)	\$ (771,025)	\$ (37,313)	\$ 536,832	\$ (8,386)	\$ 528,446

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

(1) Basis of Presentation

The accompanying unaudited condensed consolidated financial statements include the accounts of 3D Systems Corporation and all majority-owned subsidiaries and entities in which a controlling interest is maintained (“3D Systems” or the “Company” or “we” or “us”). All significant intercompany transactions and balances have been eliminated in consolidation. A non-controlling interest in a subsidiary is considered an ownership interest in a majority-owned subsidiary that is not attributable to the parent. We include noncontrolling interests as a component of total equity in the condensed consolidated balance sheets and the net income attributable to noncontrolling interests are presented as an adjustment from net loss used to arrive at net loss attributable to 3D Systems Corporation in the condensed consolidated statements of operations and comprehensive loss. As of March 31, 2020, there were no longer any non-controlling interests held by us.

The unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”) and the rules and regulations of the Securities and Exchange Commission (“SEC”) applicable to interim reports. Accordingly, they do not include all the information and notes required by GAAP for complete financial statements and should be read in conjunction with the audited financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2019 (“2019 Form 10-K”). Our annual reporting period is the calendar year.

In the opinion of management, the unaudited condensed consolidated financial statements contain all adjustments, consisting of adjustments of a normal recurring nature, necessary to present fairly the financial position, results of operations and cash flows for the periods presented. The results of operations for the quarter ended June 30, 2020 are not necessarily indicative of the results to be expected for the full year. The preparation of financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements. Actual results may differ from those estimates and assumptions.

Our operations in Americas, EMEA and APAC expose us to risks associated with public health crises and epidemics/pandemics, such as the COVID-19 pandemic. While the COVID-19 pandemic has impacted the Company’s reported results for the second quarter, we are unable to predict the longer-term impact that the pandemic may have on our business, results of operations, financial position or cash flows. The extent to which our operations may be impacted by the dynamic nature of the COVID-19 pandemic will depend largely on future developments, which are highly uncertain and cannot be accurately predicted, including new information which may emerge concerning the severity of the outbreak and actions by government authorities to contain the outbreak or treat its impact. Furthermore, the impacts of a potential worsening of global economic conditions and the continued disruptions to, and volatility in, the financial markets remain unknown. Additional information regarding COVID-19 risks appears in Part II, Item 1A, “Risk Factors” of the Form 10-Q for the quarter ended March 31, 2020.

All dollar amounts presented in the accompanying footnotes are presented in thousands, except for per share information.

Recently Adopted Accounting Standards

In June 2016, the FASB issued Accounting Standards Update (“ASU”) 2016-13, “*Measurement of Credit Losses on Financial Instruments*” (“ASU 2016-13”), as revised in July 2018, which provides guidance regarding the measurement of credit losses for financial assets and certain other instruments that are not accounted for at fair value through net income, including trade and other receivables, debt securities, net investment in sales type and direct financing leases, and off-balance sheet credit exposures. The new guidance requires companies to replace the current incurred loss impairment methodology with a methodology that measures all expected credit losses for financial assets based on historical experience, current conditions, and reasonable and supportable forecasts. The Company adopted this guidance during the first quarter of 2020. The implementation did not have a material effect on our financial position or results of operations.

In January 2017, the FASB issued ASU No. 2017-04, “*Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*” (“ASU 2017-04”), which eliminates the performance of Step 2 from the goodwill impairment test. In performing its annual or interim impairment testing, an entity will instead compare the fair value of the reporting unit with its carrying amount and recognize any impairment charge for the amount by which the carrying amount exceeds the reporting unit’s fair value. Additionally, an entity should consider income tax effects from any tax-deductible goodwill on the carrying amount of the reporting unit when measuring the goodwill impairment loss. The Company adopted this guidance during the first quarter of 2020. The implementation did not have a material effect on our financial position or results of operations.

Accounting Standards Issued But Not Yet Adopted

In December 2019, the FASB issued ASU 2019-12, “*Income Taxes (Topic 740) - Simplifying the Accounting for Income Taxes*,” which simplifies the accounting for income taxes by eliminating some exceptions to the general approach in Accounting Standards Codification 740, Income Taxes. It also clarifies certain aspects of the existing guidance to promote more consistent application. This standard is effective for calendar-year public business entities in 2021 and interim periods within that year, and early adoption is permitted. We are currently not early adopting and are in the process of evaluating the impact the new standard will have on our consolidated financial statements.

No other new accounting pronouncements, issued or effective during 2020, have had or are expected to have a significant impact on our consolidated financial statements.

(2) Revenue

We account for revenue in accordance with ASC Topic 606, “Revenue from Contracts with Customers.”

Performance Obligations

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account in ASC Topic 606. A contract’s transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied.

At June 30, 2020, we had \$88,744 of outstanding performance obligations, comprised of deferred revenue, customer order backlog and customer deposits. We expect to recognize approximately 92 percent of our remaining performance obligations as revenue within the next twelve months, an additional 4 percent by the end of 2021 and the balance thereafter.

Revenue Recognition

Revenue is recognized when control of the promised products or services is transferred to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services. We enter into contracts that can include various combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations. Many of our contracts with customers include multiple performance obligations. For such arrangements, we allocate revenue to each performance obligation based on its relative stand-alone selling price (“SSP”). Revenue is recognized net of allowances for returns and any taxes collected from customers, which are subsequently remitted to governmental authorities. The amount of consideration received and revenue recognized may vary based on changes in marketing incentive programs offered to our customers. Our marketing incentive programs take many forms, including volume discounts, trade-in allowances, rebates and other discounts.

A majority of our revenue is recognized at the point in time when products are shipped or services are delivered to customers. Please see below for further discussion.

Hardware and Materials

Revenue from hardware and material sales is recognized when control has transferred to the customer, which typically occurs when the goods have been shipped to the customer, risk of loss has transferred to the customer and we have a present right to payment. In limited circumstances, when printer or other hardware sales include substantive customer acceptance provisions, revenue is recognized either when customer acceptance has been obtained, customer acceptance provisions have lapsed, or we have objective evidence that the criteria specified in the customer acceptance provisions have been satisfied.

Printers and certain other products include a warranty under which we provide maintenance for periods up to one year. For these initial product warranties, estimated costs are accrued at the time of the sale of the product. These cost estimates are established using historical information on the nature, frequency and average cost of claims for each type of printer or other product as well as assumptions about future activity and events. Revisions to expense accruals are made as necessary based on changes in these historical and future factors.

Software

We also market and sell software tools that enable our customers to capture and customize content using our printers, design optimization and simulation software, and reverse engineering and inspection software. Software does not require significant modification or customization and the license provides the customer with a right to use the software as it exists when made available. Revenue from these software licenses is recognized either upon delivery of the product or of a key code which allows the customer to download the software. Customers may purchase post-sale support. Generally, the first year is included but subsequent years are optional. This optional support is considered a separate obligation from the software and is deferred at the time of sale and subsequently recognized ratably over future periods.

Services

We offer training, installation and non-contract maintenance services for our products. Additionally, we offer maintenance contracts customers can purchase at their option. For maintenance contracts, revenue is deferred at the time of sale based on the stand-alone selling prices of these services and costs are expensed as incurred. Deferred revenue is recognized ratably over the term of the maintenance period on a straight-line basis. Revenue from training, installation and non-contract maintenance services is recognized at the time of performance of the service.

On demand manufacturing and healthcare service sales are included within services revenue and revenue is recognized upon shipment or delivery of the parts or performance of the service, based on the terms of the arrangement.

Terms of sale

Shipping and handling activities are treated as fulfillment costs rather than as an additional promised service. We accrue the costs of shipping and handling when the related revenue is recognized. Our incurred costs associated with shipping and handling are included in product cost of sales.

Credit is extended, and creditworthiness is determined, based on an evaluation of each customer's financial condition. New customers are generally required to complete a credit application and provide references and bank information to facilitate an analysis of creditworthiness. Customers with a favorable profile may receive credit terms that differ from our general credit terms. Creditworthiness is considered, among other things, in evaluating our relationship with customers with past due balances.

Our terms of sale generally provide payment terms that are customary in the countries where we transact business. To reduce credit risk in connection with certain sales, we may, depending upon the circumstances, require significant deposits or payment in full prior to shipment. For maintenance services, we either bill customers on a time-and-materials basis or sell maintenance contracts that provide for payment in advance on either an annual or other periodic basis.

Significant Judgments

Our contracts with customers often include promises to transfer multiple products and services to a customer. For such arrangements, we allocate revenues to each performance obligation based on its relative SSP.

Judgment is required to determine the SSP for each distinct performance obligation in a contract. For the majority of items, we estimate SSP using historical transaction data. We use a range of amounts to estimate SSP when we sell each of the products and services separately and need to determine whether there is a discount to be allocated based on the relative SSP of the various products and services. In instances where SSP is not directly observable, such as when the product or service is not sold separately, we determine the SSP using information that may include market conditions and other observable inputs.

In some circumstances, we have more than one SSP for individual products and services due to the stratification of those products and services by customers, geographic region or other factors. In these instances, we may use information such as the size of the customer and geographic region in determining the SSP.

The determination of SSP is an ongoing process and information is reviewed regularly in order to ensure SSP reflects the most current information or trends.

The nature of our marketing incentives may lead to consideration that is variable. Judgment is exercised at contract inception to determine the most likely outcome of the contract and resulting transaction price. Ongoing assessments are performed to determine if updates are needed to the original estimates.

Contract Balances

The timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables (contract assets), and customer deposits and deferred revenues (contract liabilities) on the condensed consolidated balance sheets. Timing of revenue recognition may differ from the timing of invoicing to customers. We record a receivable when revenue is recognized at the time of invoicing, or unbilled receivables when revenue is recognized prior to invoicing. For most of our contracts, customers are invoiced when products are shipped or when services are performed resulting in billed accounts receivables for the remainder of the owed contract price. Unbilled receivables generally result from items being shipped where the customer has not been charged, but for which revenue had been recognized. In our on demand manufacturing business, customers may be required to pay in full before work begins on their orders, resulting in customer deposits. We typically bill in advance for installation, training and maintenance contracts as well as extended warranties, resulting in deferred revenue. Changes in contract asset and liability balances were not materially impacted by any other factors for the period ended June 30, 2020.

Through June 30, 2020, we recognized revenue of \$21,103 related to our contract liabilities at December 31, 2019.

Practical Expedients and Exemptions

We generally expense sales commissions when incurred because the amortization period would be one year or less. These costs are recorded within selling, general and administrative expenses.

