FISCAL YEAR

2019

Annual Report

Notice of annual meeting and proxy statement

AUTODESK

AUTODESK®

May 1, 2019

Dear Autodesk Stockholder:

You are cordially invited to attend Autodesk's 2019 Annual Meeting of Stockholders to be held on Wednesday, June 12, 2019, at 3:00 p.m., Pacific Time, at our San Francisco office, The Landmark, One Market Street, 2nd Floor, San Francisco, California 94105.

The 2019 Annual Meeting of Stockholders will be held for the following purposes:

1. To elect the eight directors listed in the accompanying Proxy Statement;

2. To ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending January 31, 2020;

3. To hold a non-binding vote to approve compensation for our named executive officers; and

4. To transact such other business as may properly come before the Annual Meeting.

The accompanying Notice of 2019 Annual Meeting of Stockholders and Proxy Statement describe these proposals in greater detail. We encourage you to read this information carefully.

We are once again relying on the Securities and Exchange Commission rule that allows us to furnish our proxy materials to our stockholders over the internet rather than in paper form. We believe this delivery process reduces both our environmental impact and the costs of printing and distributing our proxy materials without hindering our stockholders' timely access to this important information.

We hope you will be able to attend this year's Annual Meeting. We will report on fiscal 2019, and there will be an opportunity for stockholders to ask questions. Even if you plan to attend the meeting, please ensure that you are represented by voting in advance. You can vote online or by telephone, or you can request, sign, date and return a proxy card, to ensure your representation at the meeting. Your vote is very important.

On behalf of the Board of Directors, I would like to express our appreciation for your continued support of Autodesk.

Very truly yours,

Andrew Anagnost
President and Chief Executive Officer

NOTICE OF 2019 ANNUAL MEETING OF STOCKHOLDERS

Time and Date

Wednesday, June 12, 2019, at 3:00 p.m., Pacific Time.

Place

Autodesk's San Francisco office, located at The Landmark, One Market Street, 2nd Floor, San Francisco, California 94105.

Items of Business

(1) To elect the nine directors listed in the accompanying Proxy Statement to serve for the coming year and until their successors are duly elected and qualified.

(2) To ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending January 31, 2020.

(3) To hold a non-binding vote to approve compensation for our named executive officers.

(4) To transact such other business as may properly come before the Annual Meeting.

These items of business are more fully described in the Proxy Statement accompanying this Notice of 2019 Annual Meeting of Stockholders.

Adjournments and Postponements

Any action on the items of business described above may be considered at the Annual Meeting at the time and on the date specified above or at any time and date to which the Annual Meeting is properly adjourned or postponed.

Record Date

You are entitled to vote if you were a stockholder as of the close of business on April 16, 2019.

Voting

Your vote is very important. Even if you plan to attend the Annual Meeting, we encourage you to read the Proxy Statement and to vote. You can vote online or by telephone, or you can request, sign, date and return your proxy card as soon as possible. For specific instructions on how to vote your shares, please refer to the section entitled "Questions and Answers About the 2019 Annual Meeting and Procedural Matters" in the Proxy Statement and the instructions on the Notice of Internet Availability of Proxy Materials.

All stockholders are cordially invited to attend the Annual Meeting. If you attend the Annual Meeting, you may vote in person by ballot even if you previously voted.

By Order of the Board of Directors,

Pascal W. Di Fronzo
SVP, Corporate Affairs, Chief Legal Officer and Secretary

This notice of Annual Meeting, Proxy Statement and accompanying form of proxy card are being made available on or about May 1, 2019.

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AUTODESK®

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3. Advisory Vote on Executive Compensation	FOR	17

Your vote is very important. Even if you plan to attend the Annual Meeting, we encourage you to read the Proxy Statement and to vote. You can vote online or by telephone, or you can request, sign, date and return your proxy card as soon as possible.

For specific instructions on how to vote your shares, please refer to the section entitled "Questions and Answers About the 2019 Annual Meeting of Stockholders and Procedural Matters" below and the instructions on the Notice of Internet Availability of Proxy Materials.

Proxy Materials

Fiscal 2019 Performance and Company Highlights

Fiscal 2019 Strategic Priorities and Performance Metrics

The software industry has undergone a transition from developing and selling perpetual licenses and on-premises products to cloud, mobile and social applications. Our strategy is to lead the industries we serve to subscription, cloud-based, and mobile technologies. Autodesk, Inc. ("Autodesk", the "Company", "we" or "our") offers term-based subscriptions for our products, cloud service offerings, and flexible enterprise business agreements (collectively referred to as "subscription plan").

Following Andrew Anagnost's appointment as CEO in fiscal 2018, and in consultation with the Board of Directors (the "Board"), he established three strategic priorities of completing the subscription transition, digitizing the Company, and re-imagining manufacturing, construction, and production. During fiscal 2019, Autodesk made progress on all three of these initiatives. First, the Company effectively finished its business model transition as evidenced by the Company's subscription plan annualized recurring revenue ("ARR") representing 80% of total ARR at fiscal year-end. Second, we continued to invest in our digital infrastructure to create opportunities for our customers to transact and engage directly with us, increase customers' level of self-service for a wide range of needs, and increase our ability to instantly and reliably understand how successful our customers are in interacting with our products. Third, the Company significantly expanded its construction portfolio through the acquisition of Assemble Systems, Inc. ("Assemble Systems") to bolster our preconstruction capabilities, PlanGrid, Inc. ("PlanGrid") for document-centric workflows and field execution, and BuildingConnected, Inc. ("BuildingConnected") for bidding and risk management. In manufacturing, our investments in generative design and our Fusion product continued to attract global manufacturing leaders to partner with us.

To incent long-term value creation and strong financial performance as we navigated our transition, our bonus and equity plans incorporated performance metrics that aligned with the key drivers of success during this phase of our business model transition and reflected the health of the business during the transition. The following performance metrics were used for our CEO and our other named executive officers during fiscal 2019:

	Performance Metrics
•	Total ARR
•	Non-GAAP Operating Income
•	Free Cash Flow Per Share
•	Relative Total Stockholder Return ("TSR") (over 1, 2 and 3 years)

Our executive officers' continued successful implementation of our business model drove the following fiscal 2019 results:

- **Total ARR was $2.75 billion**, an increase of 34% from fiscal 2018.
- **Total subscriptions were 4.33 million**, an increase of 17% from fiscal 2018; of which **subscription plan subscriptions were 3.53 million**.
- **Deferred revenue was $2.09 billion**, an increase of 7% from fiscal 2018.
- **Total deferred revenue (deferred revenue plus unbilled deferred revenue) was $2.68 billion**, an increase of approximately 18% from fiscal 2018.*
- **Income (loss) from operations was $(25.0) million,** compared to $(509.1) million in fiscal 2018.
- **Non-GAAP income (loss) from operations was $316.0 million,** an increase from $(112.0) million in fiscal 2018.*
- **Free cash flow was $310.1 million,** an increase from $(49.8) million in fiscal 2018.*
- **Stock price increased by 27% in fiscal 2019, 81% over the last two fiscal years and 214% over the last three fiscal years.**

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* A reconciliation of GAAP to non-GAAP results is provided in Appendix A.

CORPORATE GOVERNANCE HIGHLIGHTS

Ongoing Board of Director Refreshment and Key Updates

In June 2018, Carl Bass, Thomas Georgens and Richard Hill did not stand for re-election at the Annual Meeting of Stockholders. Effective December 13, 2018, the Board appointed Stephen Milligan to the Board to fill a vacancy. Effective March 22, 2019, the Board appointed Blake Irving to the Board to fill a vacancy. These new directors bring valuable financial, operational and strategic leadership from the technology industry that will support continued execution of our strategic priorities.

In June 2018, following a thoughtful and deliberative succession planning process, Stacy Smith was selected by the Board to replace Crawford Beveridge as the Non-Executive Chairman of the Board. Mr. Smith's global executive experience, service on Autodesk's Board since 2011 and other board experiences make him well qualified to act as Non-Executive Chairman of the Board. In April 2019, Mr. Beveridge notified the Board that he would not stand for re-election at the Annual Meeting of Stockholders.

Our Board of Directors

We believe that our director nominees are highly qualified and well suited to continue providing effective oversight of our rapidly evolving business. Our director nominees provide our Board with a balance of relevant critical skills and an effective mix of experience, knowledge and diverse viewpoints, as listed below.

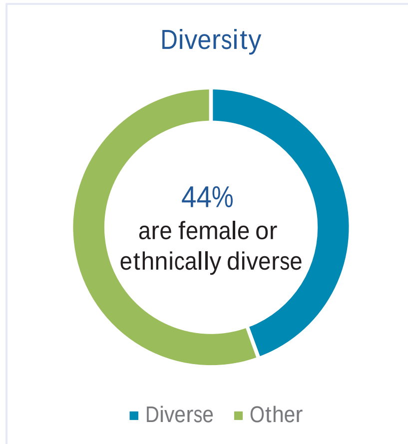
- Technology Industry Experience
- Senior Leadership Experience
- Outside Public Company Board Service
- Financial Experience
- International Experience

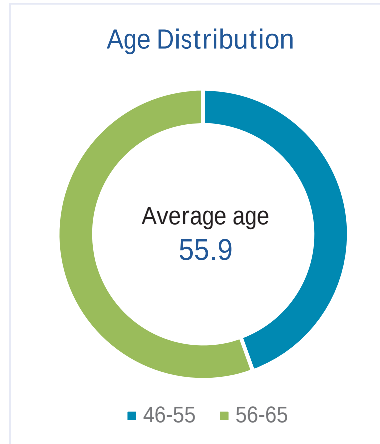
Name	Age	Director Since	Principal Occupation	Independent	Committee Memberships		
					AC	CHRC	CGNC
Andrew Anagnost	54	2017	President and Chief Executive Officer, Autodesk, Inc.				
Karen Blasing	62	2018	Former Chief Financial Officer, Guidewire Software, Inc.	✓	✓		
Reid French	47	2017	Chief Executive Officer, Applied Systems, Inc.	✓	✓		
Blake Irving	59	2019	Former Chief Executive Officer, GoDaddy Inc.	✓			
Mary T. McDowell	54	2010	Former Chief Executive Officer, Polycom, Inc.	✓		C	
Stephen Milligan	55	2018	Chief Executive Officer, Western Digital Corporation	✓	✓		
Lorrie M. Norrington	59	2011	Adviser and Operating Partner, Lead Edge Capital Management, LLC	✓		✓	✓
Elizabeth (Betsy) Rafael	57	2013	Chief Transformation Officer, GoDaddy Inc.	✓	C		
Stacy J. Smith	56	2011	Executive Chairman, Toshiba Memory Corporation	✓ CB			

CB Non-Executive Chairman of Board **C** Committee Chair ✓ Member Financial Expert

AC Audit Committee
CHRC Compensation and Human Resources Committee
CGNC Corporate Governance and Nominating Committee

As reflected in the charts below, we have an experienced and balanced slate of Board nominees.





Corporate Governance Guidelines

We believe the highest standards of corporate governance and business conduct are essential to running our business efficiently, serving our stockholders well, and maintaining our integrity in the marketplace. Over the years, we have devoted substantial attention to the subject of corporate governance and have developed Corporate Governance Guidelines (the "Guidelines").

The Guidelines set forth the principles that guide our Board's exercise of its responsibility to oversee corporate governance, maintain its independence, evaluate its own performance and the performance of our executive officers, and set corporate strategy. On a regular basis, the Board reviews our governance practices, corporate governance developments and stockholder feedback to ensure continued effectiveness.

Our Board is committed to ensuring that stockholder feedback informs our strong governance practices. In fiscal 2019, members of our management team continued our annual outreach and contacted stockholders representing in total over 61% of the outstanding shares. Our team met with governance professionals from passive funds as well as portfolio managers from active funds to discuss our executive compensation programs, board composition, diversity and governance. The breadth of the Company's outreach program enabled us to gather feedback from a significant cross-section of Autodesk's stockholder base. We will continue to engage with stockholders to maintain an open dialogue and ensure that we have an in-depth understanding of our stockholders' perspectives.

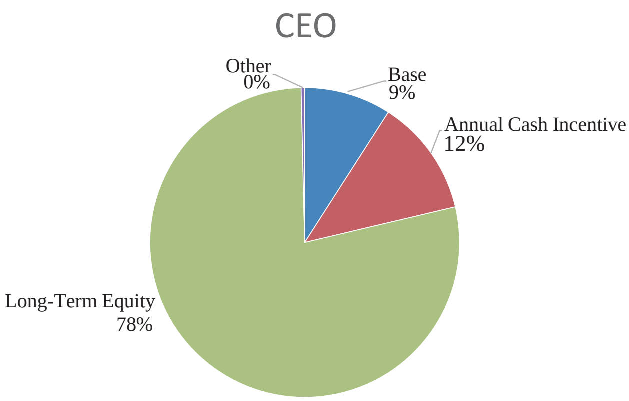
EXECUTIVE COMPENSATION HIGHLIGHTS

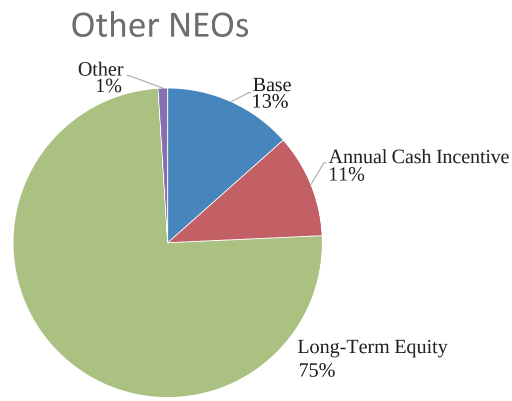
Compensation Guiding Principles

The executive compensation program is designed to attract, motivate, and retain talented executives and should provide a rigorous framework that is tied to stockholder returns, Company performance, long-term strategic corporate goals, and individual performance. The general compensation objectives are to:

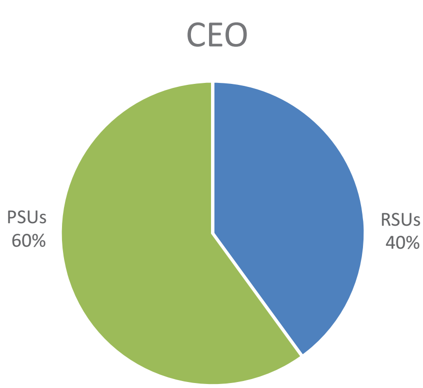
- Recruit and retain the highest caliber of executives through competitive rewards;
- Motivate executive officers to achieve business and financial goals;
- Balance rewards for short- and long-term performance; and
- Align rewards with stockholder value creation.

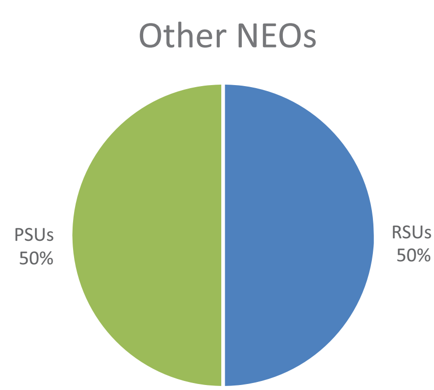
Our executive compensation program emphasizes variable compensation with both annual and long-term performance components. In fiscal 2019, 90% of our CEO's and 86% of all other named executive officers' total compensation were variable in nature and "at risk" and 78% of our CEO's and 75% of all other named executive officers' total compensation consisted of long-term equity. Our incentive programs reward strong annual financial and operational performance, as well as relative TSR over one-, two-, and three-year performance periods. The charts below demonstrate the fiscal 2019 pay mix between base salary, annual short-term incentives, and targeted long-term equity compensation for our CEO and all other named executive officers ("NEOs").





During fiscal 2019, the Compensation and Human Resources Committee approved annual equity awards in the form of performance stock units ("PSUs") and restricted stock units ("RSUs") for the NEOs. The Compensation and Human Resources Committee elected to use the following mix of PSUs and RSUs to complement the performance aspects of PSUs with the long-term retention component of RSUs.





Proxy Materials

Elements of Executive Compensation

The principal elements of Autodesk's annual executive compensation program are described below.

Element	Purpose	Payout Range	Fiscal 2019 Performance Measures
Base Salary	Forms basis for competitive compensation package	N/A	None, although performance of the individuals is taken into account by the Committee when setting and reviewing base salary levels and merit increases
Short-term Incentive Opportunities	Motivate achievement of annual strategic priorities relating to the business model transition and profitability objectives	0% - 200% of target	Performance against total ARR and non-GAAP total operating income
PSUs	Align compensation with key drivers of the business, operational performance and relative stockholder return Encourage focus on near- and long-term strategic objectives	0% - 180% of target shares Change in Autodesk stock price	Performance against total ARR and free cash flow per share adjusted based upon Autodesk's TSR relative to companies in the North American Technology Software Index over one-, two-, and three-year performance periods Autodesk stock price
RSUs	Encourage focus on long-term stockholder value creation Promote retention	Change in Autodesk stock price	Autodesk stock price

Leading Compensation Governance Practices

Autodesk's executive compensation objectives are supported by policies and strong governance practices that align executives' interests with the interests of our stockholders. Some of the program's most notable features are highlighted in the table and summarized below.

What We Do	What We Do Not Do
✔ Robust stockholder outreach program	⃠ Allow hedging and trading in Autodesk derivative securities
✔ Significant percentage of NEO total pay tied to achievement of critical financial and stockholder value creation	⃠ Reprice stock options
✔ Representative peer group	⃠ Offer executive benefits and excessive perquisites
✔ Significant stock ownership requirements	⃠ Fixed-term employment agreements
✔ Clawback policy	
✔ Double-trigger change in control arrangements with no excise tax gross-up	
✔ Equity award grant policy	
✔ Effective risk management	
✔ Independent compensation committee and consultant	

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE STOCKHOLDER MEETING TO BE HELD ON JUNE 12, 2019.

The Proxy Statement and Annual Report to Stockholders are available at:

https://materials.proxyvote.com/052769

PROPOSAL ONE - ELECTION OF DIRECTORS

Nominees

Autodesk's Bylaws permit our Board to establish by resolution the authorized number of directors, and ten directors are currently authorized. Mr. Beveridge is not standing for re-election at the Annual Meeting and will no longer serve on the Board following the Annual Meeting. The Board thanks him for his distinguished service to Autodesk. The Board has adopted a resolution to reduce the size of the Board from ten to nine directors immediately upon the election of the directors at the Annual Meeting. Accordingly, upon the recommendation of the Corporate Governance and Nominating Committee, the Board has nominated nine individuals to be elected at the Annual Meeting. All of the nominees are presently directors of Autodesk and have consented to being named in this Proxy Statement and to serving as directors if elected. Unless otherwise instructed, the proxy holders will vote the proxies received by them for the nine nominees named below. Your proxy cannot be voted for more than nine director candidates.

Proxy Materials

Summary of Director Nominee Experience, Qualifications, Attributes and Skills

We believe that our director nominees are highly qualified and well suited to continue providing effective oversight of our rapidly evolving business. Our director nominees provide our Board with a balance of critical relevant skills and an effective mix of experience, knowledge and diverse viewpoints, as summarized below.

Technology Industry Experience

9/9 directors

Nominees with experience in the software and technology industries help us to analyze our research and development efforts, competing technologies, the various products and processes that we develop and the industries in which we compete.

Senior Leadership Experience

9/9 directors

Nominees who have served in senior leadership positions enhance the Board's ability to identify and develop those qualities in management. They also bring a practical understanding of organizations, processes, strategy, risk management and methods to drive change and growth.

Other Public Company Board Service

7/9 directors

Nominees who have served on other public company boards offer advice and insights with regard to the dynamics and operation of a board of directors, the relations of a board with senior management and oversight of a changing mix of strategic, operational and compliance-related matters.

Financial Experience

9/9 directors

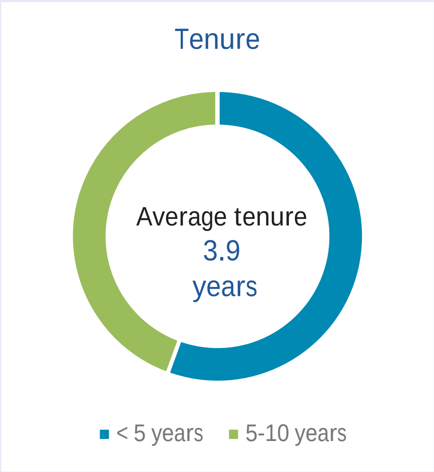
Nominees who have knowledge of financial markets, financing operations and accounting and financial reporting processes assist us in understanding, advising and overseeing our capital structure, financing and investing activities and our financial reporting and internal controls.

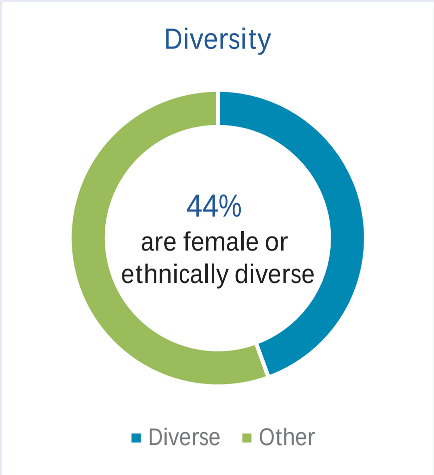
International Experience

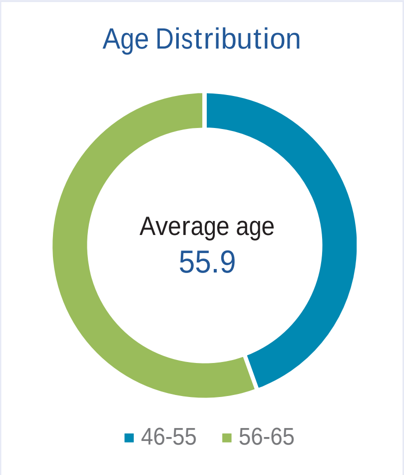
9/9 directors

As a global organization with offices in 107 locations in the United States and internationally, nominees with global expertise bring useful business and cultural perspectives that relate to many significant aspects of our business.

As reflected in the charts below, we have an experienced and balanced slate of Board nominees.







See “Information and Qualifications” below for more detail regarding each director nominee’s qualifications and relevant experience.

THE BOARD UNANIMOUSLY RECOMMENDS THAT YOU VOTE “FOR” THE NOMINEES LISTED BELOW.

Information and Qualifications

The name, age as of March 31, 2019, certain biographical information about each nominee and the nominees' unique qualifications to serve on the Board are set forth below. There are no family relationships among any of our directors or executive officers.

See “Corporate Governance” and “Executive Compensation—Compensation of Directors” below for additional information regarding the Board, including procedures for nominations of directors.

Andrew Anagnost

Director

Age: 54

Director since 2017

Dr. Anagnost joined Autodesk in September 1997 and has served as President and Chief Executive Officer since June 2017. Dr. Anagnost served as Co-CEO from February 2017 to June 2017, Chief Marketing Officer from December 2016 to June 2017 and as the Company's Senior Vice President, Business Strategy & Marketing, from March 2012 to June 2017. From December 2009 to March 2012, Dr. Anagnost was Vice President, Product Suites and Web Services of the Company. Prior to this position, Dr. Anagnost served as Vice President of CAD/CAE products for the manufacturing division of the Company from March 2007 to December 2009. Previously, Dr. Anagnost held other senior management positions at the Company. Prior to joining the Company, Dr. Anagnost held various engineering, sales, marketing and product management positions at Lockheed Aeronautical Systems Company and EXA Corporation. He also served as an NRC post-doctoral fellow at NASA Ames Research Center. Dr. Anagnost holds a bachelor of science degree in Mechanical Engineering from California State University, Northridge (CSUN), and holds both a MS in Engineering Science and a PhD in Aeronautical Engineering and Computer Science from Stanford University.

Dr. Anagnost brings to the Board extensive experience in the technology industry and has spent nearly two decades in management roles within Autodesk. As our President and Chief Executive Officer, Dr. Anagnost possesses a deep knowledge and understanding of Autodesk's business, operations, and employees; the opportunities and risks we face; and management's strategy and plans for accomplishing Autodesk's goals.

Pursuant to Dr. Anagnost's employment agreement, Autodesk has agreed to nominate Dr. Anagnost to serve as a member of the Board for as long as he is employed by Autodesk.

Stacy J. Smith

Non-Executive Chairman of the Board of Directors, Autodesk, Inc.

Age: 56

Director since 2011

Mr. Smith is the non-executive Chairman of the Board of Directors. Mr. Smith has served as the executive chairman of Toshiba Memory Corporation since October 2018. Mr. Smith previously served as Group President of Sales, Manufacturing and Operations at Intel Corporation from February 2017 to January 2018. He served as the Executive Vice President, Manufacturing, Operations and Sales of Intel Corporation from October 2016 to February 2017. From November 2012 to October 2016, he served as Executive Vice President, Chief Financial Officer. Previously, Mr. Smith served as Senior Vice President, Chief Financial Officer from January 2010 to November 2012; Vice President, Chief Financial Officer from 2007 to 2010; and Vice President, Assistant Chief Financial Officer from 2006 to 2007. From 2004 to 2006, Mr. Smith served as Vice President, Finance and Enterprise Services and Chief Information Officer. Mr. Smith joined Intel in 1988. Mr. Smith has served on the board of directors of Toshiba Memory Corporation since October 2018. Mr. Smith previously served on the boards of directors of Virgin America from February 2014 until it was acquired by Alaska Air Group in December 2016 and of Gevo, Inc. from June 2010 to June 2014.

Mr. Smith is independent and his over two decades of experience in the technology industry provide him with a strong understanding of Autodesk's industry, business and international operational challenges. His management positions with Intel, including his finance and executive roles, and his time spent overseas, provided him with critical insight into the operational requirements of a global company and the management and consensus-building skills required to lead our Board as non-executive Chairman and to serve on our Corporate Governance and Nominating Committee.

Karen Blasing

Director

Age: 62

Director since 2018

Ms. Blasing has over 25 years of executive operational and financial leadership experience in the technology industry. Ms. Blasing served as the chief financial officer of Guidewire Software, Inc. from 2009 to March 2015. Prior to Guidewire, Ms. Blasing served as the chief financial officer for Force 10 Networks and the Senior Vice President of Finance for salesforce.com, inc. Ms. Blasing also served as chief financial officer for Nuance Communications, Inc. and Counterpane Internet Security, Inc., and held senior finance roles for Informix (now IBM Informix) and Oracle Corporation. Ms. Blasing has served on the boards of directors of Ellie Mae, Inc. since June 2015 and Zscaler, Inc. since January 2017.

Ms. Blasing is independent and has over 25 years of executive operational and financial experience in the technology industry. Ms. Blasing's experience at Guidewire Software, Force 10 Networks, salesforce.com and Nuance Communications provides her with a strong understanding of Autodesk's business and international operational challenges. Her experience as a chief financial officer provides her with the financial acumen necessary to serve on our Audit Committee.

Reid French

Director

Age: 47

Director since 2017

Mr. French has served as Chief Executive Officer of Applied Systems, Inc., a software solutions and services provider in the insurance industry, since September 2011. Previously, Mr. French was Chief Operating Officer at Intergraph Corporation, a global geospatial and computer-aided design software company, from April 2005 until October 2010 when Intergraph was acquired by Hexagon AB. From October 2003 to April 2005, Mr. French was Executive Vice President of Strategic Planning and Corporate Development at Intergraph. Prior to joining Intergraph, Mr. French served as Chief Operating Officer, North America for Solution 6 Group, Ltd., Australia's largest software company, directing all regional operations including sales & marketing, product development, services and support. Prior to Solution 6, Mr. French served as a strategic planner in the Business Planning & Development group for Walt Disney World, a business unit of The Walt Disney Company. Prior to Disney, Mr. French worked in investment banking with The Robinson-Humphrey Company, managing various transactions within the technology sector. He sits on the board of directors for Applied and The Lovett School in Atlanta.

Mr. French is independent and his executive operational and strategic leadership experience in the technology industry provide him with a deep understanding of Autodesk's technology and business. Mr. French’s years of service as an executive officer and his service on the board of directors of Applied provide him with the financial acumen necessary to serve on our Audit Committee.

Blake Irving

Director

Age: 59

Director since 2019

Mr. Irving has over 25 years of executive leadership experience in the technology industry. Mr. Irving served as the chief executive officer of GoDaddy Inc. from January 2013 to January 2018, and served on the board of directors of GoDaddy from May 2014 to June 2018. From 2010 to 2012, Mr. Irving served as chief product officer of Yahoo! Inc. From 2009 to 2010, Mr. Irving was a Professor in the M.B.A. program at Pepperdine University. From 1992 to 2007, Mr. Irving served in various senior and management roles at Microsoft Corporation, including most recently as Corporate Vice President of Windows Live Platform Group. Mr. Irving has served on the boards of directors of DocuSign, Inc. since August 2018 and ZipRecruiter, Inc. since November 2018.

Mr. Irving is independent and has over 25 years of executive operational and strategic leadership experience in the technology industry. Mr. Irving's experience at GoDaddy, Yahoo! and Microsoft provides him with a strong understanding of Autodesk's industry, business and international operational challenges.

Mary T. McDowell

Director

Age: 54

Director since 2010

Ms. McDowell served as the Chief Executive Officer and as a member of the board of directors of Polycom, Inc. from September 2016 to July 2018, when the company was acquired by Plantronics, Inc. Prior to Polycom, Ms. McDowell was an Executive Partner at Siris Capital, LLC. She served as Executive Vice President in charge of Nokia's Mobile Phone unit from July 2010 to July 2012 and as Executive Vice President and Chief Development Officer of Nokia Corporation from January 2008 to July 2010. Previously, Ms. McDowell served as Executive Vice President and General Manager of Enterprise Solutions of Nokia from January 2004 to December 2007. Prior to joining Nokia in 2004, Ms. McDowell spent 17 years in various executive, managerial and other positions at Compaq Computer Corporation and Hewlett-Packard Company, including serving as Senior Vice President, Industry-Standard Servers of Hewlett-Packard. Ms. McDowell has served as a director of Informa plc since June 2018. Ms. McDowell previously served as a director of UBM plc from August 2014 to June 2018, Bazaarvoice, Inc. from December 2014 to October 2016 and NAVTEQ Corporation, a subsidiary of Nokia, from July 2008 until July 2010.

Ms. McDowell is independent and brings to our Board extensive management experience in the technology industry. Her two and a half decades of experience working for global technology companies focused on innovation and collaboration provide her with a firm understanding of Autodesk's core mission, business and technology. Her years of service as an executive officer at Polycom, Nokia and other technology companies, including Compaq Computer and Hewlett-Packard, provide her with the executive compensation knowledge necessary to serve as Chair of our Compensation and Human Resources Committee.

Stephen Milligan

Director

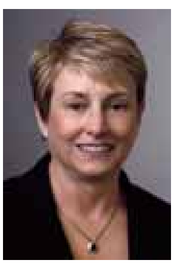
Age: 55

Director since 2018

Mr. Milligan has served as Western Digital Corporation's chief executive officer since January 2013 and as its president from March 2012 to October 2015. Previously, Mr. Milligan served as the chief financial officer of Hitachi Global Storage Technologies (HGST) from 2007 to 2009, and as HGST's chief executive officer from 2009 to 2012 when Western Digital acquired HGST. From January 2004 to September 2007, Mr. Milligan served as Western Digital's chief financial officer after serving in other senior finance roles at Western Digital from September 2002 to January 2004. From April 1997 to September 2002, he held various financial and accounting roles of increasing responsibility at Dell Inc. and was employed at Price Waterhouse for 12 years prior to joining Dell. Mr. Milligan holds a Bachelor of Science degree in Accounting from Ohio State University. He sits on the boards of directors of Ross Stores, Inc. and Western Digital Corporation.

Mr. Milligan is independent and has over 30 years of executive operational and financial leadership experience in the technology industry. Mr. Milligan's experience at Western Digital and HGST, including his finance and executive roles, provides him with a strong understanding of Autodesk's industry, business and international operational challenges. His experience as a CFO and CEO provides him with the financial acumen necessary to serve on our Audit Committee.

Lorrie M. Norrington



Director

Age: 59

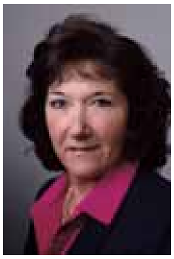
Director since 2011

Ms. Norrington has over 35 years of operating experience in technology, software, and internet businesses. Ms. Norrington currently serves as an adviser and in an Operating Partner capacity for Lead Edge Capital Management, LLC, a growth equity firm that partners with world-class entrepreneurs and exceptional technology businesses. Ms. Norrington served as President of eBay Marketplaces from July 2008 to September 2010. Previously, she served in a number of senior management roles at eBay from July 2006 until June 2008. Prior to joining eBay, Ms. Norrington served from June 2005 to July 2006 as President and CEO of Shopping.com, Inc., an online shopping comparison site. Prior to joining Shopping.com, Ms. Norrington served from August 2001 to January 2005, initially as Executive Vice President of small business, and later in the office of the CEO, at Intuit Inc., a business and financial management software company. Prior to joining Intuit, Ms. Norrington served in a variety of executive positions at General Electric Corporation over a twenty-year period, working in a broad range of industries and businesses. Ms. Norrington has served on the boards of directors of Eventbrite, Inc. since April 2015, Colgate-Palmolive since September 2015 and HubSpot since September 2013. Previously, she served on the boards of directors of DIRECTV from February 2011 until it was acquired by AT&T in July 2015; Lucasfilm, from June 2011 until it was acquired by Disney in December 2012; McAfee, Inc. from December 2009 until it was acquired by Intel in February 2011; and Shopping.com from November 2004 until it was acquired by eBay in August 2005.

Ms. Norrington is independent and has extensive experience in online commerce SaaS, and valuable management experience in the technology and manufacturing industries. Her three decades of building businesses and adapting to and capitalizing on rapid technological advancement provide Ms. Norrington with a unique perspective. Her executive and board experiences have provided her with the executive compensation knowledge and corporate governance skills required to serve on our Board, Corporate Governance and Nominating Committee and Compensation and Human Resources Committee.

Proxy Materials

Betsy Rafael



Director

Age: 57

Director since 2013

Ms. Rafael is currently the Chief Transformation Officer at GoDaddy Inc. and has over 30 years of executive financial experience in the technology industry. Ms. Rafael served as Principal Accounting Officer of Apple Inc. from January 2008 to October 2012, and as its Vice President and Corporate Controller from August 2007 until October 2012. From April 2002 to September 2006, Ms. Rafael served as Vice President, Corporate Controller and Principal Accounting Officer of Cisco Systems, Inc., and held the position of Vice President, Corporate Finance of Cisco Systems from September 2006 to August 2007. From December 2000 to April 2002, Ms. Rafael was the Executive Vice President, Chief Financial Officer, and Chief Administrative Officer of Aspect Communications, Inc., a provider of customer relationship portals. From April 2000 to November 2000, Ms. Rafael was Senior Vice-President and CFO of Escalate, Inc., an enterprise e-commerce application service provider. From 1994 to 2000, Ms. Rafael held a number of senior positions at Silicon Graphics International Corp. ("SGI"), culminating her career at SGI as Senior Vice President and Chief Financial Officer. Prior to SGI, Ms. Rafael held senior management positions in finance with Sun Microsystems, Inc. and Apple Computers. Ms. Rafael began her career with Arthur Young & Company. Ms. Rafael has served on the boards of directors of Echelon Corporation since November 2005 and Shutterfly since June 2016. Ms. Rafael previously served on the boards of directors of GoDaddy Inc. from May 2014 to May 2018 and PalmSource, Inc.

Ms. Rafael is independent and has over 30 years of executive financial experience in the technology industry. Ms. Rafael's experience at GoDaddy, Apple and Cisco, including her finance and executive roles, provides her with a strong understanding of Autodesk's industry, business and international operational challenges. Her experience as a principal accounting officer provides her with the financial acumen necessary to serve as the Chair of our Audit Committee.

PROPOSAL TWO - RATIFICATION OF THE APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee has selected Ernst & Young LLP as the independent registered public accounting firm to audit the consolidated financial statements of Autodesk for the fiscal year ending January 31, 2020, and recommends that the stockholders vote to ratify that appointment. In the event of a negative vote on this proposal, the Audit Committee will reconsider its selection. Even if the selection of Ernst & Young LLP is ratified, the Audit Committee, in its discretion, may direct the selection of a different independent registered public accounting firm at any time if the Audit Committee determines that such a change would be in the best interests of Autodesk and its stockholders.

Ernst & Young LLP has been retained as our independent registered public accounting firm continuously since the fiscal year ended January 31, 1983.

We expect a representative of Ernst & Young LLP to be present at the Annual Meeting. The representative will have the opportunity to make a statement if he or she desires to do so and will be available to respond to appropriate questions.

THE BOARD UNANIMOUSLY RECOMMENDS THAT YOU VOTE "FOR" THE RATIFICATION OF THE APPOINTMENT OF ERNST & YOUNG LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM.

Principal Accounting Fees and Services

The following table presents fees billed for professional audit services and other services rendered to Autodesk by Ernst & Young LLP and its affiliates for the fiscal years ended January 31, 2019 and 2018.

	Fiscal 2019	Fiscal 2018
	(in millions)	
Audit Fees (1)	$ 5.3	$ 5.0
Audit-Related Fees (2)	0.3	0.4
Tax Fees (3)	0.1	0.4
All Other Fees	—	—
Total	$ 5.7	$ 5.8

(1) Audit Fees consisted of fees billed for professional services rendered for the integrated audit of Autodesk's annual financial statements and management's report on internal controls included in Autodesk's Annual Reports on Form 10-K, for the review of the financial statements included in Autodesk's Quarterly Reports on Form 10-Q, and for other services, including statutory audits and services rendered in connection with Securities and Exchange Commission ("SEC") filings.

(2) Audit-Related Fees consisted of fees for assurance and related services that are reasonably related to the performance of the audit or review of our financial statements. This category includes fees arising from accounting-related consulting services.

(3) Tax Fees consisted of fees billed for tax compliance, consultation and planning services.

Pre-Approval of Audit and Non-Audit Services

Generally, all audit and non-audit services provided by Ernst & Young LLP and its affiliates to Autodesk must be pre-approved by the Audit Committee. The Audit Committee is presented with a detailed listing of the individual audit and non-audit services and fees (separately describing audit-related services, tax services and other services) expected to be provided by Ernst & Young LLP and its affiliates during the year. The Audit Committee is also responsible for the audit fee negotiations associated with Autodesk's retention of Ernst & Young LLP. Periodically, the Audit Committee receives an update of all pre-approved audit and non-audit services conducted, and information regarding any new audit and non-audit services to be provided by Ernst & Young LLP and its affiliates. The Audit Committee reviews the update and approves the proposed services if they are deemed acceptable.

To ensure prompt handling of unexpected matters, the Chair of the Audit Committee has authority to amend or modify the list of approved audit and non-audit services and fees so long as such additional or amended services do not affect Ernst & Young LLP's independence under applicable SEC rules. The Chair reports any such action taken at subsequent Audit Committee meetings.

Rotation

The Audit Committee periodically reviews and evaluates the performance of Ernst & Young LLP’s lead audit partner, oversees the required rotation of the lead audit partner responsible for our audit, and reviews and considers the selection of the lead audit partner.

At this time, the Audit Committee and the Board believe that the continued retention of Ernst & Young LLP to serve as our independent registered public accounting firm is in the best interests of Autodesk and its stockholders.

PROPOSAL THREE - NON-BINDING VOTE TO APPROVE NAMED EXECUTIVE OFFICER COMPENSATION

We are asking our stockholders to vote, on a non-binding advisory basis, to approve the compensation of our named executive officers as described in the section titled “Compensation Discussion and Analysis” (or “CD&A”) below and the accompanying compensation tables and narrative discussion in this Proxy Statement (a “Say-on-Pay” vote). Stockholders are encouraged to read that information in its entirety to obtain a complete understanding of Autodesk's executive compensation program philosophy, design and linkage to stockholder interests.

Autodesk has designed its compensation programs to reward executives for producing strong results that are aligned with the interests of stockholders. We emphasize variable “long-term” and “at risk” compensation dependent upon prospective financial, strategic and stock price performance and a retrospective assessment of Autodesk's success to determine pay opportunities. In fiscal 2019, 90% of our CEO's and 86% of all other NEOs’ total compensation were variable in nature and “at risk” and 78% of our CEO’s and 75% of all other NEOs’ total compensation consisted of long-term equity.

Fiscal 2019 Strategic Priorities and Performance Metrics

The software industry has undergone a transition from developing and selling perpetual licenses and on-premises products to cloud, mobile and social applications. Our strategy is to lead the industries we serve to subscription, cloud-based, and mobile technologies. Autodesk offers term-based subscriptions for our products, cloud service offerings, and flexible enterprise business agreements (collectively referred to as "subscription plan").

Following Dr. Anagnost’s appointment to CEO in fiscal 2018, and in consultation with the Board, he established three strategic priorities of completing the subscription transition, digitizing the Company, and re-imagining manufacturing, construction, and production. During fiscal 2019, Autodesk made progress on all three of these initiatives. First, the Company effectively finished its business model transition as evidenced by the Company’s subscription plan annualized recurring revenue (“ARR”) representing 80% of total ARR at fiscal year-end. Second, we continued to invest in our digital infrastructure to create opportunities for our customers to transact and engage directly with us, increase customers’ level of self-service for a wide range of needs, and increase our ability to instantly and reliably understand how successful our customers are in interacting with our products. Third, the Company significantly expanded its construction portfolio through the acquisition of Assemble Systems to bolster our preconstruction capabilities, PlanGrid for document-centric workflows and field execution, and BuildingConnected for bidding and risk management. In manufacturing, our investments in generative design and our Fusion product continued to attract global manufacturing leaders to partner with us.

To incent long-term value creation and strong financial performance as we navigated our transition, our bonus and equity plans incorporated performance metrics that aligned with the key drivers of success during this phase of our business model transition and reflected the health of the business during the transition. The following performance metrics were used for our NEOs during fiscal 2019:

Performance Metrics
● Total Annualized Recurring Revenue ("ARR")
● Non-GAAP Operating Income
● Free Cash Flow Per Share
● Relative TSR (over 1, 2 and 3 years)

Our executive officers' continued successful implementation of our business model drove the following fiscal 2019 results:

Total ARR was $2.75 billion, an increase of 34% from fiscal 2018.

Total subscriptions were 4.33 million, an increase of 17% from fiscal 2018; of which **subscription plan subscriptions were 3.53 million**.

Deferred revenue was $2.09 billion, an increase of 7% from fiscal 2018.

Total deferred revenue (deferred revenue plus unbilled deferred revenue) was $2.68 billion, an increase of approximately 18% from fiscal 2018.*

Income (loss) from operations was $(25.0) million, compared to $(509.1) million in fiscal 2018.

Non-GAAP income (loss) from operations was $316.0 million, an increase from $(112.0) million in fiscal 2018.*

Free cash flow was $310.1 million, an increase from $(49.8) million in fiscal 2018.*

Stock price increased by 27% in fiscal 2019, 81% over the last two fiscal years and 214% over the last three fiscal years.

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* A reconciliation of GAAP to non-GAAP results is provided in Appendix A.

Proxy Materials

The Compensation and Human Resources Committee (the "Committee") considered those performance factors in reaching its decisions regarding pay for the NEOs for fiscal 2019.

Stockholder Engagement and Actions Taken

Autodesk and the Committee value the input of our stockholders. In 2018, 96.4% of the votes cast on our Say-on-Pay proposal were favorable, which reflected strong stockholder support for our executive compensation programs. In fiscal 2019, members of our management team continued our annual outreach and contacted stockholders representing in total over 61% of the outstanding shares. Our team met with governance professionals from passive funds as well as portfolio managers from active funds to discuss our executive compensation programs, board composition, diversity and governance. The breadth of the Company's outreach program enabled us to gather feedback from a significant cross-section of Autodesk's stockholder base. Based on these discussions, the Committee found that our stockholders continued to be supportive of our executive compensation programs and the alignment between our CEO pay and Autodesk's performance. The Committee carefully considered stockholder feedback as part of its ongoing review of our executive compensation programs, design and metrics.

Compensation Guiding Principles

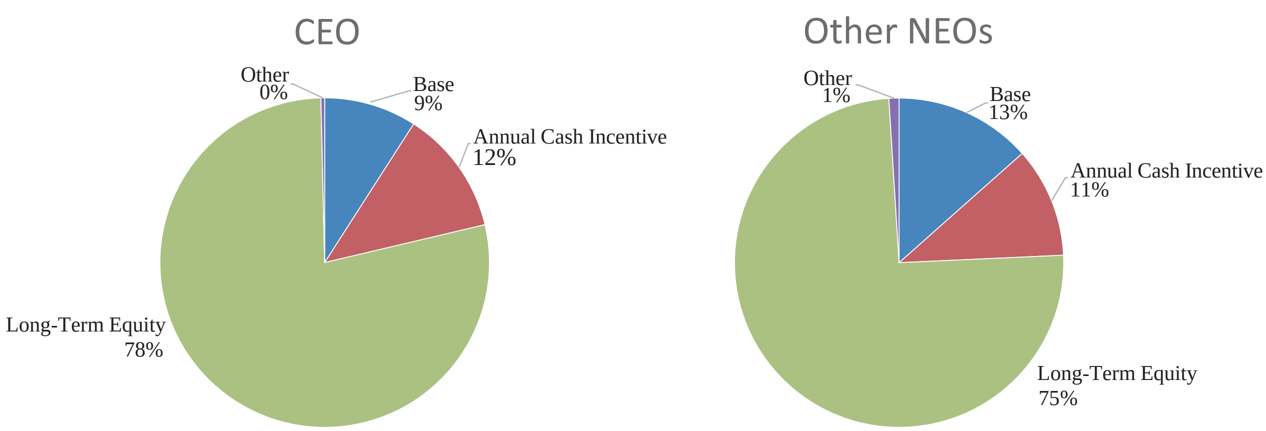
The executive compensation program is designed to attract, motivate, and retain talented executives and provide a rigorous framework that is tied to stockholder returns, Company performance, long-term strategic corporate goals, and individual performance. The general compensation objectives are to:

- Recruit and retain the highest caliber of executives through competitive rewards;
- Motivate executive officers to achieve business and financial goals;
- Balance rewards for short- and long-term performance; and
- Align rewards with stockholder value creation.

Within this framework, the total compensation for each executive officer varies based on multiple dimensions:

- Whether Autodesk achieves its short-term and long-term financial and non-financial objectives, including execution on its business model transition;
- Autodesk's TSR relative to the companies included in the S&P Computer Software Select Index and companies in the North American Technology Software Index;
- The specific role and responsibility of the officer;
- Each individual officer's skills, competency, contributions and performance;
- Internal pay parity considerations; and
- Retention considerations.

Executive compensation is variable and balanced between short- and long-term performance, all of which is tied to Autodesk's absolute and relative financial and stock price performance.



Our executive compensation program emphasizes variable compensation with both annual and long-term performance components. In fiscal 2019, 90% of our CEO's and 86% of all other NEOs' total compensation were variable in nature and "at risk" and 78% of our CEO's and 75% of all other NEOs' total compensation consisted of long-term equity. Our incentive programs reward strong annual financial and operational performance, as well as relative TSR over one-, two-, and three-year performance periods.

Leading Compensation Governance Practices

Autodesk's executive compensation objectives are supported by policies and strong governance practices that align executives' interests with the interests of our stockholders. Some of the program's most notable features are highlighted in the table below and summarized in the CD&A.

What We Do	What We Do Not Do
✔ Robust stockholder outreach program	⃠ Allow hedging and trading in Autodesk derivative securities
✔ Significant percentage of NEO total pay tied to achievement of critical financial and stockholder value creation	⃠ Reprice stock options
✔ Representative peer group	⃠ Offer executive benefits and excessive perquisites
✔ Significant stock ownership requirements	⃠ Fixed-term employment agreements
✔ Clawback policy	
✔ Double-trigger change in control arrangements with no excise tax gross-up	
✔ Equity award grant policy	
✔ Effective risk management	
✔ Independent compensation committee and consultant	

Vote Recommendation

When casting the 2019 Say-on-Pay vote, we encourage our stockholders to consider our fiscal 2019 stockholder outreach and the collective changes we have made to the executive compensation program in recent years to more closely align the total direct compensation opportunity of the named executive officers with Autodesk's objectives of driving meaningful annual financial growth and maximizing long-term value. Accordingly, we ask our stockholders to vote "FOR" the advisory, non-binding Say-on-Pay proposal at the Annual Meeting.

THE BOARD UNANIMOUSLY RECOMMENDS THAT YOU VOTE "FOR" THE ADVISORY (NON-BINDING) PROPOSAL APPROVING NAMED EXECUTIVE OFFICER COMPENSATION.

CORPORATE GOVERNANCE

Autodesk is committed to the highest standards of corporate ethics and diligent compliance with financial accounting and reporting rules. Our Board provides independent leadership in the exercise of its responsibilities. Our executive officers oversee a strong system of internal controls and compliance with corporate policies and applicable laws and regulations. Our employees operate in a climate of responsibility, candor and integrity.

Corporate Governance Guidelines; Code of Business Conduct and Ethics

We believe the highest standards of corporate governance and business conduct are essential to running our business efficiently, serving our stockholders well, and maintaining our integrity in the marketplace. Over the years, we have devoted substantial attention to the subject of corporate governance and have developed Corporate Governance Guidelines (the "Guidelines"). The Guidelines set forth the principles that guide our Board's exercise of its responsibility to oversee corporate governance, maintain its independence, evaluate its own performance and the performance of our executive officers, and set corporate strategy. On a regular basis, the Board reviews our governance practices, corporate governance developments and stockholder feedback to ensure continued effectiveness.

The Board first adopted the Guidelines in December 1995 and has refined them periodically since.

- In March 2007, the Board amended the Guidelines to provide for majority voting in director elections, except for contested elections. The 2007 amendments also required each director to submit a resignation that will take effect if such director fails to receive a majority vote in any subsequent election and the Board accepts the resignation.

- In March 2009, the Board amended the Guidelines to provide for a non-executive Chairman of the Board.

- In March 2010, the Board amended the Guidelines to, among other things, clearly outline the Board's responsibility for overseeing Autodesk's risk management.

- In December 2011, the Board amended the Guidelines to, among other things, address changes in a director's occupation.

- In December 2016, the Board amended the Guidelines to enhance related party transaction processes, align restrictions relating to multiple directorships, and expand on compliance.

- In December 2018, the Board amended the Guidelines to, among other things, address gender composition requirements.

The Guidelines are available on our website at *www.autodesk.com* under "Investor Relations-Corporate Governance."

In addition, we have adopted a Code of Business Conduct for directors and employees, and a Code of Ethics for Senior Executive and Financial Officers, including our principal executive officer, principal financial officer, principal accounting officer, all senior vice presidents, and all individuals reporting to our principal financial officer, to ensure that our business is conducted in a consistently legal and ethical manner. Our current Code of Business Conduct and Code of Ethics for Senior Executive and Financial Officers are available on our website at *www.autodesk.com* under "Investor Relations-Corporate Governance." We will post on this section of our website any amendment to our Code of Business Conduct or Code of Ethics for Senior Executive and Financial Officers, as well as any waivers of these Codes that are required to be disclosed by the rules of the SEC or The Nasdaq Global Select Market ("Nasdaq").

Stock Ownership Guidelines

The Board believes directors and executive officers should have a meaningful financial stake in Autodesk in order to further align their interests with Autodesk's stockholders. To that end, the Board has adopted mandatory ownership guidelines for the directors and executive officers. These mandatory ownership guidelines require all executive officers and directors to hold shares of Autodesk's Common Stock equivalent in value to a multiple of his or her base salary or cash retainer. The current stock ownership guidelines are as follows:

	CEO	Executive Vice President	Senior Vice President	Director
Multiple of Base Salary/Cash Retainer	6.0 times	3.0 times	3.0 times	5.0 times

The Board reviews progress against these guidelines and requirements annually and updates them as appropriate. See the section titled "Executive Compensation—Compensation Discussion and Analysis" below for additional information regarding Autodesk's stock ownership guidelines.

Independence of the Board

As required by applicable Nasdaq listing standards, a majority of the members of our Board qualify as "independent." The Board has determined that, with the exception of Andrew Anagnost, our President and CEO, all of its members are "independent directors" as that term is defined by applicable Nasdaq listing standards. That definition includes a series of objective tests, including that the director is not an employee of the company and has not engaged in various types of business dealings with the company.

In addition, as further required by applicable Nasdaq listing standards, the Board has made a subjective determination as to each independent director that no relationships exist that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In making its independence determinations, the Board considered that Messrs. French and Milligan are executive officers at entities that have arms-length, ordinary course commercial relationships with Autodesk and that amounts paid or received by those entities for products or services in fiscal 2019 were not material. The Board determined that the foregoing relationships would not interfere with the exercise of independent judgment by Messrs. French and Milligan in carrying out their responsibilities as directors.

The independent directors meet regularly in executive session, without executive officers present, as part of the quarterly meeting procedure. The Chairman presides at executive sessions, which are intended to facilitate open discussion among the independent directors.

Outside Board Memberships

We have a highly experienced and engaged Board of Directors. We value the diverse perspectives that our directors' outside board memberships bring to our boardroom. Directors who serve on other public company boards offer advice and insights with regard to the dynamics and operation of a Board of Directors, the relations of a board with senior management and oversight of a changing mix of strategic, operational and compliance-related matters.

However, in order to ensure sufficient time and attention to meet the responsibilities of Board membership, our Corporate Governance Guidelines state that directors shall serve on no more than five boards of directors of publicly traded companies, including this Board, without consent of the Corporate Governance and Nominating Committee. Per our Corporate Governance Guidelines, directors shall advise the Chairman of the Board or the Lead Independent Director, as applicable, and the Corporate Governance and Nominating Committee before accepting an invitation to serve on an additional for-profit corporate board of directors. The Corporate Governance and Nominating Committee reviews on an annual basis, in the context of recommending a slate of directors for stockholder approval, the composition of the Board, including matters such as other board commitments.

Board Meetings and Board Committees

The Board held a total of nine meetings (including regularly scheduled and special meetings) during fiscal 2019. Each director then serving attended at least 75% of the total number of meetings of the Board and committees of which he or she was a member during fiscal 2019. The Board currently has three standing committees: an Audit Committee, a Compensation and Human Resources Committee, and a Corporate Governance and Nominating Committee. Each committee has adopted a written charter approved by the Board. All three charters are available on Autodesk's website at *www.autodesk.com* under "Investor Relations-Corporate Governance."

Audit Committee

The Audit Committee, which has been established in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934 (the "Exchange Act"), currently consists of Betsy Rafael (Chair), Karen Blasing, Reid French and Stephen Milligan, each of whom is "independent" as such term is defined for audit committee members by applicable Nasdaq listing standards. The Board has determined that each member of the Audit Committee is an "audit committee financial expert" as defined in the rules of the SEC.

The Audit Committee held eight meetings during fiscal 2019.

See "Report of the Audit Committee of the Board of Directors" on page 69 for more information regarding the functions of the Audit Committee.

Compensation and Human Resources Committee

The Compensation and Human Resources Committee currently consists of Mary T. McDowell (Chair), Crawford W. Beveridge, and Lorrie M. Norrington, each of whom qualifies as independent for compensation committee purposes under applicable Nasdaq listing standards, the requirements of Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Code"), and SEC Rule 16b-3. In April 2019, Mr. Beveridge notified the Board that he would not stand for re-election at the Annual Meeting.

The Compensation and Human Resources Committee reviews compensation and benefits for our executive officers and has authority to grant stock options, RSUs and PSUs to executive officers and non-executive employees under our stock plans. As non-employee directors, the members of the Compensation and Human Resources Committee are not eligible to participate in Autodesk's discretionary employee stock programs. RSUs are granted automatically to non-employee directors under the non-discretionary 2012 Outside Directors' Stock Plan.

See the section titled "Executive Compensation-Compensation Discussion and Analysis" below for a description of Autodesk's processes and procedures for determining executive compensation. The Compensation and Human Resources Committee may form and delegate authority to subcommittees when appropriate.

The Compensation and Human Resources Committee held eight meetings during fiscal 2019.

The "Report of the Compensation Committee" is included in this Proxy Statement on page 49.

Corporate Governance and Nominating Committee

The Corporate Governance and Nominating Committee currently consists of Crawford W. Beveridge (Chair), Lorrie M. Norrington, and Stacy J. Smith, each of whom qualifies as an independent director under applicable Nasdaq listing standards. In April 2019, Mr. Beveridge notified the Board that he would not stand for re-election at the Annual Meeting.

The Corporate Governance and Nominating Committee is responsible for developing general criteria regarding the qualifications and selection of members of the Board, and for recommending candidates for election to the Board. The Corporate Governance and Nominating Committee also is responsible for developing overall governance guidelines, overseeing the performance of the Board, and reviewing and making recommendations regarding director composition and the mandates of Board committees. The Corporate Governance and Nominating Committee will consider recommendations of candidates for the Board submitted by Autodesk stockholders. For more information, see the section titled "Corporate Governance-Nominating Process for Recommending Candidates for Election to the Board" below.

The Corporate Governance and Nominating Committee held seven meetings during fiscal 2019.

Board Leadership Structure

Our Corporate Governance Guidelines direct the Board to fill the Chairman of the Board and Chief Executive Officer positions after considering a number of factors, including the current size of our business, composition of the Board, current candidates for such positions, and our succession planning goals. Currently, we separate the positions of Chief Executive Officer and non-executive Chairman of the Board. Since June 2018, Mr. Smith has served as our non-executive Chairman of the Board. Our Corporate Governance Guidelines also provide that, in the event the Chairman of the Board is not an independent director, the Board must elect a "Lead Independent Director." The responsibilities of the Chairman of the Board or the Lead Independent Director include setting the agenda for each meeting of the Board, in consultation with the Chief Executive Officer; presiding at executive sessions; and facilitating communication with the Board, executive officers and stockholders.

Separating the positions of Chief Executive Officer and Chairman of the Board allows our President and Chief Executive Officer to focus on our day-to-day business, while allowing the Chairman of the Board to lead the Board in its fundamental role of providing independent advice to, and oversight of, management. The Board believes that having an independent director serve as Chairman is the appropriate leadership structure for Autodesk at this time and demonstrates our commitment to good corporate governance.

In addition, as described above, our Board has three standing committees consisting entirely of independent directors. The Board delegates substantial responsibility to these committees, which report their activities and actions back to the full Board. We believe having independent committees with independent chairpersons is an important aspect of the leadership structure of our Board.

Risk Oversight

Our Board, as a whole and through its committees, is responsible for the oversight of risk management. Our executive officers are responsible for the day-to-day management of the material risks Autodesk faces. In its oversight role, our Board must satisfy itself that the risk management processes designed and implemented by our executive officers are adequate and functioning as designed. The involvement of the full Board in setting our business strategy at least annually is a key part of its oversight of risk management, its consideration of our executive officers' appetite for risk, and its determination of what constitutes an appropriate level of risk. The full Board receives updates from our executive officers and outside advisers regarding certain risks Autodesk faces, including litigation, cyber security, data privacy, corporate governance best practices and various operating risks.

In addition, each Board committee oversees certain aspects of risk management. For example, our Audit Committee is responsible for overseeing the management of risks associated with Autodesk's financial reporting, accounting and auditing matters; our Compensation and Human Resources Committee oversees our executive officer succession planning and risks associated with our compensation policies and programs; and our Corporate Governance and Nominating Committee oversees the management of risks associated with director independence, conflicts of interest, composition and organization of our Board, and director succession planning. Board committees report their findings to the full Board.

Senior executive officers attend all meetings of the Board and its standing committees and are available to address any questions or concerns raised by the Board regarding risk management and any other matters. Annually, the Board holds strategic planning sessions with senior executive officers to discuss strategies, key challenges, and risks and opportunities for Autodesk.

Education, Sustainability and Philanthropic Programs

Education

Autodesk is committed to helping fuel a lifelong passion for design and making among students of all ages, both within and outside the classroom. We offer free educational licenses of Autodesk's professional software to students, educators, and accredited educational institutions worldwide. We inspire and support beginners with Tinkercad, a simple online 3D design and 3D printing tool. Through Autodesk Design Academy, we provide secondary and postsecondary schools with hundreds of standards-aligned class projects to support design-based disciplines in Science, Technology, Engineering, Digital Arts, and Math (STEAM) using Autodesk's professional-grade design, engineering and entertainment software. Autodesk Design Academy curricula is also syndicated on iTunes U and Udemy, where millions of students go to learn online. Classes and projects are available on our Instructables website for anyone looking to expand their "making" skills. Our intention is to make Autodesk software ubiquitous and the design and making software of choice for those poised to become the next generation of professional users.

Sustainability Programs

To help our customers imagine, design, and make a better world, our sustainability initiatives focus our efforts on the areas where we can have the greatest positive impact: enabling sustainable practices through our products, delivering free sustainable-design learning and training resources, providing software grants to qualifying nonprofits and entrepreneurs, and leading by example with our sustainable business practices. Through our products and services, we are supporting our customers to better understand and improve the environmental performance of everything they make.

Climate Change

In addressing the global challenges posed by climate change, we make it possible for our customers to innovate and respond to associated changes in regulation, building code, physical climate parameters and other climate-related developments. This effort can directly and indirectly create more demand for existing and new Autodesk products and services in the short and long-term. Furthermore, our leadership is committed to taking climate action and that commitment goes hand-in-hand with our values and reputation in the marketplace.

Climate Change Governance

With oversight from our CEO, the Sustainability & Foundation Team has direct responsibility for setting and implementing our corporate sustainability strategy, including our climate change strategy.

Climate Change Management Actions

To drive continued progress and meet growing demand, we continue to expand the solutions, education, and support we offer, helping customers secure a competitive advantage for a low-carbon future by designing high-performance buildings, resilient cities and infrastructure, and more efficient transportation and products. To continue to grow this market, we provide software and support to early stage entrepreneurs and start-up companies who are designing clean technologies. We plan to expand these offerings, which we see as an opportunity to serve new customer needs that arise in response to challenges posed by climate change.

Internally, we are investing in best practices to mitigate our greenhouse gas emissions and climate change risk through investments in renewable energy, energy efficiency, disaster management and recovery strategies, and materials innovation. We are on track to meet our science-based greenhouse gas reduction target of 43% absolute emissions by 2020.

Emissions Performance & Other Key Performance Indicators

By end of fiscal 2018, Autodesk had reduced its net greenhouse gas emissions for its operational boundary by 38% from our fiscal 2009 baseline to 187,000 metric tons of carbon dioxide equivalent. This reduction was accomplished through increased investment in renewable energy and energy efficiency in our global real estate portfolio, and continued transition from physical software delivery to cloud and electronic software delivery. More information about our sustainability commitment can be found in our annual sustainability reports, which we have published on our website since 2008. Our fiscal 2019 sustainability report will be published in the second quarter of fiscal 2020.

Philanthropy

The Autodesk Foundation (the "Foundation"), a privately funded 501(c)(3) charity organization established and solely funded by us, leads our philanthropic efforts. The purpose of the Foundation is twofold: to support employees to create a better world at work, at home, and in the community by matching employees' volunteer time and/or donations to nonprofit organizations; and to support organizations and individuals using design to drive positive social and environmental impact. In the latter case, we use grant funding, software donations, and training to accomplish this goal, selecting the most impactful and innovative organizations around the world, thus leading to a better future for our planet. On our behalf, the Foundation also administers a discounted software donation program to nonprofit organizations, social and environmental entrepreneurs, and others who are developing design solutions that will shape a more sustainable future.

Compensation Committee Interlocks and Insider Participation

The current members of the Compensation and Human Resources Committee are Mary T. McDowell, Crawford W. Beveridge, and Lorrie M. Norrington. In addition, Reid French and Stacy Smith served on the Compensation and Human Resources Committee during fiscal 2019. No director who served as a member of the Compensation and Human Resources Committee during fiscal 2019 is or was formerly an officer or employee of Autodesk or any of its subsidiaries. No interlocking relationship exists between any director who served as a member of the Compensation and Human Resources Committee during fiscal 2019 and the compensation committee of any other company, nor has any such interlocking relationship existed in the past.

Board Evaluations

The Board recognizes that a robust and constructive evaluation process is an essential part of good corporate governance and Board effectiveness. The evaluation process used by the Board is designed to assess the effectives and needs of the Board and its committees as well as individual director performance and contribution levels. The Corporate Governance and Nominating Committee considers the results of the annual evaluations in connection with its review of director nominees to ensure the Board continues to operate effectively. The evaluation results also are used to provide feedback to individual directors. In fiscal 2019, the board used the services of third-party corporate governance experts in relation to the directors' self-evaluation questionnaires and to conduct individual director interviews. The evaluation process provides valuable information for the Chairman and Corporate Governance and Nominating Committee to consider during the board evaluation process and on a go-forward basis to enhance board effectiveness.

Nominating Process for Recommending Candidates for Election to the Board

The Corporate Governance and Nominating Committee is responsible for, among other things, determining the criteria for membership on the Board and recommending candidates for election to the Board. It is the policy of the Corporate Governance and Nominating Committee to consider recommendations for candidates to the Board from stockholders. Stockholder recommendations for candidates to the Board must be directed in writing to Autodesk, Inc., 111 McInnis Parkway, San Rafael, California 94903, Attention: Chief Legal Officer, and must include the candidate's name, home and business contact information, detailed biographical data and qualifications; information regarding any relationships between the candidate and Autodesk within the last three years; and evidence that the nominating person owns Autodesk stock.

The Corporate Governance and Nominating Committee's criteria and process for evaluating and identifying the candidates that it selects, or recommends to the full Board for selection, as director nominees are as follows:

- The Corporate Governance and Nominating Committee regularly reviews the current composition and size of the Board.

- The Corporate Governance and Nominating Committee oversees a periodic evaluation of the performance of the Board as a whole and evaluates the performance of individual members of the Board eligible for re-election at the annual meeting of stockholders.

- In its evaluation of director candidates, including the members of the Board eligible for re-election, the Corporate Governance and Nominating Committee seeks to achieve a balance of knowledge, experience and skills on the Board. The Corporate Governance and Nominating Committee considers: (1) the current size and composition of the Board and the needs of the Board and its committees; (2) such factors as character, judgment, diversity, age, expertise, business experience, length of service, independence, and other commitments; (3) relationships between directors and Autodesk's customers and suppliers; and (4) such other factors as the Committee may consider appropriate.

- While the Corporate Governance and Nominating Committee has not established specific minimum qualifications for director candidates, the Corporate Governance and Nominating Committee believes that candidates and nominees must reflect a Board that comprises directors who (1) are predominantly independent; (2) have high integrity; (3) have broad, business-related knowledge and experience at the policy-making level in business or technology, including their understanding of the software industry and Autodesk's business in particular; (4) have qualifications that will increase overall Board effectiveness; (5) have varied and divergent experiences, viewpoints and backgrounds; and (6) meet other requirements as may be required by applicable rules, such as financial literacy or financial expertise with respect to audit committee members.

- With regard to candidates who are properly recommended by stockholders or by other means, the Corporate Governance and Nominating Committee will review the qualifications of any such candidate, which review may, in the Corporate Governance and Nominating Committee's discretion, include interviewing references, direct interviews with the candidate, or other actions the Corporate Governance and Nominating Committee deems necessary or proper.

- The Corporate Governance and Nominating Committee has the authority to retain and terminate any third-party search firm to identify director candidates, and has the authority to approve the fees and retention terms of such search firm.

- The Corporate Governance and Nominating Committee will apply these same principles when evaluating Board candidates who may be elected initially by the full Board to fill vacancies or to add additional directors prior to the annual meeting of stockholders at which directors are elected.

- After completing its review and evaluation of director candidates, the Corporate Governance and Nominating Committee selects, or recommends to the full Board for selection, the director nominees.

The Corporate Governance and Nominating Committee does not have a formal written policy with regard to the consideration of diversity in identifying director nominees. However, as discussed above, diversity is one of the numerous criteria the Corporate Governance and Nominating Committee reviews before recommending a candidate. When searching for new directors, our Board endeavors to actively seek out highly qualified women and individuals from minority groups to include in the pool from which Board nominees are chosen. Our Board aims to create a team of directors with diverse experiences and backgrounds to provide our complex, global company with thoughtful and engaged board oversight. The Corporate Governance and Nominating Committee assesses the effectiveness of its diversity efforts through periodic evaluations of the Board's composition.

Attendance at Annual Stockholders' Meetings by Directors

Autodesk does not have a formal policy regarding attendance by members of the Board at the Annual Meeting of Stockholders. Directors are encouraged, but not required, to attend. All of our directors then serving attended the 2018 Annual Meeting of Stockholders either in person or telephonically.

Contacting the Board

Communications from stockholders to the non-employee directors should be addressed to the non-executive Chairman as follows: Autodesk, Inc., c/o Chief Legal Officer, 111 McInnis Parkway, San Rafael, California 94903, Attention: Non-Executive Chairman.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

Throughout this proxy statement, the individuals included in the Summary Compensation Table on page 50 are referred to as our "named executive officers" or "NEOs." For fiscal 2019, our NEOs were:

- Andrew Anagnost, Chief Executive Officer and President;
- R. Scott Herren, Senior Vice President and Chief Financial Officer;
- Steven M. Blum, Senior Vice President, Worldwide Field Operations;
- Pascal W. Di Fronzo, Senior Vice President, Corporate Affairs, Chief Legal Officer and Corporate Secretary; and
- Carmel Galvin, Senior Vice President, People and Places and Chief Human Resources Officer.

The information in this discussion provides perspective and narrative analysis relating to, and should be read along with, the executive compensation tables beginning on page 50.

Executive Summary

Fiscal 2019 Strategic Priorities and Performance Metrics

The software industry has undergone a transition from developing and selling perpetual licenses and on-premises products to cloud, mobile and social applications. Our strategy is to lead the industries we serve to subscription, cloud-based, and mobile technologies. Autodesk offers term-based subscriptions for our products, cloud service offerings, and flexible enterprise business agreements (collectively referred to as "subscription plan").

Following Dr. Anagnost's appointment to CEO in fiscal 2018, and in consultation with the Board, he established three strategic priorities of completing the subscription transition, digitizing the Company, and re-imagining manufacturing, construction, and production. During fiscal 2019, Autodesk made progress on all three of these initiatives. First, the Company effectively finished its business model transition as evidenced by the Company's subscription plan annualized recurring revenue ("ARR") representing 80% of total ARR at fiscal year-end. Second, we continued to invest in our digital infrastructure to create opportunities for our customers to transact and engage directly with us, increase customers' level of self-service for a wide range of needs, and increase our ability to instantly and reliably understand how successful our customers are in interacting with our products. Third, the Company significantly expanded its construction portfolio through the acquisition of Assemble Systems to bolster our preconstruction capabilities, PlanGrid for document-centric workflows and field execution, and BuildingConnected for bidding and risk management. In manufacturing, our investments in generative design and our Fusion product continued to attract global manufacturing leaders to partner with us.

To incent long-term value creation and strong financial performance as we navigated our transition, our bonus and equity plans incorporated performance metrics that aligned with the key drivers of success during this phase of our business model transition and reflected the health of the business during the transition. The following performance metrics were used for our NEOs during fiscal 2019:

Performance Metrics
• Total Annualized Recurring Revenue ("ARR")
• Non-GAAP Operating Income
• Free Cash Flow Per Share
• Relative TSR (over 1, 2 and 3 years)

Our executive officers' continued successful implementation of our business model drove the following fiscal 2019 results:

- **Total ARR was $2.75 billion**, an increase of 34% from fiscal 2018.
- **Total subscriptions were 4.33 million**, an increase of 17% from fiscal 2018; of which **subscription plan subscriptions were 3.53 million**.
- **Deferred revenue was $2.09 billion**, an increase of 7% from fiscal 2018.
- **Total deferred revenue (deferred revenue plus unbilled deferred revenue) was $2.68 billion**, an increase of approximately 18% from fiscal 2018.*
- **Income (loss) from operations was $(25.0) million,** compared to $(509.1) million in fiscal 2018.
- **Non-GAAP income (loss) from operations was $316.0 million,** an increase from $(112.0) million in fiscal 2018.*
- **Free cash flow was $310.1 million,** an increase from $(49.8) million in fiscal 2018.*
- **Stock price increased by 27% in fiscal 2019, 81% over the last two fiscal years and 214% over the last three fiscal years.**

* A reconciliation of GAAP to non-GAAP results is provided in Appendix A.

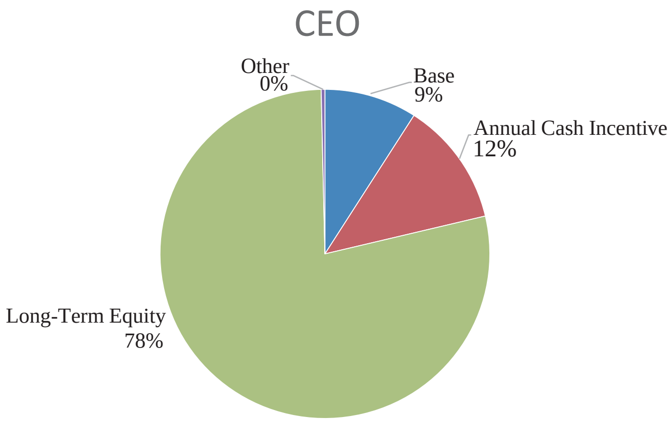
The Committee considered those performance factors in reaching its decisions regarding pay for the NEOs for fiscal 2019.

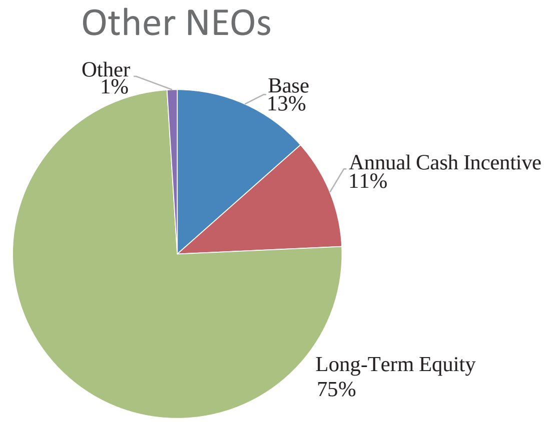
Say-on-Pay Results and Stockholder Outreach

Autodesk and the Committee value the input of our stockholders. In 2018, 96.4% of the votes cast on our Say-on-Pay proposal were favorable, which reflected strong stockholder support for our executive compensation programs. In fiscal 2019, members of our management team continued our annual outreach and contacted stockholders representing in total over 61% of the outstanding shares. Our team met with governance professionals from passive funds as well as portfolio managers from active funds to discuss our executive compensation programs, board composition, diversity, and governance. The breadth of the Company's outreach program enabled us to gather feedback from a significant cross-section of Autodesk's stockholder base. Based on these discussions, the Committee found that our stockholders continued to be supportive of our executive compensation programs and the alignment between CEO pay and Autodesk's performance. The Committee carefully considered stockholder feedback as part of its ongoing review of our executive compensation programs, design and metrics.

Emphasis on Variable "At Risk" Performance Executive Compensation

Our executive compensation program emphasizes variable compensation with both annual and long-term performance components. In fiscal 2019, 90% of our CEO's and 86% of all other NEOs' total compensation were variable in nature and "at risk" and 78% of our CEO's and 75% of all other NEOs' total compensation consisted of long-term equity. Our incentive programs reward strong annual financial and operational performance, as well as relative TSR over one-, two-, and three-year performance periods. The charts below demonstrate the fiscal 2019 pay mix between base salary, actual short-term incentives, and targeted long-term equity compensation for our CEO and all other NEOs.





Fiscal 2019 Executive Compensation Decisions

Below is a description of the annual compensation decisions made for our CEO and other NEOs based on results for the just-completed fiscal year.

Base Salary	**March 2018**: The Committee considered an analysis of the base salary for each role, an assessment of each executive officer's experience, skills and performance level, and Autodesk's performance. Based on those factors, the executive officers' base salaries were increased by 3.1% to 4.4% for fiscal 2019.
Annual Cash Incentive Awards	**March 2019**: Consistent with fiscal 2019 financial results, the Committee determined that, based on attainment of the performance metrics used within Autodesk's cash incentive plan, the annual cash incentive awards for our CEO and other NEOs were paid out at 105.6% of their target award opportunity (for more discussion of cash awards, see "Annual Short-Term Incentive Compensation" below).
Equity Awards	**March 2018**: In determining the size of equity awards, the Committee considered the Company's performance; market data for each executive; the individual skills, experience, and performance of each executive; and the mix of cash and equity compensation to ensure that equity awards would motivate the creation of long-term value while satisfying the Committee's retention objectives. The Committee approved annual equity awards for our NEOs in the form of performance stock units ("PSUs") and restricted stock units ("RSUs"). Our CEO received 60% of his shares in PSUs and 40% in RSUs while our other NEOs received 50% of their shares in PSUs and 50% in RSUs. The vesting of the PSUs is contingent upon performance against the metrics used within Autodesk's equity incentive plan.

Compensation Guiding Principles

The Committee believes that Autodesk's executive compensation program should be designed to attract, motivate, and retain talented executives and should provide a rigorous framework that is tied to stockholder returns, Company performance, long-term strategic corporate goals, and individual performance. The general compensation objectives are to:

- Recruit and retain the highest caliber of executives through competitive rewards;
- Motivate executive officers to achieve business and financial goals;
- Balance rewards for short- and long-term performance; and
- Align rewards with stockholder value creation.

Within this framework, the total compensation for each executive officer varies based on multiple dimensions:

- Whether Autodesk achieves its short-term and long-term financial and non-financial objectives, including execution on its business model transition;
- Autodesk's TSR relative to companies in the S&P Computer Software Select Index and companies in the North American Technology Software Index;
- The specific role and responsibility of the officer;
- Each individual officer's skills, competency, contributions and performance;
- Internal pay parity considerations; and
- Retention considerations.

The Compensation-Setting Process

The Committee reviews and approves all components of each executive officer's compensation.

CEO Pay Decisions

Throughout the year, the Committee and other independent members of the Board, including the Chairman, review the performance of, and provide feedback to the CEO at regularly scheduled meetings and through informal discussions. Annually, the Committee meets and discusses with other independent members of the Board the performance of the CEO in light of corporate goals and objectives. The Committee took this assessment into account, along with competitive compensation data and internal pay parity considerations. The Committee set target levels to be aggressive, yet achievable, with diligent effort during the fiscal year. The Committee formulated recommendations on CEO compensation in consultation with its independent consultant, consulted with the other independent directors, and then approved the CEO compensation.

Executive Officer Pay Decisions

The CEO makes recommendations to the Committee regarding the base salary, annual cash incentive awards, and equity awards for each executive officer other than himself. These recommendations are based on the CEO's assessment of each executive officer's performance during the year, competitive compensation data, internal pay parity and retention considerations. The CEO reports on the performance of the executive officers and their business functions during the year in light of corporate goals and objectives. The CEO bases his evaluation on his knowledge of each executive officer's performance and from others with knowledge of their performance, including feedback provided by the executive officers and their direct reports. The Human Resources Group assists the CEO in assessing each executive officer's performance and providing market compensation data for each role. In executing the responsibilities set forth in its charter, the Committee relies on a number of resources to provide input to the decision-making process.

Independent Consultant

The Committee retained Exequity LLP as its compensation adviser for fiscal 2019. Exequity provided advice and recommendations on many issues: total compensation philosophy; program design, including program goals, components, and metrics; peer data; compensation trends in the high technology sector and general market for senior executives; separation plans; the compensation of the CEO and the other executive officers; and disclosure of our executive pay programs. The Committee has considered the independence of Exequity in light of Nasdaq's listing standards for compensation committee independence and the rules of the SEC. The Committee requested and received a written confirmation from Exequity addressing the independence of the firm and its senior advisers working with the Committee. The Committee discussed these considerations and concluded that the work performed by Exequity did not raise any conflict of interest.

Management

The Committee also consults with management and Autodesk's Human Resources Group regarding executive and non-executive employee compensation plans, including administration of Autodesk's equity incentive plans.

Competitive Compensation Positioning and Peer Group

To ensure our executive compensation practices are competitive and consistent with the Committee's guiding principles, Exequity and management provide the Committee with compensation data for each executive role. This data is drawn from a group of companies in relevant industries that compete with Autodesk for executive talent (the "compensation peer group").

The Committee uses this data, as well as information about broader technology industry compensation practices, when deliberating on the compensation of the executive officers.

The compensation peer group is selected based upon multiple criteria, including industry positioning, competition for talent, revenue, market capitalization, financial results and geographic footprint.

The Committee reviews the compensation peer group each year to ensure that the comparisons remain meaningful and relevant. Based on the Committee's review, the fiscal 2019 compensation peer group consisted of the following companies:

Company	Reported Fiscal Year	Revenue ($'s in Billions)	Market Capitalization as of 1/31/2019 ($'s in billions)
Adobe Systems, Inc.	30-Nov-18	9.03	120.85
Akamai Technologies, Inc.	31-Dec-18	2.71	10.61
Ansys, Inc.	31-Dec-18	1.29	13.75
CA, Inc.	31-Mar-18	4.24	N/A
Cadence Design Systems, Inc.	29-Dec-18	2.14	13.45
Citrix Systems, Inc.	31-Dec-18	2.97	13.48
Electronic Arts, Inc.	31-Mar-18	5.15	27.76
Intuit Inc.	31-Jul-18	5.96	55.92
Juniper Networks, Inc.	31-Dec-18	4.65	8.99
National Instruments Corporation	31-Dec-18	1.36	5.87
NetApp, Inc.	27-Apr-18	5.91	15.75
Nuance Communications, Inc.	30-Sep-18	2.05	4.54
PTC Inc.	30-Sep-18	1.24	10.06
Red Hat, Inc.	28-Feb-18	2.92	31.43
salesforce.com, inc.	31-Jan-19	13.28	117.02
Symantec Corporation	30-Mar-18	4.83	13.43
Synopsys, Inc.	31-Oct-18	3.12	13.93
Autodesk, Inc.	**31-Jan-19**	**2.57**	**32.30**
Autodesk Percentile Ranking		**29%**	**81%**

In September 2018, the Committee reviewed the compensation peer group that would be used for fiscal 2020 compensation decision making. The Committee determined that each of the peers was still appropriate, except for National Instruments Corporation which was removed because it was no longer viewed as a competitor for executive talent. The Committee also chose to add Splunk Inc. and Workday, Inc. given their revenue, business model, market capitalization, industry comparability and competition with Autodesk for executive talent in the San Francisco Bay Area.

When determining the base salary, incentive targets, equity grants and target total direct compensation opportunity for each of our NEOs, the Committee references the median data from our compensation peer group for each component and in the aggregate. In practice, actual compensation awards may be above or below the median levels, depending on Autodesk's financial and operational performance and each executive officer's experience, skills and performance. The Committee believes that referencing the total compensation packages of the companies in the compensation peer group keeps Autodesk's compensation competitive and within market norms. This also provides flexibility for variances in compensation where appropriate, based on each executive officer's leadership, contributions and particular skills or expertise as well as retention considerations.

Principal Elements of the Executive Compensation Program

The principal elements of Autodesk's annual executive compensation program are described below.

Element	Purpose	Operation	Payout Range	Performance Measures
Base Salary	Forms basis for competitive compensation package	Base salary reflects competitive market conditions, individual performance, and internal parity	N/A	None, although performance of the individuals is taken into account by the Committee when setting and reviewing base salary levels and merit increases
Short-term Incentive Opportunities	Motivate achievement of annual strategic priorities relating to the business model transition and profitability objectives	Target percentage determined by competitive market practices and internal parity Actual bonus payouts are determined by the extent to which performance compares to targeted goals established at the beginning of the performance period	0% - 200% of target	Fiscal 2019: Performance against total ARR and non-GAAP total operating income
Performance Stock Unit Awards ("PSUs")	Align compensation with key drivers of the business, operational performance and relative stockholder return	Size of award determined by competitive market practices, corporate and individual performance and internal parity	0% - 180% of target shares	Fiscal 2019: Performance against total ARR and free cash flow per share adjusted based upon Autodesk's TSR relative to companies in the North American Technology Software Index over one-, two-, and three-year performance periods
	Encourage focus on near-term and long-term strategic objectives	Percentage of shares vesting is determined by the extent to which performance compares to targeted goals established at the beginning of the performance period	Change in Autodesk stock price	Autodesk stock price
Restricted Stock Unit Awards ("RSUs")	Encourage focus on long-term stockholder value creation	Size of award determined by competitive market practices, corporate and individual performance and internal parity and retention considerations	Change in Autodesk stock price	Autodesk stock price
	Promote retention	Recipients earn shares if they remain employed through the three-year vesting period		

When setting the goals for the short-term incentive opportunity and the PSUs, the Committee considered the overlap of total ARR to be appropriate in light of the critical importance of this goal. ARR is currently our key performance metric to assess the health and trajectory of our business and the success of our business model transition. The use of free cash flow per share and relative TSR over one-, two-, and three-year performance periods against market indices further differentiates PSUs from the short-term incentive program and aligns those awards with the long-term interests of our stockholders.

Base Salary

Base salary is used to provide the executive officers with a competitive amount of fixed annual cash compensation. The Committee views base salary as a reliable source of income for the executive officers and an important recruiting and retention tool. The Committee sets base salaries at a competitive level that recognizes the scope, responsibility, and skills required of each position, as well as market conditions and internal pay equity.

The Committee considered an analysis of the base salary for each executive role, an assessment of each executive officer's experience, skills and performance level, and Autodesk's performance. In particular, the Committee noted that Dr. Anagnost's base salary was below the median market position of our compensation peer group, and the Committee's expectation to increase his base salary over time, commensurate with performance. As a result, the Committee elected to increase NEO base salaries by 3.1% to 4.4%.

Annual Short-Term Incentive Compensation

At the beginning of each fiscal year, the Committee establishes target award opportunities, payout metrics and performance targets for the Autodesk, Inc. Executive Incentive Plan. This annual cash incentive is intended to motivate and reward participants for achieving company-wide annual financial and non-financial objectives as well as individual objectives.

Target Award Opportunities and Fiscal 2019 Executive Incentive Plan

The Committee sets the target annual cash incentive award opportunity for each eligible executive officer based on competitive assessments, the executive's particular role, and internal parity considerations. Based on the Committee's review of these factors, the Committee set the fiscal 2019 cash incentive target for each of the NEOs at the same percentage as it was in fiscal 2018. These target opportunities are expressed as a percentage of the NEO's annualized base salary and range from 75% to 125%. A NEO may receive an earned award that is greater or less than the target award opportunity, depending upon Autodesk's and the NEO's performance.

In fiscal 2019, bonus awards for each of our NEOs were funded under the Autodesk, Inc. Executive Incentive Plan ("fiscal 2019 EIP"). At the beginning of the fiscal year, the Committee established funding performance thresholds, which, if achieved, would establish the maximum fiscal 2019 EIP funding at 200% of target. For fiscal 2019, the Committee selected total ARR, non-GAAP operating income, and absolute TSR as the funding metrics. Autodesk's fiscal 2019 performance of $2,722 million in total ARR, $321 million in non-GAAP operating income and 31% in TSR (based on a 31-day average closing stock price at the beginning and end of fiscal 2019) exceeded the funding threshold, resulting in the maximum bonus award funding for each executive. The Committee then exercised its negative discretion to reduce the actual bonus awards for each of the participants based on pre-established performance measures (as described below).

Company Performance Measures and Performance

At the beginning of fiscal 2019, the Committee approved fiscal 2019 EIP performance measures to align our CEO's and other NEOs' bonus opportunities with the Company's strategic priorities. The metrics selected align our incentives with the key drivers of success. In its exercise of negative discretion, the Committee considered the performance attainment versus specific pre-established performance targets to determine payouts. For the CEO and other NEOs, the Committee assessed the performance of the Company against targets set at the beginning of the fiscal year based on the criteria below; the final award could range from 0% to 200% of the target award. This calculation yielded a bonus payout of 105.6% of target, as shown below:

Performance Metric	Weighting	Actual [1]	Target	Funding % [1]
Total ARR	70%	$2,722M	$2,719M	100.6%
Non-GAAP Operating Income	30%	$321M	$274M	117.2%
Total	**100%**			**105.6%**

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[1] Total ARR and non-GAAP operating income from the PlanGrid acquisition were excluded.

Based on the level of achievement of the performance objectives, in March 2019 the Committee approved short-term incentive awards for the NEOs as follows:

	Short-Term Incentive Target as a Percentage of Base Salary	Short-Term Incentive Target	Short-Term Incentive Payout	Short-Term Incentive Payout as a Percentage of Target
Andrew Anagnost	125%	$1,043,750	$1,102,200	105.6%
R. Scott Herren	75%	$457,500	$483,120	105.6%
Steven M. Blum	75%	$435,000	$459,360	105.6%
Pascal W. Di Fronzo	75%	$378,000	$399,168	105.6%
Carmel Galvin [1]	75%	$273,699	$289,026	105.6%

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[1] Ms. Galvin's short-term incentive target and payout were prorated for her partial year of service in fiscal 2019.

Fiscal 2020 Executive Incentive Plan

In fiscal 2020, the bonus awards for each of our NEOs will continue to be determined under the Autodesk, Inc. Executive Incentive Plan. Near the beginning of the fiscal year, the Committee established total ARR, non-GAAP operating income and absolute TSR as the funding metrics.

If the funding metrics are achieved, in its exercise of negative discretion, the Committee will consider the performance attainment versus specific targets to determine payouts. The Committee will assess the financial and operational performance of the Company based on the following metrics and weighting:

Performance Metric	Weighting
Total ARR	70%
Non-GAAP Operating Income	30%

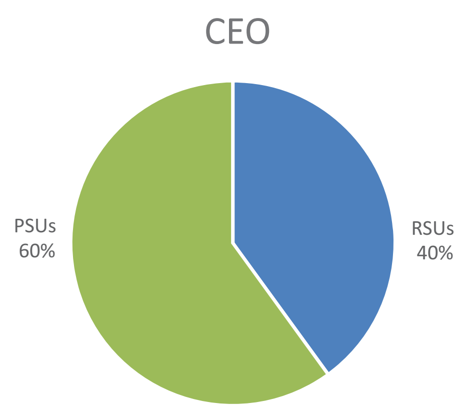
The Committee believes that the metrics selected for fiscal 2020 will align our incentives with the key drivers of success. The final awards for our NEOs could range from 0% to 200% of target, depending on achieved performance level. The Committee's choice of metrics was also driven by stockholder feedback to minimize the overlap of metrics between the bonus and equity plans but considered the overlap of total ARR to be appropriate in light of the critical importance of this goal. ARR is currently our key performance metric to assess the health and trajectory of our business.

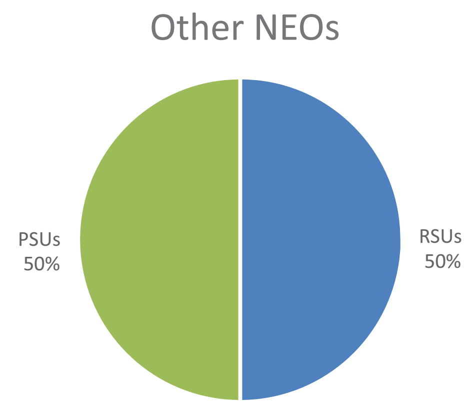
Long-Term Incentive Compensation

Autodesk uses long-term incentive compensation in the form of equity awards to align executive pay opportunities with stockholder value creation, and to motivate and reward executive officers for effectively executing longer-term strategic and operational objectives.

March 2018 Equity Awards

During fiscal 2019, the Committee approved annual equity awards in the form of PSUs and RSUs for the NEOs. The Committee elected to use the following mix of PSUs and RSUs to complement the performance aspects of PSUs with the long-term retention component of RSUs.





In arriving at the total number of PSUs and RSUs to award to an executive officer in fiscal 2019, the Committee considered Autodesk's performance in fiscal 2018, competitive market data for the executive's position, historical grants, unvested equity, individual performance of the executive and internal pay parity. In particular, the Committee noted the progress of Autodesk's business model transition, which is indicative of strong execution during our business model transition and which positions the Company well for continued stockholder value creation. Key performance indicators reflecting progress in fiscal 2018 included:

As a result of this analysis, the following equity awards were approved:

	Target Value of PSU + RSU Award	Target PSU Award (#) [(1)]	RSU Award (#) [(1)]
Andrew Anagnost	$7,800,000	37,048	24,699
R. Scott Herren	$2,800,000	11,082	11,082
Steven M. Blum	$2,250,000	8,905	8,905
Pascal W. Di Fronzo	$1,500,000	5,937	5,937

(1) Number of shares determined by the weighting of PSUs and RSUs and the average closing stock price over the last 20 trading days prior to the date of grant.

PSU Awards

The current PSU design was adopted following extensive stockholder outreach and incorporates a number of features stockholders identified as being most important, namely, multiple performance metrics, TSR relative to peers, and a multi-year measurement period.

The PSU awards provide for a minimum, target and maximum number of shares to be earned based upon predetermined performance criteria.

- For fiscal 2019 awards, PSU vesting will be contingent upon achievement of performance goals adopted by the Committee ("Performance Results") and Autodesk's TSR compared against companies in the S&P North American Technology Software Index with a market capitalization over $2 billion ("Relative TSR") over one-, two- and three-year performance periods.

- In fiscal 2019, we measured Performance Results based on total ARR and free cash flow per share.

- The use of these different goals motivates management to drive Autodesk's business model transition and, combined with Relative TSR and vesting over one-, two- and three-year performance periods, aligns these awards with the long-term interests of our stockholders.

Performance Results for the relevant performance period could result in PSU attainment of 0% to 150% of target. Once the Performance Results percentage is established, it is multiplied by a percentage ranging from 80% to 120%, depending on Autodesk's Relative TSR for the period. The combined impact of these performance criteria is that PSUs could be earned from 0% to 180% of target. The chart below illustrates the attainment mechanics for the PSUs approved in fiscal 2019.

Fiscal 2019 (First PSU Tranche)	**Fiscal 2020 (Second PSU Tranche)**	**Fiscal 2021 (Third PSU Tranche)**
Fiscal 2019 Target Shares	Fiscal 2020 Target Shares	Fiscal 2021 Target Shares
Multiplied by:	***Multiplied by:***	***Multiplied by:***
Fiscal 2019 Financial Performance (0%–150% of Target)	Fiscal 2020 Financial Performance (0%–150% of Target)	Fiscal 2021 Financial Performance (0%–150% of Target)
Multiplied by:	***Multiplied by:***	***Multiplied by:***
Fiscal 2019 Relative TSR (+/- 20%)	Fiscal 2019–2020 Relative TSR (+/- 20%)	Fiscal 2019–2021 Relative TSR (+/- 20%)

An executive who has received PSU grants in three successive years will have a portion of the total PSU shares vesting in that third year be based on the combination of 3-year, 2-year and 1-year Relative TSR (see "Vesting of PSUs" below for an illustration of this cumulative effect of multiple PSU grants).

RSU Awards

March 2018: The time-based RSU awards granted to the CEO and NEOs in March 2018 vest in three equal annual installments from the date of grant. RSUs help us retain executives in a competitive environment and provide further incentive to focus on longer-term stockholder value creation.

Chief Human Resources Officer New Hire Award

Upon joining the Company in March 2018, Ms. Galvin received $1,400,000 in RSUs and $1,400,000 in PSUs. The size of the grant was intended to offset compensation from her prior employers and provide meaningful alignment with Autodesk's ongoing performance. The PSUs were granted when the performance objectives were established for fiscal 2019.

	Target Value of New Hire Award	Target PSU Award (#) (1)	RSU Award (#) (1)
Carmel Galvin	$2,800,000	11,082	12,473

(1) Number of shares determined by the weighting of PSUs and RSUs and the average closing stock price over the last 20 trading days prior to the date of grant.

Vesting of PSUs in 2019

In March 2019, the Committee reviewed and certified the attainment levels for performance measures for the third tranche of PSUs awarded in March 2016, the second tranche of PSUs awarded in March 2017, and the first tranche of PSUs awarded in March 2018. For each award, the Committee measured the following performance:

Fiscal 2019 financial goal attainment versus target was based on the criteria below:

Performance Metric	Weighting	Actual (1)	Target	Funding % (1)
Total ARR	70%	$2,722M	$2,719M	100.6%
Free Cash Flow Per Share	30%	$1.40	$1.21	105.5%
Total	**100%**			**102.1%**

(1) Total ARR and free cash flow per share from the PlanGrid acquisition were excluded.

Autodesk's Relative TSR was based on:

Performance Period	Autodesk TSR (1)	Percentile Rank (2)	Payout Multiplier
Fiscal 2017 - Fiscal 2019	217.2%	86th	120%
Fiscal 2018 - Fiscal 2019	79.3%	60th	108%
Fiscal 2019	30.6%	54th	103%

(1) Based on the 31-day average closing stock price (+/- 15 days) at the beginning of each period and the end of fiscal 2019.
(2) Fiscal 2017 - fiscal 2019 relative TSR was measured against companies in the S&P Computer Software Select Index. In fiscal 2017 this index was discontinued. Consequently, for outstanding PSUs, Autodesk compared TSR relative to the companies which comprised the index as of the date of its discontinuation. For PSUs granted in fiscal 2018 and fiscal 2019, relative TSR was measured against companies in the S&P North American Technology Software Index with a market capitalization over $2 billion.

The combination of financial attainment and Relative TSR results yielded the following PSU attainments:

March 2016 3rd Tranche Fiscal 2017 Award	:		X	Fiscal 2017 - Fiscal 2019 Relative TSR 120%	=	Percent of PSU Target Award 122.5%
March 2017 2nd Tranche Fiscal 2018 Award	:	Fiscal 2019 Financial Goal Attainment 102.1%	X	Fiscal 2018 - Fiscal 2019 Relative TSR 108%	=	Percent of PSU Target Award 110.3%
March 2018 1st Tranche Fiscal 2019 Award	:		X	Fiscal 2019 Relative TSR 103%	=	Percent of PSU Target Award 105.2%

Based on this performance, the PSU awards were earned as follows:

	March 2016 Award 3rd Tranche		March 2017 Award 2nd Tranche		March 2018 Award 1st Tranche	
	Target Number of PSUs	**Actual Number of PSUs Earned**	**Target Number of PSUs**	**Actual Number of PSUs Earned**	**Target Number of PSUs**	**Actual Number of PSUs Earned**
Andrew Anagnost	6,627	8,118	5,776	6,370	12,350	12,992
R. Scott Herren	7,149	8,757	4,813	5,308	3,694	3,886
Steven M. Blum	5,361	6,567	3,850	4,246	2,969	3,123
Pascal W. Di Fronzo	4,766	5,838	2,888	3,185	1,979	2,081
Carmel Galvin (1)	N/A	N/A	N/A	N/A	3,694	3,886

(1) Ms. Galvin joined the Company in March 2018 and did not receive PSUs in March 2016 or in March 2017.

March 2019 Equity Awards

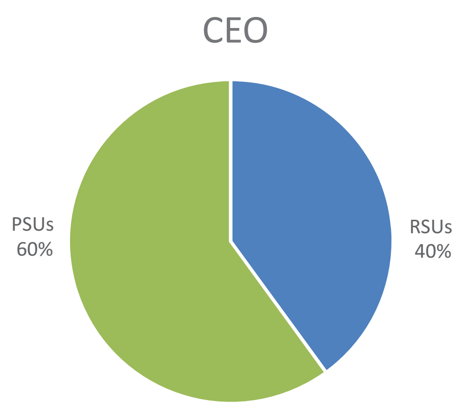
In March 2019, the Committee approved a mix of PSUs and RSUs for each of our NEOs. The fiscal 2020 PSU awards are structured in the same manner as the fiscal 2019 PSU awards; however, financial performance will be measured based on the following metrics and weighting:

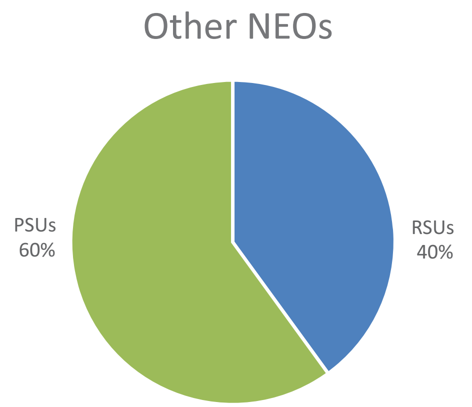
Performance Metric	NEO Weighting
Total ARR	70%
Free Cash Flow	30%

The payout for financial performance will continue to range from 0% - 150%. The Committee selected these metrics to align our incentives with key drivers of stockholder value and based on stockholder feedback to minimize the overlap of metrics between the bonus and equity plans. The Committee determined the overlap of total ARR to be appropriate in light of the critical importance of this goal.

The financial performance results will continue to be adjusted based on Autodesk's Relative TSR over one-, two- and three-year performance periods. Beginning with the March 2019 grants, the relative TSR payout range will increase from 80% - 120% to 67% - 133%. Relative TSR will be measured against companies in the S&P North American Technology Software Index with a market capitalization over $2 billion.

For fiscal 2020, the Committee elected to increase the mix of PSUs versus RSUs (from 50%/50% to 60%/40%) for our NEOs to better align their compensation with Company performance. Our CEO's and other NEOs' fiscal 2020 annual awards are broken down as follows:





Year-Over-Year Change in CEO Compensation

In fiscal 2019, Dr. Anagnost's total compensation declined by 27% from fiscal 2018 despite the fact that our stock price increased by 27%. This was partially due to one-time grants received by Dr. Anagnost in fiscal 2018, both in February 2017 for serving as our interim co-CEO and in June 2017 when appointed as our President and Chief Executive Officer. For additional information on these grants, please reference the Compensation Discussion and Analysis section of our 2018 Proxy Statement.

Executive Benefits

Welfare and Other Employee Benefits

Benefits provided to the executive officers are generally the same as those provided to all other eligible Autodesk employees. In the U.S., these benefits include medical, dental, and vision insurance, 401(k) retirement plan with company matching contributions, Employee Stock Purchase Plan, health and dependent care flexible spending accounts, short-term disability salary continuation, long-term disability insurance, accidental death and dismemberment insurance, basic life insurance coverage, and various paid time off and leaves of absence programs.

Perquisites and Other Personal Benefits

Autodesk does not, as a general practice, provide material benefits or special considerations to the executive officers that it does not provide to other employees. However, from time to time, when deemed appropriate by the Committee, certain executive officers receive perquisites and other personal benefits that are competitively prudent or otherwise in Autodesk's best interest.

Employment Agreement and Post-Employment Compensation

Employment Agreement with CEO

The terms and conditions of Dr. Anagnost's employment are set forth in his June 2017 employment agreement, which defines the respective rights of the Company and Dr. Anagnost. This agreement provided general protection for Dr. Anagnost in the event of termination without cause or resignation for good reason and has been a valuable tool to incent Dr. Anagnost to become our CEO and retain his services. The protections afforded to him in the event of a change of control provide Autodesk with an increased level of confidence that he would remain with Autodesk up to and for some period of time after a change of control. Continuity in the event of a change in control ultimately enhances stockholder value and discourages benefits simply for consummating a change in control. Details of the agreement with Dr. Anagnost can be found beginning on page 58.

Offer Letter with Chief Human Resources Officer

Ms. Galvin was appointed Senior Vice President and Chief Human Resources Officer effective March 5, 2018. The terms and conditions of her employment are set forth in a written offer letter. Based on a recommendation from management and in consultation with Exequity, the following offer was reviewed and approved by the Committee:

- Annual base salary of $400,000.
- Eligibility to participate in the Autodesk Executive Incentive Plan, with her target set at 75% of her base salary.
- Sign on bonus of $50,000. The bonus was subject to repayment if Ms. Galvin had resigned within one year following the commencement of her employment.
- $1,400,000 in RSUs and $1,400,000 in PSUs. The PSUs were granted when the performance objectives were established for fiscal 2019.

Severance Plan

During fiscal 2018, the Company negotiated separation agreements with three former executive officers. During fiscal 2019, the Committee adopted the Autodesk, Inc. Severance Plan to establish standard executive severance terms and minimize the need to negotiate individualized executive severance terms in the future. Each of the NEOs (other than our CEO), as well as our other Senior Vice Presidents, is a participant in the plan. If a participant's employment is terminated without cause, or if a participant terminates his or her employment for good reason, then, in addition to payment of accrued base salary and vacation and any previously awarded but unpaid bonus, the participant is eligible to receive the following benefits:

- a lump sum payment equal to the sum of (A) one and one-half (1.5) times the participant's base pay as in effect on the date of termination, and (B) one and one-half (1.5) times the participant's target annual cash bonus incentive amount under the Company's annual cash bonus incentive plan applicable to the participant as in effect on the date of termination;

- accelerated vesting of the participant's time-based restricted stock units that would have become vested had the participant remained continuously employed by the Company for an additional twelve months following the termination;

- continued vesting of the participant's PSUs that would have become vested had the participant remained continuously employed by the Company for an additional twelve months following the termination, based on the extent to which the underlying performance criteria, with respect to such awards, are satisfied for such performance period;

- a lump sum payment in an amount equal to twelve times the monthly premium that the participant would be required to pay to continue his or her group health coverage if the participant had made a timely election under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended; and

- Company-provided outplacement services in accordance with the Company's then-applicable outplacement service program or arrangements for eighteen months immediately following the date of termination.

Proxy Materials

All payments and other benefits under the Autodesk, Inc. Severance Plan are subject to applicable withholding obligations, the participant's granting of a release of all claims, and compliance with certain non-disparagement, non-solicitation and confidentiality covenants.

An estimate of the potential payments and benefits payable in the event of a termination of employment other than for cause or good reason are set forth in "Change-in-Control Arrangements, Severance Plan and Employment Agreement -- Severance Plan" below.

Change in Control Program

To ensure the continued service of key executive officers in the event of a potential change in control of Autodesk, the Board has adopted the Autodesk, Inc. Executive Change in Control Program. Each of the NEOs, among other employees, is a participant in the program. The payments and benefits available under this program are designed to encourage the continued services of the NEOs in the event of a potential change in control of Autodesk and to allow for a smooth leadership transition thereafter. Further, these arrangements are intended to provide incentives to the NEOs to execute strategic initiatives that are aligned with stockholder value creation, even if these initiatives may result in the elimination of a NEO's position.

The Executive Change in Control Program provides continuity in the event of a change in control transaction, which is designed to further enhance stockholder value. Payment and benefits under the Executive Change in Control Program are provided only in the event of a qualifying termination of employment following a change in control ("double trigger"). Autodesk does not offer tax reimbursement or "gross-up" payments under the Executive Change in Control Program.

The material terms and conditions of the Executive Change in Control Program, as well as an estimate of the potential payments and benefits payable in the event of a termination of employment in connection with a change in control of Autodesk, are set forth in "Change-in-Control Arrangements, Severance Plan and Employment Agreement" below.

Leading Compensation Governance Practices

Autodesk's executive compensation objectives are supported by policies and strong governance practices that align executives' interests with the interests of our stockholders. Some of the program's most notable features are highlighted in the table and summarized below.

What We Do	What We Do Not Do
✔ Robust stockholder outreach program	⃠ Allow hedging and trading in Autodesk derivative securities
✔ Significant percentage of NEO total pay tied to achievement of critical financial and stockholder value creation	⃠ Reprice stock options
✔ Representative peer group	⃠ Offer executive benefits and excessive perquisites
✔ Significant stock ownership requirements	⃠ Fixed-term employment agreements
✔ Clawback policy	
✔ Double-trigger change in control arrangements with no excise tax gross-up	
✔ Equity award grant policy	
✔ Effective risk management	
✔ Independent compensation committee and consultant	

Mandatory Stock Ownership Guidelines

The Board believes that stock ownership by the executive officers is important to tie the risks and rewards inherent in stock ownership to the executive officers, and has adopted mandatory guidelines for stock ownership by executive officers. These mandatory ownership guidelines require all executive officers to hold shares of Autodesk's Common Stock equivalent in value to a multiple of his or her base salary at the appropriate executive officer level. This is intended to create clear guidelines that tie a portion of the executive officer's net worth to the performance of Autodesk's stock price. The current stock ownership guidelines are as follows:

	CEO	Executive Vice President	Senior Vice President
Multiple of Base Salary	6.0 times	3.0 times	3.0 times

Executive officers have four years from the later of either (i) March 2017 or (ii) their hire or promotion to a new, higher-level position, to satisfy the required level of stock ownership. For purposes of satisfying the required stock ownership level, shares of Common Stock subject to outstanding RSU awards are counted as shares owned. Each of the NEOs satisfies the mandatory stock ownership guidelines.

Clawback Policy

Executive officer cash incentive-based compensation may be recovered at the discretion of the Board if an executive officer has engaged in fraudulent or other intentional misconduct and the misconduct caused a material restatement of our financial statements.

Derivatives Trading and Anti-Hedging Policy

Executive officers, members of the Board, and all other employees are prohibited from investing in derivative securities related to Autodesk's Common Stock and engaging in short sales or other short-position transactions in shares of Autodesk's Common Stock. This policy does not restrict ownership of company-granted awards, such as options to purchase shares of Common Stock or PSU or RSU awards, which have been granted by the Committee. Autodesk's insider trading policy prohibits the trading of derivatives or the hedging of Autodesk's common equity securities by all employees, including the executive officers, and members of the Board.

Equity Award Grant Policy

All equity awards granted to the executive officers are approved by the Committee. Approval of the equity awards for the executive officers generally occurs at the Committee's regularly scheduled quarterly meeting although on occasion the Committee has approved new-hire, retention or promotion grants outside of that cycle.

Effective Risk Management

Each year, the Committee evaluates Autodesk's compensation-related risk profile and the Committee has concluded that our fiscal 2019 compensation policies and practices did not create risks that were reasonably likely to have a material adverse effect on Autodesk.

Regulatory Considerations and Practices

Autodesk continuously reviews and evaluates the impact of the tax laws and accounting practices and related interpretations on the executive compensation program. For example, the Committee considers Financial Accounting Standards Board Accounting Standards Codification Topic 718 ("ASC Topic 718"), which results in recognition of compensation expense for share-based payment awards, and Section 409A of the Code, which affects deferred compensation arrangements, as it evaluates, structures, and implements changes to the program.

Deductibility Limitation

Section 162(m) of the Code limits the deductibility of compensation in excess of $1 million paid to any one NEO during any fiscal year. Under the rules in effect before calendar 2018, compensation that qualified as "performance-based" under Section 162(m) was deductible without regard to this $1 million limit. To maintain flexibility in compensating executives in a manner designed to promote varying corporate goals, the Committee did not adopt a policy requiring all compensation to be deductible under Section 162(m) and continues to reserve the right to structure compensation arrangements and issue awards that may not be deductible under Section 162(m). However, the Committee historically has considered, among other factors, deductibility under Section 162(m) with respect to compensation arrangements for executives. Prior to 2018, we generally designed our annual and long-term incentive compensation programs for executives in a manner that was intended to qualify as performance-based compensation under Section 162(m), with the understanding that these programs may not qualify from time to time.

The Tax Cuts and Jobs Act, which was signed into law December 22, 2017, eliminated the performance-based compensation exception under Section 162(m), effective January 1, 2018, subject to a special rule that "grandfathers" certain awards and arrangements that were in effect on or before November 2, 2017. As a result, compensation that our Committee structured in calendar 2017 and prior years with the intent of qualifying as performance-based compensation under Section 162(m) that is paid on or after January 1, 2018 may not be fully deductible, depending on the application of the special grandfather rules. Moreover, after January 1, 2018, compensation awarded in excess of $1 million to our NEOs, including our chief financial officer, generally will not be deductible. While the Tax Cuts and Jobs Act will limit the deductibility of compensation paid to our NEOs, our Committee will, consistent with its past practice, continue to retain flexibility to design compensation programs that are in the best long-term interests of the Company and our stockholders, with deductibility of compensation being one of a variety of considerations taken into account. We continue to analyze whether to redesign any of our compensation programs in light of the amendments to Section 162(m) and other sections of the that became effective in 2018.

Taxation of Deferred Compensation

Section 409A of the Code imposes significant additional taxes in the event an executive officer, director, or service provider receives "deferred compensation" that does not satisfy the restrictive conditions of the provision. Section 409A applies to a wide range of compensation arrangements, including traditional nonqualified deferred compensation plans, certain equity awards, and separation arrangements. To assist employees with avoiding additional taxes under Section 409A, Autodesk has structured equity awards in a manner intended to comply with the applicable Section 409A conditions.

Taxation of "Golden Parachute" Payments

Sections 280G and 4999 of the Code provide that executive officers and directors who hold significant equity interests and certain other service providers may be subject to an excise tax if, in connection with a change in control, they receive payments or benefits that exceed certain prescribed limits. In addition, the relevant company or a successor may forfeit a deduction on the amounts subject to this additional tax. Autodesk did not provide any executive officer with a "gross-up" or other reimbursement payment for any tax liability the executive might owe as a result of the application of Sections 280G or 4999 during fiscal 2019. In addition, Autodesk has not agreed and is not otherwise obligated to provide any NEO with such a "gross-up" or other reimbursement or to otherwise address the application of Sections 280G or 4999 in connection with payments or benefits arising from a change in control.

Accounting for Stock-Based Compensation

Autodesk follows ASC Topic 718 for stock-based compensation awards. ASC Topic 718 requires Autodesk to measure the compensation expense for all share-based payment awards made to employees (including executive officers) and members of the Board, including options to purchase shares of Common Stock, based on the grant date "fair value" of these awards. Fair value is calculated for accounting purposes and reported in the compensation tables below, even though the executive officers and directors may never realize any value from their awards. ASC Topic 718 also requires Autodesk to recognize the compensation cost of these share-based payment awards in the income statements over the period that an employee or director is required to render service in exchange for the stock option or other award.

Report of the Compensation Committee

The Compensation and Human Resources Committee of the Board of Directors, which is composed solely of independent members of the Board of Directors, assists the Board in fulfilling its responsibilities regarding compensation matters and, pursuant to its Charter, is responsible for determining the compensation of Autodesk's executive officers. The Compensation and Human Resources Committee has reviewed and discussed the Compensation Discussion and Analysis included in this Proxy Statement as required by Item 402(b) of Regulation S-K with Autodesk's management team. Based on this review and discussion, the Compensation and Human Resources Committee has recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this Proxy Statement.

COMPENSATION AND HUMAN RESOURCES COMMITTEE OF THE BOARD OF DIRECTORS

Mary T. McDowell, Chair
Crawford W. Beveridge
Lorrie M. Norrington

Summary Compensation Table and Narrative Disclosure

This narrative discussion, as well as the table and footnotes below, summarizes our named executive officers' compensation for fiscal 2019, 2018 and 2017. The named executive officers are Andrew Anagnost (President and Chief Executive Officer), R. Scott Herren (Senior Vice President and Chief Financial Officer) and the next three next most highly compensated individuals who were serving as executive officers of Autodesk on January 31, 2019, the last day of our most recent fiscal year. For information on our compensation objectives, see the discussion under the heading "Compensation Discussion and Analysis."

Salary

Named executive officers are paid a cash-based salary. We did not provide equity or other non-cash items to our named executive officers as salary compensation during fiscal 2019, 2018 and 2017.

Bonus

This column represents payments made to our named executive officers for amounts that relate to: signing bonuses, as in the case of Ms. Galvin, who received a sign-on bonus in fiscal 2019; and other miscellaneous amounts, such as payments made in recognition of years of service as part of an Autodesk company-wide program.

Stock Awards

Amounts shown in this column do not reflect compensation actually received by our named executive officers. Instead, the amounts reported represent the aggregate grant date fair values of PSU awards and RSU awards, as determined pursuant to ASC Topic 718. The assumptions used in the valuation of these awards are set forth in Note 1, "Business and Summary of Significant Accounting Policies" in the Notes to Consolidated Financial Statements in our fiscal 2019 Annual Report on Form 10-K filed on March 25, 2019.

Equity and Non-Equity Incentive Plan Compensation

Non-equity incentive plan compensation represents amounts earned for services performed during the relevant fiscal year pursuant to our short-term cash incentive plan ("EIP") for all executive officers shown. The amounts shown in the Non-Equity Incentive Plan Compensation column below reflect the total cash amounts awarded. Cash amounts awarded under the EIP are payable in the first quarter of the following fiscal year.

All Other Compensation

This column represents all other compensation for the relevant fiscal year not reported in the previous columns, such as severance payments, payment of relocation and temporary housing expenses, reimbursement of certain tax expenses, authorized familial travel and gifts in connection with business trips, Autodesk's matching contributions to pre-tax savings plans, insurance premiums, personal gifts and related tax gross ups. Generally, unless the items included in this category exceed the greater of $25,000 or 10% of the total amount of perquisites received by a given named executive officer, individual perquisites are not separately identified and quantified.

The Summary Compensation Table below presents information concerning the total compensation of our named executive officers for fiscal 2019, 2018 and 2017. Ms. Galvin was not an employee in fiscal 2018 and 2017 and Mr. Di Fronzo was not a named executive officer in fiscal 2017 so their compensation is not presented for those periods.

Name and Principal Position (a)	Fiscal Year	Salary ($)	Bonus ($)(f)	Stock Awards ($) (g)	Non-Equity Incentive Plan Compensation ($)	All Other Compensation ($)	Total ($)
Andrew Anagnost	2019	819,711	—	7,066,886	1,102,200	32,961	9,021,758
Chief Executive Officer and President (a)	2018	659,846	1,200	10,601,052	724,711	358,897	12,345,706
	2017	423,231	—	4,272,160	285,390	54,159	5,034,940
R. Scott Herren,	2019	599,246	—	3,890,605	483,120	32,802	5,005,773
Senior Vice President and Chief Financial Officer (b)	2018	586,446	—	3,535,328	430,565	38,185	4,590,524
	2017	574,385	—	4,335,028	387,315	88,146	5,384,874
Steven M. Blum,	2019	569,915	—	3,062,510	459,360	50,861	4,142,646
Senior Vice President, Worldwide Sales and Services (c)	2018	558,480	900	2,469,381	410,027	69,581	3,508,369
	2017	547,033	—	3,882,746	368,872	136,771	4,935,422
Pascal W. Di Fronzo,	2019	495,762	1,200	2,279,150	399,168	7,291	3,182,571
Senior Vice President, Corporate Affairs, Chief Legal Officer and Secretary (d)	2018	488,565	—	1,915,351	358,682	5,584	2,768,182
Carmel Galvin	2019	361,539	50,000	2,026,238	289,026	7,326	2,734,129
Senior Vice President, People and Places and Chief Human Resources Officer (e)							

(a) Dr. Anagnost's other compensation includes $15,949 authorized executive and spouse travel in connection with a business trip, tax gross-ups of $13,559 for certain perquisites, the 401(k) plan match, and standard health benefits.

(b) Mr. Herren's fiscal 2019 other compensation includes $13,666 authorized executive and spouse travel in connection with a business trip, gifts, tax gross-ups of $12,327 for certain perquisites, the 401(k) plan match and standard health benefits.

(c) Mr. Blum’s fiscal 2019 other compensation includes $27,115 authorized executive and spouse travel in connection with business trips, gifts, tax gross-ups of $17,832 for certain perquisites, the 401(k) plan match, and standard health benefits.

(d) Mr. Di Fronzo's fiscal 2019 other compensation includes gifts, tax gross-ups of $1,334 for certain perquisites, the 401(k) plan match and standard health benefits.

(e) Ms. Galvin's fiscal 2019 other compensation includes gifts, tax gross-ups of $166 for certain perquisites, the 401(k) plan match and standard health benefits.

(f) Fiscal 2019 amount for Ms. Galvin consists of $50,000 sign-on bonus which was subject to repayment if she resigned her employment within 12 months. Fiscal 2019 amount for Mr. Di Fronzo consists of a payment made in recognition of years of service as part of Autodesk's company-wide program.

(g) Amounts consist of the aggregate grant date value for PSU and RSU awards computed in accordance with FASB ASC Topic 718, based on target levels of achievement (the probable outcome at grant) in the case of PSUs. The assumptions used in the valuation of these awards are set forth in Note 1, “Business and Summary of Significant Accounting Policies,” in the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K filed on March 25, 2019. The maximum value of PSU awards generally is capped at 180% of target. The maximum values for PSU awards granted in fiscal 2019 are as follows: Dr. Anagnost: $6,694,532; Mr. Herren: $4,299,391; Mr. Blum: $3,339,947; Mr. Di Fronzo: $2,654,008; and Ms. Galvin: $978,430. Actual PSU awards earned in fiscal 2019 by the named executive officers are shown in “Long-Term Incentive Compensation" in the “Compensation Discussion and Analysis.”

Grants of Plan-Based Awards in Fiscal 2019

Grants of plan-based awards reflect grants made to our named executive officers under our non-equity incentive plans and equity compensation plans during fiscal 2019.

The following tables include potential threshold, target and maximum amounts payable under our short-term cash incentive plan (EIP) for performance during fiscal 2019, and do not constitute compensation on top of the amounts included in the Summary Compensation Table. However, these amounts do not reflect amounts actually earned for fiscal 2019. The following table also includes amounts relating to PSUs and RSUs issued under our 2012 Employee Stock Plan (the "2012 Stock Plan"). See "Annual Incentive Award Decisions" and "Long-Term Incentive Compensation" in the "Compensation Discussion and Analysis" section above for actual amounts earned in fiscal 2019 by the named executive officers and further discussion of the role of plan-based and other awards in our overall executive compensation program.

The following tables present information concerning grants of plan-based awards to each of the named executive officers during fiscal 2019:

		Estimated Future Payouts Under Non-Equity Incentive Plan Awards (a)			Estimated Future Payouts Under Equity Incentive Plan Awards (b)				
Name	Grant Date	Threshold ($)	Target ($)	Maximum ($)	Threshold ($)	Target (#)	Maximum (#)	All Other Stock Awards: Number of Shares of Stock (#)(c)	Grant Date Fair Value of Stock Awards ($) (d)
Andrew Anagnost	3/21/2018	—	—	—	—	—	—	24,699	3,347,702
	3/21/2018	—	—	—	—	6,627	11,928	—	1,059,856
	3/21/2018	—	—	—	—	5,776	10,396	—	842,025
	3/21/2018	—	—	—	—	12,350	22,230	—	1,817,303
		—	1,043,750	2,087,500					
R. Scott Herren	3/21/2018	—	—	—	—	—	—	11,082	1,502,054
	3/21/2018	—	—	—	—	7,149	12,868	—	1,143,340
	3/21/2018	—	—	—	—	4,813	8,663	—	701,639
	3/21/2018	—	—	—	—	3,694	6,649	—	543,572
		—	457,500	915,000					
Steven M. Blum	3/21/2018	—	—	—	—	—	—	8,905	1,206,984
	3/21/2018	—	—	—	—	5,361	9,649	—	857,385
	3/21/2018	—	—	—	—	3,850	6,930	—	561,253
	3/21/2018	—	—	—	—	2,969	5,344	—	436,888
		—	435,000	870,000					
Pascal W. Di Fronzo	3/21/2018	—	—	—	—	—	—	5,937	804,701
	3/21/2018	—	—	—	—	4,766	8,578	—	762,226
	3/21/2018	—	—	—	—	2,888	5,198	—	421,013
	3/21/2018	—	—	—	—	1,979	3,562	—	291,210
		—	378,000	756,000					
Carmel Galvin	3/5/2018	—	—	—	—	—	—	12,473	1,482,666
	3/21/2018	—	—	—	—	3,694	6,649	—	543,572
		—	273,699	547,398					

(a) Reflects target and maximum dollar amounts payable under the EIP for performance during fiscal 2019, as described in "Compensation Discussion and Analysis—Elements of Executive Compensation Programs." "Threshold" refers to the minimum amount payable for a certain level of performance; "Target" refers to the amount payable if specified performance targets are reached; and "Maximum" refers to the maximum payout possible.

(b) Represents shares of our Common Stock subject to each of the PSU awards granted to the named executive officers in fiscal 2019 under our 2012 Stock Plan. These columns show the awards that were possible at the threshold, target and maximum levels of performance. Shares were to be earned based upon total ARR and free cash flow per share goals for fiscal 2019 adopted by the Compensation and Human Resources Committee (the "Annual Financial Results"), as well as TSR compared against the companies in the S&P Computer Software Select Index or the S&P North American Technology Software Index with a market capitalization over $2 billion ("Relative TSR"). In each case, Annual Financial Results for the relevant performance period could result in PSU attainment, subject to the Relative TSR modifier, of 0%-150% of target. Once that Annual Financial Results percentage is established, it is multiplied by a percentage ranging from 80%-120%, depending on Autodesk's Relative TSR performance for the period. Ultimately, PSUs could be earned from 0%-180% of target. Actual PSU awards earned in fiscal 2019 by the named executive officers under this program are shown in "Long-Term Incentive Compensation" in the "Compensation Discussion and Analysis."

(c) RSUs granted on March 21, 2018 vest in three equal annual installments beginning on the first anniversary of the date of grant. RSUs granted to Ms. Galvin on March 5, 2018 vest in three equal annual installments beginning on the first anniversary of the date of grant.

(d) Reflects the grant date fair value of each equity award. The assumptions used in the valuation of these awards are set forth in Note 1, "Business and Summary of Significant Accounting Policies," in the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K filed on March 25, 2019. These amounts do not correspond to the actual value that will be realized by the named executive officers upon the vesting of RSUs or the sale of the Common Stock underlying such awards.