(3) Leases

We have various lease agreements for our facilities, equipment and vehicles with remaining lease terms ranging from one to sixteen years. We determine if an arrangement contains a lease at inception. Some leases include the options to purchase, terminate or extend for one or more years; these options are included in the right-of-use ("ROU") asset and liability lease term when it is reasonably certain an option will be exercised. Our leases do not contain any material residual value guarantees or material restrictive covenants.

Most of our leases do not provide an implicit rate, therefore we use our incremental borrowing rate based on the information available at the commencement date to determine the present value of the future lease payments.

Certain of our leases include variable costs. Variable costs include non-lease components that were incurred based upon actual terms rather than contractually fixed amounts. In addition, variable costs are incurred for lease payments that are indexed to a change in rate or index. Because the ROU asset recorded on the balance sheet was determined based upon factors considered at the commencement date, subsequent changes in the rate or index that were not contemplated in the ROU asset balances recorded on the balance sheet result in variable expenses being incurred when paid during the lease term.

Components of lease cost (income) were as follows:

(in thousands)	Quarter Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Operating lease cost	\$ 2,999	\$ 3,675	\$ 6,007	\$ 7,464
Finance lease cost - amortization expense	220	212	435	418
Finance lease cost - interest expense	164	115	327	230
Short-term lease cost	26	26	53	50
Variable lease cost	195	94	245	35
Sublease income	(152)	—	(304)	—
Total	\$ 3,452	\$ 4,122	\$ 6,763	\$ 8,197

Balance sheet classifications at June 30, 2020 and December 31, 2019 are summarized below:

(in thousands)	2020			2019		
	Right of use assets	Current right of use liabilities	Long-term right of use liabilities	Right of use assets	Current right of use liabilities	Long-term right of use liabilities
Operating Leases	\$ 40,268	\$ 8,858	\$ 36,373	\$ 28,571	\$ 9,231	\$ 24,835
Finance Leases	7,775	902	9,966	8,319	338	10,567
Total	\$ 48,043	\$ 9,760	\$ 46,339	\$ 36,890	\$ 9,569	\$ 35,402

Our future minimum lease payments as of June 30, 2020 under operating lease and finance leases, with initial or remaining lease terms in excess of one year, were as follows:

(in thousands)	June 30, 2020	
	Operating Leases	Finance Leases
Years ending June 30:		
2021	\$ 11,104	\$ 1,639
2022	8,969	1,536
2023	7,500	1,533
2024	6,609	1,491
2025	4,775	1,375
Thereafter	17,399	7,066
Total lease payments	56,356	14,640
Less: imputed interest	(11,125)	(3,772)
Present value of lease liabilities	\$ 45,231	\$ 10,868

Supplemental cash flow information related to our operating leases for the periods ending June 30, 2020 and June 30, 2019 were as follows:

(in thousands)	June 30, 2020	June 30, 2019
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash outflow from operating leases	\$ 6,533	\$ 7,610
Operating cash outflow from finance leases	\$ 280	\$ 229
Financing cash (inflow) outflow from finance leases	\$ (76)	\$ 338

Weighted-average remaining lease terms and discount rate for our operating leases for the period ending June 30, 2020, were as follows:

	June 30, 2020	
	Operating	Financing
Weighted-average remaining lease term	6.0 years	10.0 years
Weighted-average discount rate	6.32 %	5.99 %

(4) Inventories

Components of inventories at June 30, 2020 and December 31, 2019 are summarized as follows:

(in thousands)	June 30, 2020	December 31, 2019
Raw materials	\$ 39,631	\$ 42,066
Work in process	10,271	5,496
Finished goods and parts	75,175	63,544
Inventories	\$ 125,077	\$ 111,106

We record a reserve to the carrying value of our inventory to reflect the rapid technological change in our industry that impacts the market for our products. The inventory reserve was \$24,269 and \$12,812 as of June 30, 2020 and December 31, 2019, respectively.

In June 2020, as part of our assessment of prospective sales and evaluation of inventory, we determined the end-of-life for certain product lines. The end-of-life determination for these products reflects management's plans to focus our resources that are better aligned with our new strategic focus, as further discussed in Note 15. As a result, for the quarter ended June 30, 2020, we recorded a charge of \$10,894 to products costs of sales, primarily attributable to inventory, accessories and inventory commitments for these products. We have ceased production for these items.

(5) Intangible Assets

Intangible assets, net, other than goodwill, at June 30, 2020 and December 31, 2019 are summarized as follows:

(in thousands)	2020			2019			Weighted Average Useful Life Remaining (in years)
	Gross ^(a)	Accumulated Amortization	Net	Gross ^(a)	Accumulated Amortization	Net	
Intangible assets with finite lives:							
Customer relationships	\$ 103,947	\$ (82,087)	\$ 21,860	\$ 103,661	\$ (77,021)	\$ 26,640	4
Acquired technology	54,318	(52,541)	1,777	54,378	(51,875)	2,503	1
Trade names	23,528	(19,610)	3,918	23,907	(19,133)	4,774	4
Patent costs	18,836	(9,919)	8,917	11,760	(9,535)	2,225	15
Trade secrets	19,629	(16,847)	2,782	19,494	(15,714)	3,780	2
Acquired patents	16,226	(15,219)	1,007	16,215	(14,706)	1,509	7
Other	19,348	(19,340)	8	26,256	(19,349)	6,907	1
Total intangible assets	<u>\$ 255,832</u>	<u>\$ (215,563)</u>	<u>\$ 40,269</u>	<u>\$ 255,671</u>	<u>\$ (207,333)</u>	<u>\$ 48,338</u>	5

^(a) Change in gross carrying amounts consists primarily of charges for license and patent costs and foreign currency translation.

Amortization expense related to intangible assets was \$4,144 and \$8,546 for the quarter and six months ended June 30, 2020, respectively, compared to \$5,718 and \$11,238 for the quarter and six months ended June 30, 2019, respectively.

(6) Accrued and Other Liabilities

Accrued liabilities at June 30, 2020 and December 31, 2019 are summarized as follows:

(in thousands)	2020	2019
Compensation and benefits	\$ 26,359	\$ 21,139
Vendor accruals	11,099	9,734
Accrued taxes	9,025	9,840
Accrued other	8,141	4,223
Product warranty liability	2,294	2,908
Arbitration awards	2,256	2,256
Accrued professional fees	2,080	1,545
Royalties payable	1,749	1,450
Payable to owners of redeemable noncontrolling interests	—	10,000
Total	<u>\$ 63,003</u>	<u>\$ 63,095</u>

Other liabilities at June 30, 2020 and December 31, 2019 are summarized as follows:

<i>(in thousands)</i>	2020	2019
Long-term employee indemnity	\$ 13,596	\$ 14,408
Long-term tax liability	10,818	5,011
Defined benefit pension obligation	10,331	10,357
Long-term deferred revenue	6,196	7,370
Other long-term liabilities	6,517	8,662
Total	<u>\$ 47,458</u>	<u>\$ 45,808</u>

(7) Borrowings

Credit Facility

We hold a 5-year \$100,000 senior secured term loan facility (the “Term Facility”) and a 5-year \$100,000 senior secured revolving credit facility (the “Revolving Facility”) and, together with the Term Facility, the “Senior Credit Facility”) to support working capital and general corporate purposes. The Senior Credit Facility is guaranteed by certain of our subsidiaries. The guarantors guarantee, among other things, all our obligations and each other guarantor's obligations under the Senior Credit Facility. From time to time, we may be required to cause additional domestic subsidiaries to become guarantors under the Senior Credit Facility. The Senior Credit Facility is scheduled to mature on February 26, 2024, at which time all amounts outstanding thereunder will be due and payable. However, the maturity date of the Revolving Facility may be extended at our election with the consent of the lenders subject to the terms set forth in the Senior Credit Facility. The Senior Credit Facility contains customary covenants, some of which require us to maintain certain financial ratios that determine the amounts available and terms of borrowings and events of default. We were in compliance with all covenants at June 30, 2020.

The payment of dividends on our common stock is restricted under provisions of the Senior Credit Facility, which limits the amount of cash dividends that we may pay in any one fiscal year to \$30,000. We currently do not pay, and have not paid, any dividends on our common stock, and currently intend to retain any future earnings for use in our business.

Borrowings under the Senior Credit Facility are subject to interest at varying spreads above quoted market rates and a commitment fee is paid on the total unused commitment. At June 30, 2020, our floating interest rate was 1.9%. Subject to certain terms and conditions contained in the Revolving Facility, we have the right to request up to four increases to the amount of the Revolving Facility in an aggregate amount not to exceed \$100,000. As of June 30, 2020, there was \$10,000 of outstanding letters of credit and \$24,100 of available borrowings under the Revolving Facility.

We had a balance of \$21,978 outstanding on the Term Facility at June 30, 2020, with \$1,465 in principal payments due in the next twelve months.

As a result of the Term Facility, we have exposure to floating interest rates. To manage interest expense, we entered into a floating to fixed interest rate swap to reduce exposure to changes in floating interest rates on the Term Facility. The interest rate swap at June 30, 2020 has a notional value of \$15,000 and will expire on February 26, 2024, concurrent with the Term Facility. The notional value will decline over the term of the interest rate swap as amortization payments reduce the principal amount of the Term Facility. As a result of the interest rate swap, the percentage of total principal debt (excluding capital leases) that is subject to floating interest rates is approximately 32%. Due to an amendment to the swap on June 30, 2020, the swap is no longer designated as a cash flow hedge for accounting treatment purposes. See Note 8 for additional information.

(8) Hedging Activities and Financial Instruments

Derivatives Designated as Hedging Instruments

On July 8, 2019, we entered into a \$50,000 interest rate swap contract, designated as a cash flow hedge, to minimize the risk associated with the variability of cash flows in interest payments from variable-rate debt due to fluctuations in the one-month USD-LIBOR, subject to a 0% floor, through February 26, 2024. Changes in the interest rate swap are expected to offset the changes in cash flows attributable to fluctuations of the one-month USD-LIBOR for the interest payments associated with our variable-rate debt.

On June 30, 2020, we executed an amendment to the swap which reduced the notional amount to \$15,000 and resulted in de-designation as a cash flow hedge. The reduction required a mark-to-market settlement of \$1,253 paid in July 2020. Amounts previously recognized in Accumulated Other Comprehensive Loss ("AOCL") of \$1,235 were released and reclassified into "Interest and other expense, net" on the accompanying condensed consolidated statements of operations and comprehensive loss for the quarter and six months ended June 30, 2020. Subsequent to June 2020, changes in the swap's fair value will be recognized currently in earnings and included in the line item "Interest and other expense, net" and the remaining \$741 in AOCL as of June 30, 2020 will be amortized to "Interest and other expense, net" when those future cash flows are expected to occur.

The notional amount and fair value of the derivative on our balance sheet at June 30, 2020 and December 31, 2019 were as follows:

<i>(in thousands)</i>	Balance Sheet location	Notional amount	Fair value
June 30, 2020			
Interest rate swap contract	Other liabilities	\$ 15,000	\$ (2,090)
December 31, 2019			
Interest rate swap contract	Other liabilities	\$ 40,000	\$ (318)

Except as noted above, amounts released from AOCL and reclassified into "Interest and other expense, net" did not have a material impact on our condensed consolidated statements of operations and comprehensive loss for the quarter and six months ended June 30, 2020. The net amount of AOCL expected to be reclassified to losses in the next 12 months is approximately \$247. We did not have a similar instrument during the quarter ended June 30, 2019.

Derivatives Not Designated as Hedging Instruments

We conduct business in various countries using both the functional currencies of those countries and other currencies to effect cross border transactions. As a result, we are subject to the risk that fluctuations in foreign exchange rates between the dates that those transactions are entered into and their respective settlement dates will result in a foreign exchange gain or loss. When practicable, we endeavor to match assets and liabilities in the same currency on our balance sheet and those of our subsidiaries in order to reduce these risks. When appropriate, we enter into foreign currency contracts to hedge exposures arising from those transactions. We have elected not to prepare and maintain the documentation to qualify for hedge accounting treatment under ASC 815, "*Derivatives and Hedging*," and therefore, all gains and losses (realized or unrealized) are recognized in "Interest and other expense, net" in the condensed consolidated statements of operations and comprehensive loss. Depending on their fair value at the end of the reporting period, derivatives are recorded either in prepaid expenses and other current assets or in accrued liabilities on the condensed consolidated balance sheets.

We had \$92,207 and \$102,407 in notional foreign exchange contracts outstanding as of June 30, 2020 and December 31, 2019, respectively. The fair values of these contracts were not material.

We translate foreign currency balance sheets from each international businesses' functional currency (generally the respective local currency) to U.S. dollars at end-of-period exchange rates, and statements of earnings at average exchange rates for each period. The resulting foreign currency translation adjustments are a component of other comprehensive income (loss). We do not hedge the fluctuation in reported revenue and earnings resulting from the translation of these international operations' results into U.S. dollars.

(9) Inventory Financing Agreements

On December 1, 2018 and January 17, 2020, we entered into a Manufacturing Services Agreement and Amendment One to Manufacturing Services Agreement (together, the "Agreement"), with an assembling manufacturer to produce products on behalf of 3D Systems Corporation. During the quarter ended March 31, 2020, as part of the Agreement, we sold \$12,100 of inventory to the assembling manufacturer that we have an obligation to repurchase. At June 30, 2020, our obligation to repurchase inventory, included in "Accrued and other liabilities" on our condensed consolidated balance sheets, was \$5,610, relating to the initial sale of inventory to the assembly manufacturer and adjusted for transactions. The inventory sold consisted of raw materials, packaging materials and consumables representing stock on hand related to certain product families for which the manufacturing has been outsourced to the assembling manufacturer. Although the assembling manufacturer holds legal title, we account for the inventory similar to a product financing arrangement; therefore, the inventories sold to the assembling manufacturer will continue to be included in "Inventories" on our condensed consolidated balance sheets until processed into finished goods and sold back to us. At June 30, 2020, inventory held at assemblers was \$6,635.

Additionally, as part of the Agreement, we have a commitment to purchase certain materials and supplies that the assembling manufacturer purchased from third parties. At June 30, 2020, we had a commitment of \$833 with the assembling manufacturer.

(10) Net Loss Per Share

We compute basic loss per share using net loss attributable to 3D Systems Corporation and the weighted average number of common shares outstanding during the applicable period. Diluted loss per share incorporates the additional shares issuable upon assumed exercise of stock options and the release of restricted stock and restricted stock units, except in such case when their inclusion would be anti-dilutive.

(in thousands, except per share amounts)	Quarter Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Numerator for basic and diluted net loss per share:				
Net loss attributable to 3D Systems Corporation	\$ (37,951)	\$ (23,929)	\$ (56,875)	\$ (48,324)
Denominator for basic and diluted net loss per share:				
Weighted average shares	115,503	113,433	115,047	113,350
Net loss per share - basic and diluted	<u>\$ (0.33)</u>	<u>\$ (0.21)</u>	<u>\$ (0.49)</u>	<u>\$ (0.43)</u>

For the quarters and six months ended June 30, 2020 and 2019, the effect of dilutive securities, including non-vested stock options and restricted stock awards/units, was excluded from the denominator for the calculation of diluted net loss per share because we recognized a net loss for the period and their inclusion would be anti-dilutive. Dilutive securities excluded for the quarters and six months ended June 30, 2020 and 2019, were 6,556 and 7,117, respectively.

(11) Fair Value Measurements

ASC 820, "Fair Value Measurements and Disclosures," defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy that requires an entity to maximize the use of observable inputs that may be used to measure fair value:

Level 1 - Quoted prices in active markets for identical assets or liabilities;

Level 2 - Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; or

Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The above standard applies to cash equivalents, Israeli severance funds and derivatives. We utilize the market approach to measure fair value for financial assets and liabilities. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities.

Assets and liabilities measured at fair value on a recurring basis are summarized below:

		Fair Value Measurements as of June 30, 2020		
(in thousands)		Level 1	Level 2	Total
Description				
Cash equivalents ^(a)	\$	195	\$ —	\$ 195
Israeli severance funds ^(b)	\$	—	\$ 7,383	\$ 7,383
Derivative financial instruments ^(c)	\$	—	\$ (2,090)	\$ (2,090)

		Fair Value Measurements as of December 31, 2019		
(in thousands)		Level 1	Level 2	Total
Description				
Cash equivalents ^(a)	\$	20,869	\$ —	\$ 20,869
Israeli severance funds ^(b)	\$	—	\$ 7,449	\$ 7,449
Derivative financial instruments ^(c)	\$	—	\$ (318)	\$ (318)

- (a) Cash equivalents include funds held in money market instruments and are reported at their current carrying value, which approximates fair value due to the short-term nature of these instruments and are included in cash and cash equivalents in the consolidated balance sheet.
- (b) We partially fund a liability for our Israeli severance requirement through monthly deposits into fund accounts, the value of these contributions is recorded to non-current assets on the consolidated balance sheet.
- (c) Derivative instruments are reported based on published market prices for similar assets or are estimated based on published market prices for similar assets or are estimated based on observable inputs such as interest rates, yield curves, credit risks, spot and future commodity prices and spot and future exchange rates. See Note 8 for additional information on our derivative financial instruments.

We did not have any transfers of assets and liabilities between Level 1, Level 2 and Level 3 of the fair value measurement hierarchy during the quarter and six months ended June 30, 2020.

In addition to the assets and liabilities included in the above table, certain of our assets and liabilities are to be initially measured at fair value on a non-recurring basis. This includes goodwill and other intangible assets measured at fair value for impairment assessment, in addition to redeemable noncontrolling interests. For additional discussion, refer to "Management's Discussion and Analysis of Financial Condition and Results of Operations – Critical Accounting Policies and Significant Estimates" in the 2019 Form 10-K.

(12) Income Taxes

We maintain the exception under ASC 740-270-30-36(b), "Accounting for Income Taxes", for jurisdictions that do not have reliable estimates of ordinary income due to the volatility in the industry. Based on the increased global financial uncertainty due to the COVID-19 pandemic and continued volatility in the industry, we have continued to use a year to date methodology in determining the quarterly effective tax rate for the quarter ended June 30, 2020.

For the quarter and six months ending June 30, 2020, the Company recorded a tax expense of \$1,464 and a tax benefit of \$394, resulting in effective tax rates of 4.0% and (0.7)%, respectively. For the quarter and six months ending June 30, 2019, the Company recorded a tax expense of \$1,938, and \$3,782, resulting in effective tax rates of 8.8% and 8.5%, respectively. The difference between the statutory tax rate and the effective tax rate for the quarter and six months ending June 30, 2020 is comprised of valuation allowance changes in various jurisdictions, the foreign rate differential between the U.S. tax rate and foreign tax rates, and the change in U.S. tax law allowing for the carryback of certain U.S. net operating losses ("NOLs") as explained in the subsequent paragraph. The difference between the statutory tax rate and the effective tax rate for the quarter and six months ending June 30, 2019 was comprised of changes in the valuation allowance in various jurisdictions, withholding tax expense, reduction of a liability for uncertain tax positions, and the foreign rate differential between the U.S. tax rate and foreign tax rates.

In response to the global pandemic resulting from COVID-19, the U.S. government enacted tax legislation on March 27, 2020 under the Coronavirus Aid Relief, and Economic Security Act ("CARES Act"). This legislation allows us to carryback NOLs generated in the 2018 and 2019 tax years up to five years. During the quarter, these NOLs were carried back to the 2013 and 2014 tax years and a refund was requested for cash taxes paid. A tax receivable has been recorded for the NOL carryback in the amount of \$8,886. We also recorded the associated tax benefit of \$3,175, which is net of recorded uncertain tax positions of \$5,711.

Tax years 2013 and 2014 remain subject to examination by the IRS for certain tax credit carryforwards, while tax years 2016 through 2018 remain open to examination by the IRS. State income tax returns are generally subject to examination for a period of three to four years after filing the respective tax returns. We file income tax returns (which are open to examination beginning in the year shown in parentheses) in Australia (2015), Belgium (2016), Brazil (2014), China (2016), France (2016), Germany (2015), India (2014), Israel (2015), Italy (2014), Japan (2014), Korea (2014), Mexico (2014), Netherlands (2014), Switzerland (2014), the United Kingdom (2018) and Uruguay (2014).

(13) Commitments and Contingencies

We have an inventory purchase commitment with an assembling manufacturer, see Note 9.

Litigation

Ronald Barranco and Print3D Corporation v. 3D Systems Corporation, et. al.

On August 23, 2013, Ronald Barranco, a former Company employee, filed two lawsuits against us and certain of our officers in the United States District Court for the District of Hawaii. The first lawsuit ("Barranco I") is captioned Ronald Barranco and Print3D Corporation v. 3D Systems Corporation, 3D Systems, Inc., and Damon Gregoire, Case No. CV 13-411 LEK RLP, and alleges seven causes of action relating to our acquisition of Print3D Corporation (of which Mr. Barranco was a 50% shareholder) and our subsequent employment of Mr. Barranco. The second lawsuit ("Barranco II") is captioned Ronald Barranco v. 3D Systems Corporation, 3D Systems, Inc., Abraham Reichental, and Damon Gregoire, Case No. CV 13-412 LEK RLP, and alleges the same seven causes of action relating to our acquisition of certain website domains from Mr. Barranco and our subsequent employment of Mr. Barranco. Both Barranco I and Barranco II allege we breached certain purchase agreements in order to avoid paying Mr. Barranco additional monies pursuant to royalty and earn out provisions in the agreements.