Outstanding Equity Awards at Fiscal 2019 Year End

The following table presents information concerning outstanding unvested RSU and PSU awards for each named executive officer as of January 31, 2019. This table includes RSUs and PSUs granted under the 2012 Stock Plan. Unless otherwise indicated, all RSU awards vest in three equal annual installments beginning on the first anniversary of the date of grant.

		Stock Awards			
Name	Grant Date	Number of Shares of Stock That Have Not Vested (#)	Market Value of Shares of Stock That Have Not Vested ($) (a)	Equity Incentive Plan Awards: Number of Unearned Shares That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares That Have Not Vested ($)
Andrew Anagnost	3/10/2016	8,118 (b)	1,194,970	—	—
	3/10/2016	6,627	975,494	—	—
	3/14/2017	6,370 (c)	937,664	—	—
	3/14/2017	11,668	1,717,530	—	—
	6/19/2017	9,658	1,421,658	—	—
	6/19/2017	—	—	39,840 (e)	5,864,448
	3/21/2018	12,992 (d)	1,912,422	—	—
	3/21/2018	24,699	3,635,693	—	—
R. Scott Herren	3/10/2016	8,758 (b)	1,289,108	—	—
	3/10/2016	7,149	1,052,333	—	—
	3/14/2017	5,308 (c)	781,338	—	—
	3/14/2017	9,723	1,431,226	—	—
	3/21/2018	3,886 (d)	572,019	—	—
	3/21/2018	11,082	1,631,270	—	—
Steven M. Blum	3/10/2016	6,567 (b)	966,662	—	—
	3/10/2016	5,361	789,139	—	—
	3/14/2017	4,246 (c)	625,011	—	—
	3/14/2017	7,778	1,144,922	—	—
	3/21/2018	3,123 (d)	459,706	—	—
	3/21/2018	8,905	1,310,816	—	—
Pascal W. Di Fronzo	3/10/2016	5,838 (b)	859,354	—	—
	3/10/2016	4,766	701,555	—	—
	3/14/2017	3,185 (c)	468,832	—	—
	3/14/2017	5,834	858,765	—	—
	3/21/2018	2,082 (d)	306,470	—	—
	3/21/2018	5,937	873,926	—	—
Carmel Galvin	3/5/2018	12,473	1,836,026	—	—
	3/21/2018	3,886 (d)	572,032	—	—

(a) Market value of RSUs that have not vested is computed by multiplying (i) $147.20, the closing price on the Nasdaq of Autodesk Common Stock on January 31, 2019, the last trading day of fiscal 2019, by (ii) the number of shares of stock underlying RSU awards.

(b) Awards relate to the third year tranche of PSU awards granted on March 10, 2016 under the 2012 Stock Plan. These PSUs were subject to achievement of total ARR and free cash flow per share goals for fiscal 2019 adopted by the Compensation and Human Resources Committee, as well as TSR compared against the companies in the S&P Computer Software Select Index. The third year tranche of these PSUs were earned as of January 31, 2019 and subject to vest on March 25, 2019.

(c) Awards related to the second year tranche of PSU awards granted on March 14, 2017 under the 2012 Stock Plan. These PSUs were subject to achievement of total ARR and free cash flow per share goals for fiscal 2019 adopted by the Compensation and Human Resources Committee, as well as TSR compared against the companies in the S&P North American Technology Software Index with a market capitalization over $2 billion. The second year tranche of these PSUs were earned as of January 31, 2019 and subject to vest on March 25, 2019.

(d) Awards related to the first year tranche of PSU awards granted on March 21, 2018 under the 2012 Stock Plan. These PSUs were subject to achievement of total ARR and free cash flow per share for fiscal 2019 adopted by the Compensation and Human Resources Committee, as well as TSR compared against the S&P North American Technology Software Index with a market capitalization over $2 billion. The first year tranche of these PSUs were earned as of January 31, 2019 and subject to vest on March 25, 2019.

(e) Awards related to the PSU awards granted on June 19, 2017 under the 2012 Stock Plan. These PSUs are subject to achievement of fiscal 2020 free cash flow per share and ARR goals adopted by the Compensation and Human Resources Committee. These PSUs vest on March 20, 2020.

Option Exercises and Stock Vested at Fiscal 2019 Year End

There were no stock options exercised by any of the named executive officers during fiscal 2019. The following table presents information concerning the vesting of stock awards held by each of the named executive officers during fiscal 2019.

	Stock Awards	
Named Executive Officer	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting ($) (a)
Andrew Anagnost	84,084	11,323,480
R. Scott Herren	60,863	8,199,347
Steven M. Blum	54,837	7,410,817
Pascal W. Di Fronzo	42,484	5,743,339
Carmel Galvin	—	—

(a) For stock awards vested, reflects the number of shares acquired on vesting of RSUs or PSUs multiplied by the closing market price of our Common Stock as reported on the Nasdaq on the vesting date.

Nonqualified Deferred Compensation for Fiscal 2019

Under our Nonqualified Deferred Compensation Plan, certain United States-based officers (including named executive officers) may defer compensation earned such as salary or awards under the short-term cash incentive plan (EIP). Deferral elections are made by eligible executive officers each year during an "open enrollment" period for amounts to be earned in the following year. Autodesk does not make any contribution for executive officers under the Nonqualified Deferred Compensation Plan. Prior to April 2013, we maintained our Autodesk, Inc. Equity Incentive Deferral Plan, which permitted certain executive officers to defer up to 50% of their EIP award.

The following table presents information regarding non-qualified deferred compensation activity for each listed officer during fiscal 2019:

Named Executive Officer	Executive Contributions (Distributions) in Fiscal Year ($)	Aggregate Earnings/ (Losses) in Fiscal Year ($) (a)	Aggregate Balance at Fiscal Year End ($)
Andrew Anagnost	32,115	(31,267)	3,068,224
R. Scott Herren	—	—	—
Steven M. Blum	123,008	(11,610)	1,451,339
Pascal W. Di Fronzo	(61,196)	(16,034)	162,553
Carmel Galvin	—	—	—

(a) None of the earnings or losses in this column are reflected in the Summary Compensation Table because they are not considered preferential or above market.

CEO Pay Ratio

In accordance with SEC rules, we are providing the ratio of the annual total compensation of our CEO to the annual total compensation of our median employee (excluding our CEO). The fiscal 2019 annual total compensation of our CEO was $9,021,758. The fiscal 2019 annual total compensation of our median compensated employee was $117,829 and the ratio of these amounts was 76.6 to 1.

Over the past 12 months, we have significantly increased our employee population. As a result, we have chosen to determine a new median employee for fiscal 2019.

To identify the median employee, we examined the compensation of our full- and part-time employees (other than our CEO) as of the last day of our fiscal year. As permitted by the SEC rules requiring disclosure of our CEO pay ratio, we excluded approximately 600 employees of PlanGrid, Inc. and BuildingConnected, Inc. in light of our acquisition of these companies in fiscal 2019. We used target total direct compensation as our consistently applied compensation measure. Target total direct compensation for this purpose consisted of each employee's estimated salary earnings, target non-equity incentive opportunity for fiscal 2019, and the fair market value price of his or her equity incentive awards granted in fiscal 2019. We also converted all employee compensation, on a country-by-country basis, to U.S. dollars based on the applicable year-end exchange rate. After identifying the median employee, we calculated the annual total compensation for such employee using the same methodology that we used for our NEOs as set forth in the Summary Compensation Table.

The pay ratio reported above is a reasonable estimate calculated in a manner consistent with SEC rules, based on our internal records and the methodology described above. The SEC rules for identifying the median compensated employee and calculating the pay ratio based on that employee's annual total compensation allow companies to adopt a variety of methodologies, to apply certain exclusions, and to make reasonable estimates and assumptions that reflect their employee populations and compensation practices. Accordingly, the pay ratio reported by other companies may not be comparable to the pay ratio reported above, as other companies have different employee populations and compensation practices and may use different methodologies, exclusions, estimates and assumptions in calculating their own pay ratios.

Change-in-Control Arrangements, Severance Plan and Employment Agreement

In an effort to ensure the continued service of our executive officers in the event of a change-in-control, each of our executive officers (other than our CEO) participate in an amended and restated Executive Change in Control Program (the "Program") that was approved by the Board in March 2006 and amended most recently in December 2016. Dr. Anagnost has a change-in-control provision in his employment agreement, as noted below. Additionally, in August 2018, the Committee adopted the Autodesk, Inc. Severance Plan (the "Severance Plan") to establish standard executive severance terms and to minimize the need to negotiate individualized executive severance terms in the future. Each of our current executive officers (other than our CEO) has been designated by the Committee to participate in the Severance Plan.

Executive Change in Control Program

Under the terms of the Program, if, within sixty days prior to or twelve months following a "change in control," an executive officer who participates in the Program is terminated without "cause," or voluntarily terminates his or her employment for "good reason" (as those terms are defined in the Program), the executive officer will receive (among other benefits), following execution of a release and non-solicit agreement:

- An amount equal to one and one-half times the sum of the executive officer's annual base salary and average annual bonus, plus the executive officer's pro-rata bonus, provided the Company bonus targets are satisfied, payable in a lump sum;
- Acceleration of all of the executive officer's outstanding incentive equity awards, including stock options and RSUs; and
- Reimbursement of the total applicable premium cost for medical and dental coverage for the executive officer and his or her eligible spouse and dependents until the earlier of 18 months from the date of termination or when the executive officer becomes covered under another employer's employee benefit plans.
- An executive officer who is terminated for any other reason will receive severance or other benefits only to the extent the executive would be entitled to receive them under our then-existing benefit plans and policies. If the benefits provided under the Program constitute parachute payments under Section 280G of the Code and are subject to the excise tax imposed by Section 4999 of the Code, then such benefits will be (1) delivered in full, or (2) delivered to such lesser extent that would result in no portion of the benefits being subject to the excise tax, whichever results in the executive officer receiving the greatest amount of benefits.

As defined in the Program, a "change in control" occurs if any person acquires 50% or more of the total voting power represented by voting securities, if Autodesk sells all or substantially all its assets, if Autodesk merges or consolidates with another corporation, or if the composition of the Board changes substantially.

Severance Plan

Under the terms of the Severance Plan, if a participant in the Severance Plan is terminated without "cause" or voluntarily terminates his or her employment for "good reason" (as those terms are defined in the Severance Plan) then, in addition to payment of accrued base salary and vacation and any previously awarded but unpaid bonus, the participant will be eligible to receive the following benefits under the Severance Plan, subject to execution of a release and compliance with certain non-disparagement, non-solicitation and confidentiality covenants:

- A lump sum payment equal to the sum of (A) one and one-half times the participant's base pay as in effect on the date of termination, and (B) one and one-half times the participant's target annual cash bonus incentive amount under the Company's annual cash bonus incentive plan applicable to the participant as in effect on the date of termination;
- Accelerated vesting of the participant's time-based RSUs that would have become vested had the participant remained continuously employed by the Company for an additional twelve months following the termination;
- Continued vesting of the participant's PSUs that would have become vested had the participant remained continuously employed by the Company for an additional twelve months following the termination, based on the extent to which the underlying performance criteria, with respect to such awards, are satisfied for such performance period;
- A taxable lump sum payment in an amount equal to twelve times the monthly premium that the participant would be required to pay to continue their group health coverage if the participant had made a timely election under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended; and

- Company-provided outplacement services in accordance with the Company's then-applicable outplacement service program or arrangements for eighteen months immediately following the date of termination.

The Severance Plan does not provide for any excise tax payment. In the event that any payment or benefit payable to a participant under the Severance Plan would result in the imposition of excise taxes under the "golden parachute" provisions of Section 280G of the Code, then such payments and benefits will be (1) delivered in full, or (2) delivered to such lesser extent that would result in no portion of the benefits being subject to the excise tax, whichever results in the participant receiving the greatest amount of benefits.

Employment Agreement with Andrew Anagnost

In connection with Dr. Anagnost's appointment as CEO, in June 2017, Dr. Anagnost entered into an employment agreement with the Company which provides for, among other things, certain payments and benefits to be provided to Dr. Anagnost in the event his employment is terminated without "cause" or he resigns for "good reason," including in connection with a "change of control," as each such term is defined in Dr. Anagnost's employment agreement.

In the event Dr. Anagnost's employment is terminated by Autodesk without cause or if Dr. Anagnost resigns for good reason and in each case such termination is not in connection with a change of control, Dr. Anagnost would receive (i) payment of 200% of his then current base salary for 12 months; (ii) payout of his pro-rata bonus for the fiscal year in which termination occurs, provided Autodesk bonus targets are satisfied, to be paid in one lump sum on or before March 15th of the succeeding fiscal year; (iii) fully accelerated vesting of all of his then outstanding, unvested equity awards (other than any awards that vest in whole or in part based on performance); (iv) with respect to his then outstanding unvested equity awards that vest in whole or in part based on performance, those awards will vest, as if he had remained continuously employed by Autodesk through the end of the performance period in which his employment is terminated, based on the extent, if any, that the underlying performance criteria for those awards are satisfied for that performance period, as prorated to reflect the number of days in which he was employed during such period; and (v) reimbursement for premiums paid for continued health benefits for Dr. Anagnost and his eligible dependents until the earlier of 12 months following termination or the date Dr. Anagnost becomes covered under similar health plans. In addition, Dr. Anagnost is subject to non-solicitation and non-competition covenants for 12 months following a termination that gives rise to the severance benefits discussed above.

If, in connection with a change of control, Dr. Anagnost 's employment is terminated by Autodesk without cause or if Dr. Anagnost resigns for good reason, Dr. Anagnost would receive (i) a lump sum payment in an amount equal to 200% of his then current annual base salary and average annual bonus; (ii) payout of his pro-rata bonus for the fiscal year of Autodesk in which termination occurs provided Autodesk bonus targets are satisfied, to be paid in one lump sum on or before March 15th of the succeeding fiscal year; (iii) fully accelerated vesting of all of his then outstanding unvested equity awards, including awards that would otherwise vest only upon satisfaction of performance criteria; and (iv) reimbursement for premiums paid for continued health benefits for Dr. Anagnost and his eligible dependents until the earlier of 18 months following termination or the date Dr. Anagnost becomes covered under similar health plans.

Potential Payments Upon Termination or Change in Control

The tables below list the estimated amount of compensation payable to each of the named executive officers in the event of voluntary termination, involuntary not-for-cause termination, for cause termination, termination following a change in control, and termination in the event of disability or death of the executive. The amounts shown assume that such termination was effective as of January 31, 2019, and include all components of compensation, benefits and perquisites payable under the Severance Plan and Executive Change in Control Program effective during the 2019 fiscal year or, in the case of Dr. Anagnost, pursuant to his employment agreement, discussed above.

Estimated amounts for share-based compensation are based on the closing price of our Common Stock on the Nasdaq on Thursday, January 31, 2019, which was $147.20 per share. The actual amounts for all named executive officers to be paid out can only be determined at the time of such executive's separation.

Andrew Anagnost

Executive Benefits and Payments	Voluntary Termination on 1/31/2019 ($)	Involuntary Not For Cause or Voluntary for Good Reason (Except Change in Control) Termination on 1/31/2019 ($)	For Cause Termination on 1/31/2019 ($)	Involuntary Not for Cause or Voluntary For Good Reason (Change in Control) Termination on 1/31/2019 ($)	Disability on 1/31/2019 ($)	Death on 1/31/2019 ($)
Compensation:						
Base Salary (1)	—	1,670,000	—	1,670,000	—	—
Short-Term Cash Incentive Plan (EIP) (2)	—	1,102,200	—	1,983,501	—	—
Equity Awards (3)	—	15,421,009	—	21,744,090	21,744,090	21,744,090
Benefits and perquisites:						
Health Insurance (4)	—	25,339	—	38,009	25,339	—
Disability Income (5)	—	—	—	—	2,400,647	—
Accidental Death or Dismemberment (6)	—	—	—	—	2,000,000	2,000,000
Life Insurance (7)	—	—	—	—	—	2,000,000
Total Executive Benefits and Payments Upon Separation	—	18,218,548	—	25,435,600	26,170,076	25,744,090

R. Scott Herren

Executive Benefits and Payments	Voluntary Termination on 1/31/2019 ($)	Involuntary Not For Cause or Voluntary for Good Reason (Except Change in Control) Termination on	For Cause Termination on 1/31/2019 ($)	Involuntary Not for Cause or Voluntary For Good Reason (Change in Control) Termination on	Disability on 1/31/2019 ($)	Death on 1/31/2019 ($)
Compensation:						
Base Salary (1)	—	915,000	—	915,000	—	—
Short-Term Cash Incentive Plan (EIP) (2)	—	686,250	—	1,103,673	—	—
Equity Awards (3)	—	4,954,362	—	8,215,379	8,215,379	8,215,379
Benefits and perquisites:						
Health Insurance (4)	—	39,646	—	33,541	22,361	—
Disability Income (5)	—	—	—	—	1,940,914	—
Accidental Death or Dismemberment (6)	—	—	—	—	1,830,000	1,830,000
Life Insurance (7)	—	—	—	—	—	1,220,000
Total Executive Benefits and Payments Upon Separation	—	6,595,258	—	10,267,593	12,008,654	11,265,379

Steven M. Blum

Executive Benefits and Payments	Voluntary Termination on 1/31/2019 ($)	Involuntary Not For Cause or Voluntary for Good Reason (Except Change in Control) Termination on 1/31/2019 ($)	For Cause Termination on 1/31/2019 ($)	Involuntary Not for Cause or Voluntary For Good Reason (Change in Control) Termination on 1/31/2019 ($)	Disability on 1/31/2019 ($)	Death on 1/31/2019 ($)
Compensation:						
Base Salary (1)	—	870,000	—	870,000	—	—
Short-Term Cash Incentive Plan (EIP) (2)	—	652,500	—	1,083,987	—	—
Equity Awards (3)	—	3,850,187	—	6,478,419	6,478,419	6,478,419
Benefits and perquisites:						
Health Insurance (4)	—	35,493	—	33,541	22,361	—
Disability Income (5)	—	—	—	—	2,373,864	—
Accidental Death or Dismemberment (6)	—	—	—	—	2,000,000	2,000,000
Life Insurance (7)	—	—	—	—	—	2,000,000
Total Executive Benefits and Payments Upon Separation	—	5,408,180	—	8,465,947	10,874,644	10,478,419

Pascal W. Di Fronzo

Executive Benefits and Payments	Voluntary Termination on 1/31/2019 ($)	Involuntary Not For Cause or Voluntary for Good Reason (Except Change in Control) Termination on 1/31/2019 ($)	For Cause Termination on 1/31/2019 ($)	Involuntary Not for Cause or Voluntary For Good Reason (Change in Control) Termination on 1/31/2019 ($)	Disability on 1/31/2019 ($)	Death on 1/31/2019 ($)
Compensation:						
Base Salary (1)	—	756,000	—	756,000	—	—
Short-Term Cash Incentive Plan (EIP) (2)	—	567,000	—	916,235	—	—
Equity Awards (3)	—	3,057,008	—	4,859,955	4,859,955	4,859,955
Benefits and perquisites:						
Health Insurance (4)	—	44,177	—	37,374	24,916	—
Disability Income (5)	—	—	—	—	2,300,132	—
Accidental Death or Dismemberment (6)	—	—	—	—	2,000,000	2,000,000
Life Insurance (7)	—	—	—	—	—	504,000
Total Executive Benefits and Payments Upon Separation	—	4,424,185	—	6,569,564	9,185,003	7,363,955

Carmel Galvin

Executive Benefits and Payments	Voluntary Termination on 1/31/2019 ($)	Involuntary Not For Cause or Voluntary for Good Reason (Except Change in Control) Termination on 1/31/2019 ($)	For Cause Termination on 1/31/2019 ($)	Involuntary Not for Cause or Voluntary For Good Reason (Change in Control) Termination on 1/31/2019 ($)	Disability on 1/31/2019 ($)	Death on 1/31/2019 ($)
Compensation:						
Base Salary (1)	—	600,000	—	600,000	—	—
Short-Term Cash Incentive Plan (EIP) (2)	—	450,000	—	739,026	—	—
Equity Awards (3)	—	1,184,090	—	3,467,296	3,467,296	3,467,296
Benefits and perquisites:						
Health Insurance (4)	—	54,056	—	45,732	30,488	—
Disability Income (5)	—	—	—	—	2,840,690	—
Accidental Death or Dismemberment (6)	—	—	—	—	1,600,000	1,600,000
Life Insurance (7)	—	—	—	—	—	1,200,000
Total Executive Benefits and Payments Upon Separation	—	2,288,146	—	4,852,054	7,938,474	6,267,296

(1) *Base Salary:* For Dr. Anagnost, the amounts shown would be paid in accordance with his employment agreement that was in effect as of January 31, 2019. For the other continuing named executive officers, the amounts shown would be paid in accordance with the Severance Plan or Executive Change in Control Program effective at the end of the 2019 fiscal year.

(2) *Short-Term Cash Incentive Plan (EIP):* For Dr. Anagnost, the amounts shown would be paid in accordance with his employment agreement that was in effect as of January 31, 2019. For the other continuing named executive officers, the amounts shown would be paid in accordance with the Severance Plan or Executive Change in Control Program effective at the end of 2019 fiscal year. These amounts are based on the cash value of the short-term cash incentive plan.

(3) *Equity Awards:* Pursuant to the Company's form of RSU and PSU award agreement, in the case of Disability or Death, unvested time-based RSUs vest in full and unvested PSUs vest at target. For Dr. Anagnost, the amounts shown for other termination scenarios reflect the value of unvested equity awards accelerated in accordance with his employment agreement that was in effect as of January 31, 2019. For the other continuing named executive officers, the amounts shown for other termination scenarios reflect the value of unvested equity awards accelerated in accordance with the Severance Plan or Executive Change in Control Program effective at the end of 2019 fiscal year. Reported values are based on the closing price of our Common Stock on January 31, 2019 ($147.20 per share) for RSUs and PSUs and target PSUs.

(4) *Health Insurance:* For Dr. Anagnost, in accordance with his employment agreement that was in effect as of January 31, 2019, these amounts represent the cost of continuing coverage for Dr. Anagnost and his dependents. The amount shown in the Involuntary Not for Cause or Voluntary for Good Reason (Except Change in Control) Termination column reflects twelve months of coverage after separation. The amounts in the Involuntary Not for Cause or Voluntary for Good Reason (Change in Control) Termination column reflect eighteen months of coverage after separation. For the other continuing named executive officers, these amounts represent the cost of continuing coverage for medical and dental benefits for each executive and his or her dependents (i) in the case of the Disability column, for twelve months in accordance with Autodesk's benefits program, (ii) in the case of the Involuntary Not for Cause or Voluntary for Good Reason (Except Change in Control) Termination column for twelve months after separation and grossed up for taxes in accordance with the Severance Plan effective at the end of the 2019 fiscal year, and (iii) in the case of the Involuntary Not for Cause or Voluntary for Good Reason (Change in Control) Termination column, for eighteen months after separation in accordance with the Executive Change in Control Program effective at the end of the 2019 fiscal year.

(5) *Disability Income:* Reflects the estimated present value of all future payments to each executive under his or her elected disability program, which represent 100% of base salary for the first 90 days, and then 66-$^{2}/3$% of salary thereafter, with a maximum of $20,000 per month, until the age of 67. These payments would be made by the insurance provider, not by Autodesk.

(6) *Accidental Death or Dismemberment:* Reflects the lump-sum amount payable to each executive or his or her beneficiaries by Autodesk's insurance provider in the event of the executive's accidental death. There is also a prorated lump sum payment for dismemberment. The amount shown as payable upon dismemberment is based upon the payout for the most severe dismemberment under the plan.

(7) *Life Insurance:* Reflects the lump-sum amount payable to beneficiaries by Autodesk's insurance provider in the event of the executive's death.

Compensation of Directors

During fiscal 2019, our non-employee directors were eligible to receive the annual compensation set forth below:

Member of the Board of Directors		$75,000 and RSUs ($250,000 equivalent)
Non-executive Chairman of the Board	an additional	$75,000
Chair of the Audit Committee	an additional	$25,000
Chair of the Compensation and Human Resources Committee	an additional	$20,000
Chair of the Corporate Governance and Nominating Committee	an additional	$10,000

The annual compensation cycle for non-employee directors begins on the date of the annual stockholders' meeting and ends on the date of the next annual stockholders' meeting ("Directors' Compensation Cycle"). Director compensation in the tables below represents the portion of annual compensation with respect to service during Autodesk's fiscal 2019.

No later than December 31 of the year prior to a director's re-election to the Board, the director can elect to receive up to 100% of his or her annual fees in the form of RSUs issued at a rate of $1.20 worth of stock for each $1.00 of cash compensation foregone ("Elected RSUs"). If cash is elected, cash compensation is accrued monthly and paid quarterly, in arrears. The Elected RSUs are issued at the beginning of the Directors' Compensation Cycle on the date of the annual meeting of stockholders and will vest on the date of the annual meeting of stockholders in the following year, provided that the recipient is a director on such date.

Non-Employee Director Annual Compensation Cycle
June 12, 2018 Annual Stockholder Meeting - June 12, 2019 Annual Stockholder Meeting

Director	% Annual Fees Elected to Convert to RSUs (June 15, 2017 - June 12, 2018)	% Annual Fees Elected to Convert to RSUs (June 13, 2018 - June 12, 2019)
Stacy J. Smith	100	100
Crawford W. Beveridge (a)	100	100
Karen Blasing (b)	N/A	—
Reid French	N/A	100
Blake Irving (b)	N/A	—
Mary T. McDowell	100	100
Stephen Milligan (b)	N/A	—
Lorrie M. Norrington	100	100
Betsy Rafael	—	—
Former Directors:		
Carl Bass (c)	—	N/A
Thomas Georgens (c)	—	N/A
Richard (Rick) S. Hill (c)	10	N/A

(a) Mr. Beveridge is not standing for re-election at the Annual Meeting.
(b) Karen Blasing joined the Board on March 21, 2018, Blake Irving joined the Board on March 22, 2019 and Stephen Milligan joined the Board on December 13, 2018. They were not eligible to make cash to RSU elections for their respective non-employee director annual compensation cycles in the year they joined the Board.
(c) Messrs. Bass, Georgens and Hill did not stand for re-election at the 2018 Annual Meeting.

During fiscal 2019, Autodesk's 2012 Outside Directors' Stock Plan provided for the automatic grant of RSUs to our non-employee directors. Upon being elected or appointed to our Board, each non-employee director would be provided an initial grant of RSUs with a grant date value of $250,000 and prorated based on service on the date such director joined the Board

("Initial RSUs"), with subsequent annual grants of RSUs with a grant date value of $250,000 on the date of the Annual Meeting ("Subsequent Annual RSUs").

$$\$250{,}000 \times \frac{\text{The number of calendar days from the Date of Grant to the Company's next annual meeting of stockholders}}{365} \,/\, \text{Fair Market Value of a Share on the Date of Grant} = \text{Result is rounded down to the nearest whole number of shares}$$

Initial RSUs vest upon the annual meeting of stockholders following the date of grant. Subsequent Annual RSUs vest over a one-year period. If a non-employee director is appointed on the date of an Annual Meeting, such non-employee director is not eligible for an Initial RSU.

Commencing in fiscal 2020, under Autodesk's 2012 Outside Directors' Stock Plan, directors may elect to defer all or part of their Subsequent Annual RSUs and Elected RSUs. Distributions of these deferred RSUs will be made in shares of the Company's common stock in annual installments or by lump sum in accordance with the distribution election made by the director.

The tables below present information concerning the compensation paid by us to each of our non-employee directors for fiscal 2019. Mr. Irving was not a director of the Company during fiscal 2019 and did not receive compensation from the Company during that period. Dr. Anagnost, who was an Autodesk employee during fiscal 2019, did not receive additional compensation for his service as a director.

Current Directors (a)	**Fees Earned or Paid in Cash ($) (b)**	**Stock Awards ($) (c)**	**Total ($)**
Stacy J. Smith	122,500	474,447	596,947
Crawford W. Beveridge	105,160	270,937	376,097
Karen Blasing	65,000	306,786	371,786
Reid French	75,000	259,480	334,480
Mary T. McDowell	95,000	268,931	363,931
Stephen Milligan	10,081	123,911	133,992
Lorrie M. Norrington	75,000	264,971	339,971
Betsy Rafael	100,000	249,995	349,995
Former Directors:			
Carl Bass	27,500	249,995	277,495
Thomas Georgens	31,167	249,995	281,162
Richard (Rick) S. Hill	27,500	250,541	278,041

(a) Mr. Smith succeeded Mr. Beveridge as non-executive Chairman of the Board at the 2018 Annual Meeting of Stockholders. In connection with his appointment, Mr. Smith received a one-time $200,000 RSU grant, which cliff vests on the two-year anniversary of grant. Mr. Smith also received a prorated $75,000 annual non-executive Chairman of the Board retainer. Mr. Beveridge received a prorated $65,000 annual non-executive Chairman of the Board retainer. Ms. Blasing joined the Board on March 21, 2018 and received prorated fees and prorated Initial RSUs for 419 shares. Mr. Milligan joined the Board on December 13, 2018 and received prorated fees and prorated Initial RSUs for 914 shares. Messrs. Bass, Georgens and Hill did not stand for re-election at the June 12, 2018 Annual Meeting and received prorated fees.

(b) Fees Earned or Paid in Cash reflects the dollar amounts of fees earned. As noted above, during fiscal 2019, directors could elect to receive up to 100% of their compensation in the form of RSUs in lieu of cash. The following table represents actual cash received by the directors in fiscal 2019 based on their elections. See footnote (c) for more information regarding the RSUs granted in lieu of cash.

Current Directors	Fees Actually Paid in Cash ($)
Stacy J. Smith	—
Crawford W. Beveridge	—
Karen Blasing	65,000
Reid French	—
Mary T. McDowell	—
Stephen Milligan	10,081
Lorrie M. Norrington	—
Betsy Rafael	100,000
Former Directors:	
Carl Bass	27,500
Thomas Georgens	31,165
Richard (Rick) S. Hill	24,750

(c) The Stock Awards column reflects (i) the grant date fair value of the Initial RSUs and Subsequent Annual RSUs and (ii) the pro-rata grant date fair value of 20% of the stock awards the directors earned during fiscal 2019 in lieu of cash. The 20% represents the premium of $1.20 worth of stock for each $1.00 of cash compensation foregone. The Stock Awards column also includes Mr. Smith's one-time $200,000 RSU grant. The assumptions used in the valuation of these awards are set forth in Note 1, "Business and Summary of Significant Accounting Policies" in the Notes to Consolidated Financial Statements in our fiscal 2019 Annual Report on Form 10-K filed on March 25, 2019. These amounts do not correspond to the actual value that will be realized by the directors upon the vesting of RSUs or the sale of the Common Stock underlying such awards.

The following table shows the total amounts and fair values, as well as the 20% premium, of RSUs granted on June 14, 2017, in lieu of cash foregone for the June 15, 2017 through June 12, 2018 Directors' Compensation Cycle:

	Restricted Stock Unit			
Current Directors	Total Number of Shares (#)	Number of Shares Representing the 20% Premium (#)	Grant Date Fair Value of Stock Awards ($)	Grant Date Fair Value of the 20% Premium of the Stock Awards ($)
Stacy J. Smith	847	141	89,951	14,974
Crawford W. Beveridge	1,581	263	167,902	27,931
Karen Blasing	—	—	—	—
Reid French	—	—	—	—
Mary T. McDowell	1,073	178	113,953	18,904
Stephen Milligan	—	—	—	—
Lorrie M. Norrington	847	141	89,951	14,974
Betsy Rafael	—	—	—	—
Former Directors:				
Carl Bass	—	—	—	—
Thomas Georgens	—	—	—	—
Richard (Rick) S. Hill	84	14	8,921	1,487

The following table shows the total amounts and fair values, as well as the 20% premium, of RSUs granted on June 12, 2018, in lieu of cash foregone for the June 13, 2018 through June 12, 2019 Directors' Compensation Cycle:

	Restricted Stock Unit			
Current Directors	**Total Number of Shares (#)**	**Number of Shares Representing the 20% Premium (#)**	**Grant Date Fair Value of Stock Awards ($)**	**Grant Date Fair Value of the 20% Premium of the Stock Awards ($)**
Stacy J. Smith	1,310	218	179,942	29,944
Crawford W. Beveridge	742	123	101,921	16,895
Karen Blasing	—	—	—	—
Reid French	655	109	89,971	14,972
Mary T. McDowell	829	138	113,871	18,956
Stephen Milligan	—	—	—	—
Lorrie M. Norrington	655	109	89,971	14,972
Betsy Rafael	—	—	—	—
Former Directors:				
Carl Bass	—	—	—	—
Thomas Georgens	—	—	—	—
Richard (Rick) S. Hill	—	—	—	—

The following tables show the total amounts and fair values of Subsequent Annual RSUs, Initial RSUs and the one time Chairman of the Board RSU award granted during fiscal 2019.

	Restricted Stock Unit		
Current Directors	**Grant Date(s)**	**Number of Shares (#)**	**Grant Date Fair Value of Stock Awards ($)**
Stacy J. Smith	6/12/2018	1,820	249,995
	6/12/2018	1,456	199,996
Crawford W. Beveridge	6/12/2018	1,820	249,995
Karen Blasing	6/12/2018	1,820	249,995
	3/21/2018	419	56,791
Reid French	6/12/2018	1,820	249,995
Mary T. McDowell	6/12/2018	1,820	249,995
Stephen Milligan	12/13/2018	914	123,911
Lorrie M. Norrington	6/12/2018	1,820	249,995
Betsy Rafael	6/12/2018	1,820	249,995
Former Directors:			
Carl Bass	—	—	—
Thomas Georgens	—	—	—
Richard (Rick) S. Hill	—	—	—

The aggregate number of each director's RSUs outstanding at January 31, 2019, was:

Current Directors	Aggregate Number of Shares Underlying Outstanding Restricted Stock Units
Stacy J. Smith	4,586
Crawford W. Beveridge	2,562
Karen Blasing	1,820
Reid French	2,475
Mary T. McDowell	2,649
Stephen Milligan	914
Lorrie M. Norrington	2,475
Betsy Rafael	1,820
Former Directors:	
Carl Bass	—
Thomas Georgens	—
Richard (Rick) S. Hill	—

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information concerning the beneficial ownership of Autodesk's Common Stock as of March 31, 2019, for each person or entity who is known by Autodesk to own beneficially more than 5% of the outstanding shares of Autodesk Common Stock, each of Autodesk's directors (including the nominees for directors), each of the named executive officers, including former executive officers, and all directors and executive officers as a group.

5% Stockholders, Directors and Officers (1)	Common Stock Beneficially Owned (2)	Percentage Beneficially Owned (3)
Principal Stockholders:		
The Vanguard Group, Inc. (4)	23,237,125	10.6%
BlackRock, Inc. (5)	17,305,793	7.9%
Loomis Sayles & Co., L.P. (6)	11,040,692	5.0%
Non-Employee Directors:		
Stacy J. Smith	47,218	*
Crawford W. Beveridge (7)	21,671	*
Karen Blasing	69	*
Reid French (8)	2,057	*
Blake Irving (9)	—	*
Mary T. McDowell	44,116	*
Stephen Milligan (10)	196	*
Lorrie M. Norrington	10,486	*
Betsy Rafael	951	*
Named Executive Officers:		
Andrew Anagnost	31,231	*
R. Scott Herren	50,052	*
Steven M. Blum	33,745	*
Pascal W. Di Fronzo	11,817	*
Carmel Gavin	4,994	*
All directors and executive officers as a group (14 individuals)	258,603	*

* Represents less than one percent (1%) of the outstanding Common Stock.

(1) Unless otherwise indicated in their respective footnote, the address for each listed person is c/o Autodesk, Inc., 111 McInnis Parkway, San Rafael, California 94903.

(2) The number and percentage of shares beneficially owned is determined in accordance with Rule 13d-3 of the Exchange Act, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under Rule 13d-3, beneficial ownership includes any shares the individual or entity has the right to acquire within 60 days of March 31, 2019, through the exercise of any stock option or other right. Unless otherwise indicated in the footnotes, each person or entity has sole voting and investment power (or shares such powers with his or her spouse) with respect to the shares shown as beneficially owned.

(3) The total number of shares of Common Stock outstanding as of March 31, 2019 was 220,145,792.

(4) As of December 31, 2018, the reporting date of The Vanguard Group, Inc.'s most recent filing with the SEC pursuant to Section 13(g) of the Exchange Act filed on February 11, 2019, The Vanguard Group, Inc. was deemed to have sole voting power with respect to 266,461 shares, sole dispositive power with respect to 22,923,572 shares, shared voting power with respect to 51,078 shares, and shared dispositive power with respect to 313,553 shares. The address of The Vanguard Group, Inc. is 100 Vanguard Blvd., Malvern, PA 19355.

(5) As of December 31, 2018, the reporting date of BlackRock, Inc.'s most recent filing with the SEC pursuant to Section 13(g) of the Exchange Act filed on February 4, 2019, BlackRock, Inc. was deemed to have sole voting power with respect to 15,307,712 shares, sole dispositive power with respect to 17,305,793 shares and shared voting and shared dispositive power with respect to 0 shares. The address of BlackRock, Inc. is 55 East 52nd Street, New York, NY 10055.

(6) As of December 31, 2018, the reporting date of Loomis, Sayles & Co. L.P.'s most recent filing with the SEC pursuant to Section 13(g) of the Exchange Act filed on February 14, 2019, Loomis, Sayles & Co. L.P. was deemed to have sole voting power with respect to

8,021,136 shares, sole dispositive power with respect to 11,040,692 shares and shared voting and shared dispositive power with respect to 0 shares. The address of Loomis, Sayles & Co. L.P. is One Financial Center, Boston, MA 02111.

(7) Mr. Beveridge is not standing for re-election at the Annual Meeting.

(8) Includes 20 shares held indirectly by trust.

(9) Upon appointment to the Board on March 22, 2019, Mr. Irving was granted 364 restricted stock units, none of which vest within 60 days of March 31, 2019.

(10) Upon appointment to the Board on December 13, 2018, Mr. Milligan was granted 914 restricted stock units, none of which vest within 60 days of March 31, 2019. Includes 196 shares held indirectly by trust.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Review, Approval or Ratification of Related Person Transactions

Autodesk's Related Party Transactions Policy states that all transactions between or among Autodesk and its wholly-owned subsidiaries and any Related Party, as defined in the Policy, requires the approval or ratification of the Chief Financial Officer. Non-routine transactions with vendors and suppliers to Autodesk and its wholly-owned subsidiaries require the prior written approval of the Corporate Controller. In addition, in accordance with our Code of Business Conduct and the charter for the Audit Committee, our Audit Committee reviews and approves or ratifies “related person” transactions. Any related person transaction will be disclosed in an SEC filing as required by the rules of the SEC. For purposes of these procedures, “related person” and “transaction” have the meanings contained in Item 404 of Regulation S-K.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act requires our directors and executive officers, and persons who own more than 10% of a registered class of our equity securities, to file reports of ownership on Form 3 and changes in ownership on Form 4 or 5 with the SEC and the Nasdaq. Such executive officers, directors and stockholders also are required by SEC rules to furnish us with copies of all Section 16(a) forms that they file.

Based solely on our review of the copies of such reports furnished to us and written representations that no other reports were required to be filed during fiscal 2019, we are not aware of any late Section 16(a) filings, except for one late report on Form 4 due to a broker error, relating to the sale of shares pursuant to a 10b5-1 trading plan for Crawford Beveridge.

REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

The Audit Committee is a committee of the Board consisting solely of independent directors as required by the listing standards of the Nasdaq and rules of the SEC. The Audit Committee operates under a written charter approved by the Board, which is available on Autodesk's website at www.autodesk.com under "Investor Relations—Corporate Governance." The composition of the Audit Committee, the attributes of its members and the responsibilities of the Audit Committee, as reflected in its charter, are intended to be in accordance with applicable requirements for corporate audit committees. The Audit Committee reviews and assesses the adequacy of its charter and the Audit Committee's performance on an annual basis.

As described more fully in its charter, the Audit Committee's role includes the oversight of our financial, accounting and reporting processes; our system of internal accounting and financial controls; and oversight of the management of risks associated with the Company's financial reporting, accounting and auditing matters. The Audit Committee is directly responsible for the appointment, compensation, engagement, retention, termination and services of our independent registered public accounting firm, Ernst & Young LLP, including conducting a review of its independence; reviewing and approving the planned scope of our annual audit; overseeing Ernst & Young LLP's audit work; reviewing and pre-approving any audit and permissible non-audit services and fees that may be performed by Ernst & Young LLP; reviewing with management and Ernst & Young LLP compliance by Autodesk with establishing and maintaining an adequate system of internal financial and disclosure controls; reviewing our critical accounting policies and the application of accounting principles; monitoring the rotation of partners of Ernst & Young LLP on our audit engagement team as required by regulation; reviewing the Company's treasury policies and tax positions; and overseeing the performance of our internal audit function. The Audit Committee establishes and oversees compliance by Autodesk with the procedures for handling complaints regarding accounting, internal accounting controls, or auditing matters, including procedures for confidential, anonymous submission of concerns by employees regarding accounting and auditing matters. The Audit Committee's role also includes meeting to review our annual audited financial statements and quarterly financial statements with management and Ernst & Young LLP. The Audit Committee held eight meetings during fiscal 2019. Management is responsible for the quarterly and annual financial statements and the reporting process, including the systems of internal controls. Ernst & Young LLP is responsible for expressing an opinion on the conformity of our audited financial statements with generally accepted accounting principles. Within this context, the Audit Committee reviewed and discussed the audited financial statements for fiscal 2019 with management and Ernst & Young LLP.

The Audit Committee has received the written disclosures and letter from Ernst & Young LLP required by applicable requirements of the Public Company Accounting Oversight Board regarding Ernst & Young LLP's communications with the Audit Committee concerning independence, has discussed with Ernst & Young LLP the independence of that firm, and has considered whether the provision of non-audit services was compatible with maintaining the independence of that firm. In addition, the Audit Committee has discussed with Ernst & Young LLP the matters required to be discussed by Public Company Accounting Oversight Board Auditing Standard No. 1301, "Communications with Audit Committees." The Audit Committee also discussed with management and with Ernst & Young LLP the evaluation of Autodesk's internal controls and the effectiveness of Autodesk's internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act of 2002.

The Audit Committee discussed with Autodesk's internal and independent auditors the overall scope and plans for their respective audits. In addition, the Audit Committee met with the internal and the independent auditors, with and without management present, on a regular basis in fiscal 2019 and discussed the results of their examinations and the overall quality of Autodesk's financial reporting.

On the basis of these reviews and discussions, the Audit Committee recommended to the Board (and the Board has approved) that Autodesk's audited financial statements be included in Autodesk's Annual Report on Form 10-K for the fiscal year ended January 31, 2019, for filing with the SEC.

AUDIT COMMITTEE OF THE BOARD OF DIRECTORS
Betsy Rafael (Chair)
Karen Blasing
Reid French
Stephen Milligan

QUESTIONS AND ANSWERS ABOUT THE 2019 ANNUAL MEETING OF STOCKHOLDERS AND PROCEDURAL MATTERS

Stock Ownership, Quorum and Voting

Q: Who is entitled to vote at the Annual Meeting?

A: Holders of record of Autodesk's Common Stock, par value $0.01 per share ("Common Stock"), at the close of business on April 16, 2019 (the "Record Date") are entitled to receive notice of and to vote their shares at the Annual Meeting. Beneficial owners at the close of business on the Record Date have the right to direct their broker, trustee or nominee on how to vote their shares, as described below. Stockholders are entitled to cast one vote for each share of Common Stock they hold as of the Record Date.

As of the Record Date, there were 220,167,400 shares of Common Stock outstanding and entitled to vote at the Annual Meeting. No shares of Autodesk's Preferred Stock were outstanding.

Q: What is the difference between holding shares as a stockholder of record and as a beneficial owner?

A: *Stockholders of record*—If your shares are registered directly in your name with Autodesk's transfer agent, Computershare Investor Services LLC, you are considered the "stockholder of record" with respect to those shares. If you are a stockholder of record, Autodesk sent these proxy materials directly to you.

Beneficial owners—Most Autodesk stockholders hold their shares through a broker or other agent rather than directly in their own names. If your shares are held in a brokerage account or by a broker or other agent, you are considered the "beneficial owner" of shares held in "street name." If you hold your shares in street name, these proxy materials have been forwarded to you by your broker or other agent. That entity is considered the stockholder of record with respect to those shares. As the beneficial owner, you have the right to direct your broker or other agent on how to vote your shares. Since a beneficial owner is not the stockholder of record, you may not vote these shares in person at the Annual Meeting unless you obtain a legal proxy giving you the right to do so from the broker or other agent that holds your shares.

Q: How many shares must be present or represented by proxy to conduct business at the Annual Meeting?

A: The presence of the holders of a majority of the shares of Common Stock entitled to vote at the Annual Meeting is necessary to constitute a quorum. Stockholders are counted as present if they attend the Annual Meeting in person or have properly submitted a proxy. Under the General Corporation Law of the State of Delaware (the law governing Autodesk's corporate activities), abstentions and "broker non-votes" are counted as present and entitled to vote and are therefore included for purposes of determining whether a quorum is present at the Annual Meeting.

Q: What are "broker non-votes"?

A: Generally, if shares are held in street name, the beneficial owner is entitled to give voting instructions to the broker or other agent holding the shares. If the beneficial owner does not provide voting instructions, the broker or other agent can vote the shares with respect to matters that are considered "routine," but not with respect to "non-routine" matters. Broker non-votes occur when a beneficial owner of shares held in street name does not give instructions to the broker or other agent holding the shares as to how to vote on a matter deemed "non-routine." If a broker or other record holder of our Common Stock indicates on a proxy that it does not have discretionary authority to vote certain shares on a particular proposal, then those shares will be treated as broker non-votes with respect to that proposal. Accordingly, if you own shares through a broker or other agent, please be sure to give voting instructions so your vote will be counted on all proposals that come before the Annual Meeting.

Q: Which ballot measures are considered "routine" or "non-routine"?

A: The ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending January 31, 2020 (Proposal Two) is considered routine under applicable rules. A broker, trustee or nominee holding shares generally may use its discretion to vote on routine matters, so there should not be any broker non-votes in connection with Proposal Two. The election of the nine directors listed in the accompanying Proxy Statement (Proposal One) and the advisory vote on executive compensation (Proposal Three) are considered non-routine matters under applicable rules. A broker or other agent cannot vote without instructions on non-routine matters, so there may be broker non-votes on Proposals One and Three.

Q: How can I vote my shares in person at the Annual Meeting?

A: If you hold shares in your name as the stockholder of record, you may vote those shares in person at the Annual Meeting. If you hold shares beneficially in street name, you may vote those shares in person at the Annual Meeting only if you obtain a legal proxy from the broker or other agent that holds your shares. ***Even if you plan to attend the Annual Meeting, we recommend that you also submit your proxy card or follow the voting instructions described below so that your vote will be counted if you later decide not to attend.***

Q: How can I vote my shares without attending the Annual Meeting?

A: If you are a stockholder of record, you may instruct the proxy holders how to vote your shares in one of three ways:

- by using the internet voting site listed on the proxy card and Notice,
- by calling the toll-free telephone number listed on the proxy card and Notice, or
- by requesting a proxy card from Autodesk by telephone at (415) 507-6705 or by email at *investor.relations@autodesk.com*, and completing, signing, dating and returning the proxy card in the postage pre-paid envelope provided.

Proxy cards submitted by mail must be received by the time the Annual Meeting begins in order for the related shares to be voted. If you return a signed proxy card without giving specific voting instructions, your shares will be voted as recommended by the Board.

Specific instructions for using the telephone and internet voting systems are on the proxy card and Notice. The telephone and internet voting systems for stockholders of record will be available until 11:59 p.m. (Eastern Time) on June 11, 2019.

If you are a beneficial owner, you will receive instructions from your broker or other agent that you must follow in order to have your shares voted. These instructions will indicate if internet and telephone voting are available, and if so, how to access and use those methods.

Q: What is the voting requirement to approve these proposals?

A: *Proposal One*—A majority of the votes duly cast is required for the election of each director. If the number of shares voted "for" a director nominee exceeds the number of votes cast "against," the nominee will be elected as a director of Autodesk to serve until the next annual meeting or until his or her successor has been duly elected and qualified. For additional information on how our majority voting policy works, see the section captioned "Corporate Governance" above.

You may vote "FOR," "AGAINST" or "ABSTAIN" on each of the nine nominees for election as director. Abstentions and broker non-votes will not affect the outcome of the election.

Proposal Two—The affirmative vote of a majority of the shares present in person or represented by proxy and entitled to vote are required to ratify the appointment of Ernst & Young LLP as Autodesk's independent registered public accounting firm.

You may vote "FOR," "AGAINST" or "ABSTAIN" on this proposal. ***Abstentions are deemed to be votes cast and have the same effect as a vote against this proposal.*** However, broker non-votes are not deemed to be votes cast and are not included in the tabulation of the voting results on this proposal.

Proposal Three—The affirmative vote of a majority of the shares present in person or represented by proxy and entitled to vote are required to approve, on an advisory basis, the compensation of our named executive officers.

You may vote "FOR," "AGAINST" or "ABSTAIN" on this proposal. ***Abstentions are deemed to be votes cast and have the same effect as a vote against this proposal.*** However, broker non-votes are not deemed to be votes cast and are not included in the tabulation of the voting results on this proposal.

Q: What happens if I do not cast a vote?

A: *Stockholders of record*—If you are a stockholder of record and you do not cast your vote, no votes will be cast on your behalf on any of the items of business at the Annual Meeting.

Beneficial owners—If you hold your shares in street name and you do not cast your vote, your broker, trustee or nominee can use its discretion to vote on the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm (Proposal Two). However, you must cast your vote if you want it to count in the election of directors (Proposal One) or the non-binding approval of compensation for our named executive officers (Proposal Three). Your broker may not vote your uninstructed shares with respect to Proposals One and Three.

Q: How does the Board recommend that I vote?

A: The Board unanimously recommends that you vote your shares "**FOR**" the election of each of the nine nominees listed in Proposal One, "**FOR**" the ratification of the appointment of Ernst & Young LLP as Autodesk's independent registered public accounting firm for the fiscal year ending January 31, 2020, and "**FOR**" the approval, on an advisory basis, of the compensation of our named executive officers.

Q: If I sign a proxy, how will it be voted?

A: All shares entitled to vote and represented by properly executed proxy cards received prior to the Annual Meeting and not revoked before the polls are closed will be voted in accordance with the instructions on those proxy cards. If there are no instructions on an otherwise properly executed proxy card, the shares represented by that proxy card will be voted as recommended by the Board.

Q: What happens if additional matters are presented at the Annual Meeting?

A: If any other matters are properly presented for consideration at the Annual Meeting, including, among other things, consideration of a motion to adjourn the Annual Meeting to another time or place (for the purpose of soliciting additional proxies or otherwise), the persons named as proxies will have discretion to vote on those matters in accordance with their best judgment. We do not currently anticipate that any other matters will be raised at the Annual Meeting.

Q: Can I change or revoke my vote?

A: If you are a stockholder of record, there are three ways you can change your vote.

(1) Before your shares are voted at the Annual Meeting, you can file with Autodesk's Chief Legal Officer a written notice of revocation or a duly executed proxy card, in either case dated later than the proxy card you wish to change.
(2) You can attend the Annual Meeting and vote in person. Simply attending the Annual Meeting without actually voting will not revoke a proxy.
(3) If you voted online or by telephone, you may change that vote by voting again, either by making a timely and valid internet or telephone vote or by voting in person at the Annual Meeting.

Any written notice of revocation or subsequent proxy card should be hand-delivered to Autodesk's Chief Legal Officer or sent to Autodesk, Inc., 111 McInnis Parkway, San Rafael, California 94903, Attention: Chief Legal Officer, and must be received by the Chief Legal Officer before the vote at the Annual Meeting.

If you are a beneficial owner of shares held in street name, there are two ways you can change your vote. You can submit new voting instructions to your broker or other agent. Alternatively, if you have obtained a legal proxy from the broker or other agent that holds your shares giving you the right to vote those shares, you can attend the Annual Meeting and vote in person.

Q: Who will bear the costs of soliciting votes for the Annual Meeting?

A: Autodesk will bear all expenses of this solicitation, including the cost of preparing and mailing these proxy materials. Autodesk may reimburse brokerage firms, custodians, nominees, fiduciaries and other persons representing beneficial owners of Common Stock for their reasonable expenses in forwarding solicitation material to such beneficial owners. Directors, officers and other employees of Autodesk also may solicit proxies in person or by other means of communication. These individuals may be reimbursed for reasonable out-of-pocket expenses in connection with such solicitation, but will not receive any additional compensation. Autodesk has engaged the services of D.F. King & Co., Inc., a professional proxy solicitation firm, to help us solicit proxies from stockholders, including certain brokers, trustees, nominees and other institutional owners, for a fee of approximately $9,000 plus costs and expenses.

Q: Where can I find the voting results of the Annual Meeting?

A: We intend to announce preliminary voting results at the Annual Meeting and expect to provide final results in a Current Report on Form 8-K within four business days of the Annual Meeting.

2019 Annual Meeting

Q: Why am I receiving these proxy materials?

A: The Board is providing these proxy materials to you in connection with the solicitation of proxies for use at our 2019 Annual Meeting of Stockholders, to be held on Wednesday, June 12, 2019, at 3:00 p.m., Pacific Time, and at any adjournment, postponement or other delay thereof for the purpose of considering and acting upon the matters set forth in this Proxy Statement. We are providing these materials to all of our stockholders through a Notice of Internet Availability of Proxy Materials (the "Notice") unless a stockholder has specifically requested a full set paper copy of this Proxy Statement and our fiscal 2019 Annual Report.

Q: Where is the Annual Meeting?

A: The Annual Meeting will be held at Autodesk's San Francisco office, located at The Landmark, One Market Street, 2nd Floor, San Francisco, California 94105. The telephone number at that location is (415) 356-0700. Maps and directions to the Annual Meeting are available at *www.autodesk.com* under "Contact Us."

Q: What proposals will be voted on at the Annual Meeting?

A: At the Annual Meeting, stockholders will be asked to vote:

(1) To elect the nine directors named in this Proxy Statement to serve for the coming year and until their successors are duly elected and qualified;
(2) To ratify the appointment of Ernst & Young LLP as Autodesk's independent registered public accounting firm for the fiscal year ending January 31, 2020; and
(3) To approve, on an advisory basis, the compensation of our named executive officers.

Q: Can I attend the Annual Meeting?

A: Yes, you can attend the Annual Meeting in person if you are a stockholder of record or a beneficial owner as of the Record Date. Please notify Abhey Lamba, Autodesk's Vice President of Investor Relations, by email at *investor.relations@autodesk.com* if you plan to attend the Annual Meeting. You will need proof of identity to enter the Annual Meeting. If your shares are held in a brokerage account or by a bank or another nominee, you also will need to bring a copy of a brokerage statement reflecting stock ownership as of the Record Date. The Annual Meeting will begin promptly at 3:00 p.m., Pacific Time. Please leave ample time for parking and to check in.

Q: Why did I receive a Notice in the mail regarding the Internet Availability of Proxy Materials instead of a full set paper copy of this Proxy Statement and fiscal 2019 Annual Report?

A: We are once again relying on a Securities and Exchange Commission ("SEC") rule that allows companies to furnish their proxy materials over the internet rather than in paper form. This rule allows us to send all of our stockholders a Notice that explains how to access the proxy materials over the internet or how to request a paper copy of proxy materials. If you would prefer to receive proxy materials in printed form by mail or electronically by email on an ongoing basis, please follow the instructions contained in the Notice. Proxy materials for our 2020 and future annual meetings of stockholders will be delivered to you by a Notice rather than in paper form unless you specifically request to receive printed proxy materials.

Q: Why did I receive a full set paper copy of this Proxy Statement in the mail and not a Notice Regarding the Internet Availability of Proxy Materials?

A: Stockholders who previously requested full paper copies of the proxy materials are receiving paper copies again this year. If you would like to reduce the costs we incur in printing and mailing proxy materials, you can consent to receive all future proxy statements, proxy cards and annual reports electronically via email or the internet. To sign up for electronic delivery, please follow the instructions provided at *www.autodesk.com* under "Investor Relations" or on your proxy card or voting instruction form.

Stockholder Proposals and Director Nominations at Future Meetings

Q: What is the deadline to propose actions for consideration at next year's annual meeting of stockholders or to nominate individuals to serve as directors?

A: Stockholders may present proper proposals for inclusion in Autodesk's proxy statement and for consideration at the next annual meeting of stockholders by submitting their proposals in writing to Autodesk's Chief Legal Officer in a timely manner. In order to be included in the proxy statement for the 2020 Annual Meeting of Stockholders, proposals must be received by Autodesk's Chief Legal Officer no later than January 1, 2020, and must otherwise comply with the requirements of Rule 14a-8 of the Exchange Act.

In addition, Autodesk's Bylaws establish an advance notice procedure for stockholders who wish to present certain matters before an annual meeting of stockholders. In general, nominations for the election of directors may be made by or at the direction of the Board, or by any stockholder entitled to vote who has delivered written notice to Autodesk's Chief Legal Officer during the Notice Period (as defined below). Any such notice must contain specified information concerning the nominee(s) and the stockholder proposing such nomination(s). A stockholder who wishes to recommend a candidate for consideration by the Corporate Governance and Nominating Committee as a potential nominee for director should read the procedures discussed in the section titled "Corporate Governance-Nominating Process for Recommending Candidates for Election to the Board" above.

Autodesk's Bylaws also provide that the only business that may be conducted at an annual meeting is business that is brought (1) pursuant to the notice of meeting (or any supplement thereto), (2) by or at the direction of the Board, or (3) by a stockholder who has delivered written notice setting forth all information required by Autodesk's Bylaws to Autodesk's Chief Legal Officer during the Notice Period (as defined below).

For the purposes described above, the "Notice Period" begins 75 days before the one-year anniversary of the date on which Autodesk first mailed its proxy materials for the previous year's annual meeting of stockholders, and lasts for 30 days. As a result, the Notice Period for the 2020 Annual Meeting of Stockholders will be from February 15, 2020 to March 16, 2020.

If a stockholder who has notified Autodesk of an intention to present a proposal at an annual meeting does not appear to present that proposal, Autodesk need not present the proposal for vote at such meeting.

Q: How may I obtain a copy of the bylaw provisions regarding stockholder proposals and director nominations?

A: You can obtain a copy of the full text of the bylaw provisions discussed above by writing to the Chief Legal Officer of Autodesk or from *www.autodesk.com* under "Investor Relations-Corporate Governance." All notices of proposals by stockholders should be sent to Autodesk, Inc., 111 McInnis Parkway, San Rafael, California 94903, Attention: Chief Legal Officer.

Additional Information About the Proxy Materials

Q: What should I do if I receive more than one set of proxy materials?

A: You may receive more than one Proxy Statement, proxy card, voting instruction card or Notice. For example, if you hold your shares in more than one brokerage account, you may receive a separate voting instruction card for each account. If you are a stockholder of record and your shares are registered in more than one name, you may receive more than one proxy card. Please complete, sign, date and return each proxy card or voting instruction card that you receive to ensure that all your shares are voted.

Q: How may I obtain a separate Notice or a separate set of proxy materials and Fiscal 2019 Annual Report?

A: If you share an address with another stockholder, it is possible you will not each receive a separate Notice or a separate copy of the proxy materials and fiscal 2019 Annual Report. If you wish, you may request individual documents by sending an email to *investor.relations@autodesk.com*. Stockholders who share an address and receive multiple Notices or multiple copies of our proxy materials and fiscal 2019 Annual Report can request to receive a single copy in the same manner.

Q: What is the mailing address for Autodesk's principal executive offices?

A: Autodesk's principal executive offices are located at 111 McInnis Parkway, San Rafael, California 94903. Any written requests for additional information, additional copies of the proxy materials and fiscal 2019 Annual Report, notices of stockholder proposals, recommendations for candidates to the Board, communications to the Board, or any other communications should be sent to this address.

Our internet address is *www.autodesk.com*. The information posted on our website is not incorporated into this Proxy Statement.

OTHER MATTERS

The Board does not know of any other matters to be presented at the Annual Meeting. If any other matters are properly presented at the Annual Meeting, shares of Common Stock represented by proxy will be voted in accordance with the discretion of the proxy holders.

It is important that your shares be represented at the Annual Meeting, regardless of the number of shares that you hold. Autodesk urges you to vote at your earliest convenience.

THE BOARD OF DIRECTORS

May 1, 2019
San Rafael, California

Appendix A

Reconciliation of GAAP financial measure to non-GAAP financial measure

This Proxy Statement contains information regarding three non-GAAP financial measures: non-GAAP income (loss) from operations, free cash flow, and total deferred revenue that are not calculated in accordance with GAAP. Non-GAAP income (loss) from operations is calculated as our GAAP income (loss) adjusted to exclude stock-based compensation expense, amortization of developed technology, amortization of purchased intangibles, CEO transition costs, acquisition related costs, and restructuring charges and other facility exit costs. Free cash flow represents cash flow from operating activities minus capital expenditures. Total deferred revenue is calculated by adding together total short term, long term, and unbilled deferred revenue. Unbilled deferred revenue represents contractually stated or committed orders under early renewal and multi-year billing plans primarily for subscription, services and maintenance for which the associated deferred revenue has not been recognized.

We believe that these non-GAAP financial measures are appropriate to enhance an overall understanding of our fiscal 2019 performance in relation to the principal elements of Autodesk's annual executive compensation program considered by the Compensation Committee, as described in the "Compensation Discussion and Analysis" section of this Proxy Statement.

There are limitations in using non-GAAP financial measures because the non-GAAP financial measures are not prepared in accordance with generally accepted accounting principles and may be different from non-GAAP financial measures used by other companies. Non-GAAP financial measures are limited in value because they exclude certain items that may have a material impact upon our reported financial results. The presentation of a non-GAAP financial measure is not meant to be considered in isolation or as a substitute for the directly comparable financial measure prepared in accordance with GAAP in the United States.

Non-GAAP income (loss) from operations

Investors should review the reconciliation of non-GAAP income (loss) from operations to its most directly comparable GAAP financial measure, GAAP loss from operations, as provided in the following tables (in millions):

	Fiscal Year Ended January 31,	
	2019	2018
Loss from operations	$ (25.0)	$ (509.1)
Stock-based compensation expense	249.5	245.0
Amortization of developed technologies	15.5	16.4
Amortization of purchased intangibles	18.0	20.2
CEO transition costs (1)	(0.1)	21.4
Acquisition related costs	16.2	—
Restructuring and other exit costs, net	41.9	94.1
Non-GAAP income (loss) from operations	$ 316.0	$ (112.0)

(1) CEO transition costs include stock-based compensation of $16.4 million related to the acceleration of eligible stock awards in conjunction with the Company's former CEOs' transition agreements for the fiscal year ended January 31, 2018.