With regard to Barranco I, the Hawaii district court, on February 28, 2014, denied our motion to dismiss and our motion to transfer venue to South Carolina for the convenience of the parties. However, the Hawaii court recognized that Barranco's claims were all subject to mandatory and binding arbitration in Charlotte, North Carolina. The parties selected an arbitrator and arbitration took place in September 2015 in Charlotte, North Carolina.

On September 28, 2015, the arbitrator issued a final award in favor of Barranco with respect to two alleged breaches of contract and implied covenants arising out of the contract. The arbitrator found that we did not commit fraud or make any negligent misrepresentations to Barranco. Pursuant to the award, we were directed to pay approximately \$11,282, which includes alleged actual damages of \$7,254, fees and expenses of \$2,318 and prejudgment interest of \$1,710.

On August 3, 2018, following an unsuccessful appeal to the federal court in the Western District of North Carolina and the United States Court of Appeals for the Fourth Circuit, we paid \$9,127 of the Barranco I judgment, net setoff. On September 28, 2018, the parties filed a Consent Stipulation Resolving Motion for Setoff of Judgment, stipulating that subject only to vacatur or amendment reducing the Barranco II judgment in Barranco's appeal to the Ninth Circuit related to the Barranco II action discussed below, the Barranco II judgment in the amount of \$2,182 was setoff against the Barranco I judgment ("Stipulated Setoff"). We paid Barranco the \$101 balance remaining due after the Stipulated Setoff.

With regard to Barranco II, the case was tried to a jury in Hawaii district court in May 2016, and on May 27, 2016 the jury found that we were not liable for either breach of contract or breach of the implied covenant of good faith and fair dealing. Additionally, the jury found in our favor on our counterclaim against Barranco and determined that Barranco violated his non-competition covenant with us. On March 30, 2018, the court entered Findings of Fact and Conclusions of Law and Order requiring Barranco to disgorge, and us recover, \$523, representing all but four months of the full amount paid to Barranco as salary during his employment with us as well as a portion of the up front and buyout payments made to Barranco in connection with the purchase of certain web domains. In addition, the court ordered Barranco to pay pre-judgment interest to us to be calculated beginning as of his first breach of the non-competition covenant in August 2011. Judgment was entered thereafter on April 2, 2018.

On September 13, 2018, the Hawaii district court entered its Amended Judgment in a Civil Case, awarding us a final amended judgment of \$2,182. On September 19, 2018, Barranco filed an Amended Notice of Appeal. On January 13, 2019, Barranco filed Appellant's Opening Brief in the Ninth Circuit. On March 15, 2019, we filed our Answering Brief. On April 14, 2019, Barranco filed his Reply Brief. Oral Arguments took place on October 24, 2019. On March 12, 2020, the Ninth Circuit affirmed the district court's evidentiary rulings and reversed and vacated the monetary judgment in our favor on our breach of contract counterclaim. The formal mandate issued on April 17, 2020. On April 20, Barranco filed a Motion to Recall and Amend Mandate to Conform with Rule 37(b) in the Ninth Circuit. We filed an opposition brief on April 28 and the Ninth Circuit denied Barranco's motion the same day. On April 21, 2020, the district court issued a Minute Order regarding issues on remand from the Ninth Circuit. The district court directed the parties to file simultaneous initial briefs on May 21 addressing what relief we are entitled to receive in light of the Ninth Circuit's opinion. Both parties filed responsive briefs in June 2020.

Export Controls and Government Contracts Compliance Matter

In October 2017, we received an administrative subpoena from the Bureau of Industry and Security of the Department of Commerce ("BIS") requesting the production of records in connection with possible violations of U.S. export control laws, including with regard to our Quickparts.com, Inc. subsidiary. In addition, while collecting information responsive to the above-referenced subpoena, our internal investigation identified potential violations of the International Traffic in Arms Regulations ("ITAR") administered by the Directorate of Defense Trade Controls of the Department of State ("DDTC") and potential violations of the Export Administration Regulations administered by the BIS.

On June 8, 2018 and thereafter, we submitted voluntary disclosures to BIS and DDTC identifying numerous potentially unauthorized exports of technical data. As part of our ongoing review of trade compliance risks and our cooperation with the government, on November 20, 2019, we submitted to the U.S. Treasury Department's Office of Foreign Assets Control ("OFAC") an initial notice of voluntary disclosure regarding potential violations of economic sanctions related to Iran. We continued to investigate this issue and filed a final disclosure with OFAC on May 20, 2020. We have and will continue to implement compliance enhancements to our export controls, trade sanctions, and government contracting compliance program to address the issues identified through our ongoing internal investigation and will cooperate with DDTC and BIS, as well as the U.S. Departments of Justice, Defense, Homeland Security and Treasury in their ongoing reviews of these matters.

In addition, on July 19, 2019, we received a notice of immediate suspension of federal contracting from the United States Air Force, pending the outcome of an ongoing investigation. The suspension applied to 3D Systems, its subsidiaries and affiliates, and was related to the potential export controls violations involving our On Demand manufacturing business described above. Under the suspension, we were generally prohibited from receiving new federal government contracts or subcontracts from any executive branch agency as described in the provisions of 48 C.F.R Subpart 9.4 of the Federal Acquisition Regulation. The suspension allowed us to continue to perform current federal contracts, and also to receive awards of new subcontracts for items under \$35 and for items considered commercially available off-the-shelf items. The Air Force lifted the suspension on September 6, 2019 following the execution of a two-year Administrative Agreement with us. We are now eligible to obtain and perform U.S. government contracts and subcontracts without restrictions. Under the Administrative Agreement, we will be monitored and evaluated by independent monitors who will report to the Air Force on our compliance with the terms of the Company's Ethics & Compliance Program, including its overall culture, government contracting compliance program, and export controls compliance program.

Although we cannot predict the ultimate resolution of these matters, we have incurred and expect to continue to incur significant legal costs and other expenses in connection with responding to the U.S. government agencies.

Other

We are involved in various other legal matters incidental to our business. Although we cannot predict the results of the litigation with certainty, we believe that the disposition of all these various other legal matters will not have a material adverse effect, individually or in the aggregate, on our consolidated results of operations, consolidated cash flows or consolidated financial position.

(14) Noncontrolling Interests

As of June 30, 2020, we owned 100% of the capital and voting rights of Robtec, a service bureau and distributor of 3D printing and scanning products in Brazil. Approximately 70% of the capital and voting rights of Robtec were acquired on November 25, 2014. On January 7, 2020, we made a payment equal to the redemption price of \$10,000 and acquired the remaining 30% of the capital and voting rights.

(15) Subsequent Events

On August 5, 2020, we announced a new strategic focus to enable additive manufacturing solutions for applications in growing markets that demand high reliability products. Accordingly, we are realigning our business structure into two vertical customer markets, Healthcare and Industrial, which will be supported by shared services including supply chain, engineering and development, IT, finance, people & culture and legal. The new structure will simplify our reporting structure.

On August 5, 2020, we announced, in connection with the new strategic focus and organizational realignment, a restructuring plan intended to align our operating costs with current revenue levels and better position the Company for future sustainable and profitable growth. The restructuring plan includes a reduction of nearly 20% of our workforce, with the majority of the workforce reduction expected to be completed by December 31, 2020. We expect that the restructuring plan, in conjunction with other cost reduction measures, will reduce our annualized costs by approximately \$100,000 by the end of December 31, 2021. Cost reduction efforts include reducing the number of facilities and examining every aspect of our manufacturing and operating costs. We will incur a cash charge in the range of \$25,000 to \$30,000 for severance, facility closing and other costs, primarily in the second half of this year. We may incur additional charges in 2021 as we finalize all the actions to be taken. Non-cash charges related to these actions are expected to be less than \$5,000. We are also evaluating the divestiture of parts of the business that do not align with this strategic focus.

On August 5, 2020, we entered into an Equity Distribution Agreement for an At-The-Market (“ATM”) equity offering where we may issue and sell, from time to time, shares of our common stock having an aggregate gross sales price of up to a total of \$150,000, depending upon market conditions and our liquidity requirements. We intend to use the net proceeds from this offering for general corporate purposes, which may include repaying amounts outstanding under our senior secured term loan facility and our senior secured revolving credit facility.

Additional information regarding risks around our restructuring plan and raising capital appears in Item 1A. “Risk Factors” in the 2019 Form 10-K, and in Item 1A. “Risks Factors” in this Form 10-Q.

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

The following discussion and analysis should be read together with the unaudited condensed consolidated financial statements and the notes thereto included in Item 1 (the "Financial Statements") of this Quarterly Report on Form 10-Q ("Form 10-Q"). Also, we are subject to a number of risks and uncertainties that may affect our future performance that are discussed in greater detail in the sections entitled "Forward-Looking Statements" at the end of this Item 2 and that are discussed or referred to in Item 1A of Part II of this Form 10-Q.

Business Overview

3D Systems Corporation ("3D Systems" or the "Company" or "we" or "us") is a holding company incorporated in Delaware in 1993 that markets our products and services through subsidiaries in North America and South America (collectively referred to as "Americas"), Europe and the Middle East (collectively referred to as "EMEA") and the Asia Pacific region ("APAC"). We provide comprehensive additive manufacturing solutions for applications in growing markets that demand high reliability products. Our solutions support markets and applications where a premium is placed upon performance and reliability, with engineering and technology cultures that seek product innovation as a means of delivering value to their customers, and with processes that tend to be highly controlled. Through our two key market verticals of Healthcare and Industrials, we offer hardware, software, materials and services, combined with leadership in application knowledge to provide additive manufacturing solutions for specific, high-value applications in growing markets like healthcare, aerospace, automotive and defense. Our precision healthcare capabilities include simulation; Virtual Surgical Planning (VSP®) ("VSP"); and printing of medical and dental devices, models, and surgical guides and instruments. We have over 30 years of experience and expertise which have proven vital to our development of end-to-end digital workflow solutions that enable customers to optimize product designs, transform workflows, bring innovative products to market, and drive new business models.

COVID-19 Pandemic Response

As we closely monitor the COVID-19 pandemic, our top priority remains the health and safety of our employees and their families and communities. Our Crisis Response Steering Committee regularly reviews and adapts our protocols based on evolving research and guidance related to the virus. While essential operations continue, we have restricted travel and meetings, published pertinent information, and adapted to a world where many in our workforce are remote and those coming on-site are following new safety measures. We have a multi-phase plan to return to working on-site, and remain committed to protecting our employees, delivering for our customers and supporting our communities.

Our Employees

Since the start of the pandemic, employees who are necessary to our facilities' operations have continued to work on site. The additional safety measures and practices we put in place during the first quarter of 2020 to protect these employees, including maintaining physical distancing, utilizing enhanced cleaning protocols and usage of personal protective equipment, continue to be implemented subject to each location's return on-site processes. Our plan for returning the remainder of our workforce to work on-site involves multiple phases that gradually allow additional workers to return while practicing social distancing and other safety measures. This plan considers the varying needs of each location and site and depends on local government regulations, community case trends, and recommendations from public health organizations.

Our New Strategic Focus, Restructuring and Liquidity

While no company is immune to global economic challenges, our business portfolio is well-balanced across end markets and geographies and includes a high degree of businesses serving critical sectors such as healthcare, aerospace and durable goods. In May 2020, a new CEO and President, Dr. Jeffrey Graves, was hired. Dr. Graves has completed his initial assessment of the Company. On August 5, 2020, a new strategic focus (outlined in the Business Overview) and reorganization was announced and, to align our cost structure to the current level of revenues, a restructuring plan was also announced. The company expects the restructuring effort, in conjunction with other cost reduction measures, to reduce annualized costs by approximately \$100 million by the end of next year. This should enable the company to be profitable at current revenue levels and be well positioned to leverage the sales growth as it returns. Other cost reduction efforts include reducing the number of facilities and examining every aspect of the company's manufacturing and operating costs. The company will incur a cash charge in the range of \$25 to \$30 million for severance, facility closing and other costs, primarily in the second half of this year. The company may incur additional charges in 2021 as it finalizes all the actions to be taken. The company is also evaluating the divestiture of parts of the business that do not align with this strategic focus.

Furthermore, to provide additional financial flexibility, we have entered into an Equity Distribution Agreement for an At-The-Market (“ATM”) equity offering, pursuant to which we may issue and sell, from time to time, shares of our common stock having an aggregate gross sales price of up to a total of \$150 million, depending upon market conditions and our liquidity requirements. We intend to use the net proceeds from this offering for general corporate purposes, which may include repaying amounts outstanding under our senior secured term loan facility and our senior secured revolving credit facility.

Our balance sheet is well positioned and had \$63.9 million of cash and cash equivalents at June 30, 2020, and a \$100.0 million committed revolving credit facility, with \$10.0 million of outstanding letters of credit and \$24.1 million of available borrowings under the revolving facility. In the second quarter of 2020, we began reducing our cost structure by focusing on cost of sales and operating expenses to drive future profitability. We implemented an employee furlough program, executive and Board pay reductions, reduced our hiring and lowered travel expenses. We believe these actions and our current financial position will enable us to handle the near-term impacts of the current economic uncertainty as well as position us for future profitable growth.

Looking Forward

Our operations in Americas, EMEA and APAC expose us to risks associated with public health crises and epidemics/pandemics, such as the COVID-19 pandemic. While the COVID-19 pandemic has impacted the Company’s reported results for the second quarter, we are unable to predict the longer-term impact that the pandemic may have on our business, results of operations, financial position or cash flows. The extent to which our operations may be impacted by the dynamic nature of the COVID-19 pandemic will depend largely on future developments, which are highly uncertain and cannot be accurately predicted, including new information which may emerge concerning the severity of the outbreak and actions by government authorities to contain the outbreak or treat its impact. Furthermore, the impacts of a potential worsening of global economic conditions and the continued disruptions to, and volatility in, the financial markets remain unknown. Additional information regarding COVID-19 risks appears in Part II, Item 1A, “Risk Factors” of the Form 10-Q for the quarter ended March 31, 2020.

Summary of Second Quarter 2020 Financial Results

Total consolidated revenue for the second quarter of 2020 decreased 28.7% compared to the same period last year and decreased 16.8% compared to the first quarter of 2020. The lower demand was across all products and services due primarily to the COVID-19 pandemic, as many customers were shutdown or on a significantly reduced level of activity. Revenue from Healthcare decreased 11.4% to \$50.0 million, compared to the same period last year, driven by the decrease in the dental market. Industrial sales decreased 38.5% to \$62.1 million, compared to the same period last year, as decreases were in all products and services across all geographies.

Gross profit for the quarter ended June 30, 2020 decreased by 52.0%, or \$38.1 million, to \$35.2 million, compared to \$73.3 million for the quarter ended June 30, 2019. Gross profit margin for the quarters ended June 30, 2020 and June 30, 2019 was 31.4% and 46.6%, respectively. Margin deterioration was driven by an end-of-life inventory charge of \$10.9 million as well as the under absorption of supply chain overhead, resulting from lower production. Excluding the inventory charge, total gross profit margin for the quarter would have been 41.1%.

Operating expenses for the quarter ended June 30, 2020 decreased by 25.3%, or \$23.4 million, to \$69.0 million, compared to \$92.5 million for the quarter ended June 30, 2019. Selling, general and administrative expenses for the quarter ended June 30, 2020 decreased by 27.4%, or \$19.6 million, to \$52.0 million, compared to \$71.7 million for the quarter ended June 30, 2019. Research and development expenses for the quarter ended June 30, 2020 decreased by 18.3%, or \$3.8 million, to \$17.0 million, compared to \$20.8 million for the quarter ended June 30, 2019. Lower operating expenses reflect executive and Board pay reductions and an employee furlough program in the second quarter, reduced hiring and lower travel expenses as a result of the COVID-19 pandemic as well as savings achieved from cost structuring activities originating in 2019.

Our operating loss for the quarter ended June 30, 2020 was \$33.9 million, compared to an operating loss of \$19.2 million for the quarter ended June 30, 2019.

For the six months ended June 30, 2020, we used \$21.0 million of cash from operations, primarily driven by the increase in inventories. For the six months ended June 30, 2019, we generated \$3.6 million of cash from operations. In total, our unrestricted cash balance at June 30, 2020 and December 31, 2019, was \$63.9 million and \$133.7 million, respectively. The lower cash balance primarily resulted from \$26.3 million in repayments of the Term Loan, \$24.5 million from increased inventory levels, \$10.0 million in payments to acquire the remaining capital and voting rights of the noncontrolling interest in Brazil and \$7.2 million in capital expenditures.

Results of Operations

Revenue

Revenue in the last part of the first quarter and in the second quarter was impacted by COVID-19, as many of our customers were shutdown or on a significantly reduced level of activity. Excluding impacts due to the pandemic, due to the relatively high price of certain 3D printers and a corresponding lengthy selling cycle as well as relatively low unit volume of the higher priced printers in any particular period, a shift in the timing and concentration of orders and shipments from one period to another can affect reported revenue in any given period.

In addition to changes in sales volumes, there are two other primary drivers of changes in revenue from one period to another: (1) the combined effect of changes in product mix and average selling prices and (2) the impact of fluctuations in foreign currencies. As used in this Management's Discussion and Analysis, the price and mix effects relate to changes in revenue that are not able to be specifically related to changes in unit volume.

We earn revenue from the sale of products and services. The products category includes 3D printers and corresponding materials, healthcare simulators and digitizers, software licenses, 3D scanners and haptic devices. The majority of materials used in our 3D printers are proprietary. The services category includes maintenance contracts and services on 3D printers and simulators, software maintenance, on demand solutions and healthcare services.

The following tables set forth the change in revenue for the quarters and six months ended June 30, 2020 and 2019.

Table 1

(Dollars in thousands)

	Products		Services		Total	
Revenue — second quarter 2019	\$ 93,758	59.6 %	\$ 63,514	40.4 %	\$ 157,272	100.0 %
Change in revenue:						
Volume	(35,071)	(37.4)%	(12,227)	(19.3)%	(47,298)	(30.1)%
Price/Mix	3,293	3.5 %	—	— %	3,293	2.1 %
Foreign currency translation	(484)	(0.5)%	(723)	(1.1)%	(1,207)	(0.8)%
Net change	(32,262)	(34.4)%	(12,950)	(20.4)%	(45,212)	(28.7)%
Revenue — second quarter 2020	\$ 61,496	54.9 %	\$ 50,564	45.1 %	\$ 112,060	100.0 %

Consolidated revenue decreased 28.7%, predominantly due to lower products volume, driven by decreased sales of plastics printers and corresponding materials, as well as lower on demand volume, partially offset by favorable price mix. The lower demand was due to COVID-19, as many of our customers were shutdown or on a significantly reduced level of activity. For the quarters ended June 30, 2020 and 2019, revenue from printers contributed \$17.1 million and \$30.0 million, respectively. Software revenue included in the products category contributed \$10.0 million and \$13.7 million for the quarters ended June 30, 2020 and 2019, respectively. Materials revenue included in the products category contributed \$28.7 million and \$41.2 million for the quarters ended June 30, 2020 and 2019, respectively.

Revenue from services decreased 20.4%, or \$13.0 million, as compared to the second quarter of 2019. The decrease was primarily comprised of a 31.3%, or \$7.5 million, decline in our on demand manufacturing services. The remaining decrease resulted from maintenance contracts and services on printers and simulators, software maintenance and healthcare services.

For the quarters ended June 30, 2020 and 2019, revenue from operations outside the U.S. was 51.0% and 48.9% of total revenue, respectively.

Table 2*(Dollars in thousands)*

	Products		Services		Total	
Revenue — six months 2019	\$ 186,105	60.2 %	\$ 123,147	39.8 %	\$ 309,252	100.0 %
Change in revenue:						
Volume	(45,095)	(24.2)%	(15,392)	(12.5)%	(60,487)	(19.6)%
Price/Mix	296	0.2 %	—	— %	296	0.1 %
Foreign currency translation	(1,001)	(0.5)%	(1,295)	(1.1)%	(2,296)	(0.7)%
Net change	(45,800)	(24.6)%	(16,687)	(13.6)%	(62,487)	(20.2)%
Revenue — six months 2020	\$ 140,305	56.9 %	\$ 106,460	43.1 %	\$ 246,765	100.0 %

Consolidated revenue decreased 20.2%, predominantly due to lower products volume, driven by decreased sales of plastics printers and corresponding materials, as well as lower on demand volume. The lower demand was due to COVID-19, as many of our customers were shutdown or on a significantly reduced level of activity starting in the latter part of the first quarter. For the six months ended June 30, 2020 and 2019, revenue from printers contributed \$36.4 million and \$59.9 million, respectively. Software revenue included in the products category contributed \$20.7 million and \$25.9 million for the six months ended June 30, 2020 and 2019, respectively. Materials revenue included in the products category contributed \$70.0 million and \$82.7 million for the six months ended June 30, 2020 and 2019, respectively.

Revenue from services decreased 13.6%, or \$16.7 million, as compared to the second quarter of 2019. The decrease was primarily comprised of a 22.3%, or \$10.4 million, decline in our on demand manufacturing services. The remaining decrease resulted from maintenance contracts and services on printers and simulators, software maintenance and healthcare services.