Free Cash Flow

	Fiscal Year Ended January 31,	
	2019	2018
Cash flow from operating activities	$ 377.1	$ 0.9
Capital expenditures	(67.0)	(50.7)
Free cash flow	$ 310.1	$ (49.8)

Total Deferred Revenue

	Fiscal Year Ended January 31,	
	2019	2018
Deferred revenue	$ 2,091.4	$ 1,955.1
Unbilled deferred revenue	591.0	326.4
Total deferred revenue	$ 2,682.4	$ 2,281.5

Proxy Materials

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

FORM 10-K

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

For the fiscal year ended January 31, 2019

or

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

For the transition period from to

Commission File Number: 0-14338

AUTODESK, INC.
(Exact name of registrant as specified in its charter)

Delaware	**94-2819853**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. employer Identification No.)**
111 McInnis Parkway, San Rafael, California	**94903**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (415) 507-5000

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

Title of each class	**Name of each exchange on which registered**
Common Stock, $0.01 Par Value	**The Nasdaq Stock Market LLC (Nasdaq Global Select Market)**

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 ("Exchange Act"). Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act 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 and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

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

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

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

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

As of July 31, 2018, the last business day of the registrant's most recently completed second fiscal quarter, there were approximately 218.9 million shares of the registrant's common stock outstanding that were held by non-affiliates, and the aggregate market value of such shares held by non-affiliates of the registrant (based on the closing sale price of such shares on the Nasdaq Global Select Market on July 31, 2018) was approximately $28.1 billion. Shares of the registrant's common stock held by each executive officer and director have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 15, 2019, the registrant had outstanding 219,535,216 shares of common stock.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for registrant's Annual Meeting of Stockholders (the "Proxy Statement"), are incorporated by reference in Part III of this Form 10-K to the extent stated herein. The Proxy Statement will be filed within 120 days of the registrant's fiscal year ended January 31, 2019.

AUTODESK, INC. FORM 10-K

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FORWARD-LOOKING INFORMATION

The discussion in this Annual Report on Form 10-K contains trend analyses and other forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are any statements that look to future events and consist of, among other things, our business strategies, future financial results (by product type and geography) and subscriptions, the effectiveness of our efforts to successfully manage transitions to new markets, expectations for and our ability to increase annualized recurring revenue, cash flow, our subscription base, and other financial and operational metrics, the impact of past and planned acquisitions and investment activities, expected market trends, including the growth of cloud and mobile computing, the effect of unemployment, the availability of credit, the effects of global economic conditions, the effects of revenue recognition, the effects of newly recently issued accounting standards, expected trends in certain financial metrics, including expenses, expectations regarding our cash needs, the effects of fluctuations in exchange rates and our hedging activities on our financial results, our ability to successfully expand adoption of our products, our ability to gain market acceptance of new businesses and sales initiatives, and the impact of economic volatility and geopolitical activities in certain countries, particularly emerging economy countries, the timing and amount of purchases under our stock buy-back plan, and the effects of potential non-cash charges on our financial results and the resulting effect on our financial results. In addition, forward-looking statements also consist of statements involving expectations regarding product capability and acceptance, statements regarding our liquidity and short-term and long-term cash requirements, as well as statements involving trend analyses and statements including such words as "may," "believe," "could," "anticipate," "would," "might," "plan," "expect," and similar expressions or the negative of these terms or other comparable terminology. These forward-looking statements speak only as of the date of this Annual Report on Form 10-K and are subject to business and economic risks. As such, our actual results could differ materially from those set forth in the forward-looking statements as a result of a number of factors, including those set forth below in Item 1A, "Risk Factors," and in our other reports filed with the U.S. Securities and Exchange Commission. We assume no obligation to update the forward-looking statements to reflect events that occur or circumstances that exist after the date on which they were made, except as required by law.

PART I

ITEM 1. BUSINESS

Note: A glossary of terms used in this Form 10-K appears at the end of this Item 1.

GENERAL

We are a global leader in 3D design, engineering and entertainment software and services, offering customers productive business solutions through powerful technology products and services. We serve customers in the architecture, engineering and construction; product design and manufacturing; and digital media and entertainment industries. Our customers are able to design, fabricate, manufacture and build anything by visualizing, simulating and analyzing real-world performance early in the design process. These capabilities allow our customers to foster innovation, optimize their designs, streamline their manufacturing and construction processes, save time and money, improve quality, communicate plans, and collaborate with others. Our professional software products are sold globally, both directly to customers and through a network of resellers and distributors.

Segments

We report segment information based on the “management” approach. The management approach designates the internal reporting used by management for making decisions, allocating resources and assessing performance as the source of our reportable segments. The Company's chief operating decision maker ("CODM") allocates resources and assesses the operating performance of the Company as a whole. As such, Autodesk has one segment manager (the CODM), and one operating segment.

A summary of our revenue by geographic area and product family is found in Note 2, “Revenue Recognition,” in the Notes to Consolidated Financial Statements.

Corporate Information

We were incorporated in California in April 1982 and were reincorporated in Delaware in May 1994. Our principal executive office is located at 111 McInnis Parkway, San Rafael, California 94903, and the telephone number at that address is (415) 507-5000. Our internet address is www.autodesk.com. The information posted on our website is not incorporated into this Annual Report on Form 10-K. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended, are available free of charge on the Investor Relations portion of our website at www.autodesk.com as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The public may also read and copy any material we file with the SEC at the SEC's Public Reference Room at 100 F Street N.E. Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1 (800) SEC-0330.

PRODUCTS

Our architecture, engineering and construction products improve the way building, infrastructure, and industrial projects are designed, built, and operated. Our product development and manufacturing software provides manufacturers in automotive, transportation, industrial machinery, consumer products and building product industries with comprehensive digital design, engineering, manufacturing and production solutions. These technologies bring together data from all phases of the product development and production life cycle, creating a digital pipeline that supports greater productivity and accuracy through process automation. Our digital media and entertainment products provide tools for digital sculpting, modeling, animation, effects, rendering, and compositing for design visualization, visual effects and games production. Our portfolio of products and services enables our customers to foster innovation, optimize and improve their designs, save time and money, improve quality, communicate plans, and collaborate with others.

Autodesk's product offerings, sold through a subscription, include:

- *AutoCAD*

AutoCAD software is a customizable and extensible CAD application for professional design, drafting, detailing, and visualization. AutoCAD software provides digital tools that can be used independently and in conjunction with other specific applications in fields ranging from construction and civil engineering to manufacturing and plant design.

- *AutoCAD Civil 3D*

AutoCAD Civil 3D solution provides a surveying, design, analysis, and documentation solution for civil engineering, including land development, transportation, and environmental projects. Using a model-centric approach that automatically updates documentation as design changes are made, AutoCAD Civil 3D enables civil engineers, designers, drafters, and surveyors to significantly boost productivity and deliver higher-quality designs and construction documentation faster. With AutoCAD Civil 3D, the entire project team works from the same consistent, up-to-date model so they stay coordinated throughout all project phases.

- *AutoCAD LT*

AutoCAD LT software is purpose built for professional drafting and detailing. AutoCAD LT includes document sharing capability without the need for software customization or certain advanced functionality found in AutoCAD. Users can share all design data with team members who use AutoCAD or other Autodesk products built on AutoCAD. AutoCAD LT software is our second largest revenue-generating product.

- *BIM 360*

BIM 360 construction management cloud-based software enables almost anytime, anywhere access to project data throughout the building construction lifecycle. BIM 360 empowers those in the field to better anticipate and act, and those in the back office to optimize and manage all aspects of construction performance.

- *CAM Solutions*

Our computer-aided manufacturing ("CAM") software offers industry-leading solutions for Computer Numeric Control ("CNC") machining, inspection, and modeling for manufacturing. A comprehensive line-up of expert products, including PowerMill, FeatureCAM, PowerInspect, PowerShare, and others, help our customers manufacture complex, innovative products and components with maximum quality, control, and production efficiency.

- *Fusion 360*

Fusion 360 is the first 3D CAD, CAM, and Computer-aided Engineering ("CAE") tool of its kind. It connects the entire product development process on a single cloud-based platform.

- *Industry Collections*

Autodesk's Industry Collections provide our customers with increased access to a broader selection of Autodesk solutions, greater value, more flexibility, and a simpler way to subscribe and manage Autodesk subscriptions. The collections are tailored to provide the essential software needed by professionals within each industry: Architecture, Engineering and Construction ("AEC"), Product Design & Manufacturing, and Media & Entertainment ("M&E").

The AEC Collection, including AutoCAD, AutoCAD Civil3D, and Revit, aims to help our customers design, engineer, and construct higher quality, more predictable building and civil infrastructure projects, commonly used by AEC industry experts.

The Product Design & Manufacturing Collection offers connected, professional-grade tools that help our customers make great products today and compete in the changing manufacturing landscape of the future. The collection offers access to a wide range of our products, including AutoCAD and Inventor.

The M&E Collection provides end-to-end creative tools for entertainment creation. This collection enables animators, modelers and visual effect artists to access the tools they need, including Maya and 3ds Max, to create compelling effects, 3D characters and digital worlds.

- *Inventor*

Inventor enables manufacturers to go beyond 3D design to digital prototyping by giving engineers a comprehensive and flexible set of tools for 3D mechanical design, simulation, analysis, tooling, visualization, and documentation. Engineers can integrate AutoCAD drawings and model-based design data into a single digital model, creating a virtual representation of a final product that enables them to validate the form, fit, and function of the product before it is ever built.

- *Maya*

Maya software provides 3D modeling, animation, effects, rendering and compositing solutions that enable film and video artists, game developers, and design visualization professionals to digitally create engaging, lifelike images, realistic animations and simulations, extraordinary visual effects, and full length animated feature films.

- *PlanGrid*

PlanGrid cloud-based field collaboration software provides general contractors, subcontractors, owners and architects access to construction information in real-time. With PlanGrid technology, any construction team member can manage and update blueprints, specs, photos, requests for information (RFIs), field reports, punchlists and other critical jobsite data. The data collected within PlanGrid software acts as a digital trail during the building process, allowing for easy turnover to the owner for operations and maintenance after construction is complete. PlanGrid mobile-first technology is accessible on modern desktop, laptop or mobile devices, including native iOS, Android and Windows.

- *Revit*

Revit software is built for Building Information Modeling ("BIM") to help professionals design, build, and maintain higher-quality, more energy-efficient buildings. Using the information-rich models created with Revit, architects, engineers, and construction firms can collaborate to make better-informed decisions earlier in the design process to deliver projects with greater efficiency. Revit includes features for architectural, mechanical, electrical and plumbing design as well as structural engineering and construction, providing a comprehensive solution for the entire building project team.

- *Shotgun*

Shotgun is cloud-based software for review and production tracking in the M&E industry. Creative companies use the Shotgun platform to provide essential business tools for managers and visual collaboration tools for artists and supervisors, who often work globally with distributed teams.

- *3ds Max*

3ds Max software provides 3D modeling, animation, and rendering solutions that enable game developers, design visualization professionals and visual effects artists to digitally create realistic images, animations, and complex scenes and to digitally communicate abstract or complex mechanical, architectural, engineering, and construction concepts.

PRODUCT DEVELOPMENT AND INTRODUCTION

The technology industry is characterized by rapid technological change in computer hardware, operating systems, and software. In addition, our customers' requirements and preferences rapidly evolve, as do their expectations of the performance of our software and services. To keep pace with these changes, we maintain a vigorous program of new product development to address demands in the marketplace for our products.

The software industry has undergone a transition from developing and selling perpetual licenses and on-premises products to cloud, mobile and social applications. To address this shift, Autodesk made a strategic decision to shift its business model from selling perpetual licenses to selling subscriptions. We discontinued the sale of new commercial licenses of most individual software products in 2016. Additionally, in June 2017, we commenced a program to incentivize maintenance plan customers to move to subscription plan offerings, maintenance-to-subscription ("M2S"), while at the same time increasing maintenance plan pricing over time for customers that remain on maintenance plans. Since launching the program, over 794,000 maintenance plan customers have converted to subscription plan offerings. Autodesk seeks to convert the remaining 796,100 maintenance plan customers to subscription through this program. Subscription plan offerings are designed to give our customers increased flexibility with how they use our products and service offerings and to attract a broader range of customers such as project-based users and small businesses. Subscriptions represent a combined hybrid offering of desktop software and cloud functionality which provides a device-independent, collaborative design workflow for designers and their stakeholders.

We dedicate considerable technical and financial resources to research and development to further enhance our existing products and to create new solutions and technologies to expand our market opportunity. For example, in fiscal 2019, we continued and expanded our investments in construction. We continued to make investments in the traditional data creation tools to support the design and pre-construction phases, while expanding our investment in the areas of site execution with process and project management cloud-based tools. Recognizing the value of data continuity across the construction lifecycle of design, building and operations, we made investments in the pre-construction and site execution phases of the project through our cloud-based tools. To connect the phases of construction upstream with design, we invested in and announced our cloud-based project delivery platform that allows individuals, teams and projects to be connected across all phases in a common data platform. We anticipate ongoing investments in construction that support pre-construction, site execution as well as the handover phase of the project and will continue to invest in connecting workflows and data across the ecosystem of the project.

Research and development expenditures were $725.0 million or 28% of fiscal 2019 net revenue, $755.5 million or 37% of fiscal 2018 net revenue and $766.1 million or 38% of fiscal 2017 net revenue. Our software is primarily developed internally; however, we also use independent firms and contractors to perform some of our product development activities. Additionally, we acquire products or technology developed by others by purchasing or licensing products and technology from third parties. We continually review these investments in an effort to ensure that we are generating sufficient revenue or gaining a competitive advantage to justify their costs.

The majority of our research and product development is performed in the United States, China, Singapore, Canada, and the United Kingdom. However, we employ experienced software developers in many of our other locations. Translation and localization of our products are performed in a number of local markets, principally Singapore and Ireland. We generally localize and translate our products into German, French, Italian, Spanish, Russian, Japanese, Korean, and simplified and traditional Chinese.

We plan to continue managing significant product development operations internationally over the next several years. We believe that our ability to conduct research and development at various locations throughout the world allows us to optimize product development, lower costs, and integrate local market knowledge into our development activities. We continually assess the significant costs and challenges, including intellectual property protection, against the benefits of our international development activities.

For further discussion regarding risks from our product development and introduction efforts, see Item 1A, "Risk Factors."

MARKETING AND SALES

We sell our products and services globally, primarily through indirect channels consisting of distributors and resellers. To a lesser extent we also transact directly with our enterprise and named account customers and with customers through our online Autodesk branded store. Our indirect channel model includes both a two-tiered distribution structure, where distributors sell to resellers, and a one-tiered structure, where Autodesk sells directly to resellers. We have a network of approximately 1,300 resellers and distributors worldwide. For fiscal 2019, approximately 71% of our revenue was derived from indirect channel sales through distributors and resellers.

We anticipate that our channel mix will continue to change, particularly as we scale our online Autodesk branded store business and our largest accounts shift towards direct-only business models. Importantly, we expect that the majority of our revenue will continue to be derived from indirect channel sales in the near future. We employ a variety of incentive programs and promotions to align our reseller channel with our business strategies. Our ability to effectively distribute our products depends in part upon the financial and business condition of our distributor and reseller networks. The loss of, or a significant reduction in, business with any one of our major distributors or large resellers could harm our business; see Item 1A, "Risk Factors," for further discussion.

Sales through our largest distributor, Tech Data Corporation and its global affiliates, accounted for 35%, 31%, and 30% of our net revenue for fiscal years ended January 31, 2019, 2018, and 2017, respectively. We believe our business is not substantially dependent on Tech Data. Our customers through Tech Data are the resellers and end users who purchase our products. Should any of the agreements between us and Tech Data be terminated for any reason, we believe the resellers and end users who currently purchase our products through Tech Data would be able to continue to do so under substantially the same terms from one of our many other distributors without substantial disruption to our revenue. No other distributor, reseller, or direct customer accounted for 10% or more of our revenue.

Our customer-related operations are divided into three geographic regions: the Americas; Europe, Middle East and Africa ("EMEA"); and Asia Pacific ("APAC"). Each geographic region is supported by global marketing and sales organizations. These organizations develop and manage overall marketing and sales programs and work closely with a network of domestic and international sales offices. Fiscal 2019 net revenue in the Americas, EMEA, and APAC was $1,049.9 million (41%), $1,034.3 million (40%), and $485.6 million (19%), respectively. We believe that international sales will continue to comprise the majority of our total net revenue. Adverse economic conditions and currency exchange rates in the countries that contribute a significant portion of our net revenue, including emerging economies, may have an adverse effect on our business in those countries and our overall financial performance. A summary of our financial information by geographic location is found in Note 2, "Revenue Recognition," in the Notes to Consolidated Financial Statements. Our international operations and sales subject us to a variety of risks; see Item 1A, "Risk Factors," for further discussion.

We also work directly with reseller and distributor sales organizations, computer manufacturers, other software developers, and peripherals manufacturers in cooperative advertising, promotions, and trade-show presentations. We employ mass-marketing techniques such as webcasts, seminars, telemarketing, direct mailings, sponsorships, advertising in business and trade journals, and social media. We have a worldwide user group organization and we have created online user communities dedicated to the exchange of information related to the use of our products and services.

We generate revenue primarily through various offerings that provide recurring revenue. Under our subscription plan, customers can use our software anytime, anywhere, and get access to the latest updates to previous versions through term-based product subscriptions, cloud service offerings, and enterprise business agreements. With the discontinuation of the sale of perpetual licenses, we have transitioned away from selling a mix of perpetual licenses and maintenance plans in favor of a consolidated subscription model. However, our customers who have previously purchased a perpetual use license for the most recent version of the underlying product are able to renew a previously purchased maintenance plan that provides them with unspecified upgrades when and if available, and receive online support during the term of their maintenance contract.

CUSTOMER AND RESELLER SUPPORT

We provide technical support and training to customers through a multi-tiered support model, augmented by direct programs designed to address certain specific customer needs. Most of our customers receive support and training from the resellers and distributors from which they purchased subscriptions or licenses for our products or services, with Autodesk in turn providing second tier support to the resellers and distributors. Other customers are supported directly via self-service using the Autodesk Knowledge Network which guides customers to answers in our online support assets, support forums, webinars or to support representatives using a number of different modalities such as social media, phone, email and webchat. We also support our resellers and distributors through technical product training, sales training classes, webinars and other knowledge sharing programs.

EDUCATION, SUSTAINABILITY, AND PHILANTHROPIC PROGRAMS

Education

Autodesk is committed to helping fuel a lifelong passion for design and making among students of all ages, both within and outside the classroom. We offer free educational licenses of Autodesk's professional software to students, educators, and accredited educational institutions worldwide. We inspire and support beginners with Tinkercad, a simple online 3D design and 3D printing tool. Through Autodesk Design Academy, we provide secondary and postsecondary schools hundreds of standards-aligned class projects to support design-based disciplines in Science, Technology, Engineering, Digital Arts, and Math (STEAM) using Autodesk's professional-grade design, engineering and entertainment software. Autodesk Design Academy curricula is also syndicated on iTunes U and Udemy, where millions of students go to learn online. Classes and projects are available on our Instructables website for anyone looking to expand their "making" skills. Our intention is to make Autodesk software ubiquitous and the design and making software of choice for those poised to become the next generation of professional users.

Sustainability Programs

To help our customers imagine, design, and make a better world, our sustainability initiatives focus our efforts on the areas where we can have the greatest positive impact: enabling sustainable practices through our products, delivering free sustainable-design learning and training resources, providing software grants to qualifying nonprofits and entrepreneurs, and leading by example with our sustainable business practices. Through our products and services, we are supporting our customers to better understand and improve the environmental performance of everything they make.

Climate Change

In addressing the global challenges posed by climate change, we make it possible for our customers to innovate and respond to associated changes in regulation, building code, physical climate parameters and other climate-related developments. This effort can directly and indirectly create more demand for existing and new Autodesk products and services in the short and long-term. Furthermore, our leadership is committed to taking climate action and that commitment goes hand-in-hand with our values and reputation in the marketplace.

Climate Change Management Actions

To drive continued progress and meet growing demand, we continue to expand the solutions, education, and support we offer, helping customers secure a competitive advantage for a low-carbon future by designing high-performance buildings, resilient cities and infrastructure, and more efficient transportation and products. To continue to grow this market, we provide software and support to early stage entrepreneurs and start-up companies who are designing clean technologies. We plan to expand these offerings in the future based upon demand and opportunity in response to challenges posed by climate change.

Internally, we are investing in best practices to mitigate our greenhouse gas emissions and climate change risk through investments in renewable energy, energy efficiency, disaster management and recovery strategies, and materials innovation. We are on track to meet our science-based greenhouse gas reduction target of 43% absolute emissions by 2020.

Climate Change Governance

With oversight from our CEO, the Sustainability & Foundation Team has direct responsibility for setting and implementing our corporate sustainability strategy, including our climate change strategy.

Emissions Performance & Other Key Performance Indicators

By end of fiscal 2018, Autodesk had reduced its net greenhouse gas emissions for its operational boundary by 38% from our fiscal year 2009 baseline to 187,000 metric tons of carbon dioxide equivalent. This reduction was accomplished through increased investment in renewable energy and energy efficiency in our global real estate portfolio, and continued transition from physical software delivery to cloud and electronic software delivery. More information about our sustainability commitment can be found in our annual sustainability reports, which we have published on our website since 2008. Our fiscal 2019 sustainability report will be published in the second quarter of fiscal 2020.

Philanthropy

The Autodesk Foundation (the "Foundation"), a privately funded 501(c)(3) charity organization established and solely funded by us, leads our philanthropic efforts. The purpose of the Foundation is twofold: to support employees to create a better world at work, at home, and in the community by matching employees' volunteer time and/or donations to nonprofit organizations; and to support organizations and individuals using design to drive positive social and environmental impact. In the latter case, we use grant funding, software donations, and training to accomplish this goal, selecting the most impactful and innovative organizations around the world, thus, leading to a better future for our planet. On our behalf, the Foundation also administers a discounted software donation program to nonprofit organizations, social and environmental entrepreneurs, and others who are developing design solutions that will shape a more sustainable future.

DEVELOPER PROGRAMS

Our business and our customers benefit from our relationships with an extensive developer network. These developers create and sell their own interoperable products that further enhance the range of integrated solutions available to our customers. One of our key strategies is to maintain an open-architecture design of our software products to facilitate third-party development of complementary products and industry-specific software solutions. This approach enables customers and third-parties to customize solutions for a wide variety of highly specific uses. We offer several programs that provide strategic investment funding, technological platforms, user communities, technical support, forums, and events to developers who develop add-on applications for our products. For example, we have created our web services platform, Autodesk Forge. The Forge Platform includes a number of web services that enable software developers to rapidly develop the next generation of applications, and experiences that will power the future of making things. Forge facilitates the development of a single connected ecosystem for integrating Autodesk applications with other enterprise, web and mobile solutions.

COMPETITION

The markets for our products are highly competitive, are subject to rapid change, and can have complex interdependencies between many of the larger businesses. We strive to increase our competitive separation by investing in research and development, allowing us to bring new products to market and create exciting new versions of existing products that offer compelling efficiencies for our customers. We also compete through investments in marketing and sales to more effectively reach new customers and better serve existing customers.

Our competitors include large, global, publicly traded companies; small, geographically focused firms; startup firms; and solutions produced in-house by their users. Our primary global competitors include Adobe Systems Incorporated, ANSYS, Inc., Apple Inc., AVEVA Group plc, Avid Technology, Inc., Bentley Systems, Inc., Dassault Systèmes S.A. and its subsidiary Dassault Systèmes SolidWorks Corp., Intergraph Corporation, a wholly owned subsidiary of Hexagon AB, MSC Software Corporation, Nemetschek AG, Oracle Corporation, Procore Technologies, Inc., PTC Inc., 3D Systems Corporation, Siemens PLM, SONY Corporation, Technicolor S.A., and Trimble Navigation Limited, among others.

The software industry has limited barriers to entry, and the availability of computing power with continually expanding performance at progressively lower prices contributes to the ease of market entry. The industry is presently undergoing a platform shift from the personal computer to cloud and mobile computing. This shift further lowers barriers to entry and poses a disruptive challenge to established software companies. The design software market is characterized by vigorous competition in each of the vertical markets in which we compete, both from existing competitors and by entry of new competitors with innovative technologies. Competition is increasingly enhanced by consolidation of companies with complementary products and technologies and the possibility that competitors in one vertical segment may enter other vertical segments that we serve. In addition, some of our competitors in certain markets have greater financial, technical, sales and marketing, and other resources than we do. Because of these and other factors, competitive conditions in these industries are likely to continue to intensify in the future. Increased competition could result in price reductions, reduced net revenue and profit margins, and loss of market share, any of which could harm our business. See Item 1A, “Risk Factors,” for further discussion of risks regarding competition.

We believe that our future results depend largely upon our ability to better serve customers by offering new products, including cloud and mobile computing products, whether by internal development or acquisition, and to continue to provide existing product offerings that compete favorably with respect to ease of use, reliability, performance, range of useful features, continuing product enhancements, reputation, price, and training.

INTELLECTUAL PROPERTY AND LICENSES

We maintain an active program to legally protect our investment in technology through intellectual property rights. We protect our intellectual property through a combination of patent, copyright, trademark and trade secret protections, confidentiality procedures, and contractual provisions. The nature and extent of legal protection associated with each such intellectual property right depends on, among other things, the type of intellectual property right and the given jurisdiction in which such right arises. We believe that our intellectual property rights are valuable and important to our business.

Nonetheless, our intellectual property rights may not be successfully asserted in the future or may be invalidated, circumvented or challenged. In addition, the laws and enforcement of the laws of various foreign countries where our products are distributed do not protect our intellectual property rights to the same extent as U.S. laws. Enforcement of intellectual property rights against alleged infringers can sometimes lead to costly litigation and counterclaims. Our inability to protect our proprietary information could harm our business.

From time to time, we receive claims alleging infringement of a third party’s intellectual property rights, including patents. Disputes involving our intellectual property rights or those of another party have in the past and may in the future lead to, among other things, costly litigation or product shipment delays, which could harm our business.

We retain ownership of software we develop. Our combined hybrid offerings include both desktop software and cloud functionality. Desktop software is licensed to users pursuant to ‘click through’ or signed license agreements containing restrictions on duplication, disclosure, and transfer. Cloud software and associated services are provided to users pursuant to on-line or signed terms of service agreements containing restrictions on access and use.

We believe that because of the limitations of laws protecting our intellectual property and the rapid, ongoing technological changes in both the computer hardware and software industries, we must rely principally upon software engineering and marketing skills to continually maintain and enhance our competitive market position.

While we have recovered some revenue resulting from the unauthorized use of our software solutions, we are unable to measure the full extent to which piracy of our software products exists. We believe, however, that software piracy is and can be expected to be a persistent problem that negatively impacts our revenue and financial results. We believe that our transition from perpetual use software licenses to a subscription-based business model combined with the change from desktop to cloud-based computing will shift the incentives and means by which software is pirated.

In addition, through various licensing arrangements, we receive certain rights to intellectual property of others. We expect to maintain current licensing arrangements and to secure licensing arrangements in the future, as needed and to the extent available on reasonable terms and conditions, to support continued development and sales of our products and services. Some of these licensing arrangements require or may require royalty payments and other licensing fees. The amount of these payments and fees may depend on various factors, including but not limited to: the structure of royalty payments, offsetting considerations, if any, and the degree of use of the licensed technology.

See Item 1A, “Risk Factors,” for further discussion of risks related to protecting our intellectual property.

PRODUCTION AND SUPPLIERS

The production of our software products and services involves duplication or hosting of software media. The way that we deliver software has evolved during our business model transition. For certain cloud-based products, we use a combination of co-located hosting facilities and increasingly Amazon Web Services and to a lesser degree other infrastructure-as-a-service providers. We offer customers an electronic software download option for both initial product fulfillment and subsequent product updates. Customers who choose electronic fulfillment receive the latest version of the software from our vendor’s secure servers. Customers may also obtain our software through media such as DVDs and USB flash drives available from multiple sources. The purchase of media and the transfer of the software programs onto media for distribution to customers are performed by us and by licensed subcontractors. Packaging materials are produced to our specifications by outside sources. Production is performed in leased facilities operated by independent third-party contractors. To date, we have not experienced any material difficulties or delays in the production of our software and documentation.

EMPLOYEES

As of January 31, 2019, we employed approximately 9,600 people. None of our employees in the United States are represented by a labor union. In certain foreign countries, our employees are represented by work councils. We have never experienced any work stoppages and believe our employee relations are good. Reliance upon employees in other countries entails various risks and changes in these foreign countries, such as government instability or regulation unfavorable to foreign-owned businesses, which could negatively impact our business in the future.

ACQUISITIONS

Over the past three years, we acquired new technology or supplemented our existing technology by purchasing businesses or technology related assets focused in specific markets or industries. For the fiscal years ended January 31, 2019, 2018, and 2017, we acquired companies all of which were accounted for as business combinations. The following were significant acquisitions for fiscal years 2019, 2018, and 2017:

Date of closing	Company	Details
January 2019	BuildingConnected, Inc. ("BuildingConnected")	The acquisition of BuildingConnected will enable Autodesk to add bid-management capabilities to its construction portfolio.
December 2018	PlanGrid, Inc. ("PlanGrid")	The acquisition of PlanGrid will enable Autodesk to offer a more comprehensive, cloud-based construction platform.
July 2018	Assemble Systems, Inc. ("Assemble Systems")	The acquisition of Assemble Systems will enable Autodesk's customers to influence, query and connect BIM data to key workflows across bid management, estimating, scheduling, site management and finance.

GLOSSARY OF TERMS

Annualized Recurring Revenue (ARR)—Represents the annualized value of our average monthly recurring revenue for the preceding three months. "Maintenance plan ARR" captures ARR relating to traditional maintenance attached to perpetual licenses. "Subscription plan ARR" captures ARR relating to subscription offerings. Refer to the definition of recurring revenue below for more details on what is included within ARR. Recurring revenue acquired with the acquisition of a business is captured when total subscriptions are captured in our systems and may cause variability in the comparison of this calculation.

ARR is currently one of our key performance metrics to assess the health and trajectory of our business. ARR should be viewed independently of revenue and deferred revenue as ARR is a performance metric and is not intended to be combined with any of these items.

Annualized Revenue Per Subscription (ARPS)—Is calculated by dividing our annualized recurring revenue by the total number of subscriptions.

Billings—Represents total revenue plus net change in deferred revenue from the beginning to the end of the period.

Cloud Service Offerings—Represents individual term-based offerings deployed through web browser technologies or in a hybrid software and cloud configuration. Cloud service offerings that are bundled with other product offerings are not captured as a separate cloud service offering.

Constant Currency (CC) Growth Rates—We attempt to represent the changes in the underlying business operations by eliminating fluctuations caused by changes in foreign currency exchange rates as well as eliminating hedge gains or losses recorded within the current and comparative periods. We calculate constant currency growth rates by (i) applying the applicable prior period exchange rates to current period results and (ii) excluding any gains or losses from foreign currency hedge contracts that are reported in the current and comparative periods.

Core Business—Represents the combination of maintenance, product, and EBA.

Enterprise Business Agreements (EBAs)—Represents programs providing enterprise customers with token-based access or a fixed maximum number of seats to a broad pool of Autodesk products over a defined contract term.

Free Cash Flow—Represents cash flow from operating activities minus capital expenditures.

Industry Collections—Autodesk Industry Collections are a combination of products and services that target a specific user objective and support a set of workflows for that objective. Our Industry Collections consist of: Autodesk Architecture, Engineering and Construction Collection, Autodesk Product Design & Manufacturing Collection, and Autodesk Media and Entertainment Collection. We introduced Industry Collections effective August 1, 2016 to replace our suites.

Other Revenue—Consists of revenue from consulting, training and other services, and is recognized over time as the services are performed. Other revenue also includes software license revenue from the sale of products which do not incorporate substantial cloud services and is recognized up front.

Subscription Plan—Comprises our term-based product subscriptions, cloud service offerings, and EBAs. Subscriptions represent a combined hybrid offering of desktop software and cloud functionality which provides a device-independent, collaborative design workflow for designers and their stakeholders. With subscription, customers can use our software anytime, anywhere, and get access to the latest updates to previous versions.

Maintenance Plan—Our maintenance plans provide our customers with a cost effective and predictable budgetary option to obtain the productivity benefits of our new releases and enhancements when and if released during the term of their contracts. Under our maintenance plans, customers are eligible to receive unspecified upgrades when and if available, and technical support. We recognize maintenance revenue over the term of the agreements, generally one year.

Product Subscription—Provides customers the most flexible, cost-effective way to access and manage 3D design, engineering, and entertainment software tools. Our product subscriptions currently represent a hybrid of desktop and SaaS functionality, which provides a device-independent, collaborative design workflow for designers and their stakeholders.

Recurring Revenue—Consists of the revenue for the period from our traditional maintenance plans and revenue from our subscription plan offerings. It excludes subscription revenue related to consumer product offerings, select Creative Finishing product offerings, education offerings, and third party products. Recurring revenue acquired with the acquisition of a business is captured when total subscriptions are captured in our systems and may cause variability in the comparison of this calculation.

Subscription Revenue—Includes subscription fees from product subscriptions, cloud service offerings, and EBAs.

Total Deferred Revenue—Is calculated by adding together total short term, long term, and unbilled deferred revenue.

Total Subscriptions—Consists of subscriptions from our maintenance plans and subscription plan offerings that are active and paid as of the fiscal year end date. For certain cloud service offerings and EBAs, subscriptions represent the monthly average activity reported within the last three months of the fiscal quarter end date. Total subscriptions do not include education offerings, consumer product offerings, select Creative Finishing product offerings, Autodesk Buzzsaw, Autodesk Constructware, and third party products. Subscriptions acquired with the acquisition of a business are captured once the data conforms to our subscription count methodology and when added, may cause variability in the comparison of this calculation.

Unbilled Deferred Revenue—Unbilled deferred revenue represents contractually stated or committed orders under early renewal and multi-year billing plans for subscription, services and maintenance for which the associated deferred revenue has not been recognized. Under FASB Accounting Standards Codification ("ASC") Topic 606, unbilled deferred revenue is not included as a receivable or deferred revenue on our Consolidated Balance Sheet.

ITEM 1A. RISK FACTORS

We operate in a rapidly changing environment that involves significant risks, a number of which are beyond our control. In addition to the other information contained in this Form 10-K, the following discussion highlights some of these risks and the possible impact of these factors on our business, financial condition, and future results of operations. If any of the following risks actually occur, our business, financial condition, or results of operations may be adversely impacted, causing the trading price of our common stock to decline. In addition, these risks and uncertainties may impact the “forward-looking” statements described elsewhere in this Form 10-K and in the documents incorporated herein by reference. They could affect our actual results of operations, causing them to differ materially from those expressed in “forward-looking” statements.

Global economic and political conditions may further impact our industries, business and financial results.

Our overall performance depends largely upon domestic and worldwide economic and political conditions. The United States and other international economies have experienced cyclical downturns from time to time in which economic activity was impacted by falling demand for a variety of goods and services, restricted credit, poor liquidity, decreased government spending, reduced corporate profitability, volatility in credit, equity and foreign exchange markets, bankruptcies and overall uncertainty with respect to the economy. These economic conditions can occur abruptly. If economic growth in countries where we do business slows or if such countries experience further economic recessions, customers may delay or reduce technology purchases. Our customers include government entities, including the U.S. federal government, and if spending cuts impede the ability of governments to purchase our products and services, our revenue could decline. In addition, a number of our customers rely, directly and indirectly, on government spending.

Geopolitical trends toward nationalism and protectionism and the weakening or dissolution of international trade pacts may increase the cost of, or otherwise interfere with, conducting business. These trends have increased levels of political and economic unpredictability globally, and may increase the volatility of global financial markets; the impact of such developments on the global economy remains uncertain. Political instability or adverse political developments in any of the countries in which we do business could harm our business, results of operations and financial condition.

A financial sector credit crisis could impair credit availability and the financial stability of our customers, including our distribution partners and channels. A disruption in the financial markets may also have an effect on our derivative counter-parties and could also impair our banking partners, on which we rely for operating cash management. Any of these events could harm our business, results of operations and financial condition.

Our strategy to develop and introduce new products and services exposes us to risks such as limited customer acceptance, costs related to product defects, and large expenditures, each of which may not result in additional net revenue or could result in decreased net revenue.

Rapid technological changes, as well as changes in customer requirements and preferences, characterize the software industry. Just as the transition from mainframes to personal computers transformed the industry 30 years ago, the software industry has undergone a transition from developing and selling perpetual licenses and on-premises products to cloud, mobile and social applications. Customers are also reconsidering the manner in which they purchase software products, which requires us to constantly evaluate our business model and strategy. In response, we are focused on providing solutions to enable our customers to be more agile and collaborative on their projects. We devote significant resources to the development of new technologies. In addition, we frequently introduce new business models or methods that require a considerable investment of technical and financial resources such as our introduction of flexible subscription and service offerings. It is uncertain whether these strategies will prove successful or whether we will be able to develop the necessary infrastructure and business models more quickly than our competitors. We are making such investments through further development and enhancement of our existing products and services, as well as through acquisitions. Such investments may not result in sufficient revenue generation to justify their costs and could result in decreased net revenue or profitability. If we are not able to meet customer requirements, either with respect to our software or the manner in which we provide such products, or if we are not able to adapt our business model to meet our customers' requirements, our business, financial condition or results of operations may be adversely impacted.

In particular, a critical component of our growth strategy is to have customers of our AutoCAD and AutoCAD LT products expand their portfolios to include our other offerings and cloud-based functionality. We want customers using individual Autodesk products to expand their portfolio with our other offerings and cloud-based functionality, and we are taking steps to accelerate this migration. At times, sales of our AutoCAD and AutoCAD LT or individual Autodesk flagship products have decreased without a corresponding increase in Industry Collections or cloud-based functionality revenue or without purchases of customer seats to our Industry Collections. Should this continue, our results of operations will be adversely affected.

Our executive management team must act quickly, continuously, and with vision, given the rapidly changing customer expectations and technology advancements inherent in the software industry, the extensive and complex efforts required to create useful and widely accepted products and the rapid evolution of cloud computing, mobile devices, new computing platforms, and other technologies, such as consumer products. Although we have articulated a strategy that we believe will fulfill these challenges, if we fail to execute properly on that strategy or adapt that strategy as market conditions evolve, we may fail to meet our customers' expectations, fail to compete with our competitors' products and technology, and lose the confidence of our channel partners and employees. This in turn could adversely affect our business and financial performance.

Our business could suffer as a result of risks, costs, charges and integration risks associated with strategic acquisitions and investments such as the recent acquisitions of Assemble Systems, Inc., PlanGrid, Inc. and BuildingConnected, Inc.

We regularly acquire or invest in businesses, software solutions and technologies that are complementary to our business through acquisitions, strategic alliances or equity or debt investments. For example, we recently acquired Assemble Systems, PlanGrid and BuildingConnected. The risks associated with such acquisitions include, among others, the difficulty of assimilating solutions, operations and personnel, inheriting liabilities such as intellectual property infringement claims, the failure to realize anticipated revenue and cost projections, the requirement to test and assimilate the internal control processes of the acquired business in accordance with the requirements of Section 404 of the Sarbanes-Oxley Act of 2002, and the diversion of management's time and attention.

In addition, such acquisitions and investments involve other risks such as:

- the inability to retain customers, key employees, vendors, distributors, business partners, and other entities associated with the acquired business;
- the potential that due diligence of the acquired business or solution does not identify significant problems;
- exposure to litigation or other claims in connection with, or inheritance of claims or litigation risk as a result of, an acquisition, including but not limited to, claims from terminated employees, customers, or other third parties;
- the potential for incompatible business cultures;
- significantly higher than anticipated transaction or integration-related costs;
- the potential additional exposure to fluctuations in currency exchange rates; and
- the potential impact on relationships with existing customers, vendors, and distributors as business partners as a result of acquiring another business.

We may not be successful in overcoming such risks, and such acquisitions and investments may negatively impact our business. In addition, such acquisitions and investments have in the past and may in the future contribute to potential fluctuations in our quarterly financial results. These fluctuations could arise from transaction-related costs and charges associated with eliminating redundant expenses or write-offs of impaired assets recorded in connection with acquisitions and investments. These costs or charges could negatively impact our financial results for a given period, cause quarter to quarter variability in our financial results or negatively impact our financial results for several future periods.

We are dependent on international revenue and operations, exposing us to significant regulatory, global economic, intellectual property, collections, currency exchange rate, taxation, political instability and other risks, which could adversely impact our financial results.

We are dependent on our international operations for a significant portion of our revenue. International net revenue represented 66% and 64% of our net revenue in fiscal 2019 and 2018, respectively. Our international revenue, including that from emerging economies, is subject to general economic and political conditions in foreign markets, including conditions in foreign markets resulting from economic and political conditions in the U.S. Our revenue is also impacted by the relative geographical and country mix of our revenue over time. At times, these factors adversely impact our international revenue, and consequently our business as a whole. Our dependency on international revenue makes us much more exposed to global economic and political trends, which can negatively impact our financial results, even if our results in the U.S. are strong for a particular period.

We anticipate that our international operations will continue to account for a significant portion of our net revenue, and, as we expand our international development, sales and marketing expertise, will provide significant support to our overall efforts in countries outside of the U.S.

Risks inherent in our international operations include:

- economic volatility;
- tariffs, quotas, and other trade barriers and restrictions;
- fluctuating currency exchange rates, including devaluations, currency controls and inflation, and risks related to any hedging activities we undertake;
- unexpected changes in regulatory requirements and practices;
- delays resulting from difficulty in obtaining export licenses for certain technology;
- different purchase patterns as compared to the developed world;

- operating in locations with a higher incidence of corruption and fraudulent business practices, particularly in emerging economies;
- increasing enforcement by the U.S. under the Foreign Corrupt Practices Act, and adoption of stricter anti-corruption laws in certain countries, including the United Kingdom;
- difficulties in staffing and managing foreign sales and development operations;
- local competition;
- longer collection cycles for accounts receivable;
- U.S. and foreign tax law changes impacting how multinational companies are taxed;
- tax arrangements with foreign governments, including our ability to meet and renew the terms of those tax arrangements;
- laws regarding the management of and access to data and public networks;
- possible future limitations upon foreign owned businesses;
- increased financial accounting and reporting burdens and complexities;
- inadequate local infrastructure;
- greater difficulty in protecting intellectual property;
- software piracy; and
- other factors beyond our control, including popular uprisings, terrorism, war, natural disasters, and diseases.

Some of our business partners also have international operations and are subject to the risks described above.

The "Brexit" vote has exacerbated and may further exacerbate many of the risks and uncertainties described above. The withdrawal of the United Kingdom from the European Union could, among other potential outcomes, adversely affect the tax, tax treaty, currency, operational, legal and regulatory regimes to which our businesses in the region are subject. The withdrawal could also, among other potential outcomes, disrupt the free movement of goods, services and people between the United Kingdom and the European Union and significantly disrupt trade between the United Kingdom and the European Union and other parties. There remains significant risk that the United Kingdom will exit from the European Union without agreement between the European Union and United Kingdom on terms addressing customs and trade matters. Further, uncertainty around these and related issues could lead to adverse effects on the economy of the United Kingdom, European Union and the other economies in which we operate.

In addition, the current U.S. administration has instituted or proposed changes to foreign trade policy including the negotiation or termination of trade agreements, the imposition of tariffs on products imported from certain countries, economic sanctions on individuals, corporations or countries and other government regulations affecting trade between the United States and other countries in which we do business. New or increased tariffs and other changes in U.S. trade policy could trigger retaliatory actions by affected countries, and certain foreign governments, including the Chinese government, have instituted or are considering imposing trade sanctions on certain U.S. manufactured goods. The escalation of protectionist or retaliatory trade measures in either the United States or any other countries in which we do business, such as a change in tariff structures, export compliance or other trade policies, may increase the cost of, or otherwise interfere with, conducting our business.

Even if we are able to successfully manage the risks of international operations, our business may be adversely affected if our business partners are not able to successfully manage these risks.

Security incidents may compromise the integrity of our or our customers' offerings, services, data or intellectual property, harm our reputation, damage our competitiveness, create additional liability and adversely impact our financial results.

As we digitize Autodesk and use cloud and web-based technologies to leverage customer data to deliver the total customer experience, we are exposed to increased security risks and the potential for unauthorized access to, or improper use of, our and our customers' information. Like other software offerings and systems, ours are vulnerable to security incidents. We devote resources to maintain the security and integrity of our systems, offerings, services and applications (online, mobile and desktop). We accomplish this by enhancing security features, conducting penetration tests, code hardening, releasing security vulnerability updates and accelerating our incident response time. Despite these efforts, we may not prevent security incidents.

Hackers regularly have targeted our systems, offerings, services and applications, and we expect them to do so in the future. Security incidents could disrupt the proper functioning of our systems, solutions or services; cause errors in the output of our customers' work; allow unauthorized access to sensitive data or intellectual property, including proprietary or confidential information of ours or our customers; or cause other destructive outcomes.

The risk of a security incident, particularly through cyber attack or cyber intrusion, including by computer hackers, foreign governments and cyber terrorists, has increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. These threats include but are not limited to identity theft, unauthorized access, DNS attacks, wireless network attacks, viruses and worms, advanced persistent threat (APT), application centric attacks, peer-to-peer attacks, phishing, malicious file uploads, backdoor trojans and distributed denial of service (DDoS) attacks. In addition, third parties may attempt to fraudulently induce our employees, vendors, partners or users to disclose information to gain access to our data or our users' data and there is the risk of employee, contractor, or vendor error or malfeasance. Despite efforts to create security barriers to such threats, it is virtually impossible for us to entirely eliminate this risk.

If any of the foregoing security incidents were to occur, our reputation may suffer, our competitive position may be diminished, customers may stop paying for our solutions and services, we could face regulator inquiry, lawsuits and potential liability, and our financial performance could be negatively impacted.

Increasing regulatory focus on privacy issues and expanding laws may impact our business or expose us to increased liability.

Our strategy to digitize Autodesk involves increasing our use of cloud and web-based technologies and applications to leverage customer data to improve our offerings for the benefit of our customers. To accomplish this strategy, we must collect customer data, which may include personal data. Federal, state and foreign government privacy and data security laws apply to the treatment of personal data. Governments, regulators, the plaintiffs' bar, privacy advocates and customers have increased their focus on how companies collect, process, use, store, share and transmit personal data.

The General Data Protection Regulation ("GDPR") is applicable in all EU member states The GDPR introduced new data protection requirements in the EU and substantial fines for non-compliance. In addition, in June 2018, California enacted the California Consumer Privacy Act (the "CCPA"), which takes effect in January 2020. The CCPA will, among other things, give California residents expanded rights to access and delete their personal information, opt out of certain personal information sharing, and receive detailed information about how their personal information is used. The CCPA was amended in September 2018, and it is unclear whether further modifications will be made to this legislation or how it will be interpreted. We cannot yet predict the impact of the CCPA on our business or operations, but it may require us to modify our data processing practices and policies and to incur substantial costs and expenses in an effort to comply.

The GDPR, CCPA and other state and global laws and regulations increased our responsibility and potential liability in relation to personal data, and we have and will continue to put in place additional processes and programs to demonstrate compliance. Any failure to comply with the GDPR or other data privacy laws could lead to government enforcement actions and significant penalties. Any perceived privacy right violation could result in reputational harm, third-party claims, lawsuits or investigations.

Additionally, we store customer information and content and if our customers fail to comply with contractual obligations or applicable laws, it could result in litigation or reputational harm to us. The GDPR, CCPA other laws and self-regulatory codes may affect our ability to reach current and prospective customers, to understand how our offerings and services are being used, to respond to customer requests allowed under the laws, and to implement our new business models effectively. These new laws and regulations would similarly affect our competitors as well as our customers. These requirements could impact demand for our offerings and services and result in more onerous contract obligations.

We rely on third-parties to provide us with a number of operational and technical services; third-party security incidents could expose us to liability, harm our reputation, damage our competitiveness and adversely impact our financial performance.

We rely on third parties, such as Amazon Web Services, to provide us with operational and technical services. These third parties may have access to our systems, provide hosting services, or otherwise process data about us or our customers, employees, or partners. Any third-party security incident could compromise the integrity of, or availability or result in the theft of, data. In addition, our operations, or the operations of our customers or partners, could be negatively affected in the event of a security breach, and could be subject to the loss or theft of confidential or proprietary information, including source code. Unauthorized access to data and other confidential or proprietary information may be obtained through break-ins, network breaches by unauthorized parties, employee theft or misuse, or other misconduct. If any of the foregoing were to occur, our reputation may suffer, our competitive position may be diminished, customers may buy fewer of our offerings and services, we could face lawsuits and potential liability, and our financial performance could be negatively impacted.

Delays in service from third-party service providers could expose us to liability, harm our reputation, damage our competitiveness and adversely impact our financial performance.

From time to time, we may rely on a single or limited number of suppliers, or upon suppliers in a single country, for the provision of various services and materials that we use in the operation of our business and production of our solutions. The inability of such third parties to satisfy our requirements could disrupt our business operations or make it more difficult for us to implement our business strategy. If any of these situations were to occur, our reputation could be harmed, we could be subject to third party liability, including under data protection and privacy laws in certain jurisdictions, and our financial performance could be negatively impacted.

We are investing in resources to update and improve our information technology systems to digitize Autodesk and support our customers. Should our investments not succeed, or if delays or other issues with new or existing information technology systems disrupt our operations, our business could be harmed.

We rely on our network and data center infrastructure, technology systems and our websites for our development, marketing, operational, support, sales, accounting and financial reporting activities. We continually invest resources to update and improve these systems in order to meet the evolving requirements of our business and customers. In particular, our transition to cloud-based products and a subscription-only business model involves considerable investment in the development of technologies, as well as back-office systems for technical, financial, compliance and sales resources.

Such improvements are often complex, costly and time consuming. In addition, such improvements can be challenging to integrate with our existing technology systems, or may uncover problems with our existing technology systems. Unsuccessful implementation of hardware or software updates and improvements could result in disruption in our business operations, loss of customers, loss of revenue, errors in our accounting and financial reporting or damage to our reputation, all of which could harm our business.

We may not be able to predict subscription renewal rates and their impact on our future revenue and operating results.

Our customers are not obligated to renew their subscriptions for our offerings, and they may elect not to renew. We cannot assure renewal rates, or the mix of subscriptions renewals. Customer renewal rates may decline or fluctuate due to a number of factors, including offering pricing, competitive offerings, customer satisfaction, and reductions in customer spending levels or customer activity due to economic downturns or financial markets uncertainty. If our customers do not renew their subscriptions or if they renew on less favorable terms, our revenues may decline.

Our software is highly complex and may contain undetected errors, defects or vulnerabilities, each of which could harm our business and financial performance.

The software solutions that we offer are complex and, despite extensive testing and quality control, may contain errors, defects or vulnerabilities. Some errors, defects and vulnerabilities in our software solutions may only be discovered after they have been released. Any errors, defects or vulnerabilities could result in the need for corrective releases to our software solutions, damage to our reputation, loss of revenue, an increase in subscription cancellations or lack of market acceptance of our offerings, any of which would likely harm our business and financial performance.

Existing and increased competition and rapidly evolving technological changes may reduce our revenue and profits.

The software industry has limited barriers to entry, and the availability of computing devices with continually expanding performance at progressively lower prices contributes to the ease of market entry. The software industry has undergone a transition from developing and selling perpetual licenses and on-premises products to cloud, mobile and social applications. This shift further lowers barriers to entry and poses a disruptive challenge to established software companies. The markets in which we compete are characterized by vigorous competition, both by entry of competitors with innovative technologies and by consolidation of companies with complementary offerings and technologies. In addition, some of our competitors in certain markets have greater financial, technical, sales and marketing, and other resources. Furthermore, a reduction in the number and availability of compatible third-party applications, or our inability to rapidly adapt to technological and customer preference changes, including those related to cloud computing, mobile devices, and new computing platforms, may adversely affect the sale of our solutions. Because of these and other factors, competitive conditions in the industry are likely to intensify in the future. Increased competition could result in price reductions, reduced net revenue and profit margins and loss of market share, any of which would likely harm our business.

We are subject to governmental export and import controls that could impair our ability to compete in international markets or subject us to liability if we violate the controls.

Our offerings are subject to U.S. export controls and economic sanctions laws and regulations that prohibit the delivery of certain solutions and services without the required export authorizations or export to locations, governments, and persons targeted by U.S. sanctions. While we have processes in place to prevent our offerings from being exported in violation of these laws, including obtaining authorizations as appropriate and screening against U.S. government and international lists of restricted and prohibited persons, we cannot guarantee that these processes will prevent all violations of export control and sanctions laws.

We also note that if our channel partners fail to obtain appropriate import, export or re-export licenses or permits, we may also be adversely affected, through reputational harm as well as other negative consequences including government investigations and penalties. We presently incorporate export control and sanctions compliance requirements in our channel partner agreements. Complying with export control and sanctions regulations for a particular sale may be time-consuming and may result in the delay or loss of sales opportunities. Violations of U.S. sanctions or export control laws can result in fines or penalties.

We are exposed to fluctuations in currency exchange rates that could negatively impact our financial results and cash flows.

Because we conduct a substantial portion of our business outside the U.S., we face exposure to adverse movements in foreign currency exchange rates. These exposures may change over time as business practices evolve and economic conditions change. Our exposure to adverse movements in foreign currency exchange rates could have a material adverse impact on our financial results and cash flows.

We use derivative instruments to manage a portion of our cash flow exposure to fluctuations in foreign currency exchange rates. As part of our risk management strategy, we use foreign currency contracts to manage a portion of our exposures of underlying assets, liabilities, and other obligations, which exist as part of our ongoing business operations. These foreign currency instruments have maturities that extend for one to twelve months in the future, and provide us with some protection against currency exposures. However, our attempts to hedge against these risks may not be completely successful, resulting in an adverse impact on our financial results.

The fluctuations of currencies in which we conduct business can both increase and decrease our overall revenue and expenses for any given fiscal period. Although our foreign currency cash flow hedge program extends beyond the current quarter in order to reduce our exposure to foreign currency volatility, we do not attempt to completely mitigate this risk, and in any case, will incur transaction fees in adopting such hedging programs. Such volatility, even when it increases our revenues or decreases our expenses, impacts our ability to accurately predict our future results and earnings.

In addition, countries in which we operate may be classified as highly inflationary economies, requiring special accounting and financial reporting treatment for such operations, or such countries' currencies may be devalued, or both, which may adversely impact our business operations and financial results.

If we do not maintain good relationships with the members of our distribution channel, our ability to generate revenue will be adversely affected. If our distribution channel suffers financial losses, becomes financially unstable or insolvent, or is not provided the right mix of incentives to sell our subscriptions, our ability to generate revenue will be adversely affected.

We sell our software products both directly to end-users and through a network of distributors and resellers. For fiscal 2019 and fiscal 2018, approximately 71% and 70%, respectively, of our revenue was derived from indirect channel sales through distributors and resellers and we expect that the majority of our revenue will continue to be derived from indirect channel sales in the near future. Our ability to effectively distribute our solutions depends in part upon the financial and business condition of our distributor and reseller network. Computer software distributors and resellers typically are not highly capitalized, have previously experienced difficulties during times of economic contraction and experienced difficulties during the past several years. We have processes to ensure that we assess the creditworthiness of distributors and resellers prior to our sales to them. In the past we have taken steps to support them, and may take additional steps in the future, such as extending credit terms and providing temporary discounts. These steps, if taken, could harm our financial results. If our distributors and resellers were to become insolvent, they would not be able to maintain their business and sales, or provide customer support services, which would negatively impact our business and revenue.

We rely significantly upon major distributors and resellers in both the U.S. and international regions, including the distributor Tech Data. Tech Data accounted for 35% and 31% of our total net revenue for fiscal 2019 and 2018, respectively. Although we believe that we are not substantially dependent on Tech Data, if Tech Data were to experience a significant disruption with its business or if our relationship with Tech Data were to significantly deteriorate, it is possible that our ability to sell to end users would be, at least temporarily, negatively impacted. This could in turn negatively impact our financial results.

Over time, we have modified and will continue to modify aspects of our relationship with our distributors and resellers, such as their incentive programs, pricing to them and our distribution model to motivate and reward them for aligning their businesses with our strategy and business objectives. Changes in these relationships and underlying programs could negatively impact their business and harm our business. Further, our distributors and resellers may lose confidence in our business, move to competitive products, or may not have the skills or ability to support customers. The loss of or a significant reduction in business with those distributors or resellers could harm our business. In particular, if one or more of such distributors or resellers were unable to meet their obligations with respect to accounts payable to us, we could be forced to write off such accounts and may be required to delay the recognition of revenue on future sales to these customers. These events could have a material adverse effect on our financial results.

Our financial results fluctuate within each quarter and from quarter to quarter making our future revenue and financial results difficult to predict.

Our quarterly financial results have fluctuated in the past and will continue to do so in the future. These fluctuations could cause our stock price to change significantly or experience declines. We also provide investors with quarterly and annual financial forward-looking guidance that could prove to be inaccurate as a result of these fluctuations. In addition to the other factors described in this Part I, Item 1A, some of the factors that could cause our financial results to fluctuate include:

- general market, economic, business, and political conditions in particular geographies, including Europe, APAC, and emerging economies;
- failure to produce sufficient revenue, ARR, billings, subscription, profitability and cash flow growth;
- failure to accurately predict the impact of acquired businesses or to identify and realize the anticipated benefits of acquisitions, and successfully integrate such acquired businesses and technologies;
- failure to manage spend;
- changes in subscription mix, pricing pressure or changes in subscription pricing;
- weak or negative growth in one or more of the industries we serve, including AEC, manufacturing, and digital media and entertainment markets;
- the success of new business or sales initiatives;

- security breaches, related reputational harm, and potential financial penalties to customers and government entities;
- restructuring or other accounting charges and unexpected costs or other operating expenses;
- timing of additional investments in our technologies or deployment of our services;
- changes in revenue recognition or other accounting guidelines employed by us and/or established by the Financial Accounting Standards Board, Securities Exchange Commission or other rule-making bodies;
- fluctuations in foreign currency exchange rates and the effectiveness of our hedging activity;
- dependence on and the timing of large transactions;
- changes in billings linearity;
- adjustments arising from ongoing or future tax examinations;
- the ability of governments around the world to adopt fiscal policies, meet their financial and debt obligations, and to finance infrastructure projects;
- lower renewals of our maintenance program;
- failure to expand our AutoCAD and AutoCAD LT customer base to related design products and services;
- our ability to rapidly adapt to technological and customer preference changes, including those related to cloud computing, mobile devices and new computing platforms;
- the timing of the introduction of new products by us or our competitors;
- the financial and business condition of our reseller and distribution channels;
- perceived or actual technical or other problems with a product or combination of subscriptions;
- unexpected or negative outcomes of matters and expenses relating to litigation or regulatory inquiries;
- increases in cloud functionality-related expenses;
- timing of releases and retirements of offerings;
- changes in tax laws or regulations, tax arrangements with foreign governments or accounting rules, such as increased use of fair value measures;
- changes in sales compensation practices;
- failure to effectively implement and maintain our copyright legalization programs, especially in developing countries;
- renegotiation or termination of royalty or intellectual property arrangements;
- interruptions or terminations in the business of our consultants or third-party developers;
- the timing and degree of expected investments in growth and efficiency opportunities;
- failure to achieve continued success in technology advancements;
- catastrophic events or natural disasters;
- regulatory compliance costs;

- potential goodwill impairment charges related to prior acquisitions; and

- failure to appropriately estimate the scope of services under consulting arrangements.

We have also experienced fluctuations in financial results in interim periods in certain geographic regions due to seasonality or regional economic or political conditions. In particular, our financial results in Europe during our third quarter are usually affected by a slower summer period, and our APAC operations typically experience seasonal slowing in our third and fourth quarters.

Our operating expenses are based in part on our expectations for future revenue and are relatively fixed in the short term. Accordingly, any revenue shortfall below expectations has had, and in the future could have, an immediate and significant adverse effect on our profitability. Greater than anticipated expenses or a failure to maintain rigorous cost controls would also negatively affect profitability.

Because we derive a substantial portion of our net revenue from a small number of solutions, including our AutoCAD-based software products and collections, if these offerings are not successful, our revenue will be adversely affected.

We derive a substantial portion of our net revenue from sales of subscriptions of a limited number of our offerings, including AutoCAD software, solutions based on AutoCAD, which include our collections that serve specific markets and products that are interoperable with AutoCAD. Any factor adversely affecting sales of these subscriptions, including the product release cycle, market acceptance, product competition, performance and reliability, reputation, price competition, economic and market conditions and the availability of third-party applications, would likely harm our financial results. During fiscal 2019 and fiscal 2018, combined revenue from our AutoCAD and AutoCAD LT products, not including collections having AutoCAD or AutoCAD LT as a component, represented 28% and 27% of our total net revenue, respectively.

Our debt service obligations may adversely affect our financial condition and cash flows from operations.

We have $2.1 billion of debt, consisting of notes due at various times from June 2020 to June 2027 and a delayed draw term loan facility in the aggregate principal amount of $500.0 million due in December 2020, each as described in Part 2, Item 8. We also entered into a credit agreement that provides for an unsecured revolving loan facility in the aggregate principal amount of $650.0 million, with an option to be increased up to $1.0 billion, as described in Part 2, Item 8. Maintenance of our indebtedness, contractual restrictions, and additional issuances of indebtedness could:

- cause us to dedicate a substantial portion of our cash flows from operations towards debt service obligations and principal repayments?

- increase our vulnerability to adverse changes in general economic, industry and competitive conditions;

- limit our flexibility in planning for, or reacting to, changes in our business and our industry;

- impair our ability to obtain future financing for working capital, capital expenditures, acquisitions, general corporate or other purposes? and

- due to limitations within the debt instruments, restrict our ability to grant liens on property, enter into certain mergers, dispose of all or substantially all of the assets of Autodesk and its subsidiaries, taken as a whole, materially change our business and incur subsidiary indebtedness, subject to customary exceptions.

We are required to comply with the covenants set forth in our debt instruments, such as an interest coverage ratio in effect January 31, 2019 and a leverage ratio in effect July 31, 2019. If we breach any of the covenants and do not obtain a waiver from the note holders or lenders, then, subject to applicable cure periods, we would not be able to incur additional indebtedness under the credit agreement described in Part 2, Item 8 and any outstanding indebtedness may be declared immediately due and payable. In addition, changes by any rating agency to our credit rating may negatively impact the value and liquidity of our securities. Under certain circumstances, if our credit ratings are downgraded or other negative action is taken, the interest rate payable by us under our credit agreement could increase. Downgrades in our credit ratings could also restrict our ability to obtain additional financing in the future and could affect the terms of any such financing.

If we are not able to adequately protect our proprietary rights, our business could be harmed.