Gross profit and gross profit margins

The following tables set forth gross profit and gross profit margins for the quarters and six months ended June 30, 2020 and 2019.

Table 3

(Dollars in thousands)	Quarter Ended June 30,				Change in Gross Profit		Change in Gross Profit Margin	
	2020		2019					
	Gross Profit	Gross Profit Margin	Gross Profit	Gross Profit Margin	\$	%	Percentage Points	%
Products	\$ 9,007	14.6 %	\$ 40,753	43.5 %	\$ (31,746)	(77.9)%	(28.9)	(66.4)%
Services	26,160	51.7 %	32,546	51.2 %	(6,386)	(19.6)%	0.5	1.0 %
Total	\$ 35,167	31.4 %	\$ 73,299	46.6 %	\$ (38,132)	(52.0)%	(15.2)	(32.6)%

The decrease in total consolidated gross profit is predominantly due to the lower sales volume as previously discussed, as well as an end-of-life inventory charge of \$10.9 million in the second quarter of 2020. Excluding the end-of-life inventory charge, total gross profit margin would have been 41.1%. See Note 4 for additional discussion regarding the end-of-life inventory charge.

Products gross profit decreased primarily due to an end-of-life inventory charge of \$10.9 million as well as the under absorption of supply chain overhead, resulting from lower production. These were partially offset by the favorable impact of sales mix. Excluding the end-of-life inventory charge, products gross profit margin would have been 32.4%. See Note 4 for additional discussion regarding the end-of-life inventory charge.

Table 4

	Six Months Ended June 30,							
	2020		2019		Change in Gross Profit		Change in Gross Profit Margin	
(Dollars in thousands)	Gross Profit	Gross Profit Margin	Gross Profit	Gross Profit Margin	\$	%	Percentage Points	%
Products	\$ 38,920	27.7 %	\$ 77,340	41.6 %	\$ (38,420)	(49.7)%	(13.9)	(33.4)%
Services	53,379	50.1 %	61,664	50.1 %	(8,285)	(13.4)%	—	— %
Total	\$ 92,299	37.4 %	\$ 139,004	44.9 %	\$ (46,705)	(33.6)%	(7.5)	(16.7)%

The decrease in total consolidated gross profit is predominantly due to the lower sales volume as previously discussed, as well as an end-of-life inventory charge of \$10.9 million. Excluding the end-of-life inventory charge, total gross profit margin would have been 41.8%. See Note 4 for additional discussion.

Products gross profit decreased primarily due to an end-of-life inventory charge of \$10.9 million as well as the under absorption of supply chain overhead, resulting from lower production. Excluding the end-of-life inventory charge, products gross profit margin would have been 35.5%. See Note 4 for additional discussion.

Operating expenses

The following tables set forth the components of operating expenses for the quarters and six months ended June 30, 2020 and 2019.

Table 5

	Quarter Ended June 30,				Change	
	2020		2019			
(Dollars in thousands)	Amount	% Revenue	Amount	% Revenue	\$	%
Selling, general and administrative expenses	\$ 52,042	46.4 %	\$ 71,654	45.6 %	\$ (19,612)	(27.4)%
Research and development expenses	16,997	15.2 %	20,811	13.2 %	(3,814)	(18.3)%
Total operating expenses	\$ 69,039	61.6 %	\$ 92,465	58.8 %	\$ (23,426)	(25.3)%

Selling, general and administrative expenses decreased due to an employee furlough program in the current quarter, reduced hiring and lower travel expenses incurred in the current year, resulting from the COVID-19 pandemic, as well as savings achieved in the current year from cost structuring activities, including personnel and marketing activities, originating in 2019.

Research and development expenses decreased due to an employee furlough program in the second quarter of 2020, current year savings achieved from cost structuring activities, including personnel reductions, originating in 2019, as well as lower overall program spend.

Table 6

	Six Months Ended June 30,				Change	
	2020		2019			
(Dollars in thousands)	Amount	% Revenue	Amount	% Revenue	\$	%
Selling, general and administrative expenses	\$ 108,148	43.8 %	\$ 136,761	44.2 %	\$ (28,613)	(20.9)%
Research and development expenses	36,241	14.7 %	42,714	13.8 %	(6,473)	(15.2)%
Total operating expenses	\$ 144,389	58.5 %	\$ 179,475	58.0 %	\$ (35,086)	(19.5)%

Selling, general and administrative expenses decreased due to an employee furlough program in the second quarter of 2020, reduced hiring and lower travel expenses incurred in the current year, resulting from the COVID-19 pandemic; savings achieved in the current year from cost structuring activities, including personnel and marketing activities, originating in 2019; and the run-out of certain intangible amortization.

Research and development expenses decreased due to an employee furlough program in the second quarter of 2020, current year savings achieved from cost structuring activities, including personnel, originating in 2019, as well as lower overall program spend; partially offset by an increase in materials spend.

Loss from operations

The following table sets forth (loss) income from operations for the quarters and six months ended June 30, 2020 and 2019.

Table 7

(Dollars in thousands)	Quarter Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Loss from operations:	\$ (33,872)	\$ (19,166)	\$ (52,090)	\$ (40,471)

See “Revenue,” “Gross profit and gross profit margins” and “Operating expenses” above.

Interest and other (expense) income, net

The following table sets forth the components of interest and other (expense) income, net, for the quarters and six months ended June 30, 2020 and 2019.

Table 8

(Dollars in thousands)	Quarter Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Interest and other (expense) income, net				
Foreign exchange (loss) gain	\$ (871)	\$ (70)	\$ (983)	\$ (1,109)
Interest expense, net	(2,050)	(864)	(3,088)	(1,441)
Other (expense) income, net	306	(1,821)	(1,108)	(1,407)
Total interest and other (expense) income, net	\$ (2,615)	\$ (2,755)	\$ (5,179)	\$ (3,957)

Total interest and other (expense) income, net, for the quarter ended June 30, 2020 as compared to the quarter ended June 30, 2019 remained relatively flat. In the second quarter of 2020 amounts previously recognized in Accumulated Other Comprehensive Loss ("AOCL") were released and reclassified to "Interest and other expense, net," as a result of the reduction in the interest rate swap. See Note 8 for additional discussion. In the second quarter of 2019, losses were recorded on equity investments.

Total interest and other (expense) income, net, for the six months ended June 30, 2020 as compared to the six months ended June 30, 2019 resulted in a higher loss due to amounts previously recognized in AOCL having been released and reclassified into "Interest and other expense, net" as a result of the reduction in the interest rate swap. Losses on equity investments were recorded in both periods.

Net loss attributable to 3D Systems

The following tables set forth the primary components of net loss attributable to 3D Systems for the quarters and six months ended June 30, 2020 and 2019.

Table 9

(Dollars in thousands)	Quarter Ended June 30,		Change
	2020	2019	
Loss from operations	\$ (33,872)	\$ (19,166)	\$ (14,706)
Other non-operating items:			
Interest and other (expense) income, net	(2,615)	(2,755)	140
(Provision) benefit for income taxes	(1,464)	(1,938)	474
Net loss	(37,951)	(23,859)	(14,092)
Less: net income attributable to noncontrolling interests	—	70	(70)
Net loss attributable to 3D Systems Corporation	<u>\$ (37,951)</u>	<u>\$ (23,929)</u>	<u>\$ (14,022)</u>
Weighted average shares, basic and diluted	115,503	113,433	
Net loss per share - basic and diluted	<u>\$ (0.33)</u>	<u>\$ (0.21)</u>	

Table 10

(Dollars in thousands)	Six Months Ended June 30,		Change
	2020	2019	
Loss from operations	\$ (52,090)	\$ (40,471)	\$ (11,619)
Other non-operating items:			
Interest and other (expense) income, net	(5,179)	(3,957)	(1,222)
(Provision) benefit for income taxes	394	(3,782)	4,176
Net loss	(56,875)	(48,210)	(8,665)
Less: net income attributable to noncontrolling interests	—	114	(114)
Net loss attributable to 3D Systems Corporation	<u>\$ (56,875)</u>	<u>\$ (48,324)</u>	<u>\$ (8,551)</u>
Weighted average shares, basic and diluted	115,047	113,350	
Net loss per share - basic and diluted	<u>\$ (0.49)</u>	<u>\$ (0.43)</u>	

The increase in net loss for the quarter and six months ended June 30, 2020, as compared to the quarter and six months ended June 30, 2019, was primarily driven by an increase in loss from operations and an end-of-life inventory charge of \$10.9 million. See Note 4 for additional discussion.

See “Gross profit and gross profit margins” and “Operating expenses” above, and Note 12.

Liquidity and Capital Resources

We assess our liquidity in terms of our ability to generate cash to fund our operating, investing and financing activities. In doing so, we review and analyze our current cash on hand, the number of days our sales are outstanding, inventory turns, capital expenditure commitments, accounts payable turns and funding requirements. Our cash requirements primarily consist of funding working capital and capital expenditures.

At June 30, 2020, we had cash on hand of \$63.9 million, total debt of \$21.5 million and a \$100 million unused revolving credit facility with approximately \$24 million of availability based on the terms of the agreement. Cash on hand has decreased \$69.7 million since December 31, 2019. The uses of cash included \$26.3 million for repayments of debt, \$21.0 million for operations, \$12.5 million for payments to purchase noncontrolling interests and \$7.2 million for capital expenditures. Once the market started to turn down in the latter part of the first quarter due to COVID-19, we were unable to slow down our inventory levels fast enough due to committed lead times with our contract manufacturers and suppliers.

Cash flow from operations, cash and cash equivalents, and other sources of liquidity such as bank credit facilities and issuing equity or debt securities, are expected to be available and sufficient to meet foreseeable cash requirements. We hold a 5-year \$100.0 million senior secured term loan facility (the “Term Facility”) and a 5-year \$100.0 million senior secured revolving credit facility (the “Revolving Facility” and, together with the Term Facility, the “Senior Credit Facility”) that are intended to support working capital and general corporate purposes. The Senior Credit Facility is scheduled to mature on February 26, 2024, at which time all amounts outstanding thereunder will be due and payable. As of June 30, 2020, we had \$10.0 million of outstanding letters of credit and \$24.1 million of available borrowings under the Revolving Facility. For additional information on the Senior Credit Facility, see Note 7 to the condensed consolidated financial statements in this Form 10-Q.

To provide the company with sufficient financial flexibility to complete this reorganization and to work through these uncertain times caused by the pandemic, the Board of Directors approved an ATM equity program that allows the company from time to time to issue up to a total of \$150 million of shares of the company’s common stock to the public, at the company’s discretion. We intend to use the net proceeds from this offering for general corporate purposes, which may include repaying amounts outstanding under the Term Facility and the Revolving Facility.

Cash held outside the U.S. at June 30, 2020 was \$48.9 million, or 76.4% of total cash and equivalents, compared to \$75.7 million, or 56.5% of total cash and equivalents at December 31, 2019. As our previously unremitted earnings have been subjected to U.S. federal income tax, we expect any repatriation of these earnings to the U.S. would not incur significant federal and state taxes. However, these dividends are subject to foreign withholding taxes that are estimated to result in the Company incurring tax costs in excess of the cost to obtain cash through other means. Cash equivalents are comprised of funds held in money market instruments and are reported at their current carrying value, which approximates fair value due to the short-term nature of these instruments. We strive to minimize our credit risk by investing primarily in investment grade, liquid instruments and limit exposure to any one issuer depending upon credit quality. See “Cash flow” discussion below.

Cash flow

Cash flow from operations

Cash used in operating activities for the six months ended June 30, 2020 was \$21.0 million, while cash provided by operating activities for the six months ended June 30, 2019 was \$3.6 million.

Working capital used cash of \$14.4 million for the six months ended June 30, 2020 and provided cash of \$8.4 million for the six months ended June 30, 2019. In the six months ended June 30, 2020, drivers of working capital related to cash outflows were an increase in inventory and prepaid expenses, partially offset by a decrease in accounts receivable and an increase in other accrued liabilities, deferred revenue and accounts payable. In the six months ended June 30, 2019, drivers of working capital related to cash inflows were a decrease in accounts receivable and an increase in deferred revenues related to software and system maintenance contracts, partially offset by a decrease in accounts payable and an increase in inventory.

Cash flow from investing activities

For the six months ended June 30, 2020 and 2019, the primary outflows of cash relate to the purchases of noncontrolling interest and capital expenditures. Capital expenditures were \$7.2 million and \$14.4 million for the six months ended June 30, 2020 and 2019, respectively. The lower expenditures in 2020 reflect the reduced spending due to the lower revenue volume because of the pandemic.

Cash flow from financing activities

Cash used in financing activities was \$27.3 million for the six months ended June 30, 2020, while cash provided by financing activities was \$53.1 million for the six months ended June 30, 2019. The primary outflow of cash for the six months ended June 30, 2020 relates to repayment of the Term Facility and settlements of stock-based compensation, partially offset by proceeds from an inventory financing agreement. The primary inflow of cash for the six months ended June 30, 2019 relates to borrowing on the Term Facility, partially offset by repayments of the prior credit facility and Term Facility.

Recent Accounting Pronouncements

Refer to Note 1 - Basis of Presentation of the Notes to Financial Statements (Part I, Item 1 of this Form 10-Q) for further discussion.

Critical Accounting Policies and Significant Estimates

Our condensed consolidated financial statements are prepared in accordance with GAAP. The preparation of these condensed consolidated financial statements requires us to make certain estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expenses, and related disclosures. On an ongoing basis, we evaluate our estimates and assumptions. Our actual results may differ from these estimates under different assumptions or conditions.

As of the date of this report, there have been no changes to our critical accounting policies and estimates described in the Annual Report on Form 10-K for the year ended December 31, 2019 (“2019 Form 10-K”), filed with the Securities and Exchange Commission (“SEC”) on February 26, 2020 that have had a material impact on our condensed consolidated financial statements and related notes, other than the following:

Our EMEA and APAC reporting units carry approximately \$185.7 million and \$35.8 million of goodwill, respectively, as of June 30, 2020. Goodwill in the Americas region was written off in 2015. The net carrying values of our long-lived assets in the EMEA, APAC, and Americas regions are approximately \$60.7 million, \$6.5 million, and \$58.7 million, respectively. In our 2019 impairment testing, we determined the EMEA and APAC reporting units had fair values in excess of their carrying values. Our 2019 impairment testing also indicated no impairment of long-lived assets in the Americas region as the undiscounted cash flows were in excess of the carrying value of long-lived assets. This headroom and recoverability were driven by our forecasts of future operating performance as well as external market indicators.

As of March 31, 2020, we experienced a triggering event due to our operating performance, which had been negatively impacted by macroeconomic factors, the decrease and mix of sales, and the effect of the COVID-19 pandemic, and performed a quantitative analysis for potential impairment of our goodwill or long-lived asset balances. We also took action to counter these factors, including reducing our cost structure by focusing on cost of sales and operating expenses to drive future profitability. Based on available information and analysis as of March 31, 2020, we continued to believe the fair value of our reporting units exceeded their carrying values and the carrying value of our long-lived assets were recoverable.

As expected, our operating performance through June 30, 2020 continued to be negatively impacted by the effect of the COVID-19 pandemic. While we believe our actions implemented at March 31, 2020 have had a positive impact, further action is required as we just announced a new strategic reorganization and a major restructuring program targeted to take \$100 million of costs out of our cost base. Refer to discussion of the COVID-19 pandemic in this Management’s Discussion and Analysis. As of June 30, 2020, we considered the potential for a triggering event and concluded none was present. Based on currently available information and analysis as of June 30, 2020, we continue to believe the fair value of our reporting units exceeds their carrying values and the carrying value of our long-lived assets is recoverable. In the event that these matters are not satisfactorily resolved, we could experience another triggering event or impairment of our goodwill or long-lived asset balances in future periods.

Forward-Looking Statements

Certain statements made in this Form 10-Q that are not statements of historical or current facts are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from historical results or from any future results expressed or implied by such forward-looking statements. In many cases, you can identify forward-looking statements by terms such as “believes,” “belief,” “expects,” “estimates,” “intends,” “anticipates,” or “plans” or the negative of these terms or other comparable terminology.

Forward-looking statements are based upon management’s beliefs, assumptions and current expectations concerning future events and trends, using information currently available, and are necessarily subject to uncertainties, many of which are outside our control. Although we believe that the expectations reflected in the forward-looking statements are reasonable, forward-looking statements are not, and should not be relied upon as a guarantee of future performance or results, nor will they necessarily prove to be accurate indications of the times at or by which any such performance or results will be achieved. A number of important factors could cause actual results to differ materially from those indicated by the forward-looking statements. These factors include without limitation:

- impact of production, supply, contractual and other disruptions, including facility closures and furloughs, due to the spread of the COVID-19 pandemic;
- our ability to deliver products that meet changing technology and customer needs;
- our ability to successfully execute the strategic reorganization without significant disruption to our business;

- our ability to achieve the savings targeted in our just announced restructuring program;
- our ability to successfully raise the desired amount of funding from the ATM equity issuance and the possible impact on our stock price;
- our ability to identify strategic acquisitions, to integrate such acquisitions into our business without disruption and to realize the anticipated benefits of such acquisitions;
- impact of future write-off or write-downs of goodwill and intangible assets;
- our ability to acquire and enforce intellectual property rights and defend such rights against third party claims;
- our ability to protect our intellectual property rights and confidential information, including our digital content, from third-party infringers or unauthorized copying, use or disclosure;
- failure of our information technology infrastructure or inability to protect against cyber-attack;
- our ability to generate net cash flow from operations;
- our ability to comply with the covenants in our borrowing agreements and maintain adequate borrowing capacity;
- impact of natural disasters, public health issues (including the COVID-19 pandemic), and other catastrophic events;
- impact of global economic, political and social conditions and financial markets on our business;
- fluctuations in our gross profit margins, operating income or loss and/or net income or loss;
- our ability to efficiently conduct business outside the U.S.;
- our dependence on our supply chain for components and sub-assemblies used in our 3D printers and other products and for raw materials used in our print materials;
- our ability to manage the costs and effects of litigation, investigations or similar matters involving us or our subsidiaries;
- product quality problems that result in decreased sales and operating margin, product returns, product liability, warranty or other claims;
- our ability to retain our key employees and to attract and retain new qualified employees, while controlling our labor costs;
- our exposure to product liability claims and other claims and legal proceedings;
- disruption in our management information systems for inventory management, distribution, and other key functions;
- compliance with U.S. and other anti-corruption laws, data privacy laws, trade controls, economic sanctions, and similar laws and regulations;
- our ability to comply with the terms of the Administrative Agreement with the U.S. Air Force and to maintain our status as a responsible contractor under federal rules and regulations;
- changes in, or interpretation of, tax rules and regulations;
- compliance with, and related expenses and challenges concerning, conflict-free minerals regulations; and
- the other factors discussed in the reports we file with or furnishes to the SEC from time to time, including the risks and important factors set forth in additional detail in Item 1A, “Risk Factors” in the 2019 Form 10-K and in Part II, Item 1A of the quarterly report on Form 10-Q for the quarter ended March 31, 2020 and this Form 10-Q.

Readers are cautioned not to place undue reliance on these forward-looking statements. The forward-looking statements included herein are made only as of the date of this Form 10-Q and we undertake no obligation to publicly update or review any forward-looking statement made by us or on our behalf, whether as a result of new information, future developments, subsequent events or circumstances or otherwise. All subsequent written or oral forward-looking statements attributable to us or individuals acting on our behalf are expressly qualified in their entirety by the cautionary statements referenced above.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

For a discussion of market risks at December 31, 2019, refer to Item 7A. “Quantitative and Qualitative Disclosures about Market Risk” in the 2019 Form 10-K. During the first six months of 2020, there were no material changes or developments that would materially alter the market risk assessment performed as of December 31, 2019.

Item 4. Controls and Procedures.

Evaluation of disclosure controls and procedures

As of June 30, 2020, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and interim Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”)) pursuant to Rules 13a-15 and 15d-15 under the Exchange Act. These controls and procedures were designed to provide reasonable assurance that the information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC’s rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and interim Chief Financial Officer, in a manner to allow timely decisions regarding required disclosures. Based on this evaluation, management has concluded that our disclosure controls and procedures were effective as of June 30, 2020.

Changes in Internal Controls over Financial Reporting

There were no material changes in our internal controls over financial reporting during the period covered by this Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings.

The information set forth in “Litigation” and “Export Compliance Matter” in Note 13 – Commitments and Contingencies to the Financial Statements in Part I, Item 1 of this Form 10-Q is incorporated herein by reference.

Item 1A. Risk Factors.

There are no material changes to the risk factors previously disclosed in our 2019 Form 10-K in response to Item 1A to Part I of Form 10-K and in Part II, Item 1A, “Risk Factors” of our Form 10-Q for the quarter ended March 31, 2020 other than below. However, the impact of the COVID-19 pandemic may exacerbate the risks discussed below and in Item 1A, “Risk Factors” in our 2019 Form 10-K and in Part II, Item 1A, “Risk Factors” of our Form 10-Q for the quarter ended March 31, 2020, any of which could have a material effect on us. This situation is changing rapidly and additional impacts may arise that we are not aware of currently. See also Part I Item 2, Management’s Discussion and Analysis of Financial Condition and Results of Operations for additional information regarding our response to the COVID-19 pandemic and Part I, Item 3, Quantitative and Qualitative Disclosures About Market Risk.