We rely on a combination of patent, copyright and trademark laws, trade secret protections, confidentiality procedures and contractual provisions to protect our proprietary rights. Despite such efforts to protect our proprietary rights, unauthorized parties from time to time have copied aspects of our software or have obtained and used information that we regard as proprietary. Policing unauthorized use of our software is time-consuming and costly. We are unable to measure the extent to which piracy of our software exists and we expect that software piracy will remain a persistent problem, particularly in emerging economies. Furthermore, our means of protecting our proprietary rights may not be adequate.

Additionally, we actively protect the secrecy of our confidential information and trade secrets, including our source code. If unauthorized disclosure of our source code occurs, we could potentially lose future trade secret protection for that source code. The loss of future trade secret protection could make it easier for third-parties to compete with our offerings by copying functionality, which could adversely affect our financial performance and our reputation. We also seek to protect our confidential information and trade secrets through the use of non-disclosure agreements with our customers, contractors, vendors and partners. However, it is possible that our confidential information and trade secrets may be disclosed or published without our authorization. If this were to occur, it may be difficult and/or costly for us to enforce our rights, and our financial performance and reputation could be negatively impacted.

We may face intellectual property infringement claims that could be costly to defend and result in the loss of significant rights.

As more software patents are granted worldwide, the number of offerings and competitors in our industries grows and the functionality of products in different industries overlaps, we expect that software developers will be increasingly subject to infringement claims. Infringement or misappropriation claims have in the past been, and may in the future be, asserted against us, and any such assertions could harm our business. Additionally, certain patent holders without products have become more aggressive in threatening and pursuing litigation in attempts to obtain fees for licensing the right to use patents. Any such claims or threats, whether with or without merit, have been and could in the future be time-consuming to defend, result in costly litigation and diversion of resources, cause product delays or require us to enter into royalty or licensing agreements. In addition, such royalty or license agreements, if required, may not be available on acceptable terms, if at all, which would likely harm our business.

From time to time we realign or introduce new business and sales initiatives; if we fail to successfully execute and manage these initiatives, our results of operations could be negatively impacted.

As part of our effort to accommodate our customers' needs and demands and the rapid evolution of technology, we from time to time evolve our business and sales initiatives such as realigning our development and marketing organizations, offering software as a service, and realigning our internal resources in an effort to improve efficiency. We may take such actions without clear indications that they will prove successful, and at times, we have been met with short-term challenges in the execution of such initiatives. Market acceptance of any new business or sales initiative is dependent on our ability to match our customers' needs at the right time and price. Often we have limited prior experience and operating history in these new areas of emphasis. If any of our assumptions about expenses, revenue or revenue recognition principles from these initiatives proves incorrect, or our attempts to improve efficiency are not successful, our actual results may vary materially from those anticipated, and our financial results will be negatively impacted.

Net revenue, ARR, billings, earnings, cash flow or subscriptions shortfalls or the volatility of the market generally may cause the market price of our stock to decline.

The market price for our common stock has experienced significant fluctuations and may continue to fluctuate significantly. The market price for our common stock may be affected by a number of factors, including the other factors described in this Part I, Item 1A and the following:

- shortfalls in our expected financial results, including net revenue, ARR, billings, earnings and cash flow or key performance metrics, such as subscriptions;
- quarterly variations in our or our competitors' results of operations;
- general socio-economic, political or market conditions;
- changes in estimates of future results or recommendations or confusion on the part of analysts and investors about the

short-term and long-term impact to our business;

- uncertainty about certain governments' abilities to repay debt or effect fiscal policy;
- the announcement of new offerings or enhancements by us or our competitors;
- unusual events such as significant acquisitions, divestitures, regulatory actions, and litigation;
- changes in laws, rules, or regulations applicable to our business;
- outstanding debt service obligations; and
- other factors, including factors unrelated to our operating performance, such as instability affecting the economy or the operating performance of our competitors.

Significant changes in the price of our common stock could expose us to costly and time-consuming litigation. Historically, after periods of volatility in the market price of a company's securities, a company becomes more susceptible to securities class action litigation. This type of litigation is often expensive and diverts management's attention and resources.

Our business could be adversely affected if we are unable to attract and retain key personnel.

Our success and ability to invest and grow depend largely on our ability to attract and retain highly skilled technical, professional, managerial, sales, and marketing personnel. Historically, competition for these key personnel has been intense. The loss of services of any of our key personnel (including key personnel joining our company through acquisitions), the inability to retain and attract qualified personnel in the future, or delays in hiring required personnel, particularly engineering and sales personnel, could make it difficult to meet key objectives, such as timely and effective product introductions and financial goals.

Our investment portfolio consists of a variety of investment vehicles in a number of countries that are subject to interest rate trends, market volatility, and other economic factors. If general economic conditions decline, this could cause the credit ratings of our investments to deteriorate, illiquidity in the financial marketplace, and we may experience a decline in interest income and an inability to sell our investments, leading to impairment in the value of our investments.

It is our policy to invest our cash, cash equivalents and marketable securities in highly liquid instruments with, and in the custody of, financial institutions with high credit ratings and to limit the amounts invested with any one institution, type of security and issuer. However, we are subject to general economic conditions, interest rate trends and volatility in the financial marketplace that can affect the income that we receive from our investments, the net realizable value of our investments (including our cash, cash equivalents and marketable securities) and our ability to sell them. Any one of these factors could reduce our investment income, or result in material charges, which in turn could impact our overall net income (loss) and earnings (loss) per share.

From time to time we make direct investments in privately held companies. Privately held company investments are considered inherently risky. The technologies and products these companies have under development are typically in the early stages and may never materialize, which could result in a loss of all or a substantial part of our initial investment in these companies. The evaluation of privately held companies is based on information that we request from these companies, which is not subject to the same disclosure regulations as U.S. publicly traded companies, and as such, the basis for these evaluations is subject to the timing and accuracy of the data received from these companies.

A loss on any of our investments may cause us to record an other-than-temporary impairment charge. The effect of this charge could impact our overall net income (loss) and earnings (loss) per share. In any of these scenarios, our liquidity may be negatively impacted, which in turn may prohibit us from making investments in our business, taking advantage of opportunities and potentially meeting our financial obligations as they come due.

We are subject to legal proceedings and regulatory inquiries, and we may be named in additional legal proceedings or become involved in regulatory inquiries in the future, all of which are costly, distracting to our core business and could result in an unfavorable outcome, or a material adverse effect on our business, financial condition, results of operations, cash flows or the trading prices for our securities.

We are involved in legal proceedings and receive inquiries from regulatory agencies. As the global economy has changed and our business has evolved, we have seen an increase in litigation activity and regulatory inquiries. Like many other high technology companies, the number and frequency of inquiries from U.S. and foreign regulatory agencies we have received regarding our business and our business practices, and the business practices of others in our industry, have increased in recent years. In the event that we are involved in significant disputes or are the subject of a formal action by a regulatory agency, we could be exposed to costly and time consuming legal proceedings that could result in any number of outcomes. Any claims or regulatory actions initiated by or against us, whether successful or not, could result in expensive costs of defense, costly damage awards, injunctive relief, increased costs of business, fines or orders to change certain business practices, significant dedication of management time, diversion of significant operational resources, or otherwise harm our business. In any of these cases, our financial results, results of operations, cash flows or the trading prices for our securities could be negatively impacted.

We are subject to risks related to taxation in multiple jurisdictions.

We are a U.S.-based multinational company subject to tax in multiple U.S. and foreign tax jurisdictions. Our effective tax rate is primarily based on our expected geographic mix of earnings, statutory rates, intercompany arrangements, including the manner in which we develop, value and license our intellectual property, and enacted tax rules. Significant judgment is required in determining our effective tax rate and in evaluating our tax positions on a worldwide basis. While we believe our tax positions, including intercompany transfer pricing policies, are consistent with the tax laws in the jurisdictions in which we conduct our business, it is possible that these positions may be overturned by jurisdictional tax authorities and may have a significant impact on our effective tax rate.

Tax laws are dynamic and subject to change as new laws are passed and new interpretations of the law are issued or applied. For example, the U.S. government enacted significant tax law changes in December 2017, the Tax Act, which impacted our tax obligations and effective tax rate beginning in our fiscal 2018 tax year. Increasingly, governmental tax authorities are scrutinizing corporate tax strategies. Many countries in the European Union, as well as other countries and organizations such as the Organization for Economic Cooperation and Development, are actively considering changes to existing tax laws that, if enacted, could increase our tax obligations in many countries where we do business. If U.S. or other foreign tax authorities change applicable tax laws or successfully challenge the manner in which our profits are currently recognized, our overall taxes could increase, and our business, financial condition or results of operations may be adversely impacted.

Uncertainties in the interpretation and application of the Tax Act could materially affect our tax obligations and effective tax rate.

The Tax Act was enacted on December 22, 2017, and provides broad and significant changes to the U.S. tax code and how the U.S. imposes income tax on multinational corporations. Due to the complexity and varying interpretations of the Tax Act, the U.S. Department of Treasury and other standard-setting bodies have been issuing and will be issuing regulations and interpretative guidance that could significantly impact how we will apply the law and the ultimate impact to our results of operations from the Tax Act.

The Tax Act requires complex computations to be performed that were not previously provided for in the U.S. tax law. These computations require significant judgments to be made regarding the interpretation of the provisions within the Tax Act and treasury regulations issued thereunder, along with preparation and analysis of information not previously required. As additional regulatory guidance is issued, we may make amendments to prior year tax returns.

Changes in existing financial accounting standards or practices, or taxation rules or practices may adversely affect our results of operations.

Changes in existing accounting or taxation rules or practices, new accounting pronouncements or taxation rules, or varying interpretations of current accounting pronouncements or taxation practice could have a significant adverse effect on our results of operations or the manner in which we conduct our business. Further, such changes could potentially affect our reporting of transactions completed before such changes are effective.

We are required to evaluate our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act of 2002 and any adverse results from such evaluation could result in a loss of investor confidence in our financial reports and have an adverse effect on our stock price.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, we are required to furnish a report by our management on our internal control over financial reporting. The report contains, among other matters, an assessment of the effectiveness of our internal control over financial reporting as of the end of our fiscal year, including a statement as to whether or not our internal control over financial reporting is effective. This assessment must include disclosure of any material weaknesses in our internal control over financial reporting identified by management.

If our management or independent registered public accounting firm identifies one or more material weaknesses in our internal control over financial reporting, we would be unable to assert that such internal control over financial reporting is effective. If we are unable to assert that our internal control over financial reporting is effective (or if our independent registered public accounting firm is unable to express an opinion that our internal controls are effective), we could lose investor confidence in the accuracy and completeness of our financial reports, which could have an adverse effect on our business and stock price.

In preparing our financial statements we make certain assumptions, judgments and estimates that affect amounts reported in our consolidated financial statements, which, if not accurate, may significantly impact our financial results.

We make assumptions, judgments and estimates for a number of items, including revenue recognition for our hybrid desktop software and cloud service subscriptions, the fair value of financial instruments, goodwill, long-lived assets and other intangible assets, the realizability of deferred tax assets and the fair value of stock awards. We also make assumptions, judgments and estimates in determining the accruals for employee related liabilities including commissions, bonuses, and sabbaticals; and in determining the accruals for uncertain tax positions, partner incentive programs, product returns reserves, allowances for doubtful accounts, asset retirement obligations and legal contingencies. These assumptions, judgments and estimates are drawn from historical experience and various other factors that we believe are reasonable under the circumstances as of the date of the consolidated financial statements. Actual results could differ materially from our estimates, and such differences could significantly impact our financial results.

We rely on third party technologies and if we are unable to use or integrate these technologies, our solutions and service development may be delayed and our financial results negatively impacted.

We rely on certain software that we license from third parties, including software that is integrated with internally developed software and used in our offerings to perform key functions. These third-party software licenses may not continue to be available on commercially reasonable terms, and the software may not be appropriately supported, maintained or enhanced by the licensors. The loss of licenses to, or inability to support, maintain and enhance any such software could result in increased costs or delays until equivalent software can be developed, identified, licensed and integrated, which would likely harm our business.

Disruptions with licensing relationships and third party developers could adversely impact our business.

We license certain key technologies from third parties. Licenses may be restricted in the term or the use of such technology in ways that negatively affect our business. Similarly, we may not be able to obtain or renew license agreements for key technology on favorable terms, if at all, and any failure to do so could harm our business.

Our business strategy has historically depended in part on our relationships with third-party developers who provide products that expand the functionality of our design software. Some developers may elect to support other products or may experience disruption in product development and delivery cycles or financial pressure during periods of economic downturn. In particular markets, such disruptions have in the past, and would likely in the future, negatively impact these third-party developers and end users, which could harm our business.

Additionally, technology created by outsourced product development, whether outsourced to third parties or developed externally and transferred to us through business or technology acquisitions, has certain additional risks such as effective integration into existing products, adequate transfer of technology know-how and ownership and protection of transferred intellectual property.

As a result of our strategy of partnering with other companies for product development, our product delivery schedules could be adversely affected if we experience difficulties with our product development partners.

We partner with certain independent firms and contractors to perform some of our product development activities. We believe our partnering strategy allows us to, among other things, achieve efficiencies in developing new products and maintaining and enhancing existing product offerings. Our partnering strategy creates a dependency on such independent developers. Independent developers, including those who currently develop solutions for us in the U.S. and throughout the world, may not be able or willing to provide development support to us in the future. In addition, use of development resources through consulting relationships, particularly in non-U.S. jurisdictions with developing legal systems, may be adversely impacted by, and expose us to risks relating to, evolving employment, export and intellectual property laws. These risks could, among other things, expose our intellectual property to misappropriation and result in disruptions to product delivery schedules.

Our business may be significantly disrupted upon the occurrence of a catastrophic event.

Our business is highly automated and relies extensively on the availability of our network and data center infrastructure, our internal technology systems and our websites. We also rely on hosted computer services from third parties for services that we provide to our customers and computer operations for our internal use. The failure of our systems or hosted computer services due to a catastrophic event, such as an earthquake, fire, flood, tsunami, weather event, telecommunications failure, power failure, cyber attack, terrorism, or war, could adversely impact our business, financial results and financial condition. We have developed disaster recovery plans and maintain backup systems in order to reduce the potential impact of a catastrophic event, however there can be no assurance that these plans and systems would enable us to return to normal business operations. In addition, any such event could negatively impact a country or region in which we sell our products. This could in turn decrease that country's or region's demand for our products, thereby negatively impacting our financial results.

If we were required to record an impairment charge related to the value of our long-lived assets, or an additional valuation allowance against our deferred tax assets, our results of operations would be adversely affected.

Our long-lived assets are tested for impairment if indicators of impairment exist. If impairment testing shows that the carrying value of our long-lived assets exceeds their estimated fair values, we would be required to record a non-cash impairment charge, which would decrease the carrying value of our long-lived assets, as the case may be, and our results of operations would be adversely affected. Our deferred tax assets include net operating loss, amortizable tax assets and tax credit carryforwards that can be used to offset taxable income and reduce income taxes payable in future periods. Each quarter, we assess the need for a valuation allowance, considering both positive and negative evidence to determine whether all or a portion of the deferred tax assets are more likely than not to be realized. In fiscal 2016, and in fiscal 2018, we determined that it was more likely than not that Autodesk would not realize our U.S. and Singapore deferred tax assets, respectively, and established a valuation allowance against the deferred tax assets. We continued to have a full valuation allowance against our U.S. and Singapore deferred tax assets in fiscal 2019. Changes in the amount of the valuation allowance could result in a material non-cash expense or benefit in the period in which the valuation allowance is adjusted and our results of operations could be materially affected. We will continue to perform these tests and any future adjustments may have a material effect on our financial condition and results of operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We lease approximately 2,200,000 square feet of office space in 107 locations in the United States and internationally through our foreign subsidiaries. Our executive offices are located in leased office space in San Francisco, California, and our corporate headquarters are located in leased office space in San Rafael, California. Our San Rafael facilities consist of approximately 162,000 square feet under leases that have an expiration date of December 2019. Our San Francisco facilities consist of approximately 287,000 square feet under leases that have expiration dates ranging from April 2019 to December 2023. We and our foreign subsidiaries lease additional space in various locations throughout the world for local sales, product development, and technical support personnel.

All facilities are in good condition. Our facilities are operating at capacities averaging 86% occupancy worldwide as of January 31, 2019. We believe that our existing facilities and offices are adequate to meet our requirements for the foreseeable future. See Note 9, “Commitments and Contingencies,” in the Notes to Consolidated Financial Statements for more information about our lease commitments.

ITEM 3. LEGAL PROCEEDINGS

We are involved in a variety of claims, suits, investigations, and proceedings in the normal course of business activities including claims of alleged infringement of intellectual property rights, commercial, employment, piracy prosecution, business practices, and other matters. In our opinion, resolution of pending matters is not expected to have a material adverse impact on our consolidated results of operations, cash flows, or financial position. Given the unpredictable nature of legal proceedings, there is a reasonable possibility that an unfavorable resolution of one or more such proceedings could in the future materially affect our results of operations, cash flows, or financial position in a particular period, however, based on the information known by us as of the date of this filing and the rules and regulations applicable to the preparation of our financial statements, any such amount is either immaterial or it is not possible to provide an estimated amount of any such potential loss.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

MARKET INFORMATION FOR COMMON STOCK

Our common stock is traded on the Nasdaq Global Select Market under the symbol ADSK.

DIVIDEND POLICY

We anticipate that, for the foreseeable future, we will not pay any cash or stock dividends.

STOCKHOLDERS

As of January 31, 2019, the number of common stockholders of record was 376. Because many of our shares of common stock are held by brokers or other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by the record holders.

ISSUER PURCHASES OF EQUITY SECURITIES

Autodesk's stock repurchase program provides Autodesk with the ability to offset the dilution from the issuance of stock under our employee stock plans and reduce shares outstanding over time, and has the effect of returning excess cash generated from our business to stockholders. Under the share repurchase program, Autodesk may repurchase shares from time to time in open market transactions, privately-negotiated transactions, accelerated share repurchase programs, tender offers, or by other means. The share repurchase program does not have an expiration date and the pace and timing of repurchases will depend on factors such as cash generation from operations, available surplus, the volume of employee stock plan activity, remaining shares available in the authorized pool, cash requirements for acquisitions, economic and market conditions, stock price and legal and regulatory requirements.

The following table provides information about the repurchase of common stock in open-market transactions during the quarter ended January 31, 2019:

(Shares in millions)	**Total Number of Shares Purchased**	**Average Price Paid per Share**	**Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs(1)**	**Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs(2)**
November 1- November 30	0.2	$ 133.83	0.2	17.4
December 1 - December 31	—	—	—	17.4
January 1 - January 31	—	—	—	17.4
Total	0.2	$ 133.83	0.2	

(1) Represents shares purchased in open-market transactions under the stock repurchase program approved by the Board of Directors.
(2) These amounts correspond to the plan publicly announced and approved by the Board of Directors in September 2016 that authorizes the repurchase of 30.0 million shares. The plan does not have a fixed expiration date.

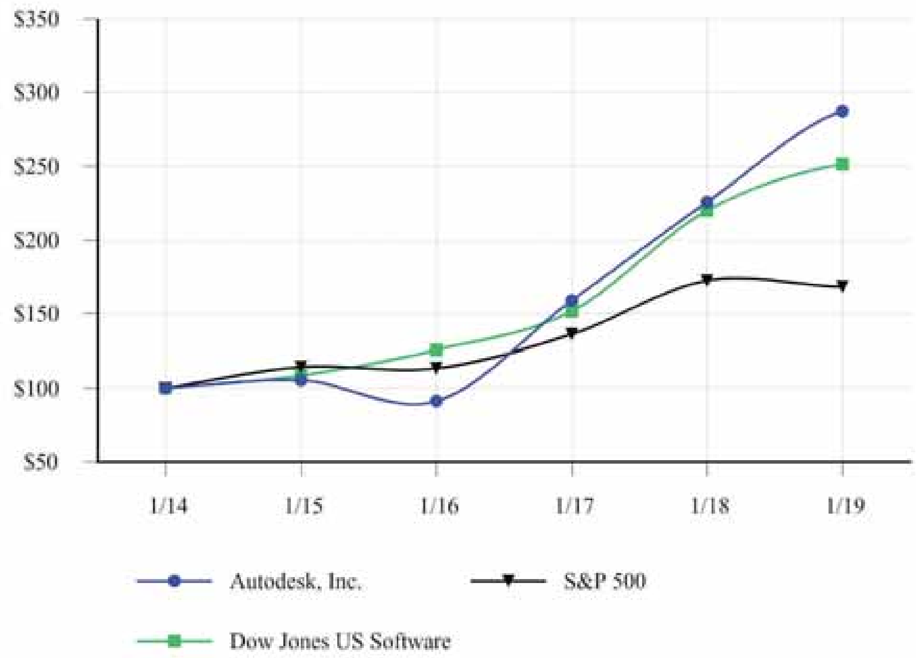
SALES OF UNREGISTERED SECURITIES

There were no sales of unregistered securities during the three months ended January 31, 2019.

COMPANY STOCK PERFORMANCE

The following graph shows a five-year comparison of cumulative total return (equal to dividends plus stock appreciation) for our Common Stock, the Standard & Poor's 500 Stock Index, and the Dow Jones U.S. Software Index. The following graph and related information will not be deemed to be "soliciting material" or to be "filed" with the SEC, nor will such information be incorporated by reference into any filing pursuant to the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent that we specifically incorporate it by reference into such filing.

Comparison of Five Year Cumulative Total Stockholder Return (1)



(1) Assumes $100 invested on January 31, 2014, in Autodesk's stock, the Standard & Poor's 500 Stock Index, and the Dow Jones U.S. Software Index, with reinvestment of all dividends. Total stockholder returns for prior periods are not an indication of future investment returns.

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ITEM 6. SELECTED FINANCIAL DATA

The following selected consolidated financial data is not necessarily indicative of results of future operations, and should be read in conjunction with Item 7, “Management's Discussion and Analysis of Financial Condition and Results of Operations,” and the consolidated financial statements and related notes thereto included in Item 8 of this Form 10-K to fully understand factors that may affect the comparability of the information presented below. The financial data for the fiscal years ended January 31, 2019 and 2018 are derived from, and are qualified by reference to, the audited consolidated financial statements that are included in this Form 10-K. The Consolidated Statements of Operations and the Consolidated Statements of Cash Flows data for the fiscal year ended January 31, 2017 are derived from, and are qualified by reference to, the audited consolidated financial statements that are included in this Form 10-K. The Consolidated Balance Sheet data for the fiscal year ended January 31, 2017 and the remaining financial data for the fiscal years ended January 31, 2016 and 2015 are derived from audited, consolidated financial statements which are not included in this Form 10-K.

	Fiscal Year Ended January 31,				
	2019 (1)	2018	2017	2016	2015
	(In millions, except per share data)				
For the fiscal year:					
Net revenue	$ 2,569.8	$ 2,056.6	$ 2,031.0	$ 2,504.1	$ 2,512.2
(Loss) income from operations	(25.0)	(509.1)	(499.6)	1.3	120.7
Net (loss) income	(80.8)	(566.9)	(582.1)	(330.5)	81.8
Cash flow from operations	$ 377.1	$ 0.9	$ 169.7	$ 414.0	$ 708.6
Common stock data:					
Basic net (loss) income per share	$ (0.37)	$ (2.58)	$ (2.61)	$ (1.46)	$ 0.36
Diluted net (loss) income per share	$ (0.37)	$ (2.58)	$ (2.61)	$ (1.46)	$ 0.35
At year end:					
Total assets	$ 4,729.2	$ 4,113.6	$ 4,798.1	$ 5,515.3	$ 4,909.7
Long-term liabilities	2,638.9	2,246.4	1,879.1	2,304.7	1,290.4
Stockholders’ (deficit) equity	$ (210.9)	$ (256.0)	$ 733.6	$ 1,619.6	$ 2,219.2

(1) Reflects the impact of the adoption of new accounting standards in fiscal year 2019 related to revenue recognition. See Part II, Item 8, Note 1, Business and Summary of Significant Accounting Policies, Accounting Standards Adopted, of our consolidated financial statements for additional information.

ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The discussion in our MD&A and elsewhere in this Form 10-K contains trend analyses and other forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are any statements that look to future events and consist of, among other things, our business strategies, including those discussed in “Strategy” and “Overview of Fiscal 2019” below, future net revenue, operating expenses, recurring revenue, annualized recurring revenue, cash flow, other future financial results (by product type and geography), subscriptions and annualized revenue per subscription, the effectiveness of our efforts to successfully manage transitions to new markets, our ability to increase our subscription base, expected market trends, the impact of planned and past acquisitions and investment activities, the effects of global economic conditions, the effects of revenue recognition, the effects of recently issued accounting standards, expectations regarding our cash needs, the effects of fluctuations in exchange rates and our hedging activities on our financial results, our ability to successfully expand adoption of our products, our ability to gain market acceptance of new business and sales initiatives, the impact of economic volatility and geopolitical activities in certain countries, particularly emerging economy countries, the timing and amount of purchases under our stock buy-back plan, and the effects of potential non-cash charges on our financial results and the resulting effect on our financial results. In addition, forward-looking statements also consist of statements involving expectations regarding product capability and acceptance, statements regarding our liquidity and short-term and long-term cash requirements, as well as statements involving trend analyses and statements including such words as “may,” “believe,” “could,” “anticipate,” “would,” “might,” “plan,” “expect,” and similar expressions or the negative of these terms or other comparable terminology. These forward-looking statements speak only as of the date of this Annual Report on Form 10-K and are subject to business and economic risks. As such, our actual results could differ materially from those set forth in the forward-looking statements as a result of a number of factors, including those set forth above in Part I, Item 1A, “Risk Factors,” and in our other reports filed with the U.S. Securities and Exchange Commission. We assume no obligation to update the forward-looking statements to reflect events that occur or circumstances that exist after the date on which they were made, except as required by law.

STRATEGY

Autodesk makes software for people who make things. If you have ever driven a high-performance car, admired a towering skyscraper, used a smartphone, or watched a great film, chances are you have experienced what millions of Autodesk customers are doing with our software. Autodesk gives you the power to make anything.

Autodesk was founded during the platform transition from mainframe computers and engineering workstations to personal computers. We developed and sustained a compelling value proposition based upon desktop software for the personal computer. Just as the transition from mainframes to personal computers transformed the industry over 30 years ago, the software industry has undergone a transition from developing and selling perpetual licenses and on-premises products to cloud, mobile and social applications.

To address this shift, Autodesk made a strategic decision to shift its business model from selling perpetual licenses and maintenance plans to selling subscriptions.

Today, we offer subscriptions for individual products and Industry Collections, flexible enterprise business agreements ("EBAs"), and cloud service offerings (collectively referred to as "subscription plan"). Subscription plans are designed to give our customers more flexibility with how they use our offerings and to attract a broader range of customers, such as project-based users and small businesses.

Our product subscriptions currently represent a hybrid of desktop software and cloud functionality, which provides a device-independent, collaborative design workflow for designers and their stakeholders. Our cloud offerings, for example, BIM 360, Shotgun, Fusion, and AutoCAD 360 Pro, provide tools, including mobile and social capabilities, to streamline design, collaboration, building and manufacturing and data management processes. We believe that customer adoption of these new offerings will continue to grow as customers across a range of industries begin to take advantage of the scalable computing power and flexibility provided through these new services.

Industry Collections provide our customers with increased access to a broader selection of Autodesk solutions and services that exceeds those previously available in suites — simplifying the customers' ability to get access to a complete set of tools for their industry.

We discontinued the sale of new commercial licenses of most individual software products in 2016. Additionally, in June 2017, we commenced a program to incentivize maintenance plan customers to move to subscription plan offerings, maintenance-to-subscription ("M2S"), while at the same time increasing maintenance plan pricing over time for customers that remain on maintenance plans. Since launching the program, over 794,000 maintenance plan customers have converted to subscription plan offerings. Autodesk seeks to convert the remaining 796,100 maintenance plan customers to subscription through this program.

To support our strategic priority of re-imagining construction, in fiscal 2019, we strengthened the foundation of our construction solutions with both organic and inorganic investments. In addition to investing in our BIM 360 portfolio, we purchased Assemble Systems for quantity take off functionality, PlanGrid for document-centric workflows and field execution, and BuildingConnected for bidding and estimation processes. The broadened product portfolio will help us expand our presence with sub-contractors, trades people, and building owners.

As part of our manufacturing strategy we continue to attract global manufacturing leaders with our generative design and our Fusion technology enhancements.

We sell our products and services globally, through a combination of indirect and direct channels. Our indirect channels include value added resellers, direct market resellers, distributors, computer manufacturers, and other software developers. Our direct channels include internal sales resources dedicated to selling in our largest accounts, our highly specialized solutions, and business transacted through our online Autodesk branded store. See Note 2, "Revenue Recognition" in the Notes to the Consolidated Financial Statements for further detail on the results of our indirect and direct channel sales for the fiscal years ended January 31, 2019, 2018, and 2017.

We anticipate that our channel mix will continue to change as we scale our online Autodesk branded store business and our largest accounts shift towards direct-only business models. However, we expect our indirect channel will continue to transact and support the majority of our customers and revenue. We employ a variety of incentive programs and promotions to align our direct and indirect channels with our business strategies. In addition, we have a worldwide user group organization and we have created online user communities dedicated to the exchange of information related to the use of our products.

One of our key strategies is to maintain an open-architecture design of our software products to facilitate third-party development of complementary products and industry-specific software solutions. This approach enables customers and third parties to customize solutions for a wide variety of highly specific uses. We offer several programs that provide strategic investment funding, technological platforms, user communities, technical support, forums, and events to developers who develop add-on applications for our products. For example, we have established the Autodesk Forge program to support innovators that build solutions to facilitate the development of a single connected ecosystem for the future of how things are designed, made, and used as well as support ideas that push the boundaries of 3D printing.

In addition to the competitive advantages afforded by our technology, our large global network of distributors, resellers, third-party developers, customers, educational institutions, educators, and students is a key competitive advantage which has been cultivated over an extensive period of time. This network of partners and relationships provides us with a broad and deep reach into volume markets around the world. Our distributor and reseller network is extensive and provides our customers with the resources to purchase, deploy, learn, and support our solutions quickly and easily. We have a significant number of registered third-party developers who create products that work well with our solutions and extend them for a variety of specialized applications.

Autodesk is committed to helping fuel a lifelong passion for making with students of all ages. We offer free educational licenses of Autodesk software worldwide to students, educators, and accredited educational institutions. We inspire and support beginners with Tinkercad, a simple online 3D design and 3D printing tool. Through Autodesk Design Academy, we provide secondary and postsecondary school markets hundreds of standards-aligned class projects to support design-based disciplines in Science, Technology, Engineering, Digital Arts, and Math (STEAM) while using Autodesk's professional-grade 3D design, engineering and entertainment software used in industry. We also have made Autodesk Design Academy curricula available on Udemy and Coursera. Our intention is to make Autodesk software ubiquitous and the design and making software of choice for those poised to become the next generation of professional users.

Our strategy includes improving our product functionality and expanding our product offerings through internal development as well as through the acquisition of products, technology, and businesses. For example, we recently acquired Assemble Systems, a leading provider of key workflow software solutions, PlanGrid, Inc., a leading provider of construction productivity software, and BuildingConnected, a leading pre-construction platform. We believe that the acquisitions of Assemble Systems, PlanGrid and BuildingConnected will enable us to offer a more comprehensive, cloud-based construction platform. Acquisitions often increase the speed at which we can deliver product functionality to our customers; however, they entail cost and integration challenges and may, in certain instances, negatively impact our operating margins. We continually review these trade-offs in making decisions regarding acquisitions. We currently anticipate that we will continue to acquire products, technology, and businesses as compelling opportunities become available.

In our current business model, annualized recurring revenue ("ARR"), growth of billings, and total deferred revenue better reflect business momentum. To analyze progress, we have disaggregated our growth between the original maintenance model ("maintenance plan") and the subscription plan model. Maintenance plan subscriptions peaked in the fourth quarter of our fiscal 2016 as we discontinued selling new maintenance plan subscriptions in fiscal 2017, and we expect them to keep declining over time as maintenance plan customers continue to convert to our subscription plans.

Our strategy depends upon a number of assumptions, including: making our technology available to mainstream markets; leveraging our large global network of distributors, resellers, third-party developers, customers, educational institutions, and students; improving the performance and functionality of our products; and adequately protecting our intellectual property. If the outcome of any of these assumptions differs from our expectations, we may not be able to implement our strategy, which could potentially adversely affect our business. For further discussion regarding these and related risks, see Part I, Item 1A, "Risk Factors."

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our Consolidated Financial Statements are prepared in conformity with U.S. generally accepted accounting principles. In preparing our Consolidated Financial Statements, we make assumptions, judgments, and estimates that can have a significant impact on amounts reported in our Consolidated Financial Statements. We base our assumptions, judgments, and estimates on historical experience and various other factors that we believe to be reasonable under the circumstances. Actual results could differ materially from these estimates under different assumptions or conditions. We regularly reevaluate our assumptions, judgments, and estimates. Our significant accounting policies are described in Part II, Item 8, Note 1, "Business and Summary of Significant Accounting Policies," in the Notes to Consolidated Financial Statements. We believe that of all our significant accounting policies, the following policies involve a higher degree of judgment and complexity. Accordingly, these are the policies we believe are the most critical to aid in fully understanding and evaluating our financial condition and results of operations.

Revenue Recognition. Autodesk's revenue is divided into three categories: subscription revenue, maintenance revenue, and other revenue. Revenue is recognized when control for these offerings is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for products and services.

Our contracts with customers may include promises to provide multiple subscriptions and services to a customer. Determining whether the offerings and services are considered distinct performance obligations that should be accounted for separately or as one combined performance obligation may require significant judgment. Judgment is required to determine the level of integration and interdependency between individual components of software and cloud functionality. This determination influences whether the software is considered distinct and accounted for separately as a license performance obligation, or not distinct and accounted for together with the cloud functionality as a single subscription performance obligation recognized over time.

For product subscriptions, Industry Collections, and enterprise business agreement ("EBA") subscriptions in which the desktop software and related cloud functionality are highly interrelated, the combined performance obligation is recognized ratably over the contract term as the obligation is satisfied. For contracts involving distinct software licenses, the license performance obligation is satisfied at a point in time when control is transferred to the customer. For standalone maintenance subscriptions, cloud subscriptions, and technical support services, the performance obligation is satisfied ratably over the contract term as those services are delivered. For consulting services, the performance obligation is satisfied over a period of time as those services are delivered.

When an arrangement includes multiple performance obligations which are concurrently delivered and have the same pattern of transfer to the customer (the services transfer to the customer over the contract period), we account for those performance obligations as a single performance obligation.

For contracts with more than one performance obligation, the transaction price is allocated among the performance obligations in an amount that depicts the relative standalone selling price ("SSP") of each obligation. Judgment is required to determine the SSP for each distinct performance obligation. 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 that should be allocated based on the relative SSP of the various products and services.

In instances where SSP is not directly observable, such as when we do not sell the product or service separately, we determine the SSP using information that includes market conditions and other observable inputs. We typically have more than one SSP for individual products and services due to the stratification of those products and services by customer and circumstance. In these instances, we use relevant information such as the sales channel and geographic region to determine the SSP.

Our indirect channel model includes both a two-tiered distribution structure, where Autodesk sells to distributors that subsequently sell to resellers, and a one-tiered structure where Autodesk sells directly to resellers. For these arrangements, transfer of control begins at the time access to our subscriptions is made available electronically to our end customer, provided all other criteria for revenue recognition are met. Judgment is required to determine whether our distributors and resellers have the ability to honor their commitment to pay, regardless of whether they collect payment from their customers. If we were to change this assessment, it could cause a material increase or decrease in the amount of revenue that we report in a particular period.

As part of the indirect channel model, we have a partner incentive program that uses quarterly attainment of monetary rewards to motivate distributors and resellers to achieve mutually agreed upon business goals in a specified time period. Incentives related to our subscription program are recorded as a reduction to deferred revenue in the period the subscription transaction is billed, and are subsequently recognized as a reduction to subscription revenue over the contract period. A small portion of partner incentives reduce other revenue in the current period. These incentive balances do not require significant assumptions or judgments. Depending on how the payments are made, the reserves associated with the partner incentive program are recorded on the balance sheet as either contra accounts receivable or accounts payable.

The new revenue recognition standard had a material impact in our consolidated financial statements. Refer to Part II, Item 8, Note 1, Business and Summary of Significant Accounting Policies, Accounting Standards Adopted, of our consolidated financial statements and to discussions below under the heading “Overview” for additional information.

Marketable Securities and Privately Held Company Investments. As described in Part II, Item 8, Note 3, “Financial Instruments,” in the Notes to Consolidated Financial Statements, our investments in marketable securities are measured at the end of each reporting period and reported at fair value. Fair value is defined as the price that would be received from the sale of an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. In determining the fair value of our investments, we are sometimes required to use various alternative valuation techniques. Inputs to valuation techniques are either observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect our market assumptions. These two types of inputs have created the following fair value hierarchy:

- Level 1 - Quoted prices for identical instruments in active markets;
- Level 2 - Quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets; and
- Level 3 - Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

This hierarchy requires us to minimize the use of unobservable inputs and to use observable market data, if available, when determining fair value. This is generally true for our cash and cash equivalents and the majority of our marketable securities, which we consider to be Level 1 assets and Level 2 assets.

Privately held debt and equity securities (Level 3) are valued using significant unobservable inputs or data in an inactive market and the valuation requires our judgment due to the absence of market prices and inherent lack of liquidity. These assumptions are inherently subjective and involve significant management judgment. Whenever possible, we use observable market data and rely on unobservable inputs only when observable market data is not available, when determining fair value.

The carrying value is not adjusted for our privately held equity securities if there are no observable price changes in a same or similar security from the same issuer or if there are no identified events or changes in circumstances that may indicate impairment, as discussed below. In determining the estimated fair value of its strategic investments in privately held companies, we utilize the most recent data available to us. In addition, the determination of whether an orderly transaction is for a same or similar investment requires significant management judgment including: the rights and obligations of the investments, the extent to which those differences would affect the fair values of those investments, and the impact of any differences based on the stage of operational development of the investee.

All of Autodesk's marketable securities and privately held company investments are subject to a periodic impairment review. For any marketable debt securities, declines in fair value judged to be other-than-temporary on securities available for sale are included as a reduction to investment income. To determine whether a decline in value is other-than-temporary, we evaluate, among other factors: the duration and extent to which the fair value has been less than the carrying value and its intent and ability to retain the investment for a period of time sufficient to allow for any anticipated recovery in fair value. For the purposes of computing realized and unrealized gains and losses, the cost of securities sold is based on the specific-identification method. Interest on securities classified as available for sale is also included as a component of investment income.

For Autodesk's quarterly impairment assessment of privately held debt and equity securities strategic investment portfolio, the analysis encompasses an assessment of the severity and duration of the impairment and qualitative and quantitative analysis of other key factors including: the investee's financial metrics, the investee's products and technologies meeting or exceeding predefined milestones, market acceptance of the product or technology, other competitive products or technology in the market, general market conditions, management and governance structure of the investee, the investee's liquidity, debt ratios and the rate at which the investee is using its cash. If the investment is considered to be impaired, the Company will record the investment at fair value by recognizing an impairment through the consolidated statement of operations and establishing a new carrying value for the investment.

Business Combinations. The assets acquired and liabilities assumed in a business combination are recorded based on their estimated fair values at the acquisition date. Any residual purchase price is recorded as goodwill. Accounting for business combinations requires us to make significant estimates and assumptions, especially at the acquisition date with respect to intangible assets and deferred revenue obligations.

Although we believe the assumptions and estimates we have made are reasonable, they are based in part on historical experience and information obtained from the management of the acquired companies and are inherently uncertain. Examples of critical estimates used in valuing certain of the intangible assets we have acquired or may acquire in the future include but are not limited to:

- future expected cash flows from sales, maintenance agreements, and acquired developed technologies;
- the acquired company's trade name, trademark and existing customer relationship, as well as assumptions about the period of time the acquired trade name and trademark will continue to be used in our product portfolio;
- expected costs to develop the in-process research and development into commercially viable products and estimated cash flows from the projects when completed; and
- discount rates used to determine the present value of estimated future cash flows.

These estimates are inherently uncertain and unpredictable. Unanticipated events and circumstances may occur which may affect the accuracy or validity of such assumptions, estimates or actual results.

Realizability of Long-Lived Assets. We assess the realizability of our long-lived assets and related intangible assets, other than goodwill, quarterly, or sooner should events or changes in circumstances indicate the carrying values of such assets may not be recoverable. We consider the following factors important in determining when to perform an impairment review: significant under-performance of a business or product line relative to budget; shifts in business strategies which affect the continued uses of the assets; significant negative industry or economic trends; and the results of past impairment reviews. When such events or changes in circumstances occur, we assess recoverability of these assets.

We assess recoverability of these assets by comparing the carrying amounts to the future undiscounted cash flows the assets are expected to generate. If impairment indicators were present based on our undiscounted cash flow models, which include assumptions regarding projected cash flows, we would perform a discounted cash flow analysis to assess impairments on long-lived assets. Variances in these assumptions could have a significant impact on our conclusion as to whether an asset is impaired or the amount of any impairment charge. Impairment charges, if any, result in situations where any fair values of these assets are less than their carrying values.

In addition to our recoverability assessments, we routinely review the remaining estimated useful lives of our long-lived assets. Any reduction in the useful life assumption will result in increased depreciation and amortization expense in the quarter when such determinations are made, as well as in subsequent quarters.

We will continue to evaluate the values of our long-lived assets in accordance with applicable accounting rules. As changes in business conditions and our assumptions occur, we may be required to record impairment charges.

Income Taxes. We account for income taxes under the asset and liability approach. Under this method, deferred tax assets, including those related to tax loss carryforwards and credits, and deferred tax liabilities are determined based on the differences between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. We recognize the tax benefit for an uncertain tax position when it meets a more likely than not threshold. We recognize potential accrued interest and penalties related to unrecognized tax benefits as income tax expense.

A valuation allowance is recorded to reduce deferred tax assets when management cannot conclude that it is more likely than not that the net deferred tax asset will be recovered. The valuation allowance is determined by assessing both positive and negative evidence to determine whether it is more likely than not that deferred tax assets are recoverable; such assessment is required on a jurisdiction-by-jurisdiction basis. Significant judgment is required in determining whether the valuation allowance should be recorded against deferred tax assets. In assessing the need for valuation allowance, we consider all available evidence including past operating results and estimates of future taxable income. As a result of cumulative losses arising from our transition to a subscription model, we considered cumulative losses as a significant source of negative evidence and recorded a valuation allowance against our deferred tax attributes in Singapore, Canada and the U.S. jurisdictions.

As we continually strive to optimize our overall business model, tax planning strategies may become feasible and prudent whereby management may determine that it is more likely than not that the federal and state deferred tax assets will be realized; therefore, we will continue to evaluate the evidence around our ability to utilize our net deferred tax assets each quarter, both in the U.S. and in foreign jurisdictions, based on all available evidence, both positive and negative.

Stock-Based Compensation. We measure stock-based compensation cost at the grant date fair value of the award, and recognize expense ratably over the requisite service period, which is generally the vesting period. We estimate the fair value of certain stock-based payment awards (including grants of employee stock purchases related to the employee stock purchase plan) using either the Black-Scholes-Merton option-pricing model or a binomial-lattice model (e.g., Monte Carlo simulation model). To determine the grant-date fair value of our stock-based payment awards, we use a Black-Scholes model or the quoted stock price on the date of grant, unless the awards are subject to market conditions, in which case we use the Monte Carlo simulation model. The Monte Carlo simulation model utilizes multiple input variables to estimate the probability that market conditions will be achieved. These variables include our expected stock price volatility over the expected term of the award, actual and projected employee stock option exercise behaviors, the risk-free interest rate for the expected term of the award, and expected dividends. The variables used in these models are reviewed on a quarterly basis and adjusted, as needed. Share-based compensation cost for restricted stock is measured on the closing fair market value of our common stock on the date of grant. The value of the portion of the award that is ultimately expected to vest is recognized as expense in our Consolidated Statements of Operations.

Legal Contingencies. As described in Part I, Item 3, “Legal Proceedings” and Part II, Item 8, Note 9, “Commitments and Contingencies,” in the Notes to Consolidated Financial Statements, we are periodically involved in various legal claims and proceedings. We routinely review the status of each significant matter and assess our potential financial exposure. If the potential loss from any matter is considered probable and the amount can be reasonably estimated, we record a liability for the estimated loss. Because of inherent uncertainties related to these legal matters, we base our loss accruals on the best information available at the time. As additional information becomes available, we reassess our potential liability and may revise our estimates. Such revisions could have a material impact on future quarterly or annual results of operations.

Restructuring and other exit costs, net. Our restructuring plans include one–time termination benefits as well as certain contractual termination benefits. We record costs associated with exit activities related to restructuring plans in accordance with the ASC Topic 420, *Exit or Disposal Obligations*. Liabilities for costs associated with an exit or disposal activity are recognized in the period in which the liability is incurred. The timing of associated cash payments is dependent upon the type of exit cost and may extend over a 12-month period or longer. We record restructuring liabilities in “Other accrued liabilities,” or "Other liabilities" in the consolidated balance sheet.

Restructuring and other exit costs, net includes employee termination costs, facility closure, accelerated depreciation of certain assets and relocation costs, and contract termination costs. One–time termination benefits are recognized as a liability at estimated fair value when the approved plan of termination has been communicated to employees, unless employees must provide future service that is longer than the statutory requirement, in which case the benefits are recognized ratably over the future service period. For the facility-related restructuring, we recognize upon exiting all or a portion of a leased facility and meeting cease-use and other requirements. The amount of restructuring is based on the fair value of the lease obligation for the abandoned space, which includes a sublease assumption that could be reasonably obtained. We also recognize accelerated depreciation related to assets at the time we commit to a plan to abandon.

Restructuring and other exit costs, net requires significant estimates and assumptions, including sub-lease income and expenses for severance and other employee separation costs. Our estimates involve a number of risks and uncertainties, some of which are beyond our control, including future real estate market conditions and our ability to successfully enter into subleases or termination agreements with terms as favorable as those assumed when arriving at our estimates. We monitor these estimates and assumptions on at least a quarterly basis for changes in circumstances and any corresponding adjustments to the accrual are recorded in our statement of operations in the period when such changes are known.

RECENTLY ISSUED ACCOUNTING STANDARDS

See Part II, Item 8, Note 1, “Business and Summary of Significant Accounting Policies,” in the Notes to Consolidated Financial Statements for a full description of recent accounting pronouncements, including the expected dates of adoption and estimated effects on results of operations and financial condition.

OVERVIEW OF FISCAL 2019

- Total net revenue was $2.57 billion during fiscal 2019, an increase of 25% compared to the prior fiscal year.
- Total ARR was $2.75 billion, an increase of 34% compared to the prior fiscal year.
- Subscription plan ARR was $2.20 billion, an increase of 87% compared to the prior fiscal year.
- Total subscriptions increased 0.6 million from the prior fiscal year to 4.3 million.
- Deferred revenue was $2.09 billion, an increase of 7% compared to the prior fiscal year. Total deferred revenue (deferred revenue plus unbilled deferred revenue) was $2.68 billion, an increase of approximately 18 percent compared to prior fiscal year.
- We adopted ASC Topic 606 and ASC Topic 340-40 during the first quarter of fiscal 2019. See discussion below for additional information regarding certain metrics that were affected by the new standards under the heading “Impact of New Revenue Accounting Standard."

Revenue Analysis

During fiscal 2019, net revenue increased 25%, as compared to the prior fiscal year, primarily due to a 102% increase in subscription revenue. The increase in subscription revenue was partially offset by a 36% decrease in maintenance revenue.

Further discussion of the drivers of these results are discussed below under the heading “Results of Operations.”

We rely significantly upon major distributors and resellers in both the U.S. and international regions, including Tech Data Corporation and its global affiliates (collectively, “Tech Data”). Total sales to Tech Data accounted for 35%, 31%, and 30% of Autodesk's total net revenue during fiscal 2019, 2018, and 2017, respectively. Our customers through Tech Data are the resellers and end users who purchase our software subscription services. Should any of our agreements with Tech Data be terminated for any reason, we believe the resellers and end users who currently purchase our products through Tech Data would be able to continue to do so under substantially the same terms from one of our many other distributors without substantial disruption to our revenue. Consequently, we believe our business is not substantially dependent on Tech Data.

Recurring Revenue and Subscriptions

In order to help better understand our financial performance we use several metrics including recurring revenue, ARR, total subscriptions, and annualized revenue per subscription ("ARPS"). ARR, ARPS, total subscriptions, and recurring revenue are performance metrics and should be viewed independently of revenue and deferred revenue as ARR, ARPS, total subscriptions, and recurring revenue are not intended to be combined with those items. Our determination and presentation may differ from that of other companies. Please refer to the Glossary of Terms for the definitions of these metrics.

The following table outlines our recurring revenue metric for the fiscal years ended January 31, 2019, 2018, and 2017:

	Fiscal Year Ended January 31, 2019	Change compared to prior fiscal year end		Fiscal Year Ended January 31, 2018	Change compared to prior fiscal year end		Fiscal Year Ended January 31, 2017
		$	%		$	%	
Recurring Revenue *(in millions)* (1)	$ 2,437.2	$ 554.9	29%	$ 1,882.3	$ 342.0	22%	$ 1,540.3
As a percentage of net revenue	95%			92%			76%

(1) The acquisition of a business may cause variability in the comparison of recurring revenue in this table above and recurring revenue derived from the revenue reported in the Consolidated Statements of Operations.

The following table outlines our ARR, subscriptions, and ARPS metrics as of fiscal years ended January 31, 2019 and 2018. For purposes of clarification, the ARR and ARPS balances in the following table as of January 31, 2019 are calculated under ASC Topic 606. For comparison of ARR and ARPS as of January 31, 2019 under the old revenue standard, ASC Topic 605, refer to the table under the title "Impact of New Revenue Accounting Standard" further below.

	January 31, 2019	Change compared to prior fiscal year		January 31, 2018
		$	%	
ARR *(in millions)*				
Subscription plan ARR	$ 2,200.1	$ 1,025.1	87 %	$ 1,175.0
Maintenance plan ARR	549.3	(329.8)	(38)%	879.1
Total ARR (1)	$ 2,749.4	$ 695.3	34 %	$ 2,054.1
Number of subscriptions *(in thousands)* (2)				
Subscription plan	3,533.9	1,267.1	56 %	2,266.8
Maintenance plan	796.1	(652.8)	(45)%	1,448.9
Total subscriptions	4,330.0	614.3	17 %	3,715.7
ARPS *(ARR divided by number of subscriptions)* (2)				
Subscription plan ARPS	$ 623	$ 105	20 %	$ 518
Maintenance plan ARPS	$ 690	$ 83	14 %	$ 607
Total ARPS (3)	$ 635	$ 82	15 %	$ 553

(1) The acquisition of a business may cause variability in the comparison of ARR reported in this table above and ARR derived from the revenue reported in the Consolidated Statements of Operations.
(2) In the first quarter of fiscal 2020, we will discontinue presenting subscriptions and ARPS on a quarterly basis.
(3) There are small variances between ARR and total subscriptions due in part to the inherent limitation with collecting all subscriptions information. For example, Buzzsaw and Constructware are included with ARR but not in total subscriptions due to these inherent limitations. We do not view these variances as meaningful to amounts or quarterly comparisons presented here for ARPS.

Total ARR increased 34% as of January 31, 2019 as compared to the end of fiscal 2018, primarily due to a 87% increase in subscription plan ARR driven by product subscriptions, including the M2S program. The increase was partially offset by a 38% decrease in maintenance plan ARR driven by the migration from maintenance plan subscriptions to subscription plan subscriptions. Under ASC 605, total ARR increased 32% as compared to the end of the prior fiscal year primarily due to an 84% increase in subscription plan ARR, partially offset by a 36% decrease in maintenance plan ARR.

Subscription plan subscriptions increased 56% or approximately 1.3 million as compared to the end of fiscal 2018, driven by growth in all subscription plan types, led by new product subscriptions. Subscription plan subscriptions benefited from approximately 452,000 maintenance subscribers that were converted to product subscription under the maintenance-to-subscription program during the fiscal year ended January 31, 2019.

Maintenance plan subscriptions decreased 45% or approximately 652,800 as compared to the end of fiscal 2018, primarily as a result of the strong performance of the M2S program in which approximately 452,000 maintenance plan subscriptions converted to product subscription during the fiscal year ended January 31, 2019. The net decrease is expected and we expect to see ongoing declines in maintenance plan subscriptions going forward as part of the business model transition. The rate of decline will vary based on the number of subscriptions subject to renewal, the renewal rate, and our ability to incentivize customers to switch over to EBAs or product subscriptions.

As of January 31, 2019, when adjusted for the impact of the M2S program, subscription plan ARPS and maintenance plan ARPS would have been $631 and $641, respectively.

ARPS as of January 31, 2019, was $635 under ASC 606, a 15% increase compared to the prior fiscal year primarily due to an increase in subscription plan ARPS. The increase in subscription plan ARPS was driven by growth in all subscription plan types, led by product subscription ARPS. Under ASC 605, ARPS was $628 as of January 31, 2019.

Our ARPS is currently, and will continue to be, affected by various factors including the M2S program, geography and product mix, promotions, acquisitions, sales linearity within a quarter, pricing changes, and foreign currency.

Impact of New Revenue Accounting Standard

Effective in the first quarter of fiscal 2019, we adopted Accounting Standard Update No. 2014-09, which codified new revenue recognition guidance under ASC Topic 606. Previously, we followed revenue accounting guidance under ASC Topic 605. Under the modified retrospective adoption, Autodesk calculated the impact of the adoption during fiscal 2019, as the first year of adoption. The table below shows what some of our key metrics would have been under ASC Topic 605 (see Part II, Item 8, Note 1, "Business and Summary of Significant Accounting Policies" for more details on our adoption and impacts).

	Fiscal Year Ended January 31, 2019		Fiscal Year Ended January 31, 2018
(in millions except ARPS)	ASC 606	ASC 605	ASC 605
Key Income Statement Metrics			
Subscription revenue	$ 1,802.3	$ 1,785.7	$ 894.3
Maintenance revenue	635.1	640.8	989.6
Other revenue	132.4	121.1	172.7
Total net revenue	2,569.8	2,547.6	2,056.6
Gross profit	2,283.9	2,260.7	1,753.2
Total spend (1)	2,594.8	2,577.9	2,565.7
Net loss	$ (80.8)	$ (90.9)	$ (566.9)
Basic and diluted net loss per share	$ (0.37)	$ (0.42)	$ (2.58)
ARR			
Subscription plan ARR	$ 2,200.1	$ 2,160.1	$ 1,175.0
Maintenance plan ARR	549.3	558.5	879.1
Total ARR	$ 2,749.4	$ 2,718.6	$ 2,054.1
ARPS (2)			
Subscription plan ARPS	$ 623	$ 611	$ 518
Maintenance plan ARPS	690	702	607
Total ARPS	$ 635	$ 628	$ 553
Net Revenue by Product Family (3)			
Architecture, Engineering and Construction ("AEC")	$ 1,021.6	$ 1,014.5	$ 787.5
AutoCAD and AutoCAD LT ("ACAD")	731.8	730.5	561.4
Manufacturing ("MFG")	616.2	607.2	528.8
Media and Entertainment ("M&E")	182.0	176.7	152.1
Other	18.2	18.7	26.8
Total Net Revenue	$ 2,569.8	$ 2,547.6	$ 2,056.6
Net Revenue by Geography			
Americas	$ 1,049.9	$ 1,034.6	$ 871.1
Europe, Middle East and Africa ("EMEA")	1,034.3	1,028.8	815.4
Asia Pacific ("APAC")	485.6	484.2	370.1
Total net revenue	$ 2,569.8	$ 2,547.6	$ 2,056.6

(1) Our total spend is defined as cost of revenue plus operating expenses.
(2) In the first quarter of fiscal 2020, we will discontinue presenting subscriptions and ARPS on a quarterly basis.
(3) Due to changes in the go-to-market offerings of our AutoCAD product subscription, prior period balances have been adjusted to conform to current period presentation.

The adoption of ASC Topic 606 required a change to our reporting of deferred revenue. See discussions below under the heading "Total deferred revenue."

Foreign Currency Analysis

We generate a significant amount of our revenue in the United States, Germany, Japan, the United Kingdom and Canada.

The following table shows the impact of foreign exchange rate changes on our net revenue and total spend:

	Fiscal Year Ended January 31, 2019		
	Percent change compared to prior fiscal year (as reported)	Constant currency percent change compared to prior fiscal year (1)	Positive/negative/ neutral impact from foreign exchange rate changes
Revenue	25%	24%	Positive
Total spend	1%	1%	Neutral

(1) Please refer to the Glossary of Terms for the definitions of our constant currency growth rates.

Changes in the value of the U.S. dollar may have a significant effect on net revenue, total spend, and income (loss) from operations in future periods. We use foreign currency contracts to reduce the exchange rate effect on a portion of the net revenue of certain anticipated transactions but do not attempt to completely mitigate the impact of fluctuations of such foreign currency against the U.S. dollar.

Total Deferred Revenue

The adoption of ASC Topic 606 required a change to the definition of unbilled deferred revenue and new qualitative and quantitative disclosures around our performance obligations. Unbilled deferred revenue represents contractually stated or committed orders under early renewal and multi-year billing plans primarily for subscription, services and maintenance for which the associated deferred revenue has not been recognized. Under ASC Topic 606, unbilled deferred revenue is not included as a receivable or deferred revenue on our Consolidated Balance Sheet. See Part II, Item 8, Note 2, "Revenue Recognition" for more details on Autodesk's performance obligations.

	January 31, 2019		January 31, 2018
(in millions)	ASC 606	ASC 605	ASC 605
Deferred revenue	$ 2,091.4	$ 2,269.2	$ 1,955.1
Unbilled deferred revenue	591.0	491.6	326.4
Total deferred revenue	$ 2,682.4	$ 2,760.8	$ 2,281.5

We expect that the amount of billed and unbilled deferred revenue will change from quarter to quarter for several reasons, including the specific timing, duration and size of customer subscription and support agreements, varying billing cycles of such agreements, the specific timing of customer renewals, and foreign currency fluctuations.

Balance Sheet and Cash Flow Items

At January 31, 2019, we had $953.6 million in cash and marketable securities. Our cash flow from operations increased to $377.1 million for the fiscal year ended January 31, 2019 from $0.9 million for the fiscal year ended January 31, 2018. We repurchased 2.2 million shares of our common stock for $292.5 million during fiscal 2019. Comparatively, we repurchased 6.9 million shares of our common stock for $690.1 million during fiscal 2018. Further discussion regarding the balance sheet and cash flow activities are discussed below under the heading "Liquidity and Capital Resources."

RESULTS OF OPERATIONS

The revenue and spend balances included in the tables below during the fiscal year ended January 31, 2019, are calculated under ASC Topic 606. For comparison of subscription revenue, maintenance revenue, other revenue and total spend during the fiscal year ended January 31, 2019, under ASC Topic 605, refer to the table within Item 7, "Overview" under the title "Impact of New Revenue Accounting Standard."

Net Revenue by Income Statement Presentation

Subscription revenue consists of our term-based product subscriptions, cloud service offerings, and flexible enterprise business arrangements. Revenue from these arrangements is recognized ratably over the contract term commencing with the date our service is made available to customers and when all other revenue recognition criteria have been satisfied.

Maintenance revenue consists of renewal fees for existing maintenance plan agreements that were initially purchased with a perpetual software license. Under our maintenance plan, customers are eligible to receive unspecified upgrades, when and if available, and technical support. We recognize maintenance revenue ratably over the term of the agreements, which is generally one year.

Other revenue consists of revenue from consulting, training and other services, and is recognized over time as the services are performed. Other revenue also includes software license revenue from the sale of products which do not incorporate substantial cloud services and is recognized up front.

(in millions)	Fiscal year ended January 31, 2019	Change compared to prior fiscal year $	%	Fiscal year ended January 31, 2018	Management comments
Net revenue:					
Subscription	$ 1,802.3	$ 908.0	102 %	$ 894.3	Up due to growth across all subscription types, led by product subscription renewal revenue, which benefited from the success of the M2S program. Also contributing to the growth was an increase in revenue from new product subscriptions and EBA offerings.
Maintenance (1)	635.1	(354.5)	(36)%	989.6	Down primarily due to the migration of maintenance plan subscriptions to subscription plan subscriptions with the M2S program.
Total subscription and maintenance revenue	2,437.4	553.5	29 %	1,883.9	
Other (2)	132.4	(40.3)	(23)%	172.7	
	$ 2,569.8	$ 513.2	25 %	$2,056.6	

(1) We expect maintenance revenue will continue to decline; however, the rate of decline will vary based on the number of renewals, the renewal rate, and our ability to incentivize maintenance plan customers to switch over to subscription plan offerings.
(2) Previously labeled as "License and other" in prior periods.

(in millions)	Fiscal year ended January 31, 2018	Change compared to prior fiscal year $	%	Fiscal Year Ended January 31, 2017	Management Comments
Net revenue:					
Subscription	$ 894.3	$ 451.2	102 %	$ 443.1	Up due to growth across all subscription types, led by product subscriptions and EBA offerings, primarily as a result of the business model transition.
Maintenance (1)	989.6	(113.5)	(10)%	1,103.1	Down due to the discontinued sale of new maintenance agreements and the migration of customers moving from maintenance to subscription.
Total subscription and maintenance revenue	1,883.9	337.7	22 %	1,546.2	
Other (2)	172.7	(312.1)	(64)%	484.8	
	$ 2,056.6	$ 25.6	1 %	$2,031.0	

(1) We expect maintenance revenue will continue to decline; however, the rate of decline will vary based on the number of renewals, the renewal rate, and our ability to incentivize maintenance plan customers to switch over to subscription plan offerings.
(2) Previously labeled as "License and other" in prior periods.

Net Revenue by Product Family

Our product offerings are focused in four primary product families: AEC, ACAD, MFG, and M&E.

(in millions)	Fiscal year ended January 31, 2019	Change compared to prior fiscal year $	Change compared to prior fiscal year %	Fiscal year ended January 31, 2018	Management Comments
Net revenue by product family (1):					
AEC	$1,021.6	234.1	30 %	$ 787.5	Up due to an increase in AEC collections as well as an increase in revenue from EBAs and our individual product offering, Revit.
ACAD	731.8	170.4	30 %	561.4	Up due to increases in revenue from both AutoCAD and AutoCAD LT.
MFG	616.2	87.4	17 %	528.8	Up due to an increase in MFG collections as well as an increase in revenue from EBAs.
M&E	182.0	29.9	20 %	152.1	Up due to an increase in revenue from our individual product offerings 3DS Max and Maya.
Other	18.2	(8.6)	(32)%	26.8	
	$2,569.8	$ 513.2	25 %	$2,056.6	

(in millions)	Fiscal year ended January 31, 2018	Change compared to prior fiscal year $	Change compared to prior fiscal year %	Fiscal Year Ended January 31, 2017	Management Comments
Net revenue by product family (1):					
AEC	$ 787.5	$ (22.9)	(3)%	$ 810.4	Down due to a net decrease in AEC collections and legacy suites due to the discontinuation of perpetual licenses. The decrease was partially offset by an increase in revenue from individual AEC product offerings and EBAs.
ACAD	561.4	88.7	19 %	472.7	Up due to increases in both AutoCAD LT and AutoCAD.
MFG	528.8	(46.4)	(8)%	575.2	Down due to a net decrease in MFG collections and legacy suites due to the discontinuation of perpetual licenses, partially offset by an increase in revenue from MFG EBAs.
M&E	152.1	13.3	10 %	138.8	Up due to an increase in Animation, partially offset by a decrease in Creative Finishing.
Other	26.8	(7.1)	(21)%	33.9	
	$ 2,056.6	$ 25.6	1 %	$ 2,031.0	

(1) Due to changes in the go-to-market offerings of our AutoCAD product subscription, prior period balances have been adjusted to conform to current period presentation.

Net Revenue by Geographic Area

(in millions)	Fiscal Year Ended January 31, 2019	Change compared to prior fiscal year $	Change compared to prior fiscal year %	Constant currency change compared to prior fiscal year %	Fiscal Year Ended January 31, 2018	Change compared to prior fiscal year $	Change compared to prior fiscal year %	Constant currency change compared to prior fiscal year %	Fiscal Year Ended January 31, 2017
Net revenue:									
Americas									
U.S.	$ 874.6	$ 134.2	18%	*	$ 740.4	$ (1.7)	— %	*	$ 742.1
Other Americas	175.3	44.6	34%	*	130.7	0.9	1 %	*	129.8
Total Americas	1,049.9	178.8	21%	20%	871.1	(0.8)	— %	—%	871.9
EMEA	1,034.3	218.9	27%	24%	815.4	15.0	2 %	4%	800.4
APAC	485.6	115.5	31%	31%	370.1	11.4	3 %	2%	358.7
Total net revenue (1)	$ 2,569.8	$ 513.2	25%	24%	$ 2,056.6	$ 25.6	1 %	2%	$ 2,031.0
Emerging economies	$ 307.4	$ 80.9	36%	34%	$ 226.5	$ (1.0)	— %	—%	$ 227.5

(1) Totals may not sum due to rounding.
* Constant currency data not provided at this level.

We believe that international revenue will continue to comprise a majority of our net revenue. Unfavorable economic conditions in the countries that contribute a significant portion of our net revenue, including in emerging economies such as Brazil, Russia, India, and China, may have an adverse effect on our business in those countries and our overall financial performance. Changes in the value of the U.S. dollar relative to other currencies have significantly affected, and could continue to significantly affect, our financial results for a given period even though we hedge a portion of our current and projected revenue. Increases to the levels of political and economic unpredictability in the global market may impact our future financial results.

Net Revenue by Sales Channel

(in millions)	Year ended January 31, 2019	Change compared to prior fiscal year $	Change compared to prior fiscal year %	Year ended January 31, 2018	Management comments
Net revenue by sales channel:					
Indirect	$1,830.8	$ 387.0	27%	$ 1,443.8	Up due to an increase in subscription revenue.
Direct	739.0	126.2	21%	612.8	Up due to an increase in revenue from EBAs and our online Autodesk branded store.
Total net revenue	$2,569.8	$ 513.2	25%	$ 2,056.6	

(in millions)	Year ended January 31, 2018	Change compared to prior fiscal year $	Change compared to prior fiscal year %	Year ended January 31, 2017	Management comments
Net revenue by sales channel:					
Indirect	$1,443.8	$ (25.1)	(2)%	$ 1,468.9	Down due to a decrease in sales with resellers.
Direct	612.8	50.7	9 %	562.1	Up due to an increase in revenue from EBAs and our online Autodesk branded store.
Total net revenue	$2,056.6	$ 25.6	1 %	$ 2,031.0	

Cost of Revenue and Operating Expenses

Cost of subscription and maintenance revenue includes the labor costs of providing product support to our subscription and maintenance customers, including allocated IT and facilities costs, professional services fees related to operating our network and cloud infrastructure, royalties, depreciation expense and operating lease payments associated with computer equipment, data center costs, salaries, related expenses of network operations, and stock-based compensation expense.

Cost of other revenue includes labor costs associated with product setup, costs of consulting and training services contracts, and collaborative project management services contracts. Cost of other revenue also includes stock-based compensation expense, direct material and overhead charges, allocated IT and facilities costs, professional services fees and royalties. Direct material and overhead charges include the cost associated with electronic and physical fulfillment.

Cost of revenue, at least over the near term, is affected by the volume and mix of product sales, fluctuations in consulting costs, amortization of developed technology, new customer support offerings, royalty rates for licensed technology embedded in our products and employee stock-based compensation expense.

Marketing and sales expenses include salaries, bonuses, benefits and stock-based compensation expense for our marketing and sales employees, the expense of travel, entertainment and training for such personnel, sales and dealer commissions, and the costs of programs aimed at increasing revenue, such as advertising, trade shows and expositions, and various sales and promotional programs. Marketing and sales expenses also include payment processing fees, the cost of supplies and equipment, gains and losses on our operating expense cash flow hedges, allocated IT and facilities costs, and labor costs associated with sales and order management.

Research and development expenses, which are expensed as incurred, consist primarily of salaries, bonuses, benefits and stock-based compensation expense for research and development employees, the expense of travel, entertainment and training for such personnel, professional services such as fees paid to software development firms and independent contractors, gains and losses on our operating expense cash flow hedges, and allocated IT and facilities costs.

General and administrative expenses include salaries, bonuses, acquisition-related transition costs, benefits and stock-based compensation expense for our CEO, finance, human resources and legal employees, as well as professional fees for legal and accounting services, certain foreign business taxes, gains and losses on our operating expense cash flow hedges, expense of travel, entertainment and training, net IT and facilities costs, and the cost of supplies and equipment.

(in millions)	**Fiscal year ended January 31, 2019**	**Change compared to prior fiscal year**		**Fiscal year ended January 31, 2018**	**Management comments**
		$	**%**		
Cost of revenue:					
Subscription and maintenance	$ 216.0	$ 1.6	1 %	$ 214.4	Up primarily due to an increase in cloud hosting costs partially offset by a decrease in royalty and depreciation expense.
Other (1)	54.4	(18.2)	(25)%	72.6	Down primarily due to lower employee-related costs from reduced headcount associated with the Fiscal 2018 Plan restructuring and lower professional fees.
Amortization of developed technology	15.5	(0.9)	(5)%	16.4	Down as previously acquired developed technologies continue to become fully amortized.
Total cost of revenue	$ 285.9	$ (17.5)	(6)%	$ 303.4	
Marketing and sales	$ 1,183.9	$ 96.6	9 %	$ 1,087.3	Up due to increased employee-related costs driven by higher headcount, as well as higher cloud hosting costs and professional fees.
Research and development	725.0	(30.5)	(4)%	755.5	Down due to a decrease in employee-related costs from lower headcount associated with the Fiscal 2018 plan restructuring partially offset by higher professional fees.
General and administrative	340.1	34.9	11 %	305.2	Up primarily due to higher professional fees, employee-related costs and facilities costs, partially offset by lower employee benefits costs.
Amortization of purchased intangibles	18.0	(2.2)	(11)%	20.2	Down as previously acquired intangible assets continue to become fully amortized.
Restructuring and other exit costs, net	41.9	(52.2)	(55)%	94.1	Down as we substantially completed the reduction in force and facilities consolidation of the Fiscal 2018 Plan.
	$ 2,308.9	$ 46.6	2 %	$ 2,262.3	

(in millions)	Fiscal year ended January 31, 2018	Change compared to prior fiscal year $	Change compared to prior fiscal year %	Fiscal year ended January 31, 2017	Management comments
Cost of revenue:					
Subscription and maintenance	$ 214.4	$ 22.7	12 %	$ 191.7	Up due to an increase in employee-related costs driven by increased headcount associated with maintenance and subscription services in support of the business model transition.
Other (1)	72.6	(37.6)	(34)%	110.2	Down due to lower employee-related costs from reduced headcount associated with license and other revenue products and services as a result of our move to a subscription based business model.
Amortization of developed technology	16.4	(23.6)	(59)%	40.0	Down as previously acquired developed technologies continue to become fully amortized while fewer assets are acquired compared to the prior year.
Total cost of revenue	$ 303.4	$ (38.5)	(11)%	$ 341.9	
Marketing and sales	$ 1,087.3	$ 64.8	6 %	$ 1,022.5	Up due to increase in employee-related costs from higher headcount, increased commissions, and increased stock-based compensation expense from a higher fair value of awards granted.
Research and development	755.5	(10.6)	(1)%	766.1	Down due to a decrease in employee-related costs from lower headcount.
General and administrative	305.2	17.4	6 %	287.8	Up driven by costs associated with the CEO transition and an increase in stock-based compensation expense from a higher fair value of awards granted, partially offset by a decrease in employee-related costs from lower headcount.
Amortization of purchased intangibles	20.2	(11.6)	(36)%	31.8	Down as previously acquired intangible assets continue to become fully amortized and fewer assets are acquired compared to the prior year.
Restructuring and other exit costs, net	94.1	13.6	17 %	80.5	Driven by the Fiscal 2018 Plan to re-balance resources to better align with the Company's strategic priorities and position itself to meet long-term goals. Costs associated with the Fiscal 2018 Plan are principally from employee termination benefits, lease termination costs and other exit costs.
	$ 2,262.3	$ 73.6	3 %	$ 2,188.7	

(1) Previously labeled as "License and other" in prior periods.

The following table highlights our expectation for the absolute dollar change and percent of revenue change for fiscal 2020 as compared to fiscal 2019:

	Absolute dollar impact	Percent of net revenue impact
Cost of revenue	Increase	Slight decrease
Marketing and sales	Increase	Decrease
Research and development	Increase	Decrease
General and administrative	Increase	Decrease
Amortization of purchased intangibles	Increase	Slight increase

Interest and Other Expense, Net

The following table sets forth the components of interest and other expense, net:

	Fiscal year ended January 31,		
	2019	2018	2017
		(in millions)	
Interest and investment expense, net	$ (52.1)	$ (34.5)	$ (29.7)
Gain (loss) on foreign currency	5.1	(3.3)	(3.3)
Gain (loss) on strategic investments	12.5	(16.4)	0.3
Other income	16.8	6.0	8.5
Interest and other expense, net	$ (17.7)	$ (48.2)	$ (24.2)

Interest and other expense, net, positively changed by $30.5 million during fiscal 2019, as compared to fiscal 2018, primarily driven by curtailment gains on our pension plans, mark-to-market gains on certain of our privately-held strategic investments, realized gains on sales of strategic investments, offset by an increase in interest expense resulting from our term loan entered into on December 17, 2018 in aggregate principal amount of $500 million and mark-to-market losses on marketable securities.

Interest and other expense, net, increased $24.0 million during fiscal 2018, as compared to fiscal 2017, primarily related to increases in impairment losses on certain of our privately-held strategic investments and interest expense resulting from our June 2017 issuance of $500.0 million aggregate principal amount of 3.5% notes due June 15, 2027.

Interest expense and investment income fluctuates based on average cash, marketable securities and debt balances, average maturities and interest rates.

Gains and losses on foreign currency are primarily due to the impact of re-measuring foreign currency transactions and net monetary assets into the functional currency of the corresponding entity. The amount of the gain or loss on foreign currency is driven by the volume of foreign currency transactions and the foreign currency exchange rates for the year.

Provision for Income Taxes

We account for income taxes and the related accounts under the liability method. Deferred tax liabilities and assets are determined based on the difference between the financial statement and tax bases of assets and liabilities, using enacted rates expected to be in effect during the year in which the basis differences reverse.

Income tax expense was $38.1 million and $9.6 million for fiscal 2019 and 2018, respectively, relative to pre-tax losses of $42.7 million and $557.3 million, respectively, for the same periods. Tax expense for fiscal 2019 consists primarily of foreign tax expense including withholding tax and tax amortization on indefinite-lived intangibles offset by a benefit for the release of uncertain tax positions upon finalization of IRS examination during the current fiscal year. In addition, we had a tax benefit from the release of valuation allowance from acquired deferred tax liabilities during the current fiscal year. Tax expense for fiscal 2018 consisted primarily of foreign tax expense including withholding tax and tax amortization on indefinite-lived intangibles offset by the revaluation of our deferred tax liability due to the corporate rate reduction under the Tax Act. We recorded a tax benefit of the Tax Act in our financial statements as of January 31, 2018 of approximately $32.3 million mainly driven by the corporate rate remeasurement of the indefinite-lived intangible deferred tax liability.

The Tax Act was signed into law on December 22, 2017 and provided broad and significant changes to the U.S. corporate income tax regime. In light of our fiscal year-end, the Tax Act reduced the statutory federal corporate rate from 35% to 33.81% for fiscal 2018 and to 21% for fiscal 2019 and forward. The Tax Act also, among many other provisions, imposed a one-time mandatory tax on accumulated earnings of foreign subsidiaries (commonly referred to as the "transition tax"), subjected the deemed intangible income of our foreign subsidiaries to current U.S. taxation (commonly referred to as "GILTI"), provided for a full dividends received deduction upon repatriation of untaxed earnings of our foreign subsidiaries, imposed a minimum taxation (without most tax credits) on modified taxable income, which is generally taxable income without deductions for payments to related foreign companies (commonly referred to as “BEAT”), modified the accelerated depreciation deduction rules, and made updates to the deductibility of certain expenses. We have completed our determination of the accounting implications of the Tax Act on our tax accruals.

As of January 31, 2018, we estimated taxable income associated with offshore earnings of $831.5 million, and as of January 31, 2019, we adjusted the taxable income to $819.6 million to reflect the impact of Treasury Regulations issued in the fourth quarter of fiscal 2019. Transition tax related to adjustments in offshore earnings resulted in no impact to the effective tax rate as it is primarily offset by net operating losses that are subject to a full valuation allowance. As a result of the transition tax, we recorded a deferred tax asset of approximately $45.1 million for foreign tax credits, which are also subject to a full valuation allowance.

We are subject to GILTI in fiscal 2019, primarily offset by current year operating losses, resulting in no impact to the effective tax rate.

We anticipate that the U.S. Department of Treasury and other standard-setting bodies will continue to interpret or issue guidance on how provisions of the Tax Act will be applied or otherwise administered. As future guidance is issued, we may make adjustments to amounts that we have previously recorded that may materially impact our financial statements in the period in which the adjustments are made.

A valuation allowance is recorded to reduce deferred tax assets when management cannot conclude that it is more likely than not that the net deferred tax asset will be recovered. The valuation allowance is determined by assessing both positive and negative evidence to determine whether it is more likely than not that deferred tax assets are recoverable; such assessment is required on a jurisdiction-by-jurisdiction basis. Significant judgment is required in determining whether the valuation allowance should be recorded against deferred tax assets. In assessing the need for a valuation allowance, we consider all available evidence including past operating results and estimates of future taxable income. Beginning in the second quarter of fiscal 2016, we considered recent cumulative losses in the U.S. arising from our business model transition as a significant source of negative evidence. Considering this negative evidence and the absence of sufficient positive objective evidence that we would generate sufficient taxable income in the U.S. to realize the deferred tax assets, we determined that it was more likely than not that we would not realize the U.S. federal and state deferred tax assets and recorded a full valuation allowance. Furthermore, in the first quarter of fiscal 2018, our Singapore operation, similar to the U.S. incurred cumulative losses and recorded a full valuation allowance against the net deferred tax asset. As we continually strive to optimize our overall business model, tax planning strategies may become feasible whereby management may determine that it is more likely than not that the federal and state deferred tax assets will be realized; as a result, we will continue to evaluate the realizability of our net deferred tax assets each quarter, both in the U.S. and in foreign jurisdictions, based on all available evidence, both positive and negative.

As of January 31, 2019, we had $209.0 million of gross unrecognized tax benefits, of which $190.6 million would reduce our valuation allowance, if recognized. The remaining $18.4 million would impact the effective tax rate. It is possible that the amount of unrecognized tax benefits will change in the next twelve months; however, an estimate of the range of the possible change cannot be made at this time.

Our future effective annual tax rate may be materially impacted by the amount of benefits and charges from tax amounts associated with our foreign earnings that are taxed at rates different from the federal statutory rate, changes in valuation allowances, level of profit before tax, accounting for uncertain tax positions, business combinations, closure of statute of limitations or settlement of tax audits, and changes in tax laws including impacts of the Tax Act. A significant amount of our earnings is generated by our Europe and Asia Pacific subsidiaries. Our future effective tax rates may be adversely affected to the extent earnings are lower than anticipated in countries where we have lower statutory tax rates.

At January 31, 2019, we had non-current foreign net deferred tax assets of $54.3 million that management believes are more likely than not to be realized in future years.

For additional information regarding our income tax provision and reconciliation of our effective rate to the federal statutory rate of 21%, see Part II, Item 8, Note 5, “Income Taxes,” in the Notes to Consolidated Financial Statements.

OTHER FINANCIAL INFORMATION

In addition to our results determined under U.S. generally accepted accounting principles ("GAAP") discussed above, we believe the following non-GAAP measures are useful to investors in evaluating our operating performance. For the fiscal years ended January 31, 2019, 2018, and 2017, our gross profit, gross margin, (loss) income from operations, operating margin, net (loss) income, diluted net (loss) income per share and diluted shares used in per share calculation on a GAAP and non-GAAP basis were as follows (in millions except for gross margin, operating margin, and per share data):

	Fiscal Year Ended January 31,		
	2019	2018	2017
		(Unaudited)	
Gross profit	$ 2,283.9	$ 1,753.2	$ 1,689.1
Non-GAAP gross profit	$ 2,317.0	$ 1,785.5	$ 1,743.2
Gross margin	89 %	85 %	83 %
Non-GAAP gross margin	90 %	87 %	86 %
Loss from operations	$ (25.0)	$ (509.1)	$ (499.6)
Non-GAAP income (loss) from operations	$ 316.0	$ (112.0)	$ (125.5)
Operating margin	(1)%	(25)%	(25)%
Non-GAAP operating margin	12 %	(5)%	(6)%
Net loss	$ (80.8)	$ (566.9)	$ (582.1)
Non-GAAP net income (loss)	$ 223.3	$ (106.3)	$ (111.0)
Diluted net loss per share	$ (0.37)	$ (2.58)	$ (2.61)
Non-GAAP diluted net income (loss) per share	$ 1.01	$ (0.48)	$ (0.50)
GAAP diluted weighted average shares used in per share calculation	218.9	219.5	222.7
Non-GAAP diluted weighted average shares used in per share calculation	222.0	219.5	222.7

For our internal budgeting and resource allocation process and as a means to provide consistency in period-to-period comparisons, we use non-GAAP measures to supplement our consolidated financial statements presented on a GAAP basis. These non-GAAP measures do not include certain items that may have a material impact upon our reported financial results. We also use non-GAAP measures in making operating decisions because we believe those measures provide meaningful supplemental information regarding our earning potential and performance for management by excluding certain benefits, credits, expenses and charges that may not be indicative of our core business operating results. For the reasons set forth below, we believe these non-GAAP financial measures are useful to investors both because (1) they allow for greater transparency with respect to key metrics used by management in its financial and operational decision-making and (2) they are used by our institutional investors and the analyst community to help them analyze the health of our business. This allows investors and others to better understand and evaluate our operating results and future prospects in the same manner as management, compare financial results across accounting periods and to those of peer companies and to better understand the long-term performance of our core business. We also use some of these measures for purposes of determining company-wide incentive compensation.

There are limitations in using non-GAAP financial measures because non-GAAP financial measures are not prepared in accordance with GAAP and may be different from non-GAAP financial measures used by other companies. The non-GAAP financial measures included above are limited in value because they exclude certain items that may have a material impact upon our reported financial results. In addition, they are subject to inherent limitations as they reflect the exercise of judgments by management about which charges are excluded from the non-GAAP financial measures. We compensate for these limitations by analyzing current and future results on a GAAP basis as well as a non-GAAP basis and also by providing GAAP measures in our public disclosures. The presentation of non-GAAP financial information is meant to be considered in addition to, not as a substitute for or in isolation from, the directly comparable financial measures prepared in accordance with GAAP. We urge investors to review the reconciliation of our non-GAAP financial measures to the comparable GAAP financial measures included below, and not to rely on any single financial measure to evaluate our business.

RECONCILIATION OF GAAP FINANCIAL MEASURES TO NON-GAAP FINANCIAL MEASURES

(In millions except for gross margin, operating margin, and per share data) (1):

	Fiscal Year Ended January 31,		
	2019	2018	2017
		(Unaudited)	
Gross profit	$ 2,283.9	$ 1,753.2	$ 1,689.1
Stock-based compensation expense	17.6	15.9	14.1
Amortization of developed technologies	15.5	16.4	40.0
Non-GAAP gross profit	$ 2,317.0	$ 1,785.5	$ 1,743.2
Gross margin	89 %	85 %	83 %
Stock-based compensation expense	1 %	1 %	1 %
Amortization of developed technologies	1 %	1 %	2 %
Non-GAAP gross margin (1)	90 %	87 %	86 %
Loss from operations	$ (25.0)	$ (509.1)	$ (499.6)
Stock-based compensation expense	249.5	245.0	221.8
Amortization of developed technologies	15.5	16.4	40.0
Amortization of purchased intangibles	18.0	20.2	31.8
CEO transition costs (2)	(0.1)	21.4	—
Acquisition related costs	16.2	—	—
Restructuring and other exit costs, net	41.9	94.1	80.5
Non-GAAP income (loss) from operations	$ 316.0	$ (112.0)	$ (125.5)
Operating margin	(1)%	(25)%	(25)%
Stock-based compensation expense	10 %	12 %	11 %
Amortization of developed technologies	1 %	1 %	2 %
Amortization of purchased intangibles	1 %	1 %	2 %
CEO transition costs (2)	— %	1 %	— %
Acquisition related costs	1 %	— %	— %
Restructuring and other exit costs, net	1 %	5 %	4 %
Non-GAAP operating margin (1)	12 %	(5)%	(6)%
Net loss	$ (80.8)	$ (566.9)	$ (582.1)
Stock-based compensation expense	249.5	245.0	221.8
Amortization of developed technologies	15.5	16.4	40.0
Amortization of purchased intangibles	18.0	20.2	31.8
CEO transition costs (2)	(0.1)	21.4	—
Acquisition related costs	16.2	—	—
Restructuring and other exit costs, net	31.7	94.1	80.5
(Gain) loss on strategic investments	(12.5)	16.5	(0.3)
Discrete tax provision items	(31.4)	(20.7)	(2.7)
Income tax effect of non-GAAP adjustments	17.2	67.7	100.0
Non-GAAP net income (loss)	$ 223.3	$ (106.3)	$ (111.0)

	Fiscal Year Ended January 31,		
	2019	2018	2017
		(Unaudited)	
Diluted net (loss) income per share	$ (0.37)	$ (2.58)	$ (2.61)
Stock-based compensation expense	1.12	1.11	1.00
Amortization of developed technologies	0.08	0.08	0.18
Amortization of purchased intangibles	0.08	0.09	0.14
CEO transition costs (2)	—	0.09	—
Acquisition related costs	0.07	—	—
Restructuring and other exit costs, net	0.14	0.43	0.35
(Gain) loss on strategic investments	(0.05)	0.08	—
Discrete tax provision items	(0.14)	(0.09)	(0.01)
Income tax effect of non-GAAP adjustments	0.08	0.31	0.45
Non-GAAP diluted income (loss) per share	$ 1.01	$ (0.48)	$ (0.50)

(1) Totals may not sum due to rounding.
(2) CEO transition costs include stock-based compensation of $16.4 million related to the acceleration of eligible stock awards in conjunction with the Company's former CEOs' transition agreements for the fiscal year ended January 31, 2018.

Our non-GAAP financial measures may exclude the following:

Stock-based compensation expenses. We exclude stock-based compensation expenses from non-GAAP measures primarily because they are non-cash expenses and management finds it useful to exclude certain non-cash charges to assess the appropriate level of various operating expenses to assist in budgeting, planning and forecasting future periods. Moreover, because of varying available valuation methodologies, subjective assumptions and the variety of award types that companies can use under FASB ASC Topic 718, we believe excluding stock-based compensation expenses allows investors to make meaningful comparisons between our recurring core business operating results and those of other companies.

Amortization of developed technologies and purchased intangibles. We incur amortization of acquisition-related developed technology and purchased intangibles in connection with acquisitions of certain businesses and technologies. Amortization of developed technologies and purchased intangibles is inconsistent in amount and frequency and is significantly affected by the timing and size of our acquisitions. Management finds it useful to exclude these variable charges from our cost of revenues to assist in budgeting, planning and forecasting future periods. Investors should note that the use of intangible assets contributed to our revenues earned during the periods presented and will contribute to our future period revenues as well. Amortization of developed technologies and purchased intangible assets will recur in future periods.

CEO transition costs. We exclude amounts paid to the Company's former CEOs upon departure under the terms of their transition agreements, including severance payments, acceleration of restricted stock units, and continued vesting of performance stock units, and legal fees incurred with the transition. Also excluded from our non-GAAP measures are recruiting costs related to the search for a new CEO. These costs represent non-recurring expenses and are not indicative of our ongoing operating expenses. We further believe that excluding the CEO transition costs from our non-GAAP results is useful to investors in that it allows for period-over-period comparability.

Goodwill impairment. This is a non-cash charge to write-down goodwill to fair value when there was an indication that the asset was impaired. As explained above, management finds it useful to exclude certain non-cash charges to assess the appropriate level of various operating expenses to assist in budgeting, planning and forecasting future periods.

Restructuring and other exit costs, net. These expenses are associated with realigning our business strategies based on current economic conditions. In connection with these restructuring actions or other exit actions, we recognize costs related to termination benefits for former employees whose positions were eliminated, the closure of facilities and cancellation of certain contracts. We exclude these charges because these expenses are not reflective of ongoing business and operating results. We believe it is useful for investors to understand the effects of these items on our total operating expenses.

Acquisition related costs. We exclude certain acquisition related costs, including due diligence costs, professional fees in connection with an acquisition, certain financing costs, and certain integration related expenses. These expenses are unpredictable, and dependent on factors that may be outside of our control and unrelated to the continuing operations of the acquired business, or our Company. In addition, the size and complexity of an acquisition, which often drives the magnitude of acquisition related costs, may not be indicative of such future costs. We believe excluding acquisition related costs facilitates the comparison of our financial results to the Company's historical operating results and to other companies in our industry.

(Gain) loss on strategic investments and dispositions. We exclude gains and losses related to our strategic investments and dispositions from our non-GAAP measures primarily because management finds it useful to exclude these variable gains and losses on these investments and dispositions in assessing our financial results. Included in these amounts are non-cash unrealized gains and losses on the derivative components, dividends received, realized gains and losses on the sales or losses on the impairment of these investments and dispositions. We believe excluding these items is useful to investors because these excluded items do not correlate to the underlying performance of our business and these losses or gains were incurred in connection with strategic investments and dispositions which do not occur regularly.

Discrete tax items. We exclude the GAAP tax provision, including discrete items, from the non-GAAP measure of net (loss) income, and include a non-GAAP tax provision based upon the projected annual non-GAAP effective tax rate. Discrete tax items include income tax expenses or benefits that do not relate to ordinary income from continuing operations in the current fiscal year, unusual or infrequently occurring items, or the tax impact of certain stock-based compensation. Examples of discrete tax items include, but are not limited to, certain changes in judgment and changes in estimates of tax matters related to prior fiscal years, certain costs related to business combinations, certain changes in the realizability of deferred tax assets or changes in tax law. Management believes this approach assists investors in understanding the tax provision and the effective tax rate related to ongoing operations. We believe the exclusion of these discrete tax items provides investors with useful supplemental information about our operational performance.

Establishment of a valuation allowance on certain net deferred tax assets. This is a non-cash charge to record a valuation allowance on certain deferred tax assets. As explained above, management finds it useful to exclude certain non-cash charges to assess the appropriate level of various cash expenses to assist in budgeting, planning and forecasting future periods.

Income tax effects on the difference between GAAP and non-GAAP costs and expenses. The income tax effects that are excluded from the non-GAAP measures relate to the tax impact on the difference between GAAP and non-GAAP expenses, primarily due to stock-based compensation, amortization of purchased intangibles and restructuring charges and other exit costs (benefits) for GAAP and non-GAAP measures.

LIQUIDITY AND CAPITAL RESOURCES

Our primary source of cash is from the sale of our software and related services. Our primary use of cash is payment of our operating costs, which consist primarily of employee-related expenses, such as compensation and benefits, as well as general operating expenses for marketing, facilities and overhead costs. In addition to operating expenses, we also use cash to fund our stock repurchase program and invest in our growth initiatives, which include acquisitions of products, technology and businesses. See further discussion of these items below.

At January 31, 2019, our principal sources of liquidity were cash, cash equivalents, and marketable securities totaling $953.6 million and net accounts receivable of $474.3 million.

On December 17, 2018, Autodesk entered into a new Credit Agreement (the “Credit Agreement”) for an unsecured revolving loan facility in the aggregate principal amount of $650.0 million, with an option to request increases in the amount of the credit facility by up to an additional $350.0 million. The Credit Agreement replaced and terminated our $400.0 million Amended and Restated Credit Agreement. The maturity date on the line of credit facility is December 2023. At January 31, 2019, Autodesk had no outstanding borrowings on this line of credit. As of March 25, 2019, we have no amounts outstanding under the credit facility. See Part II, Item 8, Note 8, "Borrowing Arrangements," in the Notes to Consolidated Financial Statements for further discussion on our covenant requirements. If we are unable to remain in compliance with the covenants, we will not be able to draw on our credit facility.

On December 17, 2018, we also entered into a Term Loan Agreement (the “Term Loan Agreement”) which provided for a delayed draw term loan facility in the aggregate principal amount of $500.0 million. On December 19, 2018, we borrowed a $500.0 million term loan under the Term Loan Agreement in connection with the acquisition of PlanGrid. See Part II, Item 8, Note 8, "Borrowing Arrangements," in the Notes to Consolidated Financial Statements for further discussion on the Term Loan Agreement terms and Part II, Item 8, Note 6, "Acquisitions" for further discussion on the PlanGrid acquisition.

In addition to the term loan, as of January 31, 2019, we have $1.6 billion aggregate principal amount of Notes outstanding. See Part II, Item 8, Note 8, "Borrowing Arrangements," in the Notes to Consolidated Financial Statements for further discussion.

Our cash and cash equivalents are held by diversified financial institutions globally. Our primary commercial banking relationship is with Citigroup and its global affiliates. In addition, Citibank N.A., an affiliate of Citigroup, is one of the lead lenders and agent in the syndicate of our $650.0 million line of credit.

Long-term cash requirements for items other than normal operating expenses are anticipated for the following: repayment of debt; common stock repurchases; the acquisition of businesses, software products, or technologies complementary to our business; and capital expenditures, including the purchase and implementation of internal-use software applications.

Our cash, cash equivalents, and marketable securities balances are concentrated in a few locations around the world, with substantial amounts held outside of the United States. As of January 31, 2019, approximately 52% of our total cash or cash equivalents and marketable securities are located in foreign jurisdictions and that percentage will fluctuate subject to business needs. There are several factors that can impact our ability to utilize foreign cash balances, such as foreign exchange restrictions, foreign regulatory restrictions or adverse tax costs. The Tax Act includes a mandatory one-time tax on accumulated earnings of foreign subsidiaries and generally eliminates U.S. taxes on foreign subsidiary distributions in future periods. As a result, earnings in foreign jurisdictions are generally available for distribution to the U.S. with little to no incremental U.S. taxes. We regularly review our capital structure and consider a variety of potential financing alternatives and planning strategies to ensure we have the proper liquidity available in the locations in which it is needed. We expect to meet our liquidity needs through a combination of current cash balances, ongoing cash flows, and external borrowings.

Cash from operations could also be affected by various risks and uncertainties, including, but not limited to the risks detailed in Part I, Item 1A titled “Risk Factors.” However, based on our current business plan and revenue prospects, we believe that our existing balances, our anticipated cash flows from operations and our available credit facility will be sufficient to meet our working capital and operating resource expenditure requirements for at least the next 12 months.

Our revenue, earnings, cash flows, receivables, and payables are subject to fluctuations due to changes in foreign currency exchange rates, for which we have put in place foreign currency contracts as part of our risk management strategy. See Part II, Item 7A, “Quantitative and Qualitative Disclosures about Market Risk” for further discussion.

	Fiscal year ended January 31,		
(in millions)	**2019**	**2018**	**2017**
Net cash provided by operating activities	$ 377.1	$ 0.9	$ 169.7
Net cash (used in) provided by investing activities	(710.4)	506.4	272.0
Net cash provided by (used in) financing activities	151.9	(656.6)	(578.3)

Net cash provided by operating activities of $377.1 million for fiscal 2019 consisted of $371.8 million of non-cash expenses, including stock-based compensation expense, restructuring charges, net, depreciation, amortization and accretion expense, offsetting our net loss of $80.8 million, and included $86.1 million of cash flow provided by changes in operating assets and liabilities.

The primary working capital source of cash was an increase in deferred revenue from $1,955.1 million as of January 31, 2018, to $2,091.4 million as of January 31, 2019. The primary working capital uses of cash were decreases in accounts payable and other accrued liabilities.

Net cash used in investing activities was $710.4 million for fiscal 2019 and was primarily due to acquisitions, net of cash acquired and purchases of marketable securities. These cash outflows were partially offset by sales and maturities of marketable securities.

At January 31, 2019, our short-term investment portfolio had an estimated fair value of $67.6 million and a cost basis of $62.8 million. The portfolio fair value consisted of $60.3 million of trading securities that were invested in a defined set of mutual funds as directed by the participants in our Deferred Compensation Plan (see Note 7, “Deferred Compensation,” in the Notes to Consolidated Financial Statements for further discussion) and $7.3 million invested in other available-for-sale short-term securities.

Net cash provided by financing activities was $151.9 million in fiscal 2019 and was primarily due to proceeds from debt issuance, net of discount and proceeds from issuance of stock. These cash inflows were partially offset by repurchases of our common stock and taxes paid related to net share settlement of equity awards.

CONTRACTUAL OBLIGATIONS

The following table summarizes our significant financial contractual obligations at January 31, 2019, and the effect such obligations are expected to have on our liquidity and cash flows in future periods.

	Total	Fiscal year 2020	Fiscal years 2021-2022	Fiscal years 2023-2024	Thereafter
			(in millions)		
Notes	$ 1,898.3	$ 57.3	$ 541.7	$ 422.3	$ 877.0
Term loan	533.8	18.0	515.8	—	—
Operating lease obligations	409.8	75.4	115.3	92.1	127.0
Purchase obligations	82.7	47.8	17.0	11.7	6.2
Deferred compensation obligations	60.3	5.0	9.2	8.8	37.3
Pension obligations	25.5	2.4	4.6	4.6	13.9
Asset retirement obligations	10.4	6.7	1.1	1.2	1.4
Total (1)	$ 3,020.8	$ 212.6	$ 1,204.7	$ 540.7	$ 1,062.8

(1) This table generally excludes amounts already recorded on the balance sheet as current liabilities, certain purchase obligations as discussed below, long term deferred revenue, and amounts related to income tax liabilities for uncertain tax positions, since we cannot predict with reasonable reliability the timing of cash settlements to the respective taxing authorities (see Part II, Item 8, Note 5, “Income Taxes” in the Notes to Consolidated Financial Statements).

Notes consist of the Notes issued in December 2012, June 2015 and June 2017. See Part II, Item 8, Note 8, "Borrowing Arrangements," in the Notes to Consolidated Financial Statements for further discussion..

Term loan consists of the Term Loan Agreement entered into on December 17, 2018 as described above.

Operating lease obligations consist primarily of obligations for facilities, net of sublease income, computer equipment and other equipment leases.

Purchase obligations are contractual obligations for purchase of goods or services and are defined as agreements that are enforceable and legally binding on Autodesk and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum, or variable price provisions; and the approximate timing of the transaction. Purchase obligations relate primarily to enterprise subscription agreements, IT infrastructure costs, and marketing costs.

Deferred compensation obligations relate to amounts held in a rabbi trust under our non-qualified deferred compensation plan. See Part II, Item 8, Note 7, “Deferred Compensation,” in our Notes to Consolidated Financial Statements for further information regarding this plan.

Pension obligations relate to our obligations for pension plans outside of the U.S. See Part II, Item 8, Note 15, “Retirement Benefit Plans,” in our Notes to Consolidated Financial Statements for further information regarding these obligations.

Asset retirement obligations represent the estimated costs to bring certain office buildings that we lease back to their original condition after the termination of the lease.

Purchase orders or contracts for the purchase of supplies and other goods and services are not included in the table above. We are not able to determine the aggregate amount of such purchase orders that represent contractual obligations, as purchase orders may represent authorizations to purchase rather than binding agreements. Our purchase orders are based on our current procurement or development needs and are fulfilled by our vendors within short time horizons. We do not have significant agreements for the purchase of supplies or other goods specifying minimum quantities or set prices that exceed our expected requirements for three months. In addition, we have certain software royalty commitments associated with the shipment and licensing of certain products.

The expected timing of payment of the obligations discussed above is estimated based on current information. Timing of payments and actual amounts paid may be different depending on the time of receipt of goods or services or changes to agreed-upon amounts for some obligations.

We provide indemnifications of varying scopes and certain guarantees, including limited product warranties. Historically, costs related to these warranties and indemnifications have not been significant, but because potential future costs are highly variable, we are unable to estimate the maximum potential impact of these guarantees on our future results of operations.

ISSUER PURCHASES OF EQUITY SECURITIES

Autodesk's stock repurchase program provides Autodesk with the ability to offset the dilution from the issuance of stock under our employee stock plans and reduce shares outstanding over time, and has the effect of returning excess cash generated from our business to stockholders. Under the share repurchase program, Autodesk may repurchase shares from time to time in open market transactions, privately-negotiated transactions, accelerated share repurchase programs, tender offers, or by other means. The share repurchase program does not have an expiration date and the pace and timing of repurchases will depend on factors such as cash generation from operations, available surplus, the volume of employee stock plan activity, remaining shares available in the authorized pool, cash requirements for acquisitions, economic and market conditions, stock price and legal and regulatory requirements.

During the three and twelve months ended January 31, 2019, we repurchased 0.2 million and 2.2 million shares of our common stock, respectively. At January 31, 2019, 17.4 million shares remained available for repurchase under the repurchase program approved by the Board of Directors. This program does not have a fixed expiration date. See Part II, Item 8, Note 10, “Stockholders' (Deficit) Equity,” in the Notes to Consolidated Financial Statements for further discussion.

OFF-BALANCE SHEET ARRANGEMENTS

As of January 31, 2019, we did not have any significant off-balance sheet arrangements other than operating leases, as defined in Item 303(a)(4)(ii) of Regulation S-K.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

FOREIGN CURRENCY EXCHANGE RISK

Our revenue, earnings, cash flows, receivables, and payables are subject to fluctuations due to changes in foreign currency exchange rates. Our risk management strategy utilizes foreign currency contracts to manage our exposure to foreign currency volatility that exists as part of our ongoing business operations. We utilize cash flow hedge contracts to reduce the exchange rate impact on a portion of the net revenue or operating expense of certain anticipated transactions. In addition, we use balance sheet hedge contracts to reduce the exchange rate risk associated primarily with foreign currency denominated receivables and payables. As of January 31, 2019, and 2018, we had open cash flow and balance sheet hedge contracts with future settlements within one to twelve months. Contracts were primarily denominated in euros, Japanese yen, British pounds, Canadian dollars, Australian dollars, Singapore dollars, Swiss francs, Swedish krona, and Czech krona. We do not enter into foreign exchange derivative instruments for trading or speculative purposes. The notional amount of our option and forward contracts was $1,383.3 million and $949.5 million at January 31, 2019, and 2018, respectively.

We use foreign currency contracts to reduce the exchange rate impact on the net revenue and operating expenses of certain anticipated transactions. A sensitivity analysis performed on our hedging portfolio as of January 31, 2019, indicated that a hypothetical 10% appreciation of the U.S. dollar from its value at January 31, 2019 and 2018 would increase the fair value of our foreign currency contracts by $123.4 million and $57.9 million, respectively. A hypothetical 10% depreciation of the dollar from its value at January 31, 2019, and 2018 would decrease the fair value of our foreign currency contracts by $98.3 million and $83.2 million, respectively.

INTEREST RATE RISK

Interest rate movements affect both the interest income we earn on our short-term investments and the market value of certain longer term securities. At January 31, 2019, we had $443.7 million of cash equivalents and marketable securities, including $67.6 million classified as short-term marketable securities. If interest rates were to move up by 50 or 100 basis points over a twelve month period, the market value change of our marketable securities would not have a meaningful unrealized gain or loss.

In December 2018, we entered into a $500.0 million term loan facility, all of which was outstanding as of January 31, 2019. The term loan bears interest, at Autodesk's option, at either (i) a floating rate per annum equal to the base rate plus a margin between 0.000% and 0.625%, depending on Autodesk's Public Debt Rating or (ii) a per annum rate equal to the rate at which dollar deposits are offered in the London interbank market, plus a margin of between 0.875% and 1.625%, depending on Autodesk's Public Debt Rating. Based on Autodesk's current credit ratings the term loan bears interest at a per annum rate equal to the rate at which dollar deposits are offered in the London interbank market, plus a margin of 1.125% per annum. A hypothetical increase or decrease of 50 or 100 basis points would not have a material impact on our results of operations. The term loan facility matures in December 2020.

OTHER MARKET RISK

From time to time we make direct investments in privately held companies. Privately held company investments generally are considered inherently risky. The technologies and products these companies have under development are typically in the early stages and may never materialize, which could result in a loss of all or a substantial part of our initial investment in these companies. The evaluation of privately held companies is based on information that we request from these companies, which is not subject to the same disclosure regulations as U.S. publicly traded companies, and as such, the basis for these evaluations is subject to the timing and accuracy of the data received from these companies. See Part II, Item 8, Note 3, "Financial Instruments" in the Notes to Consolidated Financial Statements for further discussion regarding our privately held investments.

For information about exposure to counter-party credit-related losses, see Part II, Item 8, Note 1, “Business and Summary of Significant Accounting Policies - Concentration of Credit Risk."

AUTODESK, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In millions, except per share data)

	Fiscal year ended January 31,		
	2019	2018	2017
Net revenue:			
Subscription	$ 1,802.3	$ 894.3	$ 443.1
Maintenance	635.1	989.6	1,103.1
Total subscription and maintenance revenue	2,437.4	1,883.9	1,546.2
Other (1)	132.4	172.7	484.8
Total net revenue	2,569.8	2,056.6	2,031.0
Cost of revenue:			
Cost of subscription and maintenance revenue	216.0	214.4	191.7
Cost of other revenue (2)	54.4	72.6	110.2
Amortization of developed technology	15.5	16.4	40.0
Total cost of revenue	285.9	303.4	341.9
Gross profit	2,283.9	1,753.2	1,689.1
Operating expenses:			
Marketing and sales	1,183.9	1,087.3	1,022.5
Research and development	725.0	755.5	766.1
General and administrative	340.1	305.2	287.8
Amortization of purchased intangibles	18.0	20.2	31.8
Restructuring and other exit costs, net	41.9	94.1	80.5
Total operating expenses	2,308.9	2,262.3	2,188.7
Loss from operations	(25.0)	(509.1)	(499.6)
Interest and other expense, net	(17.7)	(48.2)	(24.2)
Loss before income taxes	(42.7)	(557.3)	(523.8)
Provision for income taxes	(38.1)	(9.6)	(58.3)
Net loss	$ (80.8)	$ (566.9)	$ (582.1)
Basic net loss per share	$ (0.37)	$ (2.58)	$ (2.61)
Diluted net loss per share	$ (0.37)	$ (2.58)	$ (2.61)
Weighted average shares used in computing basic net loss per share	218.9	219.5	222.7
Weighted average shares used in computing diluted net loss per share	218.9	219.5	222.7

(1) Previously labeled as "License and other" in prior periods.
(2) Previously labeled as "Cost of license and other revenue" in prior periods.

See accompanying Notes to Consolidated Financial Statements.

AUTODESK, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(In millions)

	Fiscal year ended January 31,		
	2019	2018	2017
Net loss	$ (80.8)	$ (566.9)	$ (582.1)
Other comprehensive (loss) income, net of reclassifications:			
Net gain (loss) on derivative instruments (net of tax effect of ($1.1), $3.2, and ($1.1))	31.6	(31.2)	(1.1)
Change in net unrealized gain (loss) on available-for-sale securities (net of tax effect of $0.0, $0.1, and ($0.5))	2.0	(0.2)	1.3
Change in defined benefit pension items (net of tax effect of ($2.0), ($0.7), and ($0.9))	13.0	4.5	(5.5)
Net change in cumulative foreign currency translation (loss) gain (net of tax effect of $0.5, ($4.8), and $0.2))	(57.8)	81.6	(52.1)
Total other comprehensive (loss) income	(11.2)	54.7	(57.4)
Total comprehensive loss	$ (92.0)	$ (512.2)	$ (639.5)

See accompanying Notes to Consolidated Financial Statements.

AUTODESK, INC.
CONSOLIDATED BALANCE SHEETS
(In millions, except per share data)

	January 31, 2019	January 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 886.0	$ 1,078.0
Marketable securities	67.6	245.2
Accounts receivable, net	474.3	438.2
Prepaid expenses and other current assets	192.1	116.5
Total current assets	1,620.0	1,877.9
Marketable securities	—	190.8
Computer equipment, software, furniture, and leasehold improvements, net	149.7	145.0
Developed technologies, net	105.6	27.1
Goodwill	2,450.8	1,620.2
Deferred income taxes, net	65.3	81.7
Other assets	337.8	170.9
Total assets	$ 4,729.2	$ 4,113.6
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	$ 101.6	$ 94.7
Accrued compensation	280.8	250.9
Accrued income taxes	13.2	28.0
Deferred revenue	1,763.3	1,551.6
Other accrued liabilities	142.3	198.0
Total current liabilities	2,301.2	2,123.2
Long-term deferred revenue	328.1	403.5
Long-term income taxes payable	21.5	41.6
Long-term deferred income taxes	79.8	66.6
Long-term notes payable, net	2,087.7	1,586.0
Long-term other liabilities	121.8	148.7
Commitments and contingencies		
Stockholders' deficit:		
Preferred stock, $0.01 par value; shares authorized 2.0; none issued or outstanding at January 31, 2019 and 2018	—	—
Common stock and additional paid-in capital, $0.01 par value; shares authorized 750.0; 219.4 outstanding at January 31, 2019 and 218.3 outstanding at January 31, 2018	2,071.5	1,952.7
Accumulated other comprehensive loss	(135.0)	(123.8)
Accumulated deficit	(2,147.4)	(2,084.9)
Total stockholders' deficit	(210.9)	(256.0)
Total liabilities and stockholders' deficit	$ 4,729.2	$ 4,113.6

See accompanying Notes to Consolidated Financial Statements.

2019 Annual Report

AUTODESK, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)

	Fiscal year ended January 31,		
	2019	2018	2017
Operating activities			
Net loss	$ (80.8)	$ (566.9)	$ (582.1)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation, amortization, and accretion	95.2	108.4	139.2
Stock-based compensation expense	249.5	261.4	221.8
Deferred income taxes	(6.8)	(39.1)	(38.8)
Restructuring and other exit costs, net	31.7	94.1	80.5
Other operating activities	2.2	7.3	(7.7)
Changes in operating assets and liabilities, net of business combinations:			
Accounts receivable	(25.4)	13.3	201.5
Prepaid expenses and other current assets	7.5	(9.9)	(13.5)
Accounts payable and accrued liabilities	(58.5)	(13.9)	2.7
Deferred revenue	197.0	168.3	267.0
Accrued income taxes	(34.5)	(22.1)	(100.9)
Net cash provided by operating activities	377.1	0.9	169.7
Investing activities			
Purchases of marketable securities	(138.2)	(514.0)	(1,867.9)
Sales of marketable securities	319.6	489.0	1,257.7
Maturities of marketable securities	211.4	594.3	1,057.2
Acquisitions, net of cash acquired	(1,040.2)	—	(85.2)
Capital expenditures	(67.0)	(50.7)	(76.0)
Other investing activities	4.0	(12.2)	(13.8)
Net cash (used in) provided by investing activities	(710.4)	506.4	272.0
Financing activities			
Proceeds from issuance of common stock	90.9	94.4	119.6
Taxes paid related to net share settlement of equity awards	(143.4)	(143.1)	(76.2)
Repurchase and retirement of common shares	(293.5)	(699.0)	(621.7)
Proceeds from debt, net of discount	500.0	496.9	—
Repayments of debt	—	(400.0)	—
Other financing activities	(2.1)	(5.8)	—
Net cash provided by (used in) financing activities	151.9	(656.6)	(578.3)
Effect of exchange rate changes on cash and cash equivalents	(10.6)	14.2	(3.3)
Net decrease in cash and cash equivalents	(192.0)	(135.1)	(139.9)
Cash and cash equivalents at beginning of fiscal year	1,078.0	1,213.1	1,353.0
Cash and cash equivalents at end of fiscal year	$ 886.0	$ 1,078.0	$ 1,213.1
Supplemental cash flow information:			
Cash paid during the year for interest	$ 59.0	$ 54.6	$ 47.6
Cash paid for income taxes, net of tax refunds	$ 78.0	$ 84.5	$ 77.7
Non-cash investing and financing activities:			
Fair value of equity awards assumed (See Note 6)	$ 10.3	$ —	$ —
Fair value of common stock issued as consideration for business combination (See Note 6)	$ 44.8	$ —	$ —

See accompanying Notes to Consolidated Financial Statements.

AUTODESK, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' (DEFICIT) EQUITY
(In millions)

	Common stock and additional paid-in capital		Accumulated other comprehensive loss	Accumulated deficit	Total stockholders' (deficit) equity
	Shares	Amount			
Balances, January 31, 2016	224.4	$ 1,821.5	$ (121.1)	$ (80.8)	$ 1,619.6
Common shares issued under stock plans	5.6	43.4	—	—	43.4
Stock-based compensation expense	—	221.8	—	—	221.8
Tax benefits from employee stock plans	—	6.9	—	113.0	119.9
Net loss	—	—	—	(582.1)	(582.1)
Other comprehensive loss	—	—	(57.4)	—	(57.4)
Repurchase and retirement of common shares	(9.7)	(217.3)	—	(414.3)	(631.6)
Balances, January 31, 2017	220.3	1,876.3	(178.5)	(964.2)	733.6
Common shares issued under stock plans	4.9	(48.7)	—	—	(48.7)
Stock-based compensation expense	—	261.4	—	—	261.4
Net loss	—	—	—	(566.9)	(566.9)
Other comprehensive income	—	—	54.7	—	54.7
Repurchase and retirement of common shares	(6.9)	(136.3)	—	(553.8)	(690.1)
Balances, January 31, 2018	218.3	1,952.7	(123.8)	(2,084.9)	(256.0)
Common shares issued under stock plans	3.0	(52.5)	—	—	(52.5)
Stock-based compensation expense	—	249.5	—	—	249.5
Pre-combination expense related to equity awards assumed	—	10.3	—	—	10.3
Cumulative effect of accounting changes	—	—	—	177.5	177.5
Net loss	—	—	—	(80.8)	(80.8)
Other comprehensive loss	—	—	(11.2)	—	(11.2)
Shares issued as consideration for business combination	0.3	44.8	—	—	44.8
Repurchase and retirement of common shares	(2.2)	(133.3)	—	(159.2)	(292.5)
Balances, January 31, 2019	219.4	$ 2,071.5	$ (135.0)	$ (2,147.4)	$ (210.9)

See accompanying Notes to Consolidated Financial Statements.

1. Business and Summary of Significant Accounting Policies

Business

Autodesk, Inc. ("Autodesk" or the "Company") is a world leading design software and services company, offering customers productive business solutions through powerful technology products and services. The Company serves customers in the architecture, engineering, and construction; manufacturing; and digital media, consumer, and entertainment industries. The Company's sophisticated software products, offered through a hybrid of desktop and cloud functionality, enable its customers to experience their ideas before they are real by allowing them to imagine, design, and create their ideas and to visualize, simulate, and analyze real-world performance early in the design process by creating digital prototypes. These capabilities allow Autodesk's customers to foster innovation, optimize and improve their designs, help save time and money, improve quality, and collaborate with others. Autodesk software products are sold globally, both directly to customers and through a network of resellers and distributors.

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of Autodesk and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles ("GAAP") requires management to make estimates and assumptions that affect the amounts reported in Autodesk's consolidated financial statements and notes thereto. These estimates are based on information available as of the date of the consolidated financial statements. On a regular basis, management evaluates these estimates and assumptions. Actual results may differ materially from these estimates.

Examples of significant estimates and assumptions made by management involve revenue recognition for our hybrid desktop software and cloud service subscriptions, the determination of the fair value of acquired assets and liabilities, goodwill, financial instruments including strategic investments, long-lived assets and other intangible assets, the realizability of deferred tax assets, and the fair value of stock awards. The Company also makes assumptions, judgments, and estimates in determining the accruals for uncertain tax positions, variable compensation, partner incentive programs, product returns reserves, allowances for doubtful accounts, asset retirement obligations, and legal contingencies.

Foreign Currency Translation and Transactions

The assets and liabilities of Autodesk's foreign subsidiaries are translated from their respective functional currencies into U.S. dollars at the rates in effect at the balance sheet date, and revenue and expense amounts are translated at exchange rates that approximate those rates in effect during the period in which the underlying transactions occur. Foreign currency translation adjustments are recorded as other comprehensive (loss) income.

Gains and losses realized from foreign currency transactions, those transactions denominated in currencies other than the foreign subsidiary's functional currency, are included in "Interest and other expense, net". Monetary assets and liabilities are remeasured using foreign currency exchange rates at the end of the period, and non-monetary assets are remeasured based on historical exchange rates.

Derivative Financial Instruments

Autodesk accounts for its derivative instruments as either assets or liabilities on the balance sheet and carries them at fair value. Gains and losses resulting from changes in fair value are accounted for depending on the use of the derivative and whether it is designated and qualifies for hedge accounting. Derivatives that do not qualify for hedge accounting are adjusted to fair value through earnings. See Note 3, "Financial Instruments" for information regarding Autodesk's hedging activities.

Cash and Cash Equivalents

Autodesk considers all highly liquid investments with insignificant interest rate risk and remaining maturities of three months or less at the date of purchase to be cash equivalents. Cash equivalents are recorded at cost, which approximates fair value.

Marketable Securities and Privately Held Company Investments

Marketable securities are stated at fair value. Marketable securities maturing within one year that are not restricted are classified as current assets. Substantially all marketable debt and equity investments held by Autodesk are classified as current based on the nature of the investments and their availability for use in current operations.

Autodesk determines the appropriate classification of its marketable securities at the time of purchase and re-evaluates such classification as of each balance sheet date. Autodesk carries all “available-for-sale securities” at fair value, with unrealized gains and losses, net of tax, reported in stockholders’ equity (deficit) until disposition or maturity. Autodesk carries all “trading securities” at fair value, with unrealized gains and losses, recorded in “Interest and other expense, net” in the Company’s Consolidated Statements of Operations. The cost of securities sold is based on the specific-identification method.

Privately held debt and equity securities (Level 3) are valued using significant unobservable inputs or data in an inactive market and the valuation requires the Company's judgment due to the absence of market prices and inherent lack of liquidity. These assumptions are inherently subjective and involve significant management judgment. Whenever possible, we use observable market data and rely on unobservable inputs only when observable market data is not available, when determining fair value.

The carrying value is not adjusted for the Company's privately held equity securities if there are no observable price changes in a same or similar security from the same issuer or if there are no identified events or changes in circumstances that may indicate impairment, as discussed below. In determining the estimated fair value of its strategic investments in privately held companies, the Company utilizes the most recent data available to the Company. In addition, the determination of whether an orderly transaction is for a same or similar investment requires significant management judgment including: the rights and obligations of the investments, the extent to which those differences would affect the fair values of those investments, and the impact of any differences based on the stage of operational development of the investee.

All of Autodesk’s marketable securities and privately held company investments are subject to a periodic impairment review. For any marketable debt securities, declines in fair value judged to be other-than-temporary on securities available for sale are included as a reduction to investment income. To determine whether a decline in value is other-than-temporary, the Company evaluates, among other factors: the duration and extent to which the fair value has been less than the carrying value and its intent and ability to retain the investment for a period of time sufficient to allow for any anticipated recovery in fair value. For the purposes of computing realized and unrealized gains and losses, the cost of securities sold is based on the specific-identification method. Interest on securities classified as available for sale is also included as a component of investment income.

For Autodesk's quarterly impairment assessment of privately held debt and equity securities strategic investment portfolio, the analysis encompasses an assessment of the severity and duration of the impairment and qualitative and quantitative analysis of other key factors including: the investee’s financial metrics, the investee’s products and technologies meeting or exceeding predefined milestones, market acceptance of the product or technology, other competitive products or technology in the market, general market conditions, management and governance structure of the investee, the investee’s liquidity, debt ratios and the rate at which the investee is using its cash. If the investment is considered to be impaired, the Company will record the investment at fair value by recognizing an impairment through the consolidated statement of operations and establishing a new carrying value for the investment.

For additional information, see “Concentration of Credit Risk” within this Note 1 and Note 3, “Financial Instruments.”

Accounts Receivable, Net

Accounts receivable, net, consisted of the following as of January 31:

	2019	2018
Trade accounts receivable	$ 526.6	$ 469.2
Less: Allowance for doubtful accounts	(2.2)	(2.3)
Product returns reserve	(0.3)	(0.2)
Partner programs and other obligations	(49.8)	(28.5)
Accounts receivable, net (1)	$ 474.3	$ 438.2

(1) Autodesk adopted ASU No. 2014-09, "Revenue from Contracts with Customers" regarding Accounting Standards Codification (ASC Topic 606) during the first quarter of fiscal 2019. As such, current year balances are shown under ASC Topic 606 and prior year balances are shown under ASC Topic 605. See Note 1, "Business and Summary of Significant Accounting Policies-Accounting Standards Adopted", of our consolidated financial statements for additional information.

Allowances for uncollectible trade receivables are based upon historical loss patterns, the number of days that billings are past due, and an evaluation of the potential risk of loss associated with problem accounts.

As part of the indirect channel model, Autodesk has a partner incentive program that uses quarterly attainment of monetary rewards to motivate distributors and resellers to achieve mutually agreed upon business goals in a specified time period. A portion of these incentives reduce maintenance and other revenue in the current period. The remainder, which relates to incentives on our Subscription Program, is recorded as a reduction to deferred revenue in the period the subscription transaction is billed and subsequently recognized as a reduction to subscription revenue over the contract period. These incentive balances do not require significant assumptions or judgments. Depending on how the payments are made, the reserves associated with the partner incentive program are treated on the balance sheet as either contra accounts receivable or accounts payable.

Concentration of Credit Risk

Autodesk places its cash, cash equivalents, and marketable securities in highly liquid instruments with, and in the custody of, multiple diversified financial institutions globally with high credit ratings and limits the amounts invested with any one institution, type of security, and issuer. Autodesk's primary commercial banking relationship is with Citigroup Inc. and its global affiliates. Citibank, N.A., an affiliate of Citigroup, is one of the lead lenders and an agent in the syndicate of Autodesk's $650.0 million line of credit facility.

The bank counterparties to the derivative contracts potentially expose Autodesk to credit-related losses in the event of their nonperformance. However, to mitigate that risk, Autodesk only contracts with counterparties who meet the Company's minimum requirements under its counterparty risk assessment process. Autodesk monitors counterparty risk on at least a quarterly basis and will adjust its exposure to various counterparties as necessary. Autodesk generally enters into master netting arrangements, which reduce credit risk by permitting net settlement of transactions with the same counterparty. However, Autodesk does not have any master netting arrangements in place with collateral features.

Autodesk's accounts receivable are derived from sales to a large number of resellers, distributors, and direct customers in the Americas, EMEA, and APAC geographies. Autodesk performs ongoing evaluations of these partners' and customers' financial condition and limits the amount of credit extended when deemed necessary, but generally does not require collateral from such parties. Total sales to the Company's largest distributor Tech Data Corporation, and its global affiliates ("Tech Data"), accounted for 35%, 31%, and 30% of Autodesk's net revenue for fiscal years ended January 31, 2019, 2018, and 2017, respectively. The majority of the net revenue from sales to Tech Data is for sales made outside of the United States. In addition, Tech Data accounted for 29% and 31% of trade accounts receivable as of January 31, 2019, and 2018, respectively. No other customer accounted for more than 10% of Autodesk's total net revenue or trade accounts receivable for each of the respective periods.

Computer Equipment, Software, Furniture, and Leasehold Improvements, Net

Computer equipment, software, and furniture are depreciated using the straight-line method over the estimated useful lives of the assets, which range from three to five years. Leasehold improvements are amortized on a straight-line basis over the shorter of their estimated useful lives or the lease term. Depreciation expense was $59.2 million in fiscal 2019, $67.6 million in fiscal 2018, and $73.1 million in fiscal 2017.

Computer equipment, software, furniture, leasehold improvements and the related accumulated depreciation at January 31 were as follows:

	2019	2018
Computer hardware, at cost	$ 190.2	$ 217.1
Computer software, at cost	66.7	72.6
Leasehold improvements, land and buildings, at cost	247.8	228.9
Furniture and equipment, at cost	67.2	63.4
Computer software, hardware, leasehold improvements, furniture, and equipment, at cost	571.9	582.0
Less: Accumulated depreciation	(422.2)	(437.0)
Computer software, hardware, leasehold improvements, furniture, and equipment, net	$ 149.7	$ 145.0

Costs incurred for computer software developed or obtained for internal use are capitalized for application development activities, if material, and immediately expensed for preliminary project activities and post-implementation activities. These capitalized costs are amortized over the software's expected useful life, which is generally three years.

Software Development Costs

Software development costs incurred prior to the establishment of technological feasibility are included in research and development expenses. Autodesk defines establishment of technological feasibility as the completion of a working model. Software development costs incurred subsequent to the establishment of technological feasibility through the period of general market availability of the products are capitalized and generally amortized over a three-year period, if material. Autodesk had no material capitalized software development costs at January 31, 2019, and January 31, 2018.