Our restructuring activities may result in disruption to our business, we may not fully realize the expected benefits of our restructuring plans or other operating or cost-saving initiatives and the cost of the restructuring activities may be more than anticipated.

On August 5, 2020, we announced a plan to restructure our businesses to streamline the company’s operations to align our cost structure to the current level of revenues. The restructuring plan includes, in conjunction with other cost reduction measures, a reduction of annualized costs by approximately \$100 million by the end of 2021. This should enable the company to be profitable at current revenue levels and be well positioned to leverage the sales growth as it returns. Other cost reduction efforts include reducing the number of facilities and examining every aspect of the company’s manufacturing and operating costs. The company will incur a cash charge in the range of \$25 to \$30 million for severance, facility closing and other restructuring costs, primarily in the second half of this year. The company may incur additional charges in 2021 as it finalizes all the actions to be taken.

These restructuring activities may yield unintended consequences and costs, such as attrition beyond our intended reduction in force, the distraction of our employees, additional charges for severance and severance-related costs and the loss of in-house knowledge in connection with the planned reduction in our workforce. This type of restructuring activity also may result in business disruptions and may not produce the full efficiency and cost reduction benefits anticipated. Further, the benefits may be realized later than expected and the cost of implementing these measures may be greater than anticipated. If these measures are not successful, we may need to undertake additional cost reduction efforts, which could result in future charges. Moreover, the restructuring plan may cause business disruptions with customers and elsewhere if our cost reduction efforts prove ineffective, and our business may not be more efficient or effective than prior to implementation of the plan. Our restructuring activities, including the related charges and the impact of the related workforce reduction, could have a material adverse effect on our business, operating results and financial condition.

Our common stock price has been and may continue to be volatile.

The market price of our common stock has experienced, and may continue to experience, considerable volatility. Between January 1, 2018 and June 30, 2020, the trading price of our common stock has ranged from a low of \$5.20 per share to a high of \$21.78 per share. Numerous factors could have a significant effect on the price of our common stock, including those described or referred to in Item 1A, “Risk Factors” in our 2019 Form 10-K, as well as, among other things:

- Our perceived value in the securities markets;
- Overall trends in the stock market;
- Announcements of changes in our forecasted operating results or the operating results of one or more of our competitors;

- Compliance with the terms of our Administrative Agreement with the U.S. Air Force;
- The impact of changes in our results of operations, our financial condition or our prospects;
- Our recently announced ATM equity offering pursuant to which we may issue and sell, from time to time, shares of our common stock having an aggregate gross sales price of up to a total of \$150 million and any additional future sales of our common stock or other securities (including any shares issued in connection with earn-out obligations for any past or future acquisition);
- Market conditions for providers of products and services such as ours;
- Executive level management uncertainty or change;
- Changes in recommendations or revenue or earnings estimates by securities analysts; and
- Announcements of acquisitions by us or one of our competitors.

Changes in business conditions may cause goodwill and other intangible assets to become impaired.

Goodwill and other intangible assets are subject to an impairment test on an annual basis and when circumstances indicate that an impairment is more likely than not. Such circumstances include a significant adverse change in the business climate or a decision to dispose of a business or product line. We face some uncertainty in our business environment due to a variety of challenges, including changes in customer demand. We may experience unforeseen circumstances that adversely affect the value of our goodwill or intangible assets and trigger an evaluation of the amount of the recorded goodwill and intangible assets. Future write-offs of goodwill or other intangible assets as a result of an impairment in the business could materially adversely affect our results of operations and financial condition.

Our EMEA and APAC reporting units carry approximately \$185.7 million and \$35.8 million of goodwill, respectively, as of June 30, 2020. Goodwill in the Americas region was written off in 2015. The net carrying values of our long-lived assets in the EMEA, APAC, and Americas regions are approximately \$60.7 million, \$6.5 million, and \$58.7 million, respectively. In our 2019 impairment testing, we determined that no impairment of goodwill or long-lived assets was required. These conclusions were driven by our forecasts of future operating performance as well as external market indicators.

As of March 31, 2020, we experienced a triggering event due to our operating performance, which had been negatively impacted by macroeconomic factors, the decrease and mix of sales, and the effect of the COVID-19 pandemic, and performed a quantitative analysis for potential impairment of our goodwill or long-lived asset balances. We also took action to counter these factors, including reducing our cost structure by focusing on cost of sales and operating expenses to drive future profitability. Based on available information and analysis as of March 31, 2020, we continued to believe the fair value of our reporting units exceeded their carrying values and the carrying value of our long-lived assets were recoverable.

Our operating performance through June 30, 2020 continues to be negatively impacted by the effect of the COVID-19 pandemic. We believe our recent actions will have a positive impact and enable us to be well positioned for the near-term and future. Refer to discussion of the COVID-19 pandemic in this Management's Discussion and Analysis for more information. As of June 30, 2020, we considered the potential for a triggering event and concluded none was present. Based on currently available information and analysis as of June 30, 2020, we continue to believe the fair value of our reporting units exceeds their carrying values and the carrying value of our long-lived assets is recoverable. In the event that these matters are not satisfactorily resolved, we could experience another triggering event or impairment of our goodwill or long-lived asset balances in future periods.

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

Recent Issuances of Unregistered Securities

None.

Issuer Purchases of Equity Securities

The following table provides information about purchases of equity securities that are registered pursuant to Section 12 of the Exchange Act for the quarter ended June 30, 2020:

	Total number of shares (or units) purchased	Average price paid per share (or unit)
<i>Shares delivered or withheld pursuant to restricted stock awards</i>		
April 1, 2020 - April 30, 2020	393	\$ 9.42
May 1, 2020 - May 31, 2020	392,083	\$ 7.01
June 1, 2020 - June 30, 2020	15,752	\$ 7.31
	<u>408,228</u> (a)	<u>\$ 7.03</u> (b)

(a) Reflects shares of common stock surrendered to the Company for payment of tax withholding obligations in connection with the vesting of restricted stock.

(b) The average price paid reflects the average market value of shares withheld for tax purposes.

Item 6. Exhibits.

3.1	Certificate of Incorporation of Registrant. (Incorporated by reference to Exhibit 3.1 to Form 8-B filed on August 16, 1993, and the amendment thereto, filed on Form 8-B/A on February 4, 1994.)
3.2	Amendment to Certificate of Incorporation filed on May 23, 1995. (Incorporated by reference to Exhibit 3.2 to Registrant's Registration Statement on Form S-2/A, filed on May 25, 1995.)
3.3	Certificate of Amendment of Certificate of Incorporation filed with Secretary of State of Delaware on May 19, 2004. (Incorporated by reference to Exhibit 3.1 of the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2004, filed on August 5, 2004.)
3.4	Certificate of Amendment of Certificate of Incorporation filed with Secretary of State of Delaware on May 17, 2005. (Incorporated by reference to Exhibit 3.1 of the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2005, filed on August 1, 2005.)
3.5	Certificate of Amendment of Certificate of Incorporation filed with the Secretary of State of Delaware on October 7, 2011. (Incorporated by reference to Exhibit 3.1 to Form 8-K filed on October 7, 2011.)
3.6	Certificate of Amendment of Certificate of Incorporation filed with the Secretary of State of Delaware on May 21, 2013. (Incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed on May 22, 2013.)
3.7	Amended and Restated By-Laws of 3D Systems Corporation. (Incorporated by reference to Exhibit 3.1 of Registrant's Current Report on Form 8-K filed on March 15, 2018.)
4.1	Amended and Restated Plan of 3D Systems Corporation as approved by stockholders on May 19, 2020 (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K filed May 19, 2020.)
10.1	Employment Agreement between 3D Systems Corporation and Dr. Jeffrey A. Graves, dated May 11, 2020. (Incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed on May 14, 2020.)
10.2	Executive Services Agreement, dated May 19, 2020, between 3D Systems Corporation and Wayne Pensky. (Incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed on May 20, 2020.)
31.1	Certification of Principal Executive Officer filed pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 dated August 5, 2020.
31.2	Certification of Principal Financial Officer filed pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 dated August 5, 2020.
32.1	Certification of Principal Executive Officer filed pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 dated August 5, 2020.
32.2	Certification of Principal Financial Officer filed pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 dated August 5, 2020.
101.INS	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	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File - this data file does not appear in the Interactive Data file because its XBRL tags are embedded within the Inline XBRL document.

* Management contract or compensatory plan or arrangement

SIGNATURE

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.

3D Systems Corporation

By

/s/ Wayne Pensky

Wayne Pensky

Interim Chief Financial Officer

(principal financial and accounting officer)

Date: August 5, 2020

Exhibit 31.1

**Certification of
Principal Executive Officer of
3D Systems Corporation**

I, Dr. Jeffrey A. Graves, certify that:

1. I have reviewed this report on Form 10-Q of 3D Systems Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 5, 2020

By: /s/ Dr. Jeffrey A. Graves
Dr. Jeffrey A. Graves
Title: President, Chief Executive Officer and Director
(principal executive officer)

Exhibit 31.2

**Certification of
Principal Executive Officer of
3D Systems Corporation**

I, Wayne Pensky, certify that:

1. I have reviewed this report on Form 10-Q of 3D Systems Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 5, 2020

By: /s/ Wayne Pensky
Wayne Pensky
Title: Interim Chief Financial Officer
(principal financial and accounting officer)

Exhibit 32.1

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

This certification is provided pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and accompanies the Quarterly Report on Form 10-Q (the “Form 10-Q”) for the year ended June 30, 2020 of 3D Systems Corporation (the “Issuer”).

I, Dr. Jeffrey A. Graves, President, Chief Executive Officer and Director (principal executive officer) of the Issuer, certify that, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge:

- (i) the Form 10-Q fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934; and
- (ii) The information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Issuer.

Date: August 5, 2020

/s/ Dr. Jeffrey A. Graves

Name: Dr. Jeffrey A. Graves

(principal executive officer)

Exhibit 32.2

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

This certification is provided pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and accompanies the Quarterly Report on Form 10-Q (the "Form 10-Q") for the year ended June 30, 2020 of 3D Systems Corporation (the "Issuer").

I, Wayne Pensky, the Interim Chief Financial Officer (principal financial and accounting officer) of the Issuer, certify that, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge:

- (i) the Form 10-Q fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934; and
- (ii) The information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Issuer.

Date: August 5, 2020

/s/ Wayne Pensky

Name: Wayne Pensky

(principal financial and accounting officer)