Other Intangible Assets, Net

Other intangible assets include developed technologies, customer relationships, trade names, patents, user lists and the related accumulated amortization. These assets are shown as "Developed technologies, net" and as part of "Other assets" in the Consolidated Balance Sheet. The majority of Autodesk's other intangible assets are amortized to expense over the estimated economic life of the product, which ranges from two to ten years. Amortization expense for developed technologies, customer relationships, trade names, patents, and user lists was $33.5 million in fiscal 2019, $36.6 million in fiscal 2018 and $72.2 million in fiscal 2017.

Other intangible assets and related accumulated amortization at January 31 were as follows:

	2019	2018
Developed technologies, at cost	$ 670.2	$ 578.5
Customer relationships, trade names, patents, and user lists, at cost (1)	533.1	372.5
Other intangible assets, at cost (2)	1,203.3	951.0
Less: accumulated amortization	(922.5)	(895.8)
Other intangible assets, net	$ 280.8	$ 55.2

(1) Included in "Other assets" in the accompanying Consolidated Balance Sheets.
(2) Includes the effects of foreign currency translation.

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The weighted average amortization period for developed technologies, customer relationships, trade names, patents, and user lists during fiscal 2019 was 5.4 years. Excluding in-process research and development, expected future amortization expense for developed technologies, customer relationships, trade names, patents, and user lists for each of the fiscal years ended thereafter is as follows:

	Fiscal Year ended January 31,
2020	$ 73.6
2021	64.8
2022	49.1
2023	37.6
Thereafter	19.2
Total	$ 244.3

Goodwill

Goodwill consists of the excess of the consideration transferred over the fair value of net assets acquired in business combinations. Autodesk tests goodwill for impairment annually in its fourth fiscal quarter or more often if circumstances indicate a potential impairment may exist, or if events have affected the composition of reporting units.

When goodwill is assessed for impairment, Autodesk has the option to perform an assessment of qualitative factors of impairment (“optional assessment”) prior to necessitating a quantitative impairment test. Should the optional assessment be used for any given fiscal year, qualitative factors to consider include cost factors; financial performance; legal, regulatory, contractual, political, business, or other factors; entity specific factors; industry and market considerations, macroeconomic conditions, and other relevant events and factors affecting the reporting unit. If, after assessing the totality of events or circumstances, it is more likely than not that the fair value of the reporting unit is greater than its carrying value, then performing the quantitative impairment test is unnecessary.

The quantitative impairment test is necessary when either Autodesk does not use the optional assessment or, as a result of the optional assessment, it is not more likely than not that the fair value of the reporting unit is greater than its carrying value. In situations in which an entity's reporting unit is publicly traded, the fair value of the Company may be approximated by its market capitalization, in performing the quantitative impairment test.

Goodwill impairment exists when the estimated fair value of goodwill is less than its carrying value. If impairment exists, the carrying value of the goodwill is reduced to fair value through an impairment charge recorded in the Company's statements of operations. The process of evaluating the potential impairment of goodwill is subjective and requires significant judgment at many points during the analysis. The value of Autodesk’s goodwill could also be impacted by future adverse changes such as: (i) declines in Autodesk’s actual financial results, (ii) a sustained decline in Autodesk’s market capitalization, (iii) a significant slowdown in the worldwide economy or the industries Autodesk serves, or (iv) changes in Autodesk’s business strategy.

For the annual impairment test, Autodesk's market capitalization was substantially in excess of the carrying value of the Company as of January 31, 2019. Accordingly, Autodesk has determined there was no goodwill impairment during the fiscal year ended January 31, 2019. In addition, Autodesk did not recognize any goodwill impairment losses in fiscal 2018 or 2017.

The following table summarizes the changes in the carrying amount of goodwill during the fiscal years ended January 31, 2019 and 2018:

	January 31, 2019	January 31, 2018
Goodwill, beginning of the year	$ 1,769.4	$ 1,710.3
Less: accumulated impairment losses, beginning of the year	(149.2)	(149.2)
Additions arising from acquisitions during the year	866.9	—
Effect of foreign currency translation, measurement period adjustments, and other (1)	(36.3)	59.1
Goodwill, end of the year	$ 2,450.8	$ 1,620.2

(1) Purchase accounting adjustments reflect revisions made to the Company's preliminary determination of estimated fair value of assets and liabilities assumed during fiscal 2019 and 2018.

Impairment of Long-Lived Assets

At least annually or more frequently as circumstances dictate, Autodesk reviews its long-lived assets for impairment whenever impairment indicators exist. Autodesk continually monitors events and changes in circumstances that could indicate the carrying amounts of its long-lived assets may not be recoverable. When such events or changes in circumstances occur, Autodesk assesses recoverability of these assets. Recoverability is measured by comparison of the carrying amounts of the assets to the future undiscounted cash flow the assets are expected to generate. If the long-lived assets are considered to be impaired, the impairment to be recognized is equal to the amount by which the carrying value of the assets exceeds its fair market value. Autodesk did not recognize any material impairments of long-lived assets during the fiscal years ended January 31, 2019, 2018, and 2017, respectively.

In addition to the recoverability assessments, Autodesk routinely reviews the remaining estimated useful lives of its long-lived assets. Any reduction in the useful life assumption will result in increased depreciation and amortization expense in the quarter when such determinations are made, as well as in subsequent quarters.

Deferred Tax Assets

Deferred tax assets arise primarily from tax credits, net operating losses, and timing differences for reserves, accrued liabilities, stock options, deferred revenue, purchased technologies, and capitalized intangibles, partially offset by U.S. deferred tax liabilities on acquired intangibles, and valuation allowances against U.S. and foreign deferred tax assets. Autodesk performed a quarterly assessment of the recoverability of these net deferred tax assets and believes it will generate sufficient future taxable income in appropriate tax jurisdictions to realize the net deferred tax assets. They are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to reverse. Valuation allowances are established when necessary to reduce gross deferred tax assets to the amount that is "more likely than not" to be realized.

Stock-based Compensation Expense

The following table summarizes stock-based compensation expense for fiscal 2019, 2018, and 2017, respectively, as follows:

	Fiscal Year Ended January 31,		
	2019	2018	2017
Cost of subscription and maintenance revenue	$ 13.2	$ 11.9	$ 8.6
Cost of other revenue	4.3	4.0	5.5
Marketing and sales	109.4	107.3	94.1
Research and development	82.6	82.9	81.3
General and administrative	40.0	55.3	32.3
Stock-based compensation expense related to stock awards and Employee Qualified Stock Purchase Plan ("ESPP") purchases	249.5	261.4	221.8
Tax benefit	(2.6)	(2.6)	(2.6)
Stock-based compensation expense related to stock awards and ESPP purchases, net	$ 246.9	$ 258.8	$ 219.2

Autodesk determines the grant date fair value of its share-based payment awards using a Black-Scholes Merton ("BSM") option pricing model or the quoted stock price on the date of grant, unless the awards are subject to market conditions, in which case Autodesk uses a binomial-lattice model (e.g., Monte Carlo simulation model). The Monte Carlo simulation model utilizes multiple input variables to estimate the probability that market conditions will be achieved. Autodesk uses the following assumptions to estimate the fair value of stock-based awards:

	Fiscal Year Ended January 31, 2019			**Fiscal Year Ended January 31, 2018**		**Fiscal Year Ended January 31, 2017**	
	Stock Option Plans	**Performance Stock Unit**	**ESPP**	**Performance Stock Unit**	**ESPP**	**Performance Stock Unit**	**ESPP**
Range of expected volatilities	37 - 42%	36%	33 - 38%	32%	31 - 34%	38 - 39%	30 - 40%
Range of expected lives (in years)	0.5 - 3.8	N/A	0.5 - 2.0	N/A	0.5 - 2.0	N/A	0.5 - 2.0
Expected dividends	—%	—%	—%	—%	—%	—%	—%
Range of risk-free interest rates	2.3 - 2.7%	2.0%	1.9 - 2.8%	1.0 - 1.2%	0.9 - 1.4%	0.6 - 0.7%	0.5 - 0.9%

Autodesk estimates expected volatility for stock-based awards based on the average of the following two measures: (1) a measure of historical volatility in the trading market for the Company’s common stock, and (2) the implied volatility of traded forward call options to purchase shares of the Company’s common stock. The expected volatility for performance stock units subject to market conditions includes the expected volatility of Autodesk's peer companies within the S&P Computer Software Select Index or S&P North American Technology Software Index with a market capitalization over $2.00 billion, depending on the award type.

Autodesk estimates the expected life of stock-based awards using both exercise behavior and post-vesting termination behavior as well as consideration of outstanding options. The range of expected lives of ESPP awards are based upon the four, six-month exercise periods within a 24-month offering period.

Autodesk did not pay cash dividends in fiscal 2019, 2018, or 2017 and does not anticipate paying any cash dividends in the foreseeable future. Consequently, an expected dividend yield of zero is used in the BSM option pricing model and the Monte Carlo simulation model.

The risk-free interest rate used in the BSM option pricing model and the Monte Carlo simulation model for stock-based awards is the historical yield on U.S. Treasury securities with equivalent remaining lives.

Autodesk recognizes expense only for the stock-based awards that ultimately vest. Autodesk accounts for forfeitures of stock-based awards as those forfeitures occur.

Advertising Expenses

Advertising costs are expensed as incurred. Total advertising expenses incurred were $37.5 million in fiscal 2019, $31.1 million in fiscal 2018, and $33.6 million in fiscal 2017.

Net Loss Per Share

Basic net loss per share is computed based on the weighted average number of shares of common stock outstanding for the period, excluding stock options and restricted stock. Diluted net loss per share is computed based upon the weighted average shares of common shares outstanding for the period and potentially dilutive common shares, including the effect of stock options and restricted stock units under the treasury stock method.

Defined Benefit Pension Plans

The funded status of Autodesk's defined benefit pension plans is recognized in the Consolidated Balance Sheets. The funded status is measured as the difference between the fair value of plan assets and the projected benefit obligation for the fiscal years presented. The projected benefit obligation represents the actuarial present value of benefits expected to be paid upon retirement based on employee services already rendered and estimated future compensation levels. The fair value of plan assets represents the current market value of Autodesk's cumulative company and participant contributions made to the various plans in effect.

Net periodic benefit cost is recorded in the Consolidated Statements of Operations and includes service cost, interest cost, expected return on plan assets, amortization of prior service costs, and gains or losses previously recognized as a component of other comprehensive loss. Certain events, such as changes in the employee base, plan amendments, and changes in actuarial assumptions may result in a change in the defined benefit obligation and the corresponding change to other comprehensive loss.

Gains and losses and prior service costs not recognized as a component of net periodic benefit cost in the Consolidated Statements of Operations as they arise are recognized as a component of other comprehensive (loss) income in the Consolidated Statements of Comprehensive Loss. Those gains and losses and prior service costs are subsequently amortized as a component of net periodic benefit cost over the average remaining service lives of the plan participants using a corridor approach to determine the portion of gain or loss subject to amortization.

The measurement of projected benefit obligations and net periodic benefit cost is based on estimates and assumptions that reflect the terms of the plans and use participant-specific information such as compensation, age and years of services, as well as certain assumptions, including estimates of discount rates, expected return of plan assets, rate of compensation increases, interest rates, and mortality rates.

Accounting Standards in Fiscal 2019

With the exception of those discussed below, there have been no recent changes in accounting pronouncements issued by FASB or adopted by the Company during the fiscal year ended January 31, 2019, that are applicable to the Company.

Accounting Standards Adopted

Effective in the third quarter of fiscal 2019, Autodesk early adopted ASU No. 2018-15, "Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that is a Service Contract." The ASU allows implementation costs incurred by customers in cloud computing arrangements to be deferred and recognized over the term of the arrangement. The ASU also requires amortization expense be recognized in the same line item as the related fees associated with the arrangement and related capitalized implementation costs be presented in the same line as the prepayment for the hosting fee. Changes to Autodesk's disclosures appear in this filing. The new guidance was applied prospectively to eligible costs as of August 1, 2018, and did not have a material impact on our Consolidated Financial Statements.

In August 2018, as part of FASB’s Disclosure Framework project, FASB issued ASU No. 2018-14, "Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20): Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans," and ASU No. 2018-13, "Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement." FASB issued these ASUs to help improve the effectiveness of disclosures in the notes to financial statements by facilitating clear communication of the information required by GAAP that is most important to users of each entity’s financial statements. Effective in the third quarter of fiscal 2019, Autodesk early adopted ASU No. 2018-14 and ASU No. 2018-13. Most changes required retrospective application with a few exceptions in ASU No. 2018-13 that allowed for prospective adoption.

Effective in the first quarter of fiscal 2019, Autodesk adopted FASB Accounting Standards Update ("ASU") No. 2017-05, "Other Income– Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20): Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets." The ASU, among other things, clarifies the scope of the derecognition of nonfinancial assets, provides the definition of in-substance financial assets, and impacts the accounting for partial sales of nonfinancial assets by requiring full gain recognition upon the sale. The new guidance was adopted prospectively as there was no impact on the Company's prior periods consolidated statements of financial position and results of operations which would be reflected in either the full or modified retrospective transition approach. The future effect of the adoption will depend upon the nature of the Company's future dispositions, if any.

Effective in the first quarter of fiscal 2019, Autodesk adopted FASB ASU No. 2017-01, "Business Combinations: Clarifying the Definition of a Business" which provides a more robust framework to use in determining when a set of assets and activities is considered a business. The new guidance was applied on a prospective basis and the adoption did not have any impact on Autodesk's consolidated financial statements. Any future effect of the adoption will depend upon the nature of the Company's future acquisitions, if any.

Effective in the first quarter of fiscal 2019, Autodesk adopted FASB ASU No. 2016-16, “Income Taxes: Intra-Entity Transfers of Assets Other than Inventory” which requires that entities recognize the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. The new guidance was applied on a modified retrospective basis with a cumulative increase of $1.9 million to the opening balance of "Accumulated deficit" at February 1, 2018. The ASU did not have any other material impacts on Autodesk's Consolidated Financial Statements.

Effective in the first quarter of fiscal 2019, Autodesk adopted FASB ASU No. 2016-01 regarding Accounting Standards Codification ("ASC") Topic 825-10, "Financial Instruments - Overall." The amendments address certain aspects of recognition, measurement, presentation, and disclosure of financial instruments, and require equity securities to be measured at fair value, unless the measurement alternative method has been elected for equity investments without readily determinable fair values ("non-marketable equity securities"), with changes in fair value recognized through net income. The amendments also simplify the impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment for impairment quarterly at each reporting period. Under the measurement alternative method, the non-marketable equity securities will be measured at cost, less any impairment, plus or minus adjustments resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer, which will be recorded within the Consolidated Statement of Operations. The determination of whether a transaction is for a similar investment will require significant management judgment including consideration of the rights and obligations between the investments and the extent to which those differences would affect the fair values of those investments with additional consideration for the stage of development of the investee company.

Autodesk prospectively adopted the amendments related to non-marketable equity securities existing as of the date of adoption. The new standard may add volatility to the Company's statements of operations in future periods, due to changes in market prices of the Company's investments in publicly held equity investments and the valuation and timing of observable price changes and impairments of its investments in non-marketable securities. See Note 3, "Financial Instruments" for more information.

Revenue from contracts with customers

Effective in the first quarter of fiscal 2019, Autodesk adopted ASU No. 2014-09, “Revenue from Contracts with Customers" regarding Accounting Standards Codification (ASC Topic 606)” and the subsequent and related ASU No. 2015-14, ASU No. 2016-08, ASU No. 2016-10, ASU No. 2016-12, and ASU No. 2016-20.

Under ASC Topic 606, the Company has concluded that the desktop software and related substantial cloud functionality that are included in the majority of its product subscription offerings and enterprise arrangements are not distinct in the context of the contract as they are considered highly interrelated and represent a single combined performance obligation that should be recognized over time. Therefore, the adoption of ASC Topic 606 has not resulted in a material change in the timing and amount of the recognition of revenue for the majority of the Company's product subscription offerings and enterprise arrangements.

One impact of the new standard relates to product subscriptions that do not incorporate substantial cloud functionality. A limited number of Autodesk's product subscriptions do not incorporate substantial cloud functionality, and therefore are not considered highly interrelated. Under ASU No. 2014-09, these limited number of product subscriptions are recognized as separate and distinct license and service performance obligations. Under ASU No. 2009-13, "Revenue Recognition" regarding Accounting Standards Codification (ASC Topic 605), licenses sold with undelivered elements without vendor-specific objective evidence ("VSOE") are recognized ratably over the term of the undelivered elements. Under ASC Topic 606, Autodesk is no longer required to establish VSOE to recognize software license revenue separately from the other elements and recognizes software licenses once the customer obtains control of the license, which is generally upon delivery of the license. Therefore, revenue allocated to the licenses in these offerings under ASC Topic 606 is recognized at a point in time instead of over the contract term.

Autodesk adopted ASC Topic 606 using the modified retrospective method, with a cumulative decrease of $89.0 million to the opening balance of "Accumulated deficit" at February 1, 2018. Autodesk applied the standard only to contracts that are not completed as of the date of initial application. The comparative information has not been adjusted and continues to be reported under ASC Topic 605. The details of the quantitative impact of the adoption on the fiscal year ended January 31, 2019, are shown below. See the Note 2, "Revenue Recognition" for more details.

Costs to acquire a contract from a customer

With the adoption of ASC Topic 606, Autodesk also adopted ASC Topic 340-40, "Other Assets and Deferred Costs—Contracts with Customers." Prior to the adoption of ASC Topic 340-40, Autodesk previously recognized compensation paid to sales employees and certain resellers related to obtaining customer contracts in marketing and sales expense in the Consolidated Statements of Operations when incurred. Under ASC Topic 340-40, Autodesk capitalizes this sales compensation as contract costs when they are incremental, directly incurred to obtain a contract with a customer and expected to be recoverable. The contract costs are amortized based on the transfer of goods or services to which the contract costs relate.

Under the modified retrospective method, Autodesk booked a cumulative decrease of $90.4 million to the opening balance of "Accumulated deficit" at February 1, 2018. The comparative information has not been adjusted and continues to be reported as incurred. The details of the quantitative impact of the adoption on the fiscal year ended January 31, 2019, are shown below. See Note 7, "Deferred Compensation" for disclosures under the new standard.

Quantitative effect of ASC Topics 606 and 340-40 adoption

Under the modified retrospective adoption, Autodesk calculated the impact of the adoption during fiscal 2019, as the first year of adoption. The following table shows select line items that were materially impacted by the adoption of ASC Topics 606 and 340-40 on Autodesk's Consolidated Statements of Operations for the fiscal year ended January 31, 2019:

	For the Fiscal Year ended January 31, 2019		
	As reported	Impact from the adoption of ASC 606 and 340-40	As adjusted
Net revenue (1)			
Subscription	$ 1,802.3	$ (16.6)	$ 1,785.7
Maintenance	635.1	5.7	640.8
Other	132.4	(11.3)	121.1
Cost of revenue (1)			
Cost of subscription and maintenance revenue	216.0	(0.1)	215.9
Cost of other revenue	54.4	1.1	55.5
Operating expenses (1):			
Marketing and sales	1,183.9	(17.9)	1,166.0
Provision for income taxes	(38.1)	(4.8)	(42.9)
Net loss (2)	$ (80.8)	$ (10.1)	$ (90.9)
Basic net loss per share	$ (0.37)	$ (0.05)	$ (0.42)
Diluted net loss per share	$ (0.37)	$ (0.05)	$ (0.42)

(1) While not shown here, gross margin, loss from operations, and loss before income taxes have consequently been affected as a result of the net effect of the adjustments noted above.

(2) The impact on the Consolidated Statements of Comprehensive Loss is limited to the net effects of the impacts noted above on the Consolidated Statements of Operations, specifically on the line item "Net loss."

The following table shows select line items that were materially impacted by the adoption of ASC Topics 606 and 340-40 on Autodesk's Consolidated Balance Sheet as of January 31, 2019:

	As reported	Impact from the adoption of ASC 606 and 340-40	As adjusted
ASSETS			
Current assets:			
Accounts receivable, net	$ 474.3	$ 73.4	$ 547.7
Prepaid expenses and other current assets (1)	192.1	(79.4)	112.7
Deferred income taxes, net	65.3	7.0	72.3
Other assets (1)	337.8	(17.9)	319.9
LIABILITIES AND STOCKHOLDERS' DEFICIT			
Current liabilities:			
Deferred revenue	1,763.3	140.6	1,903.9
Other accrued liabilities	142.3	1.7	144.0
Long-term deferred revenue	328.1	37.2	365.3
Long-term income taxes payable	21.5	(0.2)	21.3
Long-term deferred income taxes	79.8	(6.7)	73.1
Stockholders' deficit:			
Accumulated deficit (2)	$ (2,147.4)	$ (189.5)	$ (2,336.9)

(1) Short term and long term "contract assets" under ASC Topic 606 are included within "Prepaid expenses and other current assets" and "Other assets", respectively, on the Consolidated Balance Sheet.

(2) Included in the "Accumulated deficit" adjustment is $179.4 million for the cumulative effect adjustment of adopting ASC Topic 606 and 340-40 on the opening balance as of February 1, 2018.

Adoption of the standard had no impact to net cash provided by or (used in) operating, financing, or investing activities on the Company's Consolidated Statements of Cash Flows.

Recently Issued Accounting Standards But Not Yet Adopted

In February 2018, FASB issued ASU No. 2018-02, "Income Statement-Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income." The amendment allows entities to reclassify stranded tax effects resulting from the Tax Cuts and Jobs Act from accumulated other comprehensive income to retained earnings. The amendment only impacts the income tax effect of the passage of the Tax Cuts and Jobs Act but does not affect the underlying guidance that requires that the effect of a change in tax laws or rates be included in income from continuing operations. The amendment is effective for Autodesk's fiscal year beginning February 1, 2019. Autodesk currently expects the impact to stockholders' deficit and other comprehensive loss to be approximately $1.3M.

In August 2017, FASB issued ASU No. 2017-12, "Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities." The amendment helps simplify certain aspects of hedge accounting and results in a more accurate portrayal of the economics of an entity's risk management activities in its financial statements. For cash flow and net investment hedges as of the adoption date, the guidance requires a modified retrospective approach. The amended presentation and disclosure guidance is required only prospectively. Autodesk will adopt the amendment for the fiscal year beginning February 1, 2019, the required adoption date. The transition impact, if any, is expected to be immaterial and no substantive changes are expected to Autodesk's current processes, accounting, or disclosures for cash flow hedges.

In June 2016, FASB issued ASU No. 2016-13 regarding ASC Topic 326, "Financial Instruments - Credit Losses," which modifies the measurement of expected credit losses of certain financial instruments. Autodesk plans to adopt ASU No. 2016-13 as of the effective date which represents Autodesk's fiscal year beginning February 1, 2020. Autodesk does not believe the ASU will have a material impact on its consolidated financial statements.

In February 2016, FASB issued ASU No. 2016-02, Leases (ASC Topic 842) to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing transactions. The new standard requires entities to reflect the net present value of all future fixed lease payments for both operating and finance leases. It also requires entities to disclose fixed and variable lease payments separately and by lease type (operating vs. finance leases). In addition, FASB issued ASU No. 2018-10 and 2018-11 in July 2018 and ASU No. 2018-20 in December 2018 to help provide interpretive clarifications on various issues raised by stakeholders. ASU No. 2018-10 clarifies ambiguous or potentially conflicting guidance in ASU No. 2016-02 but is not expected to have a material impact on Autodesk. ASU No. 2018-11 provides an additional transition option to apply ASU No. 2016-02 upon adoption of the new standard. ASU No. 2018-20 allows lessors, as an accounting policy election, to treat sales taxes and other similar taxes as lessee costs only. ASU No. 2018-20 also requires lessors to exclude certain lessor costs paid by lessees directly to third parties from its variable payments, and therefore revenue, and requires lessors to allocate other variable payments to be allocated between lease and nonlease components.

Autodesk will adopt ASU No. 2016-02 as of February 1, 2019 using the modified retrospective method permitted under ASC No. 2018-11 for all existing leases. Under ASU No. 2016-02, Autodesk is required to recognize an asset and offsetting liability upon adoption. The asset and liability are measured by taking the present value of all future fixed lease payments, discounted using the Company's incremental borrowing rate. Autodesk has elected to opt for the practical expedients to not reassess whether any existing contracts are leases or contain a lease, not reassess the lease classification of existing leases, not reassess initial direct costs for existing leases, and to combine lease and non-lease components for new leases post adoption.

In preparation for adoption of the standard, Autodesk is implementing key systems, processes and internal controls to enable the preparation of financial information. ASC No. 2016-02 will have a material impact on the Company's consolidated balance sheet because of the capitalization of future fixed lease payments. ASU No. 2016-02 is not expected to have a material impact to the Company's consolidated statement of operations or net cash provided by operating activities.

2. Revenue Recognition

Revenue Recognition

Autodesk's revenue is divided into three categories: subscription revenue, maintenance revenue, and other revenue. Revenue is recognized when control for these offerings is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for products and services.

Our contracts with customers may include promises to transfer multiple products and services to a customer. Determining whether the products and services are considered distinct performance obligations that should be accounted for separately or as one combined performance obligation may require significant judgment. Judgment is required to determine the level of integration and interdependency between individual components of software and cloud functionality. This determination influences whether the software is considered distinct and accounted for separately as a license performance obligation, or not distinct and accounted for together with the cloud functionality as a single subscription performance obligation recognized over time.

For product subscriptions and enterprise business agreement ("EBA") subscriptions in which the desktop software and related cloud functionality are highly interrelated, the combined performance obligation is recognized ratably over the contract term as the obligation is delivered. For contracts involving distinct software licenses, the license performance obligation is satisfied at a point in time when control is transferred to the customer. For standalone maintenance subscriptions, cloud subscriptions, and technical support services, the performance obligation is satisfied ratably over the contract term as those services are delivered. For consulting services, the performance obligation is satisfied over a period of time as those services are delivered.

When an arrangement includes multiple performance obligations which are concurrently delivered and have the same pattern of transfer to the customer (the services transfer to the customer over the contract period), we account for those performance obligations as a single performance obligation.

For contracts with more than one performance obligation, the transaction price is allocated among the performance obligations in an amount that depicts the relative standalone selling price ("SSP") of each obligation. Judgment is required to determine the SSP for each distinct performance obligation. 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 that should be allocated based on the relative SSP of the various products and services.

In instances where SSP is not directly observable, such as when we do not sell the product or service separately, we determine the SSP using information that includes market conditions and other observable inputs. We typically have more than one SSP for individual products and services due to the stratification of those products and services by customer and circumstance. In these instances, we use relevant information such as the sales channel and geographic region to determine the SSP.

Our indirect channel model includes both a two-tiered distribution structure, where Autodesk sells to distributors that subsequently sell to resellers, and a one-tiered structure where Autodesk sells directly to resellers. For these arrangements, transfer of control begins at the time access to our subscriptions is made available electronically to our customer, provided all other criteria for revenue recognition are met. Judgment is required to determine whether our distributors and resellers have the ability to honor their commitment to pay, regardless of whether they collect payment from their customers. If we were to change this assessment, it could cause a material increase or decrease in the amount of revenue that we report in a particular period.

As part of the indirect channel model, we have a partner incentive program that uses quarterly attainment of monetary rewards to motivate distributors and resellers to achieve mutually agreed upon business goals in a specified time period. Incentives related to our subscription program are recorded as a reduction to deferred revenue in the period the subscription transaction is billed, and are subsequently recognized as a reduction to subscription revenue over the contract period. A small portion of partner incentives reduce other revenue in the current period. These incentive balances do not require significant assumptions or judgments. Depending on how the payments are made, the reserves associated with the partner incentive program are recorded on the balance sheet as either contra accounts receivable or accounts payable.

Revenue Disaggregation

Autodesk recognizes revenue from the sale of (1) product subscriptions, cloud service offerings, and flexible enterprise business agreements ("EBAs"), (2) renewal fees for existing maintenance plan agreements that were initially purchased with a perpetual software license, and (3) consulting, training and other goods and services. The three categories are presented as line items on Autodesk's Consolidated Statements of Operations.

Information regarding the components of Autodesk's net revenue from contracts with customers by geographic location, product family, and sales channel is as follows:

	Fiscal Year ended January 31,		
	2019	2018	2017
Net revenue by product family (1):			
Architecture, Engineering and Construction	$ 1,021.6	$ 787.5	$ 810.4
Manufacturing	616.2	528.8	575.2
AutoCAD and AutoCAD LT	731.8	561.4	472.7
Media and Entertainment	182	152.1	138.8
Other	18.2	26.8	33.9
Total net revenue	$ 2,569.8	$ 2,056.6	$ 2,031.0
Net revenue by geographic area:			
Americas			
U.S.	$ 874.6	$ 740.4	$ 742.1
Other Americas	175.3	130.7	129.8
Total Americas	1,049.9	871.1	871.9
Europe, Middle East and Africa	1,034.3	815.4	800.4
Asia Pacific	485.6	370.1	358.7
Total net revenue	$ 2,569.8	$ 2,056.6	$ 2,031.0
Net revenue by sales channel:			
Indirect	$ 1,830.8	$ 1,443.8	$ 1,468.9
Direct	739.0	612.8	562.1
Total net revenue	$ 2,569.8	$ 2,056.6	$ 2,031.0

(1) Due to changes in the go-to-market offerings of our AutoCAD product subscription, prior period balances have been adjusted to conform to current period presentation.

Payments for product subscriptions, industry collections, cloud subscriptions, and maintenance subscriptions are typically due up front with payment terms of 30 to 45 days. Payments on EBAs are typically due in annual installments over the contract term, with payment terms of 30 to 60 days. Autodesk does not have any material variable consideration, such as obligations for returns, refunds, or warranties or amounts payable to customers for which significant estimation or judgment is required as of the reporting date.

As of January 31, 2019, Autodesk had total billed and unbilled deferred revenue of $2.7 billion, which represents the total contract price allocated to undelivered performance obligations, which are generally recognized over the next three years. We expect to recognize $1.9 billion or 72% of this revenue during the next 12 months. We expect to recognize the remaining $0.8 billion or 28% of this revenue thereafter.

We expect that the amount of billed and unbilled deferred revenue will change from quarter to quarter for several reasons, including the specific timing, duration and size of customer subscription and support agreements, varying billing cycles of such agreements, the specific timing of customer renewals, and foreign currency fluctuations.

Contract Balances

We receive payments from customers based on a billing schedule as established in our contracts. Contract assets relate to performance completed in advance of scheduled billings. Contract assets were not material as of January 31, 2019. Deferred revenue relates to payments received in advance of performance under the contract. The primary changes in our contract assets and deferred revenues are due to our performance under the contracts and billings.

Revenue recognized during the fiscal year ended January 31, 2019, that was included in the deferred revenue balances at January 31, 2018, was $1.5 billion. The satisfaction of performance obligations typically lags behind payments received under revenue contracts from customers, which may lead to an increase in our deferred revenue balance over time.

3. Financial Instruments

The following tables summarize the Company's financial instruments' amortized cost, gross unrealized gains, gross unrealized losses, and fair value by significant investment category as of January 31, 2019 and 2018.

	January 31, 2019						
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Level 1	Level 2	Level 3
Cash equivalents (1):							
Certificates of deposit	$ 1.0	$ —	$ —	$ 1.0	$ —	$ 1.0	$ —
Commercial paper	87.9	—	—	87.9	—	87.9	—
Corporate debt securities	5.0	—	—	5.0	—	5.0	—
Custody cash deposit	0.8	—	—	0.8	0.8	—	—
Money market funds	281.4	—	—	281.4	281.4	—	—
Marketable securities:							
Short-term available-for-sale							
Other (2)	6.2	1.1	—	7.3	2.7	4.6	—
Short-term trading securities							
Mutual funds	56.6	3.7	—	60.3	60.3	—	—
Convertible debt securities (3)	4.6	1.9	(2.1)	4.4	—	—	4.4
Derivative contract assets (4)	1.7	8.6	(1.8)	8.5	—	7.7	0.8
Derivative contract liabilities (5)	—	—	(7.4)	(7.4)	—	(7.4)	—
Total	$ 445.2	$ 15.3	$ (11.3)	$ 449.2	$ 345.2	$ 98.8	$ 5.2

(1) Included in “Cash and cash equivalents” in the accompanying Consolidated Balance Sheets.
(2) Consists of corporate bonds, commercial paper, and common stock.
(3) Considered “available for sale” and included in “Other assets” in the accompanying Consolidated Balance Sheets.
(4) Included in “Prepaid expenses and other current assets,” “Other assets,” or “Other accrued liabilities” in the accompanying Consolidated Balance Sheets.
(5) Included in “Other accrued liabilities” in the accompanying Consolidated Balance Sheets.

	January 31, 2018						
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Level 1	Level 2	Level 3
Cash equivalents (1):							
Agency bonds	$ 5.0	$ —	$ —	$ 5.0	$ 5.0	$ —	$ —
Certificates of deposit	17.4	—	—	17.4	17.4	—	—
Commercial paper	324.2	—	—	324.2	—	324.2	—
Corporate debt securities	5.0	—	—	5.0	5.0	—	—
Custody cash deposit	5.2	—	—	5.2	5.2	—	—
Money market funds	278.8	—	—	278.8	—	278.8	—
Municipal bonds	5.0	—	—	5.0	5.0	—	—
Sovereign debt	2.0	—	—	2.0	—	2.0	—
U.S. government securities	—	—	—	—	—	—	—
Marketable securities:							
Short-term available-for-sale							
Agency bonds	—	—	—	—	—	—	—
Asset backed securities	13.1	—	—	13.1	—	13.1	—
Certificates of deposit	—	—	—	—	—	—	—
Commercial paper	27.5	—	—	27.5	—	27.5	—
Corporate debt securities	99.4	—	(0.1)	99.3	99.3	—	—
Municipal bonds	—	—	—	—	—	—	—
Sovereign debt	9.2	—	—	9.2	7.7	1.5	—
U.S. government securities	37.1	—	—	37.1	37.1	—	—
Short-term trading securities							
Mutual funds	50.1	8.9	—	59.0	59.0	—	—
Long-term available-for-sale							
Agency bonds	13.7	—	(0.1)	13.6	13.6	—	—
Asset backed securities	36.8	—	(0.2)	36.6	—	36.6	—
Corporate debt securities	100.2	0.1	(0.4)	99.9	99.9	—	—
Municipal bonds	12.7	—	(0.1)	12.6	12.6	—	—
Sovereign debt	2.8	—	—	2.8	—	2.8	—
U.S. government securities	25.5	—	(0.2)	25.3	25.3	—	—
Convertible debt securities (2)	7.5	0.5	(0.2)	7.8	—	—	7.8
Derivative contract assets (3)	2.0	7.5	(1.3)	8.2	—	7.2	1.0
Derivative contract liabilities (4)	—	—	(26.6)	(26.6)	—	(26.6)	—
Total	$ 1,080.2	$ 17.0	$ (29.2)	$1,068.0	$ 392.1	$ 667.1	$ 8.8

(1) Included in “Cash and cash equivalents” in the accompanying Consolidated Balance Sheets.
(2) Considered "available for sale" securities and included in "Other assets" in the accompanying Consolidated Balance Sheets.
(3) Included in “Prepaid expenses and other current assets,” "Other assets," or “Other accrued liabilities” in the accompanying Consolidated Balance Sheets.
(4) Included in “Other accrued liabilities” in the accompanying Consolidated Balance Sheets.

Autodesk classifies its marketable securities as either short-term or long-term based on each instrument’s underlying contractual maturity date. Generally marketable securities with remaining maturities of less than 12 months are classified as short-term and marketable securities with remaining maturities greater than 12 months are classified as long-term. Autodesk may sell certain of its marketable securities prior to their stated maturities for strategic purposes or in anticipation of credit deterioration.

Autodesk applies fair value accounting for certain financial assets and liabilities, which consist of cash equivalents, marketable securities, and other financial instruments, on a recurring basis. The Company defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is estimated by applying the following hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement: (Level 1) observable inputs such as quoted prices in active markets; (Level 2) inputs other than quoted prices in active markets for identical assets and liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and (Level 3) unobservable inputs for which there is little or no market data, which require Autodesk to develop its own assumptions. When determining fair value, Autodesk uses observable market data and relies on unobservable inputs only when observable market data is not available. Autodesk reviews for any potential changes on a quarterly basis, in conjunction with our fiscal quarter-end close.

Autodesk's cash equivalents, marketable securities, and financial instruments are primarily classified within Level 1 or Level 2 of the fair value hierarchy. Autodesk values its securities on pricing from pricing vendors, who may use quoted prices in active markets for identical assets (Level 1) or inputs other than quoted prices that are observable either directly or indirectly in determining fair value (Level 2). Autodesk's Level 2 securities are valued primarily using observable inputs other than quoted prices in active markets for identical assets and liabilities. Autodesk's Level 3 securities consist of investments held in convertible debt securities, and derivative contracts.

A reconciliation of the change in Autodesk’s Level 3 items for the fiscal year ended January 31, 2019 was as follows:

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)		
	Derivative Contracts	Convertible Debt Securities	Total
Balances, January 31, 2018	$ 1.0	$ 7.8	$ 8.8
Settlements	—	(3.5)	(3.5)
(Losses) Gains included in earnings (1)	(0.2)	0.5	0.3
Losses included in OCI	—	(0.4)	(0.4)
Balances, January 31, 2019	$ 0.8	$ 4.4	$ 5.2

(1) Included in “Interest and other expense, net” in the accompanying Consolidated Statements of Operations.

The following table summarizes the estimated fair value of Autodesk's “available-for-sale securities” classified by the contractual maturity date of the security:

	January 31, 2019	
	Cost	Fair Value
Due within 1 year	$ 10.8	$ 11.7
Total	$ 10.8	$ 11.7

As of January 31, 2019 and 2018, Autodesk had no securities, individually and in the aggregate, in a continuous unrealized loss position for greater than twelve months.

The sales or redemptions of “available-for-sale securities” in fiscal 2019 and 2018 resulted in a loss of $1.3 million and $0.3 million, respectively, and a gain of $1.5 million in 2017. The loss and gains were recorded in "Interest and other expense, net" on the Company's Consolidated Statements of Operations.

Proceeds from the sale and maturity of marketable securities for fiscal 2019 and fiscal 2018 were $531.0 million and $1.08 billion, respectively.

Non-marketable equity securities

As of January 31, 2019 and 2018, Autodesk had $111.6 million and $112.3 million, respectively, in direct investments in privately held companies. These non-marketable equity securities investments do not have readily determined fair value and with the adoption of ASU No. 2016-01 during the first quarter of fiscal 2019, Autodesk elected to use the measurement alternative to account for the adjustment of these investments in a given quarter. See "Note 1, "Business and Summary of Significant Accounting Policies" for more details of the adoption.

Under the measurement alternative method, these investments are measured at cost, less any impairments, plus or minus changes resulting from observable price changes in orderly transactions for the identical or similar investment of the same issuer in the current period. To determine if a transaction is for a similar investment, Autodesk considers the rights and obligations between the investments and the extent to which those differences would affect the fair values of those investments with additional consideration for the stage of development of the investee company. The fair value would then be adjusted positively or negatively based on available information such as pricing in recent rounds of financing. During the fiscal year ended January 31, 2019, Autodesk recorded $6.2 million as a positive adjustment on certain of its privately held investments, reflected as a gain in "Interest and other income (expense), net" on the Company's Consolidated Statement of Operations.

Non-marketable equity securities investments are periodically assessed for impairment based on available information such as current cash positions, earnings and cash flow positions, earnings and cash flow forecasts, recent operational performance and any other readily available market data. Autodesk does not intend to sell these investments and it is not more likely than not that Autodesk will be required to sell the investment before recovery of the cost basis. If Autodesk determines that an impairment has occurred, Autodesk writes down the investment to its fair value. During fiscal 2019, fiscal 2018 and fiscal 2017, Autodesk recorded $4.8 million, $15.5 million and $1.3 million, respectively, in impairments on its privately held investments, reflected as a loss in "Interest and other expense, net" on the Company's Consolidated Statements of Operations. Autodesk does not consider the remaining investments to be impaired at January 31, 2019.

Derivative Financial Instruments

Under its risk management strategy, Autodesk uses derivative instruments to manage its short-term exposures to fluctuations in foreign currency exchange rates which exist as part of ongoing business operations. Autodesk's general practice is to hedge a portion of transaction exposures denominated in euros, Japanese yen, Swiss francs, British pounds, Canadian dollars, Australian dollars, Singapore dollars, Swiss francs Swedish krona, and Czech krona. These instruments have maturities between one and twelve months in the future. Autodesk does not enter into derivative instrument transactions for trading or speculative purposes.

The bank counterparties to the derivative contracts potentially expose Autodesk to credit-related losses in the event of their nonperformance. However, to mitigate that risk, Autodesk only contracts with counterparties who meet the Company's minimum requirements under its counterparty risk assessment process. Autodesk monitors counterparty risk on at least a quarterly basis and will adjust its exposure to various counterparties as necessary. Autodesk generally enters into master netting arrangements, which reduce credit risk by permitting net settlement of transactions with the same counterparty. However, Autodesk does not have any master netting arrangements in place with collateral features.

Foreign currency contracts designated as cash flow hedges

Autodesk uses foreign currency contracts to reduce the exchange rate impact on a portion of the net revenue or operating expense of certain anticipated transactions. These contracts are designated and documented as cash flow hedges. The effectiveness of the cash flow hedge contracts is assessed quarterly using regression analysis as well as other timing and probability criteria. To receive cash flow hedge accounting treatment, all hedging relationships are formally documented at the inception of the hedge and the hedges are expected to be highly effective in offsetting changes to future cash flows on hedged transactions. The gross gains and losses on these hedges are included in “Accumulated other comprehensive loss” and are reclassified into earnings at the time the forecasted revenue or expense is recognized. In the event the underlying forecasted transaction does not occur, or it becomes probable that it will not occur, Autodesk reclassifies the gain or loss on the related cash flow hedge from “Accumulated other comprehensive loss” to “Interest and other expense, net” in the Company's Consolidated Financial Statements at that time.

The notional amounts of these contracts are presented net settled and were $803.5 million at January 31, 2019, and $619.9 million at January 31, 2018. Outstanding contracts are recognized as either assets or liabilities on the balance sheet at fair value. The majority of the net gain of $15.0 million remaining in “Accumulated other comprehensive loss” as of January 31, 2019, is expected to be recognized into earnings within the next twelve months.

Derivatives not designated as hedging instruments

Autodesk uses foreign currency contracts that are not designated as hedging instruments to reduce the exchange rate risk associated primarily with foreign currency denominated receivables, payables, and cash. These forward contracts are marked-to-market at the end of each month with gains and losses recognized as “Interest and other expense, net.” These derivative instruments do not subject the Company to material balance sheet risk due to exchange rate movements because gains and losses on these derivative instruments are intended to offset the gains or losses resulting from the revaluation and settlement of the underlying foreign currency denominated receivables, payables, and cash. The notional amounts of these foreign currency contracts are presented net settled and were $579.8 million at January 31, 2019, and $329.6 million at January 31, 2018.

In addition to these foreign currency contracts, Autodesk holds derivative instruments issued by privately held companies, which are not designated as hedging instruments. These derivatives consist of certain conversion options on the convertible debt securities held by Autodesk and an option to acquire a privately held company. These derivatives are recorded at fair value as of each balance sheet date and are recorded in “Other assets.” Changes in the fair values of these instruments are recognized in “Interest and other expense, net.”

Fair Value of Derivative Instruments:

The fair value of derivative instruments in Autodesk’s Consolidated Balance Sheets were as follows as of January 31, 2019, and January 31, 2018:

		Fair Value at	
	Balance Sheet Location	**January 31, 2019**	**January 31, 2018**
Derivative Assets			
Foreign currency contracts designated as cash flow hedges	Prepaid expenses and other current assets	$ 4.3	$ 6.2
Derivatives not designated as hedging instruments	Prepaid expenses and other current assets and Other assets	4.2	2.0
Total derivative assets		$ 8.5	$ 8.2
Derivative Liabilities			
Foreign currency contracts designated as cash flow hedges	Other accrued liabilities	$ 3.3	$ 18.7
Derivatives not designated as hedging instruments	Other accrued liabilities	4.1	7.9
Total derivative liabilities		$ 7.4	$ 26.6

The effects of derivatives designated as hedging instruments on Autodesk's Consolidated Statements of Operations were as follows for the fiscal years ended January 31, 2019, 2018, and 2017, respectively (amounts presented include any income tax effects):

	Foreign Currency Contracts		
	Fiscal Year Ended January 31,		
	2019	2018	2017
Amount of gain (loss) recognized in accumulated other comprehensive loss on derivatives (effective portion)	$ 19.6	$ (21.3)	$ 6.3
Amount and location of (loss) gain reclassified from accumulated other comprehensive loss into (loss) income (effective portion)			
Net revenue	$ (8.5)	$ 8.0	$ 9.2
Operating expenses	(3.6)	1.9	(1.8)
Total	$ (12.1)	$ 9.9	$ 7.4
Amount and location of gain (loss) recognized in income (loss) on derivatives (ineffective portion and amount excluded from effectiveness testing)			
Interest and other expense, net	$ 0.2	$ (0.2)	$ (0.3)

The effects of derivatives not designated as hedging instruments on Autodesk's Consolidated Statements of Operations were as follows for the fiscal years ended January 31, 2019, 2018, and 2017, respectively (amounts presented include any income tax effects):

	Fiscal Year Ended January 31,		
	2019	2018	2017
Amount and location of loss recognized in loss (income) on derivatives			
Interest and other expense, net	$ 6.6	$ (19.1)	$ (11.1)

4. Employee and Director Stock Plans

Stock Plans

As of January 31, 2019, Autodesk maintained four active stock plans for the purpose of granting equity awards to employees and to non-employee members of Autodesk's Board of Directors: the 2012 Employee Stock Plan (as amended, the "2012 Employee Plan"), which is available only to employees, the Autodesk 2012 Outside Directors' Stock Plan ("2012 Directors' Plan"), which is available only to non-employee directors, the PlanGrid 2012 Equity Incentive Plan ("PlanGrid 2012 Plan"), which is available to employees who held outstanding unvested options and restricted stock units that were assumed as part of our acquisition of PlanGrid, Inc. and the BuildingConnected, Inc. 2013 Stock Plan ("BuildingConnected 2013 Plan"), which is available to employees who held outstanding unvested options that were assumed as part of our acquisition of BuildingConnected, Inc. Additionally, there is one terminated plan with options outstanding.

The 2012 Employee Plan was approved by Autodesk's stockholders and became effective on January 6, 2012. Since the 2012 Stock Plan was adopted by stockholders in January 2012, Autodesk has received stockholder approval to increase the number of shares subject to the plan by 36.1 million shares. The 2012 Employee Plan replaced the 2008 Employee Stock Plan, as amended ("2008 Plan"), and no further equity awards may be granted under the 2008 Plan. The 2012 Employee Plan reserves up to 57.3 million shares which includes 51.3 million shares reserved under the 2012 Employee Plan, as well as up to 6.0 million shares forfeited under certain prior employee stock plans during the life of the 2012 Employee Plan. The 2012 Employee Plan permits the grant of stock options, restricted stock units, and restricted stock awards. Each restricted stock unit or restricted stock award granted will be counted against the shares authorized for issuance under the 2012 Employee Plan as 1.79 shares. If a granted option, restricted stock unit, or restricted stock award expires or becomes unexercisable for any reason, the unpurchased or forfeited shares that were granted may be returned to the 2012 Employee Plan and may become available for future grant under the 2012 Employee Plan. As of January 31, 2019, 45.0 million shares subject to options or restricted stock awards have been granted under the 2012 Employee Plan. Options and restricted stock that were granted under the 2012 Employee Plan vest over periods ranging from immediately upon grant to over a three year period and options expire 10 years from the date of grant. The 2012 Employee Plan will expire on June 30, 2022. At January 31, 2019, 18.6 million shares were available for future issuance under the 2012 Employee Plan.

The 2012 Directors' Plan was approved by Autodesk's stockholders and became effective on January 6, 2012. The 2012 Directors' Plan replaced the 2010 Outside Directors' Stock Plan, as amended ("2010 Plan"). The 2012 Directors' Plan permits the grant of stock options, restricted stock units, and restricted stock awards to non-employee members of Autodesk's Board of Directors. Each restricted stock unit or restricted stock award granted will be counted against the shares authorized for issuance under the 2012 Directors' Plan as 2.11 shares. As of January 31, 2019, 0.9 million shares subject to restricted stock unit awards have been granted under the 2012 Directors' Plan. Restricted stock units that were granted under the 2012 Outside Directors' Plan vest over one to three years from the date of grant. On March 12, 2015, the Board reduced the number of shares reserved for issuance under the 2012 Directors' Plan by 0.9 million shares, so that 1.7 million shares are now reserved for issuance under the 2012 Directors' Plan. The 2012 Directors' Plan will expire on June 30, 2022. At January 31, 2019, 0.8 million shares were available for future issuance under the 2012 Director's Plan.

Pursuant to the PlanGrid acquisition on December 19, 2018, the Company assumed the unvested options and restricted stock units under the PlanGrid 2012 Plan. No further equity awards will be granted under the PlanGrid 2012 Plan. As of January 31, 2019, 0.6 million shares subject to options remain outstanding under the PlanGrid 2012 Plan. Options that were granted under the PlanGrid 2012 Plan vest over a four year period and expire 10 years from the date of grant. The PlanGrid 2012 Plan will expire on June 18, 2022.

Pursuant to the BuildingConnected acquisition on January 23, 2019, the Company assumed the unvested options under the BuildingConnected 2013 Plan. No further equity awards will be granted under the BuildingConnected 2013 Plan. As of January 31, 2019, 0.1 million shares subject to options remain outstanding under the BuildingConnected 2013 Plan. Options that were granted under the BuildingConnected 2013 Plan vest over a four year period and expire 10 years from the date of grant. The BuildingConnected 2013 Plan will expire on May 6, 2023.

The following sections summarize activity under Autodesk's stock plans.

Stock Options:

A summary of stock option activity for the fiscal year ended January 31, 2019 is as follows:

	Number of Shares (in millions)	Weighted average exercise price per share	Weighted average remaining contractual term (in years)	Aggregate Intrinsic Value (1) (in millions)
Options outstanding at January 31, 2018	0.2	$ 40.49		
Assumed from acquisitions	0.7	20.82		
Granted	—	—		
Exercised	(0.1)	37.64		
Canceled/Forfeited	—	—		
Options vested, exercisable and outstanding at January 31, 2019	0.8	$ 23.95	7.7	$ 100.7
Options vested and exercisable at January 31, 2019	0.2	$ 37.10	2.6	$ 17.2
Options vested and exercisable as of January 31, 2019 and expected to vest thereafter	0.8	$ 23.95	7.7	$ 100.7
Shares available for grant at January 31, 2019	19.4			

(1) Represents the total pre-tax intrinsic value, based on Autodesk's closing stock price of $147.20 per share as of January 31, 2019.

As of January 31, 2019, compensation cost of $66.5 million related to non-vested stock options is expected to be recognized over a weighted average period of 2.8 years.

The following table summarizes information about the pre-tax intrinsic value of options exercised and the weighted average grant date fair value per share of options granted during the fiscal years ended January 31, 2019, 2018, and 2017:

	Fiscal year ended January 31,		
	2019	2018	2017
Pre-tax intrinsic value of options exercised (1)	$ 9.7	$ 22.8	$ 32.0
Weighted average grant date fair value per share of stock options assumed from acquisition	$ 110.40	$ —	$ —

(1) The intrinsic value of options exercised is calculated as the difference between the exercise price of the option and the market value of the stock on the date of exercise.

The following table summarizes information about options vested and exercisable, and outstanding at January 31, 2019:

	Options Vested and Exercisable				Options Outstanding			
	Number of Shares (in thousands)	Weighted average contractual life (in years)	Weighted average exercise price per share	Aggregate intrinsic value (in millions)	Number of Shares (in thousands)	Weighted average contractual life (in years)	Weighted average exercise price per share	Aggregate intrinsic value (in millions)
Range of per-share exercise prices:								
$2.90 - $16.12	2.6		$ 9.51		122.7		$ 14.62	
$19.32 - $20.65	5.4		20.03		85.7		20.19	
$21.13 - $21.13	2.8		21.13		292.9		21.13	
$21.32 - $21.32	11.7		21.32		85.1		21.32	
$22.17 - $31.88	8.5		25.58		105.3		27.50	
$32.58 - $33.92	4.0		33.82		4.0		33.82	
$36.06 - $36.06	2.5		36.06		2.5		36.06	
$36.44 - $36.44	5.2		36.44		5.2		36.44	
$38.55 - $38.55	1.4		38.55		1.4		38.55	
$41.62 - $41.62	112.3		41.62		112.3		41.62	
	156.4	2.6	$ 37.10	$ 17.2	817.1	7.7	$ 23.95	$ 100.7

These options will expire if not exercised at specific dates ranging through October 2028.

Restricted Stock Units:

A summary of restricted stock activity for the fiscal year ended January 31, 2019 is as follows:

	Unreleased Restricted Stock Units (in thousands)	Weighted average grant date fair value per share
Unvested restricted stock at January 31, 2018	5,670.7	$ 82.94
Granted	2,250.7	144.37
Vested	(2,982.0)	76.30
Canceled/Forfeited	(681.9)	94.70
Performance Adjustment (1)	29.9	101.74
Unvested restricted stock at January 31, 2019	4,287.4	$ 120.07

(1) Based on Autodesk's financial results and relative total stockholder return for the fiscal 2018 performance period. The performance stock units were attained at rates ranging from 90.0% to 117.6% of the target award.

For the restricted stock granted during fiscal years ended January 31, 2019, 2018, and 2017, the weighted average grant date fair values were $144.37, $106.55, and $65.95, respectively. The fair values of the shares vested during fiscal years ended January 31, 2019, 2018, and 2017 were $425.4 million, $399.7 million, and $232.2 million, respectively.

During the fiscal year ended January 31, 2019, Autodesk granted 2.1 million restricted stock units. Restricted stock units vest over periods ranging from immediately upon grant to a pre-determined date that is typically within three years from the date of grant. Restricted stock units are not considered outstanding stock at the time of grant, as the holders of these units are not entitled to any of the rights of a stockholder, including voting rights. The fair value of the restricted stock units is expensed ratably over the vesting period. Autodesk recorded stock-based compensation expense related to restricted stock units of $189.3 million, $202.1 million, and $173.0 million during fiscal years ended January 31, 2019, 2018, and 2017, respectively. As of January 31, 2019, total compensation cost not yet recognized of $364.5 million related to non-vested awards is expected to be recognized over a weighted average period of 1.76 years. At January 31, 2019, the number of restricted stock units granted but unvested was 3.9 million.

During the fiscal year ended January 31, 2019, Autodesk granted 0.2 million performance stock units for which the ultimate number of shares earned is determined based on the achievement of performance criteria at the end of the stated service and performance period. The performance criteria for the performance stock units are based on Annualized Recurring Revenue ("ARR") and free cash flow per share goals adopted by the Compensation and Human Resources Committee, as well as total stockholder return compared against companies in the S&P Computer Software Select Index or the S&P North American Technology Software Index ("Relative TSR"). These performance stock units vest over a three-year period and have the following vesting schedule:

- Up to one third of the performance stock units may vest following year one, depending upon the achievement of the performance criteria for fiscal 2019 as well as 1-year Relative TSR (covering year one).
- Up to one third of the performance stock units may vest following year two, depending upon the achievement of the performance criteria for year two as well as 2-year Relative TSR (covering years one and two).
- Up to one third of the performance stock units may vest following year three, depending upon the achievement of the performance criteria for year three as well as 3-year Relative TSR (covering years one, two and three).

Performance stock units are not considered outstanding stock at the time of grant, as the holders of these units are not entitled to any of the rights of a stockholder, including voting rights. Autodesk has determined the grant-date fair value for these awards using the stock price on the date of grant or if the awards are subject to a market condition, a Monte Carlo simulation model. The fair value of the performance stock units is expensed using the accelerated attribution over the vesting period. Autodesk recorded stock-based compensation expense related to performance stock units of $28.6 million, $33.7 million, and $22.9 million during fiscal years ended January 31, 2019, 2018, and 2017 respectively. As of January 31, 2019, total compensation cost not yet recognized of $5.6 million related to unvested performance stock units, is expected to be recognized over a weighted average period of 0.81 years. At January 31, 2019, the number of performance stock units granted but unvested was 0.4 million.

1998 Employee Qualified Stock Purchase Plan (“ESPP”)

Under Autodesk’s ESPP, which was approved by stockholders in 1998, eligible employees may purchase shares of Autodesk’s common stock at their discretion using up to 15% of their eligible compensation, subject to certain limitations, at 85% of the lower of Autodesk's closing price (fair market value) on the offering date or the exercise date. The offering period for ESPP awards consists of four, six-month exercise periods within a 24-month offering period.

At January 31, 2019, a total of 8.1 million shares were available for future issuance. Under the ESPP, the Company issues shares on the first trading day following March 31 and September 30 of each fiscal year. The ESPP does not have an expiration date.

A summary of the ESPP activity for the fiscal years ended January 31, 2019, 2018 and 2017 is as follows:

	Fiscal year ended January 31,		
	2019	**2018**	**2017**
Issued shares	1.0	2.0	2.3
Average price of issued shares	$ 90.25	$ 39.03	$ 36.99
Weighted average grant date fair value of awards granted under the ESPP	$ 42.75	$ 32.41	$ 19.20

Autodesk recorded $27.2 million, $25.7 million, and $25.9 million of compensation expense associated with the ESPP in fiscal 2019, 2018, and 2017, respectively.

Equity Compensation Plan Information

The following table summarizes the number of outstanding options and awards granted to employees and directors, as well as the number of securities remaining available for future issuance under these plans as of January 31, 2019:

Plan category	(a) Number of securities to be issued upon exercise or vesting of outstanding options and awards (in millions)	(b) Weighted-average exercise price of outstanding options	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (in millions)
Equity compensation plans approved by security holders	5.1	$ 23.95	27.6 (1)
Total	5.1	$ 23.95	27.6

(1) Included in this amount are 8.1 million securities available for future issuance under Autodesk's ESPP.

5. Income Taxes

The provision for income taxes consists of the following:

	Fiscal year ended January 31, 2019	2018	2017
Federal:			
Current	$ (13.3)	$ (0.8)	$ 1.6
Deferred	(6.7)	(19.3)	8.4
State:			
Current	(1.8)	(0.3)	(1.9)
Deferred	0.1	2.2	1.3
Foreign:			
Current	65.3	50.9	93.9
Deferred	(5.5)	(23.1)	(45.0)
	$ 38.1	$ 9.6	$ 58.3

Foreign pretax (loss) income was $181.4 million in fiscal 2019, $(76.2) million in fiscal 2018, and $(27.6) million in fiscal 2017.

The differences between the U.S. statutory rate and the aggregate income tax provision are as follows:

	Fiscal year ended January 31,		
	2019	2018	2017
Income tax provision (benefit) at U.S. Federal statutory rate	$ (9.0)	$ (188.4)	$ (177.0)
State income tax benefit, net of the U.S. Federal benefit	(11.4)	(21.9)	(17.3)
Foreign income taxed at rates different from the U.S. statutory rate	117.8	(53.3)	22.3
U.S. valuation allowance	18.8	(82.5)	233.0
Transition tax	(16.0)	408.4	—
Increase in attributes due to ASU 2016-9 adoption	—	—	(119.4)
Change in valuation allowance from ASU 2016-9 adoption	—	—	119.4
Tax effect of non-deductible stock-based compensation	7.6	20.7	18.8
Stock compensation windfall / shortfall	(39.4)	(67.7)	(23.0)
Research and development tax credit benefit	(23.5)	(11.3)	(10.3)
Closure of income tax audits and changes in uncertain tax positions	(12.7)	1.2	8.2
Tax effect of officer compensation in excess of $1.0 million	5.0	2.2	2.2
Non-deductible expenses	1.5	2.1	2.0
Other	(0.6)	0.1	(0.6)
	$ 38.1	$ 9.6	$ 58.3

Significant components of Autodesk's deferred tax assets and liabilities are as follows:

	January 31,	
	2019	2018
Stock-based compensation	$ 25.9	$ 26.7
Research and development tax credit carryforwards	238.7	170.3
Foreign tax credit carryforwards	198.6	162.2
Accrued compensation and benefits	6.5	25.9
Other accruals not currently deductible for tax	19.0	22.9
Purchased technology and capitalized software	32.6	43.4
Fixed assets	15.0	16.5
Tax loss carryforwards	237.2	85.7
Deferred revenue	49.0	120.3
Other	28.4	32.4
Total deferred tax assets	850.9	706.3
Less: valuation allowance	(797.8)	(634.2)
Net deferred tax assets	53.1	72.1
Indefinite lived intangibles	(67.6)	(57.0)
Total deferred tax liabilities	(67.6)	(57.0)
Net deferred tax assets (liabilities)	$ (14.5)	$ 15.1

Autodesk's tax expense is primarily driven by tax expense in foreign locations, withholding taxes on payments made to the U.S. from foreign sources, and tax amortization on indefinite-lived intangibles offset by a tax benefit resulting from release of uncertain tax positions upon finalization of IRS examination and release of valuation allowance from acquired deferred tax liabilities.

Autodesk regularly assesses the need for a valuation allowance against its deferred tax assets. In making that assessment, Autodesk considers both positive and negative evidence, whether it is more likely than not that some or all of the deferred tax assets will not be realized. In evaluating the need for a valuation allowance, Autodesk considered cumulative losses arising from the Company's business model transition as a significant piece of negative evidence. Consequently, Autodesk determined that a valuation allowance was required on the accumulated U.S., Canada and Singapore tax attributes. In the current year, the U.S. created incremental deferred tax assets, primarily operating losses, foreign tax and R&D credits, Singapore generated operating losses and Canada generated R&D credits. These U.S. and Singapore deferred tax attributes have been offset by a full valuation allowance. The valuation allowance increased by $163.6 million in fiscal 2019 primarily due to the generation of deferred tax attributes. The valuation allowance decreased by $113.8 million, and increased $352.4 million in fiscal 2018, and 2017, respectively, primarily related to U.S. Tax Act reduction in rate in fiscal 2018 and U.S. and Canadian deferred tax attributes generated in fiscal 2017. As Autodesk continually strives to optimize the overall business model, tax planning strategies may become feasible and prudent allowing the Company to realize many of the deferred tax assets that are offset by a valuation allowance; therefore, Autodesk will continue to evaluate the ability to utilize the net deferred tax assets each quarter, both in the U.S. and in foreign jurisdictions, based on all available evidence, both positive and negative.

The Tax Act was signed into law on December 22, 2017 and provided broad and significant changes to the U.S. corporate income tax regime. In light of our fiscal year-end, the Tax Act reduced the statutory federal corporate rate from 35% to 33.81% for fiscal 2018 and to 21% for fiscal 2019 and forward. The Tax Act also, among many other provisions, imposed a one-time mandatory tax on accumulated earnings of foreign subsidiaries (commonly referred to as the "transition tax"), subjected the deemed intangible income of our foreign subsidiaries to current U.S. taxation (commonly referred to as "GILTI"), provided for a full dividends received deduction upon repatriation of untaxed earnings of our foreign subsidiaries, imposed a minimum taxation (without most tax credits) on modified taxable income, which is generally taxable income without deductions for payments to related foreign companies (commonly referred to as “BEAT”), modified the accelerated depreciation deduction rules, and made updates to the deductibility of certain expenses. We have completed our determination of the accounting implications of the Tax Act on our tax accruals.

We recorded a tax benefit of the Tax Act in our financial statements as of January 31, 2018 of approximately $32.3 million mainly driven by the corporate rate remeasurement of the indefinite-lived intangible deferred tax liability.

As of January 31, 2018, we estimated taxable income associated with offshore earnings of $831.5 million, and as of January 31, 2019, we adjusted the taxable income to $819.6 million to reflect the impact of Treasury Regulations issued in the fourth quarter of fiscal 2019. Transition tax related to adjustments in the offshore earnings resulted in no impact to the effective tax rate as it is primarily offset by net operating losses that are subject to a full valuation allowance. As a result of the transition tax, we recorded a deferred tax asset of approximately $45.1 million for foreign tax credits, which are also subject to a full valuation allowance.

We are subject to GILTI in fiscal 2019, primarily offset by current year operating losses, resulting in no impact to the effective tax rate.

We anticipate that the U.S. Department of Treasury and other standard-setting bodies will continue to interpret or issue guidance on how provisions of the Tax Act will be applied or otherwise administered. As future guidance is issued, we may make adjustments to amounts that we have previously recorded that may materially impact our financial statements in the period in which the adjustments are made.

Realization of foreign non-current net deferred tax assets of $54.3 million is dependent upon the Company's ability to generate future taxable income in appropriate tax jurisdictions to obtain benefit from the reversal of temporary differences, net operating loss carryforwards and tax credits. The amount of deferred tax assets considered realizable is subject to adjustment in future periods if estimates of future taxable income are reduced and Autodesk then determines that it is not more likely than not to realize such deferred tax assets.

As of January 31, 2019, Autodesk had $531.4 million of cumulative federal tax loss carryforwards and $1,465.7 million of cumulative state tax loss carryforwards, which may be available to reduce future income tax liabilities in federal and state jurisdictions. In addition to U.S. federal and state tax loss carryforwards, Ireland, Netherlands, and Singapore jurisdictions incurred federal tax losses totaling $521.8 million, which may be available to reduce future income tax liabilities indefinitely. As discussed above, with the exception of our Irish losses, of $238.8 million, these cumulative assets have full valuation allowance against them on our balance sheet as the Company has determined it is more likely than not that these losses will not be utilized. The pre-fiscal 2019 federal tax loss carryforward will expire beginning fiscal 2021 through fiscal 2038. Federal losses generated in fiscal 2019 do not have an expiration pursuant to the Tax Act and are carried forward indefinitely. The state tax loss carryforward will expire beginning fiscal 2020 through fiscal 2040.

As of January 31, 2019, Autodesk had $164.9 million of cumulative federal research tax credit carryforwards, $68.8 million of cumulative California state research tax credit carryforwards, and $59.0 million of cumulative Canadian federal tax credit carryforwards, which may be available to reduce future income tax liabilities in the respective jurisdictions. The federal tax credit carryforwards will expire beginning fiscal 2021 through fiscal 2040, the state credit carryforwards may reduce future California income tax liabilities indefinitely, and the Canadian tax credit carryforwards will expire beginning fiscal 2027 through fiscal 2040. Autodesk also has $242.4 million of cumulative foreign tax credit carryforwards, which may be available to reduce future U. S. tax liabilities. The foreign tax credit will expire beginning fiscal 2020 through fiscal 2030. As discussed above, these cumulative assets have full valuation allowance against them on our balance sheet as the Company has determined it is more likely than not that these losses will not be utilized.

Utilization of net operating losses and tax credits may be subject to an annual limitation due to ownership change limitations provided in the Internal Revenue Code and similar state provisions. This annual limitation may result in the expiration of net operating losses and credits before utilization. No ownership change has occurred through the balance sheet date that would limit a material amount of U.S. federal and state tax attributes.

As of January 31, 2019, the Company had $209.0 million of gross unrecognized tax benefits, of which $190.6 million would reduce our valuation allowance, if recognized. The remaining $18.4 million would impact the effective tax rate.

It is possible that the amount of unrecognized tax benefits will change in the next twelve months; however, an estimate of the range of the possible change cannot be made at this time.

A reconciliation of the beginning and ending amount of the gross unrecognized tax benefits is as follows:

	Fiscal Year Ended January 31,		
	2019	2018	2017
Gross unrecognized tax benefits at the beginning of the fiscal year	$ 337.6	$ 261.4	$ 254.3
Increases for tax positions of prior years	7.9	22.8	11.9
Decreases for tax positions of prior years	(146.3)	(22.5)	(4.1)
Increases for tax positions related to the current year	10.3	78.4	11.1
Decreases relating to settlements with taxing authorities	—	(0.8)	(10.8)
Reductions as a result of lapse of the statute of limitations	(0.5)	(1.7)	(1.0)
Gross unrecognized tax benefits at the end of the fiscal year	$ 209.0	$ 337.6	$ 261.4

It is the Company's continuing practice to recognize interest and/or penalties related to income tax matters in income tax expense. Autodesk had $3.1 million, $2.8 million, and $2.5 million, net of tax benefit, accrued for interest and penalties related to unrecognized tax benefits as of January 31, 2019, 2018, and 2017, respectively. There was $0.3 million, $0.3 million, and $1.5 million of net expense for interest and penalties related to tax matters recorded through the consolidated statements of operations for the years ended January 31, 2019, 2018, and 2017, respectively.

Autodesk's U.S. and state income tax returns for fiscal year 2003 through fiscal year 2019 remain open to examination due to either net operating loss or credit carryforward. The Internal Revenue Service has examined the Company's U.S. consolidated federal income tax returns for fiscal years 2014 and 2015. This audit was finalized on January 31, 2019 and impacts from the finalization of the audit were recorded in the January 31, 2019 financial statements. While it is possible that the Company's tax positions may be challenged, the Company believes its positions are consistent with the tax law, and the balance sheet reflects appropriate liabilities for uncertain federal tax positions for the years being examined.

Autodesk files tax returns in multiple foreign taxing jurisdictions with open tax years ranging from fiscal year 2005 to 2019.

As a result of certain business and employment actions and capital investments undertaken by Autodesk, income earned in certain Europe and Asia Pacific countries is subject to reduced tax rates through fiscal 2019. In fiscal 2019, the Company incurred $11.4 million net benefit ($0.05 basic net income per share) from the tax status of these business arrangements, compared to zero benefit in fiscal 2018, and $27.1 million ($0.12 basic net income per share) in fiscal 2017.

6. Acquisitions

During the fiscal years ended January 31, 2019, and January 31, 2018, Autodesk completed the business combinations described below. The results of operations for the following acquisitions are included in the accompanying Consolidated Statements of Operations since their respective acquisition dates. Pro forma results of operations have been presented for acquisitions that were material to Autodesk's Consolidated Financial Statements. The adoption of ASU No. 2017-01 in the first quarter of fiscal 2019 did not impact the accounting for these acquisitions.

Fiscal 2019 Acquisitions

BuildingConnected, Inc.

On January 23, 2019, Autodesk acquired BuildingConnected, Inc. ("BuildingConnected"). BuildingConnected is a leading provider of construction bid-management software and this acquisition is expected to enable Autodesk to offer a more comprehensive construction workflow.

The acquisition-date fair value of the consideration transferred totaled $253.2 million, which consisted of $248.1 million of cash, and $5.1 million attributable to the fair value of equity awards related to pre-combination services. Under the terms of the merger agreement, Autodesk was obligated to replace BuilidingConnected's unvested options with 116,279 Autodesk options.

PlanGrid, Inc.

On December 19, 2018, Autodesk acquired PlanGrid, Inc. ("PlanGrid"). PlanGrid is a leading provider of construction productivity software and this acquisition is expected to enable Autodesk to offer a more comprehensive, cloud-based construction platform.

The acquisition-date fair value of the consideration transferred totaled $777.6 million, which consisted of $772.4 million of cash and $5.2 million attributed to the fair value of assumed PlanGrid equity awards for pre-combination services. Under the terms of the merger agreement, Autodesk was obligated to replace PlanGrid's unvested options and restricted stock awards with 602,051 Autodesk options and 41,069 Autodesk RSUs. Autodesk entered in to a term loan agreement in the aggregate principal amount of $500.0 million to fund a portion of the purchase. See Note 8, "Borrowing Arrangements" for more information.

Assemble Systems, Inc.

On July 3, 2018, Autodesk acquired Assemble Systems, Inc. ("Assemble Systems"). Assemble Systems is a provider of software solutions that enable construction professionals to influence, query and connect BIM data to key workflows across bid management, estimating, scheduling, site management and finance. Over time, Assemble Systems' software solution will be integrated with Autodesk's BIM 360 project management platform.

The acquisition-date fair value of the consideration transferred totaled $93.6 million, which consisted of $38.2 million of cash, $44.8 million of Autodesk common stock (340,769 shares) and ascribed a value of $10.6 million to Autodesk's existing equity interest in Assemble Systems.

Prior to the acquisition date, Autodesk accounted for its approximate 14% equity interest in Assemble Systems as a cost-method investment. The acquisition-date fair value of Autodesk's existing equity interest was $10.6 million and is included in the measurement of the consideration transferred. Autodesk recognized a gain of $4.6 million as a result of remeasuring its prior equity interest in Assemble Systems held before the business combination using a control premium to calculate a discount for lack of control. The gain is included in “Interest and other expense, net” in the Consolidated Statements of Operations.

Preliminary Purchase Price Allocation

For the Assemble Systems, PlanGrid, and BuildingConnected acquisitions that were accounted for as business combinations, Autodesk recorded the tangible and intangible assets acquired and liabilities assumed based on their estimated fair values at the date of acquisition. The fair values assigned to the identifiable intangible assets acquired were based on estimates and assumptions determined by management. Autodesk recorded the excess of consideration transferred over the aggregate fair values as goodwill. The goodwill recorded is primarily attributable to synergies expected to arise after the acquisition. There is no amount of goodwill that is deductible for U.S. income tax purposes.

The following table summarizes the fair value of the assets acquired and liabilities assumed by major class for the business combinations that were completed during the fiscal year ended January 31, 2019:

	Assemble Systems (1)		PlanGrid		BuildingConnected		Total	
Developed technologies	$	4.4	$	78.0	$	12.5	$	94.9
Customer relationships and other non-current intangible assets		12.0		98.0		26.9		136.9
Trade name		2.8		20.0		6.8		29.6
Goodwill		72.0		588.7		206.3		867.0
Deferred revenue (current and non-current)		(1.7)		(25.5)		(2.8)		(30.0)
Net tangible assets		4.1		18.4		3.5		26.0
Total	$	93.6	$	777.6	$	253.2	$	1,124.4

(1) During Q4 of fiscal 2019, Autodesk recorded a measurement period adjustment related to the valuation of the deferred tax liability associated with the Assemble Systems acquisition. This adjustment increased goodwill and reduced net tangible assets by $0.1 million.

For the three business combinations in fiscal 2019, the determination of estimated fair values of certain assets and liabilities is derived from estimated fair value assessments and assumptions by Autodesk. For PlanGrid and BuildingConnected, Autodesk's estimates and assumptions are subject to change within the measurement period (up to one year from the acquisition date). For the three business combinations in fiscal 2019, the tax impact of the acquisition is also subject to change within the measurement period. Different estimates and assumptions could result in different valuations assigned to the individual assets acquired and liabilities assumed, and the resulting amount of goodwill.

Unaudited Pro Forma Results of Acquirees

Autodesk has included the financial results of each of the acquirees in the consolidated financial statements from the respective dates of acquisition; the revenues and the results of each of the acquirees, except for PlanGrid, have not been material both individually or in the aggregate to Autodesk's fiscal 2019 and 2018 results.

The following unaudited pro forma financial information summarizes the combined results of operations for Autodesk and PlanGrid, as though the companies were combined as of the beginning of Autodesk's fiscal year 2018. The unaudited pro forma financial information was as follows (in millions):

	Fiscal Year ended January 31,			
	2019		2018	
Total revenues	$	2,632.6	$	2,099.2
Pretax loss		(157.5)		(724.9)
Net loss		(200.1)		(734.5)

The pro forma financial information for all periods presented includes the business combination accounting effects from the acquisition of PlanGrid including amortization expense from acquired intangible assets, compensation expense, and the interest expense and debt issuance costs related to the term loan agreement. The historical financial information has been adjusted to give effect to pro forma events that are directly attributable to the business combinations and factually supportable. The pro forma financial information is for informational purposes only and is not indicative of the results of operations that would have been achieved if the acquisition had taken place at the beginning of the Company’s fiscal 2018.

The pro forma financial information for fiscal 2019 and 2018 combines the historical results of the Company, the adjusted historical results of PlanGrid for fiscal 2019 and 2018 considering the date the Company acquired PlanGrid and the effects of the pro forma adjustments described above.

Fiscal 2018 Acquisitions

During the fiscal year ended January 31, 2018, Autodesk did not complete any business combinations or technology acquisitions.

7. Deferred Compensation

At January 31, 2019, Autodesk had marketable securities totaling $67.6 million, of which $60.3 million related to investments in debt and equity securities that are held in a rabbi trust under non-qualified deferred compensation plans. Of the $60.3 million related to the deferred compensation liability at January 31, 2019, $5.0 million was classified as current and $55.3 million was classified as non-current liabilities. Of the $59.0 million related to the deferred compensation liability at January 31, 2018, $3.4 million was classified as current and $55.6 million was classified as non-current liabilities. The securities are recorded in the Consolidated Balance Sheets under the current portion of "Marketable securities." The current and non-current portions of the liability are recorded in the Consolidated Balance Sheets under “Accrued compensation” and “Long-Term Other liabilities,” respectively.

Costs to obtain a contract with a customer

Sales commissions earned by our internal sales personnel and our reseller partners are considered incremental and recoverable costs of obtaining a contract with a customer. The commission costs are capitalized and included in "Prepaid expenses and other current assets" and "Other assets" on our Consolidated Balance Sheets. The deferred costs are then amortized over the period of benefit. Autodesk determined that sales commissions earned by internal sales personnel that are related to contract renewals are commensurate with sales commissions earned on the initial contracts, and we determined the period of benefit to be the term of the respective customer contract. Commissions paid to our reseller partners that are related to contract renewals are not commensurate with commissions earned on the initial contract, and we determined the estimated period of benefit by taking into consideration customer retention data, customer contracts, our technology and other factors. Deferred costs are periodically reviewed for impairment. Amortization expense is included in sales and marketing expenses in the Consolidated Statements of Operations.

The ending balance of assets recognized from costs to obtain a contract with a customer was $93.0 million as of January 31, 2019. Amortization expense related to assets recognized from costs to obtain a contract with a customer was $108.8 million during the fiscal year ended January 31, 2019. Autodesk did not recognize any contract cost impairment losses during the fiscal year ended January 31, 2019.

8. Borrowing Arrangements

On December 17, 2018, Autodesk entered into a credit agreement by and among Autodesk, the lenders from time to time party thereto and Citibank, N.A., as agent, which provides for an unsecured revolving loan facility in the aggregate principal amount of $650.0 million with an option, subject to customary conditions, to request an increase in the amount of the credit facility by up to an additional $350.0 million, and is available for working capital or other business needs. The credit agreement replaced and terminated Autodesk’s prior $400.0 million revolving credit facility. The credit agreement contains customary covenants that could, among other things, restrict the imposition of liens on Autodesk's assets, and restrict Autodesk's ability to incur additional indebtedness or make dispositions of assets if Autodesk fails to maintain compliance with the financial covenants. The credit agreement financial covenants consist of (1) a minimum interest coverage ratio of 2.50:1.0 starting with the fiscal quarter ending January 31, 2019 and increasing to 3.00:1.0 starting with the fiscal quarter ending April 30, 2019, and (2) a maximum leverage ratio of 3.50:1.0 starting with the fiscal quarter ending July 31, 2019 and dropping to 3.00:1.0 in the fiscal quarter ending January 31, 2020. At January 31, 2019, Autodesk was in compliance with the credit agreement covenants. Revolving loans under the credit agreement bear interest, at Autodesk's option, at either (i) a floating rate per annum equal to the base rate plus a margin of between 0.000% and 0.500%, depending on Autodesk’s Public Debt Rating (as defined in the credit agreement) or (ii) a per annum rate equal to the rate at which dollar deposits are offered in the London interbank market, plus a margin of between 0.900% and 1.500%, depending on Autodesk’s Public Debt Rating. The maturity date on the credit agreement is December 2023. At January 31, 2019, Autodesk had no outstanding borrowings under the credit agreement.

On December 17, 2018, Autodesk also entered into a term loan agreement by and among Autodesk, the lenders from time to time party thereto and Citibank, N.A., as agent, which provides for a delayed draw term loan facility in the aggregate principal amount of $500.0 million and was borrowed in full to consummate the PlanGrid acquisition in Note 6**,** **"**Acquisitions**."** The term loan bears interest, at Autodesk's option, at either (i) a floating rate per annum equal to the base rate plus a margin between 0.000% and 0.625%, depending on Autodesk's Public Debt Rating or (ii) a per annum rate equal to the rate at which dollar deposits are offered in the London interbank market, plus a margin of between 0.875% and 1.625%, depending on Autodesk's Public Debt Rating. Based on Autodesk's current credit ratings the term loan bears interest at a per annum rate equal to the rate at which dollar deposits are offered in the London interbank market, plus a margin of 1.125% per annum. Interest under the term loan was 3.628% at January 31, 2019. The term loan agreement contains customary covenants that could, among other things, restrict the imposition of liens on Autodesk's assets, and restrict Autodesk's ability to incur additional indebtedness or make dispositions of assets if Autodesk fails to maintain the financial covenants. The term loan agreement has the same financial covenants as those included in the credit agreement governing its revolving loan facility described above. The term loan will mature on December 2020 and will not be subject to amortization prior to the maturity date.

In June 2017, Autodesk issued $500.0 million aggregate principal amount of 3.5% notes due June 15, 2027 (collectively, the "2017 Notes"). Net of a discount of $3.1 million and issuance costs of $4.9 million, Autodesk received net proceeds of $492.0 million from issuance of the 2017 Notes. Both the discount and issuance costs are being amortized to interest expense over the term of the 2017 Notes using the effective interest method. The proceeds of the 2017 Notes have been used for the repayment of $400.0 million of debt originally due December 15, 2017 and the remainder is available for general corporate purposes. Autodesk may redeem the 2017 Notes at any time, subject to a make whole premium. In addition, upon the occurrence of certain change of control triggering events, Autodesk may be required to repurchase the 2017 Notes at a price equal to 101.0% of their principal amount, plus accrued and unpaid interest to the date of repurchase. The 2017 Notes contain restrictive covenants that limit Autodesk's ability to create certain liens, to enter into certain sale and leaseback transactions and to consolidate or merge with, or convey, transfer or lease all or substantially all of its assets, subject to important qualifications and exceptions. Based on quoted market prices, the fair value of the 2017 Notes was approximately $474.3 million as of January 31, 2019.

In June 2015, Autodesk issued $450.0 million aggregate principal amount of 3.125% senior notes due June 15, 2020 and $300.0 million aggregate principal amount of 4.375% senior notes due June 15, 2025 (collectively, the "2015 Notes"). Net of a discount of $1.7 million and issuance costs of $6.3 million, Autodesk received net proceeds of $742.0 million from issuance of the 2015 Senior Notes. Both the discount and issuance costs are being amortized to interest expense over the respective terms of the 2015 Notes using the effective interest method. The proceeds of the 2015 Notes are available for general corporate purposes. Autodesk may redeem the 2015 Notes at any time, subject to a make whole premium. In addition, upon the occurrence of certain change of control triggering events, Autodesk may be required to repurchase the 2015 Notes, at a price equal to 101% of their principal amount, plus accrued and unpaid interest to the date of repurchase. The 2015 Notes contain restrictive covenants that limit Autodesk's ability to create certain liens, to enter into certain sale and leaseback transactions and to consolidate or merge with, or convey, transfer or lease all or substantially all of its assets, subject to significant qualifications and exceptions. Based on quoted market prices, the fair value of the 2015 Notes was approximately $754.2 million as of January 31, 2019.

In December 2012, Autodesk issued $400.0 million aggregate principal amount of 1.95% senior notes due December 15, 2017 ("$400.0 million 2012 Notes") and $350.0 million aggregate principal amount of 3.6% senior notes due December 15, 2022 ("$350.0 million 2012 Notes" and collectively with the $400.0 million 2012 Notes, the "2012 Notes"). Autodesk received net proceeds of $739.3 million from issuance of the 2012 Notes, net of a discount of $4.5 million and issuance costs of $6.1 million. Both the discount and issuance costs are being amortized to interest expense over the respective terms of the 2012 Notes using the effective interest method. The proceeds of the 2012 Notes are available for general corporate purposes. On July 27, 2017, Autodesk redeemed in full the $400.0 million 2012 Notes. The redemption was completed pursuant to the optional redemption provisions of the first supplemental indenture dated December 13, 2012. To redeem the notes, Autodesk used the proceeds of the 2017 Notes to pay a redemption price of approximately $400.9 million, plus accrued and unpaid interest. Total cash repayment was $401.8 million. Autodesk did not incur any additional early termination penalties in connection with such redemption. Based on the quoted market price, the fair value of the $350.0 million 2012 Notes was approximately $349.6 million as of January 31, 2019.

9. Commitments and Contingencies

Lease commitments

Autodesk leases office space and computer equipment under non-cancellable operating lease agreements that expire at various dates through 2090. The leases generally provide that Autodesk pay taxes, insurance, and maintenance expenses related to the leased assets. Certain of these lease arrangements contain escalation clauses whereby monthly rent increases over time.

At January 31, 2019, the aggregate future minimum lease payments required were as follows:

2020	$ 76.2
2021	61.7
2022	53.6
2023	50.7
2024	41.4
Thereafter	127.0
	410.6
Less: Sublease income	0.8
	$ 409.8

Rent expense related to these operating leases recognized on a straight-line basis over the lease period, was as follows:

	Fiscal Year Ended January 31,		
	2019	2018	2017
Rent expense	$ 60.7	$ 55.9	$ 65.3

Purchase commitments

In the normal course of business, Autodesk enters into various purchase commitments for goods or services. Total non-cancellable purchase commitments as of January 31, 2019, were approximately $82.7 million for periods through fiscal 2028. These purchase commitments primarily result from contracts entered into for the acquisition of IT infrastructure, marketing, and software development services, as well as commitments related to our investment agreements with limited liability partnership funds.

Autodesk has certain royalty commitments associated with the sale and licensing of certain products. Royalty expense is generally based on a dollar amount per unit sold or a percentage of the underlying revenue. Royalty expense, which was recorded under cost of maintenance and subscription revenue and cost of license and other revenue on Autodesk's Consolidated Statements of Operations, was $6.4 million in fiscal 2019, $15.3 million in fiscal 2018, and $16.2 million in fiscal 2017.

Guarantees and Indemnifications

In the normal course of business, Autodesk provides indemnifications of varying scopes, including limited product warranties and indemnification of customers against claims of intellectual property infringement made by third parties arising from the use of its products or services. Autodesk accrues for known indemnification issues if a loss is probable and can be reasonably estimated. Historically, costs related to these indemnifications have not been significant, and because potential future costs are highly variable, Autodesk is unable to estimate the maximum potential impact of these indemnifications on its future results of operations.

In connection with the purchase, sale, or license of assets or businesses with third parties, Autodesk has entered into or assumed customary indemnification agreements related to the assets or businesses purchased, sold or licensed. Historically, costs related to these indemnifications have not been significant, and because potential future costs are highly variable, Autodesk is unable to estimate the maximum potential impact of these indemnifications on its future results of operations.

As permitted under Delaware law, Autodesk has agreements whereby it indemnifies its officers and directors for certain events or occurrences while the officer or director is, or was, serving at Autodesk’s request in such capacity. The maximum potential amount of future payments Autodesk could be required to make under these indemnification agreements is unlimited; however, Autodesk has directors’ and officers’ liability insurance coverage that is intended to reduce its financial exposure and may enable Autodesk to recover a portion of any future amounts paid. Autodesk believes the estimated fair value of these indemnification agreements in excess of applicable insurance coverage is minimal.

Legal Proceedings

Autodesk is involved in a variety of claims, suits, inquiries, investigations, and proceedings in the normal course of business including claims of alleged infringement of intellectual property rights, commercial, employment, tax, piracy prosecution, business practices, and other matters. Autodesk routinely reviews the status of each significant matter and assesses its potential financial exposure. If the potential loss from any matter is considered probable and the amount can be reasonably estimated, Autodesk records a liability for the estimated loss. Because of inherent uncertainties related to these legal matters, Autodesk bases its loss accruals on the best information available at the time. As additional information becomes available, Autodesk reassesses its potential liability and may revise its estimates. In the Company's opinion, resolution of pending matters is not expected to have a material adverse impact on its consolidated results of operations, cash flows, or its financial position. Given the unpredictable nature of legal proceedings, there is a reasonable possibility that an unfavorable resolution of one or more such proceedings could in the future materially affect the Company's results of operations, cash flows, or financial position in a particular period, however, based on the information known by the Company as of the date of this filing and the rules and regulations applicable to the preparation of the Company's financial statements, any such amount is either immaterial or it is not possible to provide an estimated amount of any such potential loss.

10. Stockholders' (Deficit) Equity

Preferred Stock

Under Autodesk’s Certificate of Incorporation, 2.0 million shares of preferred stock are authorized. At January 31, 2019, there were no preferred shares issued or outstanding. The Board of Directors has the authority to issue the preferred stock in one or more series and to fix rights, preferences, privileges, and restrictions, including dividends and the number of shares constituting any series or the designation of such series, without any further vote or action by the stockholders.

Common Stock Repurchase Program

Autodesk has a stock repurchase program that is used to offset dilution from the issuance of stock under the Company’s employee stock plans and for such other purposes as may be in the interests of Autodesk and its stockholders, which has the effect of returning excess cash generated from the Company’s business to stockholders. Autodesk repurchased and retired approximately 2.2 million shares in fiscal 2019 at an average repurchase price of $130.15 per share, 6.9 million shares in fiscal 2018 at an average repurchase price of $100.45 per share, and 9.7 million shares in fiscal 2017 at an average repurchase price of $64.73.

At January 31, 2019, 17.4 million shares remained available for repurchase under the repurchase program approved by the Board of Directors. The share repurchase program does not have an expiration date and the pace and timing of repurchases will depend on factors such as cash generation from operations, available surplus, the volume of employee stock plan activity, cash requirements for acquisitions, economic and market conditions, stock price and legal and regulatory requirements.

11. Interest and Other Expense, net

Interest and other expense, net, consists of the following:

	Fiscal Year Ended January 31,		
	2019	2018	2017
Interest and investment expense, net	$ (52.1)	$ (34.5)	$ (29.7)
Gain (loss) on foreign currency	5.1	(3.3)	(3.3)
Gain (loss) on strategic investments	12.5	(16.4)	0.3
Other income	16.8	6.0	8.5
Interest and other expense, net	$ (17.7)	$ (48.2)	$ (24.2)

12. Accumulated Other Comprehensive Loss

Accumulated other comprehensive loss, net of taxes, consisted of the following:

	Net Unrealized Gains (Losses) on Derivative Instruments	Net Unrealized Gains (Losses) on Available for Sale Securities	Defined Benefit Pension Components	Foreign Currency Translation Adjustments	Total
Balances, January 31, 2017	$ 14.6	$ 1.5	$ (33.8)	$ (160.8)	$ (178.5)
Other comprehensive (loss) income before reclassifications	(24.5)	(0.6)	4.3	86.3	65.5
Pre-tax losses (gains) reclassified from accumulated other comprehensive income	(9.9)	0.3	0.9	0.1	(8.6)
Tax effects	3.2	0.1	(0.7)	(4.8)	(2.2)
Net current period other comprehensive (loss) income	(31.2)	(0.2)	4.5	81.6	54.7
Balances, January 31, 2018	(16.6)	1.3	(29.3)	(79.2)	(123.8)
Other comprehensive income (loss) before reclassifications	20.6	0.7	14.7	(58.3)	(22.3)
Pre-tax gains reclassified from accumulated other comprehensive income	12.1	1.3	0.3	—	13.7
Tax effects	(1.1)	—	(2.0)	0.5	(2.6)
Net current period other comprehensive income (loss)	31.6	2.0	13.0	(57.8)	(11.2)
Balances, January 31, 2019	$ 15.0	$ 3.3	$ (16.3)	$ (137.0)	$ (135.0)

Reclassifications related to gains and losses on available-for-sale debt securities are included in "Interest and other expense, net". Refer to Note 3, "Financial Instruments" for the amount and location of reclassifications related to derivative instruments. Reclassifications of the defined benefit pension components of net periodic benefit cost are included in "Interest and other expense, net". Refer to Note 15, "Retirement Benefit Plans."

13. Net Loss Per Share

Basic net loss per share is computed using the weighted average number of shares of common stock outstanding for the period, excluding stock options and restricted stock units. Diluted net loss per share is based upon the weighted average number of shares of common stock outstanding for the period and potentially dilutive common shares, including the effect of stock options and restricted stock units under the treasury stock method. The following table sets forth the computation of the numerators and denominators used in the basic and diluted net loss per share amounts:

	Fiscal Year Ended January 31,		
	2019	2018	2017
Numerator:			
Net loss	$ (80.8)	$ (566.9)	$ (582.1)
Denominator:			
Denominator for basic net loss per share—weighted average shares	218.9	219.5	222.7
Effect of dilutive securities (1)	—	—	—
Denominator for dilutive net loss per share	218.9	219.5	222.7
Basic net loss per share	$ (0.37)	$ (2.58)	$ (2.61)
Diluted net loss per share	$ (0.37)	$ (2.58)	$ (2.61)

(1) The effect of dilutive securities of 3.1 million, 4.5 million, and 4.6 million shares for the fiscal years ended January 31, 2019, 2018, and 2017, respectively, have been excluded from the calculation of diluted net loss per share as those shares would have been anti-dilutive due to the net loss incurred during those fiscal years.

The computation of diluted net loss per share does not include shares that are anti-dilutive under the treasury stock method because their exercise prices are higher than the average market value of Autodesk's stock during the fiscal year. The effect of 0.5 million, 0.5 million, and 0.1 million potentially anti-dilutive shares were excluded from the computation of net loss per share for the fiscal years ended January 31, 2019, 2018, and 2017, respectively.

14. Segments

Autodesk reports segment information based on the "management" approach. The management approach designates the internal reporting used by management for making decisions, allocating resources and assessing performance as the source of the Company's reportable segments. The Company's chief operating decision maker ("CODM") allocates resources and assesses the operating performance of the Company as a whole. As such, Autodesk has one segment manager (the CODM), and one operating segment.

15. Retirement Benefit Plans

Pretax Savings Plan

Autodesk has a 401(k) plan that covers nearly all U.S. employees. Eligible employees may contribute up to 75% of their pretax salary, subject to limitations mandated by the Internal Revenue Service. Autodesk makes voluntary cash contributions and matches a portion of employee contributions in cash. Autodesk's contributions were $17.1 million in fiscal 2019, $17.3 million in fiscal 2018, and $16.4 million in fiscal 2017. Autodesk does not allow participants to invest in Autodesk common stock through the 401(k) plan.

Defined Benefit Pension Plans

Autodesk maintains certain defined benefit pension plans to employees primarily located in countries outside of the U.S, particularly the United Kingdom, Switzerland, and Japan. The Company deposits funds for specific plans, consistent with the requirements of local law, with insurance companies, third-party trustees, or into government-managed accounts, and accrues for the unfunded portion of the obligation, where material. Depending on the design of the plan, local customs, and market circumstances, the liabilities of a plan may exceed qualified plan assets.

Benefit Obligation and Plan Assets

The changes in the projected benefit obligations and plan assets for the plans described above were as follows:

	Fiscal year ended January 31,	
	2019	2018
Beginning projected benefit obligation	$ 158.1	$ 146.4
Service cost	4.1	5.2
Interest cost	2.3	2.7
Actuarial (gain) loss	(4.3)	(2.8)
Benefits paid	(2.6)	(3.3)
Foreign currency exchange rate changes	(10.0)	13.9
Curtailments and settlements	(61.0)	(8.2)
Contributions by plan participants	5.0	4.0
Plan amendment	—	0.2
Ending projected benefit obligation	$ 91.6	$ 158.1
Beginning fair value of plan assets	$ 121.1	$ 107.4
Actual return on plan assets	1.4	3.8
Contributions paid by employer	5.9	6.5
Contributions paid by plan participants	5.0	4.0
Benefit payments	(2.6)	(3.3)
Curtailments and settlements	(42.3)	(8.0)
Foreign currency exchange rate changes	(7.7)	10.7
Ending fair value of plan assets	$ 80.8	$ 121.1
Funded status	$ (10.8)	$ (37.0)

The amounts recognized on the consolidated balance sheets at the end of each period were as follows:

	Fiscal Year Ended January 31,	
	2019	2018
Other long-term liabilities	$ 10.8	$ 37.0
Accumulated other comprehensive loss, before tax	16.3	31.7
Net amount recognized	$ 27.1	$ 68.7

On a worldwide basis, the Company's defined benefit pension plans were 88% funded as of January 31, 2019.

As of January 31, 2019, the aggregate accumulated benefit obligation was $85.1 million for the defined benefit pension plans compared to $139.5 million as of January 31, 2018. Included in the aggregate data in the following tables are the amounts applicable to the Company's defined benefit pension plans, with accumulated benefit obligations in excess of plan assets, as well as plans with projected benefit obligations in excess of plan assets. Amounts related to such plans at the end of each period were as follows:

	Fiscal Year Ended January 31,	
	2019	2018
Plans with accumulated benefit obligations in excess of plan assets:		
Accumulated benefit obligations	$ 75.6	$ 130.7
Plan assets	70.0	112.1
Plans with projected benefit obligations in excess of plan assets:		
Projected benefit obligations	$ 91.6	$ 158.1
Plan assets	80.8	121.1

Defined Benefit Pension Plan Assets

The investments of the plans are managed by insurance companies or third-party investment managers selected by Autodesk's Trustees, consistent with regulations or market practice of the country where the assets are invested. Investments managed by qualified insurance companies or third-party investment managers under standard contracts follow local regulations, and Autodesk is not actively involved in their investment strategies.

Defined benefit pension plan assets measured at fair value on a recurring basis consisted of the following investment categories at the end of each period as follows:

	Fiscal Year Ended January 31,				
	2019				2018
	Level 1	Level 2	Level 3	Total	Total
Insurance contracts	$ —	$ 28.0	$ —	$ 28.0	$ 53.0
Other investments	—	14.5	—	14.5	17.0
Total assets measured at fair value	$ —	$ 42.5	$ —	42.5	70.0
Cash				4.3	0.2
Investment Fund valued using net asset value				34.0	50.9
Total pension plan assets at fair value				$ 80.8	$ 121.1

The insurance contracts in the preceding table represent the immediate cash surrender value of assets managed by qualified insurance companies. Autodesk does not have control over the target allocation or visibility of the investment strategies of those investments. Insurance contracts and investments held by insurance companies made up 35% and 44% of total plan assets as of January 31, 2019 and January 31, 2018, respectively.

The assets held in the investment fund in the preceding table are invested in a diversified growth fund actively managed by Russell Investments in association with Aon Hewitt. The objective of the fund is to generate capital appreciation on a long-term basis through a diversified portfolio of investments. The fund aims to deliver equity-like returns in the medium to long term with around two-thirds the volatility of equity markets. The fair value of the assets held in the investment fund are priced monthly at net asset value without restrictions on redemption.

Estimated Future Benefit Payments

Estimated benefit payments over the next 10 fiscal years are as follows:

	Pension Benefits
2020	$ 2.4
2021	2.3
2022	2.3
2023	2.3
2024	2.3
2025-2029	13.9
Total	$ 25.5

Funding Expectations

Our expected required funding for the plans during fiscal 2020 is approximately $4.6 million.

Net Periodic Benefit Cost

The components of net periodic pension cost for the defined benefit pension plans for fiscal 2019, 2018, and 2017 are as follows:

	Fiscal Year Ended January 31,		
	2019	2018	2017
Service cost for benefits earned during the period	$ 4.1	$ 5.2	$ 5.6
Interest cost on projected benefit obligation (1)	2.3	2.7	3.0
Expected return on plan assets (1)	(3.2)	(3.9)	(4.2)
Amortization of prior service credit (1)	(0.2)	(0.3)	(0.3)
Amortization of loss (1)	0.5	1.2	1.5
Settlement loss (1)	4.3	1.9	1.2
Curtailment gain (1)	(10.9)	(0.1)	—
Net periodic (benefit) cost	$ (3.1)	$ 6.7	$ 6.8

(1) Included in Interest and other expense, net in Autodesk's fiscal 2019 Consolidated Statements of Operations as a result of the adoption of ASU No. 2017-07 in the first quarter of fiscal 2019.

Amounts Recorded in OCI

The components of other comprehensive income (loss) for the defined benefit pension plans before taxes for fiscal 2019, 2018, and 2017 are as follows:

	Fiscal Year Ended January 31,		
	2019	2018	2017
Prior service credit for period	$ (0.1)	$ 0.2	$ —
Net (gain) loss for period	(2.4)	(2.5)	7.2
Effect of settlement	(4.3)	(1.9)	(1.2)
Effect of curtailment	(7.9)	(0.2)	—
Amortization of prior service credit	0.2	0.3	0.3
Amortization of net loss	(0.5)	(1.2)	(1.5)
Other comprehensive (income) loss	$ (15.0)	$ (5.3)	$ 4.8

Amounts Recorded in Accumulated Other Comprehensive Loss

The amounts recorded in accumulated other comprehensive loss before taxes at the end of each period were as follows:

	Fiscal Year Ended January 31,	
	2019	2018
Net prior service credit	$ (1.4)	$ (3.1)
Net actuarial loss	17.7	34.8
Accumulated other comprehensive loss, before tax	$ 16.3	$ 31.7

Assumptions

Weighted average actuarial assumptions used to determine costs for the plans for each period were as follows:

	Fiscal Year Ended January 31,		
	2019	2018	2017
Discount rate	2.5%	2.4%	3.2%
Expected long-term rate of return on plan assets	3.3%	3.3%	4.3%
Rate of compensation increase	2.3%	2.3%	2.2%

The weighted-average expected long-term rate of return for the plan assets is 3.3%. The weighted-average expected long-term rate of return on plan assets is based on the interest rates guaranteed under the insurance contracts, and the expected rate of return appropriate for each category of assets weighted for the distribution within the diversified investment fund. The assumptions used for the plans are based upon customary rates and practices for the location of the plans. Factors such as asset class allocations, long-term rates of return (actual and expected), and results of periodic asset liability modeling studies are considered when constructing the long-term rate of return assumption for our defined benefit pension plans.

Weighted average actuarial assumptions used to determine benefit obligations for the plans at the end of each period were as follows:

	Fiscal Year Ended January 31,		
	2019	2018	2017
Discount rate	2.0%	1.8%	1.7%
Rate of compensation increase	2.7%	2.6%	2.6%

In selecting the appropriate discount rate for the plans, the Company uses country-specific information, adjusted to reflect the duration of the particular plan. The discount rate was based on highly rated long-term bond indexes and yield curves that match the duration of the plan's benefit obligations.

Defined Contribution Plans

Autodesk also provides defined contribution plans in certain foreign countries where required by statute. Autodesk's funding policy for foreign defined contribution plans is consistent with the local requirements in each country. Autodesk's contributions to these plans were $29.6 million in fiscal 2019, $27.2 million in fiscal 2018, and $26.6 million in fiscal 2017.

Cash Balance Plans

Autodesk provides a cash balance plan that insures the risks of disability, death, and longevity, in which the vested pension capital is reinvested and provides a 100% capital and interest guarantee. The weighted-average guaranteed interest crediting rate for cash balance plans was 1.0%, 1.0%, and 1.3% for mandatory retirement savings and 0.3%, 0.3%, and 0.8% for supplementary retirement savings for fiscal 2019, 2018, and 2017, respectively.

Other Plans

In addition, Autodesk offers a non-qualified deferred compensation plan to certain key employees whereby they may defer a portion (or all) of their annual compensation until retirement or a different date specified by the employee in accordance with terms of the plan. See Note 7, "Deferred Compensation," for further discussion.

16. Restructuring and other exit costs, net

During the fourth quarter of fiscal year 2018, the Board of Directors approved a world-wide restructuring plan ("Fiscal 2018 Plan") to support the Company's strategic priorities of completing the subscription transition, digitizing the Company, and re-imagining manufacturing, construction, and production. Through the restructuring, Autodesk seeks to reduce its investments in areas not aligned with its strategic priorities, including in areas related to research and development and go-to-market activities. At the same time, Autodesk plans to further invest in strategic priority areas related to digital infrastructure, customer success, and construction. By re-balancing resources to better align with the Company's strategic priorities, Autodesk is positioning itself to meet its long-term goals. This world-wide restructuring plan included a reduction in force of approximately 11% of the Company's workforce, or 1,027 employees, and the consolidation of certain leased facilities. By January 31, 2019, the personnel and facilities related actions included in this restructuring plan were substantially complete.

During Fiscal 2019, restructuring charges under the Fiscal 2018 Plan included $39.2 million in employee termination benefits and $3.2 million in lease termination and other exit costs.

The following tables set forth the restructuring charges and other facility exit costs, net during the fiscal years ended January 31, 2019 and 2018:

	Balances, January 31, 2018	Additions	Payments	Adjustments (1)	Balances, January 31, 2019
Fiscal 2018 Plan					
Employee terminations costs	$ 53.0	$ 39.2	$ (89.7)	$ (0.5)	$ 2.0
Facility terminations and other exit costs	2.5	3.2	(5.7)	0.1	0.1
Total	$ 55.5	$ 42.4	$ (95.4)	$ (0.4)	$ 2.1
Current portion (2)	$ 55.5				$ 2.1
Total	$ 55.5				$ 2.1

(1) Adjustments primarily relate to the impact of foreign exchange rate changes, settlement of lease contracts, and certain write offs related to fixed assets.

(2) The current portions of the reserve are recorded in the Consolidated Balance Sheets under "Other accrued liabilities." There was no non-current portion as of January 31, 2019.

	Balances, January 31, 2017	Additions	Payments	Adjustments (1)	Balances, January 31, 2018
Fiscal 2018 Plan					
Employee terminations costs	$ —	$ 87.3	$ (35.1)	$ 0.8	$ 53.0
Facility terminations and other exit costs	—	6.3	(1.3)	(2.5)	2.5
Fiscal 2017 Plan					
Employee termination costs	1.1	0.1	(1.5)	0.3	—
Facility terminations and other exit costs	1.9	0.1	(1.5)	(0.3)	0.2
Other facility termination costs					
Facility termination costs	4.5	0.3	(3.0)	(0.3)	1.5
Total	$ 7.5	$ 94.1	$ (42.4)	$ (2.0)	$ 57.2
Current portion (2)	$ 5.9				$ 57.2
Non-current portion (2)	1.6				—
Total	$ 7.5				$ 57.2

(1) Adjustments primarily relate to the accelerated depreciation of fixed assets and the impact of foreign exchange rate changes.

(2) The current and non-current portions of the reserve are recorded in the Consolidated Balance Sheets under "Other accrued liabilities" and "Other liabilities," respectively.

17. Selected Quarterly Financial Information (Unaudited)

Summarized quarterly financial information for fiscal year 2019 and 2018 is as follows:

2019	1st quarter	2nd quarter	3rd quarter	4th quarter	Fiscal year
Net revenue (1)	$ 559.9	$ 611.7	$ 660.9	$ 737.3	$ 2,569.8
Gross profit (1)	493.1	541.9	588.6	660.3	2,283.9
(Loss) Income from operations (1)	(55.3)	(24.7)	14.7	40.3	(25.0)
Provision for income taxes	(18.6)	(16.0)	(35.2)	31.7	(38.1)
Net (loss) income (1)	(82.4)	(39.4)	(23.7)	64.7	(80.8)
Basic net (loss) income per share (1) (2)	$ (0.38)	$ (0.18)	$ (0.11)	$ 0.30	$ (0.37)
Diluted net (loss) income per share (1) (2)	$ (0.38)	$ (0.18)	$ (0.11)	$ 0.29	$ (0.37)
(Loss) Income from operations includes the following items:					
Stock-based compensation expense	$ 54.4	$ 56.9	$ 64.2	$ 74.0	$ 249.5
Amortization of acquisition related intangibles	7.4	7.2	7.8	11.1	33.5
CEO transition costs	—	(0.1)	—	—	(0.1)
Acquisition related costs	—	2.5	1.8	11.9	16.2
Restructuring and other exit costs, net	$ 22.5	$ 13.8	$ 3.7	$ 1.9	$ 41.9

2018	1st quarter	2nd quarter	3rd quarter	4th quarter	Fiscal year
Net revenue	$ 485.7	$ 501.8	$ 515.3	$ 553.8	$ 2,056.6
Gross profit	407.5	427.2	437.8	480.7	1,753.2
Loss from operations	(119.6)	(107.6)	(100.0)	(181.9)	(509.1)
(Provision) Benefit for income taxes	(8.2)	(17.6)	(8.6)	24.8	(9.6)
Net loss	(129.6)	(144.0)	(119.8)	(173.5)	(566.9)
Basic net loss per share (2)	$ (0.59)	$ (0.66)	$ (0.55)	$ (0.79)	$ (2.58)
Diluted net loss per share (2)	$ (0.59)	$ (0.66)	$ (0.55)	$ (0.79)	$ (2.58)
Loss from operations includes the following items:					
Stock-based compensation expense	$ 59.0	$ 58.8	$ 65.1	$ 62.1	$ 245.0
Amortization of acquisition related intangibles	10.4	8.9	8.7	8.6	36.6
CEO transition costs	11.0	10.6	—	(0.2)	21.4
Restructuring and other exit costs, net	$ (0.3)	$ 0.5	$ —	$ 93.9	$ 94.1

(1) Reflects the impact of the adoption of new accounting standards in fiscal year 2019 related to revenue recognition. See Note 1, "Business and Summary of Significant Accounting Policies, Accounting Standards Adopted", of our consolidated financial statements for additional information.

(2) Net (loss) income per share were computed independently for each of the periods presented; therefore the sum of the net (loss) income per share amount for the quarters may not equal the total for the fiscal year.

18. Subsequent Events

In February 2019 and March 2019, Autodesk repaid $75.0 million and $50.0 million, respectively for a total payment of $125.0 million on the $500.0 million Term Loan Agreement entered into in December 2018 in connection with the consummation of the PlanGrid acquisition described in Note 6, "Acquisitions." See Note 8, "Borrowing Arrangements" for more details on the Term Loan Agreement. Autodesk did not incur any early termination penalties in connection with such repayment.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of Autodesk, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Autodesk, Inc. (the Company) as of January 31, 2019, and 2018, the related consolidated statements of operations, comprehensive loss, stockholders' (deficit) equity, and cash flows for each of the three years in the period ended January 31, 2019, and the related notes and the financial statement schedule listed in the Index at Item 15(a)(2) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at January 31, 2019, and 2018, and the results of its operations and its cash flows for each of the three years in the period ended January 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of January 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated March 25, 2019 expressed an unqualified opinion thereon.

Adoption of New Accounting Standard

As discussed in Note 1 to the consolidated financial statements, the Company changed its method of accounting for recognizing revenue from contracts with customers and recognizing costs related to obtaining a customer contract in the year ended January 31, 2019 due to the adoption of ASU No. 2014-09, *Revenue from Contracts with Customers*.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ ERNST & YOUNG LLP

We have served as the Company's auditor since 1983.
San Francisco, California
March 25, 2019

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of Autodesk, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Autodesk, Inc.'s internal control over financial reporting as of January 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Autodesk, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of January 31, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the accompanying consolidated balance sheets of the Company as of January 31, 2019, and 2018, the related consolidated statements of operations, comprehensive loss, stockholders' (deficit) equity, and cash flows for each of the three years in the period ended January 31, 2019, and the related notes and the financial statement schedule listed in the Index at Item 15(a)(2) and our report dated March 25, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

/s/ ERNST & YOUNG LLP

San Francisco, California
March 25, 2019

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

We maintain "disclosure controls and procedures," as defined in Rule 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Our disclosure controls and procedures are designed to ensure that information required to be disclosed in our Exchange Act reports is (i) recorded, processed, summarized and reported within the time periods specified in the rules of the Securities and Exchange Commission ("SEC"), and (ii) accumulated and communicated to Autodesk management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure. We conducted an evaluation, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this Annual Report on Form 10-K. Based upon this evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures are effective as of January 31, 2019.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended). Our management assessed the effectiveness of our internal control over financial reporting as of January 31, 2019. In making this assessment, our management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in the 2013 Internal Control—Integrated Framework. Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will necessarily prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within Autodesk have been detected.

Our management has concluded that, as of January 31, 2019, our internal control over financial reporting was effective 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. Our independent registered public accounting firm, Ernst & Young LLP, has issued an audit report on our internal control over financial reporting, which is included in Item 8 herein.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There were no changes in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934) during the three months ended January 31, 2019, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

Certain information required by Part III is omitted from this Annual Report because we intend to file a definitive proxy statement pursuant to Regulation 14A for our Annual Meeting of Stockholders not later than 120 days after the end of the fiscal year covered by this Annual Report (the "Proxy Statement") and certain information included therein is incorporated herein by reference. Only those sections of the Proxy Statement that specifically address the items set forth herein are incorporated by reference.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this Item is incorporated herein by reference to the sections entitled "Proposal One—Election of Directors," "Section 16(a) Beneficial Ownership Reporting Compliance," and "Corporate Governance" in our Proxy Statement.

EXECUTIVE OFFICERS OF THE REGISTRANT

The following sets forth certain information as of March 25, 2019, regarding our executive officers.

Name	Age	Position
Andrew Anagnost	54	President and Chief Executive Officer
R. Scott Herren	57	SVP and Chief Financial Officer
Steve M. Blum	54	SVP, Worldwide Field Operations
Pascal W. Di Fronzo	54	SVP, Corporate Affairs, Chief Legal Officer & Secretary
Carmel Galvin	50	SVP, People and Places and Chief Human Resources Officer

Andrew Anagnost joined Autodesk in September 1997 and has served as President and Chief Executive Officer since June 2017. Dr. Anagnost served as Co-CEO from February 2017 to June 2017, Chief Marketing Officer from December 2016 to June 2017 and as the Company's Senior Vice President, Business Strategy & Marketing, from March 2012 to June 2017. From December 2009 to March 2012, Dr. Anagnost was Vice President, Product Suites and Web Services of the Company. Prior to this position, Dr. Anagnost served as Vice President of CAD/CAE products for the manufacturing division of the Company from March 2007 to December 2009. Previously, Dr. Anagnost held other senior management positions at the Company. Prior to joining the Company, Dr. Anagnost held various engineering, sales, marketing and product management positions at Lockheed Aeronautical Systems Company and EXA Corporation. He also served as an NRC post-doctoral fellow at NASA Ames Research Center.

R. Scott Herren joined Autodesk in November 2014 and serves as Senior Vice President and Chief Financial Officer. Prior to joining Autodesk, Mr. Herren was the Senior Vice President of Finance for Citrix Systems, Inc. from September 2011 to October 2014 where he led the company's finance, accounting, tax, treasury, investor relations, real estate, and facilities teams. From March 2000 to September 2011, Mr. Herren held a variety of leadership positions at Citrix including Vice President and Managing Director for EMEA and Vice President and General Manager of the Virtualization Systems Group. Prior to Citrix, Mr. Herren served at FedEx Corporation as Vice President, Financial Planning. Prior to FedEx, he spent 13 years at International Business Machines Corporation in senior financial positions.

Steven M. Blum joined Autodesk in January 2003 and has served as Senior Vice President, Worldwide Field Operations since September 2017. Mr. Blum served as Senior Vice President, Worldwide Sales and Services from February 2011 to September 2017. From January 2003 to February 2011, he served as Senior Vice President of Americas Sales. Prior to this position, Blum was Executive Vice President of Sales and Account Management for Parago, Inc. Blum also held positions at Mentor Graphics, most recently serving as Vice President of America's sales. Before joining Mentor Graphics, he held engineering and sales positions at NCR Corporation and Advanced Micro Devices.

Pascal W. Di Fronzo joined Autodesk in June 1998 and has served as Senior Vice President, Corporate Affairs, Chief Legal Officer & Secretary since December 2016. Mr. Di Fronzo served as Senior Vice President, General Counsel and Secretary from March 2007 to December 2016. From March 2006 to March 2007, Mr. Di Fronzo served as Vice President, General Counsel and Secretary, and served as Vice President, Assistant General Counsel and Assistant Secretary from March 2005 through March 2006. Previously, Mr. Di Fronzo served in other business and legal capacities in our Legal Department.

Prior to joining Autodesk, he advised high technology and emerging growth companies on business and intellectual property transactions and litigation while in private practice.

Carmel Galvin joined Autodesk in March 2018 and serves as Senior Vice President, People and Places and Chief Human Resources Officer (“CHRO”). Prior to joining Autodesk, from April 2016 to February 2018, Ms. Galvin was the Senior Vice President, CHRO for Glassdoor, Inc. where she led all people functions of the company, including human resources planning, learning and development, talent acquisition, employee relations and engagement. From October 2014 to April 2016, Ms. Galvin served as Senior Vice President and CHRO at Advent Software, Inc., where she oversaw the company’s global people strategies and programs. Prior to Advent, she served as Vice President of Talent & Culture Development for Deloitte’s new-venture accelerator, advising a growing portfolio of innovative companies on how to scale and adjust their culture and talent programs. Prior to Deloitte, Ms. Galvin gained 20 years of human resources experience at global companies including Moody’s KMV, Barra Inc., Visa International and IBM (Ireland) Ltd.

There is no family relationship among any of our directors or executive officers.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item is incorporated herein by reference to the sections entitled "Corporate Governance" and “Executive Compensation” in our Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this Item is incorporated herein by reference to the sections entitled “Security Ownership of Certain Beneficial Owners and Management” and “Executive Compensation—Equity Compensation Plan Information” in our Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this Item is incorporated herein by reference to the sections entitled “Certain Relationships and Related Party Transactions” and “Corporate Governance—Independence of the Board of Directors” in our Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item is incorporated herein by reference to the sections entitled “Proposal Two—Ratification of the Appointment of Independent Registered Public Accounting Firm” in our Proxy Statement.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this Report:

1. *Financial Statements*: The information concerning Autodesk's financial statements, and the Report of Ernst & Young LLP, Independent Registered Public Accounting Firm required by this Item is incorporated by reference herein to the section of this Report in Item 8, entitled "Financial Statements and Supplementary Data."

2. *Financial Statement Schedule*: The following financial statement schedule of Autodesk, Inc., for the fiscal years ended January 31, 2019, 2018, and 2017, is filed as part of this Report and should be read in conjunction with the Consolidated Financial Statements of Autodesk, Inc.:

   Schedule II Valuation and Qualifying Accounts

   Schedules not listed above have been omitted because they are not applicable or are not required or the information required to be set forth therein is included in the Consolidated Financial Statements or Notes thereto.

3. *Exhibits*: See Item 15(b) below. We have filed, or incorporated into this Report by reference, the exhibits listed on the accompanying Index to Exhibits immediately following the signature page of this Form 10-K.

(b) Exhibits:

We have filed, or incorporated into this Report by reference, the exhibits listed on the accompanying Index to Exhibits immediately following the signature page of this Form 10-K.

(c) Financial Statement Schedules: See Item 15(a), above.

ITEM 15(A)(2) FINANCIAL STATEMENT SCHEDULE II

Description	Balance at Beginning of Fiscal Year	Additions Charged to Costs and Expenses or Revenues	Deductions and Write-Offs	Balance at End of Fiscal Year
		(in millions)		
Fiscal Year Ended January 31, 2019				
Partner Program reserves (1)	36.5	294.7	279.5	51.7
Restructuring and other facility exit costs	57.2	41.9	97.0	2.1
Fiscal Year Ended January 31, 2018				
Partner Program reserves (1)	28.1	224.3	215.9	36.5
Restructuring and other facility exit costs	8.4	94.1	45.3	57.2
Fiscal Year Ended January 31, 2017				
Partner Program reserves (1)	45.2	240.3	257.4	28.1
Restructuring and other facility exit costs	1.3	77.8	70.7	8.4

(1) The partner program reserves balance impacts "Accounts receivable, net" and "Accounts payable" on the accompanying Consolidated Balance Sheets.

ITEM 16 FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

AUTODESK, INC.

By: /s/ ANDREW ANAGNOST

Andrew Anagnost

President and Chief Executive Officer

Dated: March 25, 2019

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Andrew Anagnost and R. Scott Herren each as his or her attorney-in-fact, each with the power of substitution, for him or her in any and all capacities, to sign any amendments to this Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the Registrant and in the capacities as of March 25, 2019.

Signature	Title
/s/ ANDREW ANAGNOST Andrew Anagnost	President and Chief Executive Officer, Director (Principal Executive Officer)
/s/ R. SCOTT HERREN R. Scott Herren	Senior Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)
/s/ STACY J. SMITH Stacy J. Smith	Director (Non-executive Chairman of the Board)
/s/ CRAWFORD W. BEVERIDGE Crawford W. Beveridge	Director
/s/ KAREN BLASING Karen Blasing	Director
/s/ REID FRENCH Reid French	Director
/s/ MARY T. MCDOWELL Mary T. McDowell	Director
Blake J. Irving	Director
/s/ STEPHEN D. MILLIGAN Stephen D. Milligan	Director
/s/ LORRIE M. NORRINGTON Lorrie M. Norrington	Director
/s/ ELIZABETH RAFAEL Elizabeth Rafael	Director

Index to Exhibits

Exhibit No.	Description
3.1	Amended and Restated Certificate of Incorporation of Registrant (incorporated by reference to Exhibit 3.1 filed with the Registrant’s Annual Report on Form 10-K filed on March 30, 2006)
3.2	Amended and Restated Bylaws of Registrant (incorporated by reference to Exhibit 3.1 filed with the Registrant’s Current Report on Form 8-K filed on June 15, 2018)
4.1	Indenture dated December 13, 2012, by and between the Registrant and U.S. Bank National Association (incorporated by reference to Exhibit 4.1 filed with the Registrant's Current Report on Form 8-K filed on December 13, 2012)
4.2	First Supplemental Indenture (including Form of Notes) dated December 13, 2012, by and between the Registrant and U.S. Bank National Association (incorporated by reference to Exhibit 4.2 filed with the Registrant's Current Report on Form 8-K filed on December 13, 2012)
4.3	Second Supplemental Indenture (including Form of Notes) dated June 5, 2015, by and between the Registrant and U.S. Bank National Association (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K filed on June 8, 2015)
4.4	Third Supplemental Indenture (including Form of Notes) dated June 8, 2017, by and between the Registrant and U.S. Bank National Association. (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K filed on June 8, 2017)
10.1*	Description of Registrant's Performance Stock Unit Program (incorporated by reference to Item 5.02 of the Registrant's Current Report on Form 8-K filed on March 26, 2018)
10.2*	Registrant’s 1998 Employee Qualified Stock Purchase Plan, as amended and restated effective as of June 12, 2018 (incorporated by reference to Exhibit 10.3 of the Registrant’s Quarterly Report on Form 10-Q filed on August 30, 2018)
10.3*	Registrant’s 1998 Employee Qualified Stock Purchase Plan Forms of Subscription Agreement, as amended and restated (incorporated by reference to Exhibit 10.5 filed with the Registrant’s Quarterly Report on Form 10-Q filed on August 30, 2016)
10.4*	Registrant's 2012 Employee Stock Plan, as amended and restated effective as of June 12, 2018 (incorporated by reference to Exhibit 10.2 filed with the Registrant's Quarterly Report on Form 10-Q filed on August 30, 2018)
10.5*	Registrant's 2012 Employee Stock Plan Form of Restricted Stock Unit Agreement, as amended and restated (incorporated by reference to Exhibit 10.2 filed with the Registrant's Quarterly Report on Form 10-Q filed on August 30, 2016)
10.6*	Registrant's 2012 Employee Stock Plan Form of Severance Restricted Stock Unit Agreement, as amended and restated (incorporated by reference to Exhibit 10.3 filed with the Registrant's Quarterly Report on Form 10-Q filed on August 30, 2016)
10.7*	Registrant's 2012 Employee Stock Plan Form of Stock Option Agreement (incorporated by reference to Exhibit 10.2 filed with the Registrant's Current Report on Form 8-K filed on March 13, 2012)
10.8*	Registrant's 2012 Employee Stock Plan Form of Stock Option Agreement (non-U.S. Employees) (incorporated by reference to Exhibit 10.4 filed with the Registrant's Current Report on Form 8-K filed on March 13, 2012)

Exhibit No.	Description
10.9*	PlanGrid, Inc. 2012 Equity Incentive Plan (incorporated by reference to Exhibit 99.1 filed with the Registrant's Registration Statement on Form S-8 filed on December 21, 2018)
10.10*	Amended and Restated BuildingConnected, Inc. 2013 Stock Plan (incorporated by reference to Exhibit 99.1 filed with the Registrant's Registration Statement on Form S-8 filed on January 24, 2019)
10.11*	Registrant's 2012 Outside Directors' Stock Plan, as amended and restated (incorporated by reference to Exhibit 10.18 filed with the Registrant’s Annual Report on Form 10-K filed on March 21, 2017)
10.12*	Registrant's 2012 Outside Directors' Stock Plan Form of Restricted Stock Unit Agreement (incorporated by reference to Exhibit 10.5 filed with the Registrant's Current Report on Form 8-K filed on March 13, 2012)
10.13*	Registrant’s Executive Incentive Plan, as amended and restated (incorporated by reference to Exhibit 10.23 filed with the Registrant’s Annual Report on Form 10-K filed on March 23, 2016)
10.14*	Registrant’s 2005 Non-Qualified Deferred Compensation Plan, as amended and restated, effective as of January 1, 2010 (incorporated by reference to Exhibit 10.1 filed with the Registrant’s Quarterly Report on Form 10-Q filed on December 8, 2009)
10.15*	Participants, target awards and payout formulas for fiscal year 2019 under the Registrant's Executive Incentive Plan (incorporated by reference to Item 5.02 of the Registrant's Current Report on Form 8-K filed on March 26, 2018)
10.16*	Executive Change in Control Program, as amended and restated (incorporated by reference to Exhibit 10.1 filed with the Registrant’s Current Report on Form 8-K filed on December 21, 2016)
10.17*	Sub-Plan of the Autodesk, Inc. 1998 Employee Qualified Stock Purchase Plan, as amended and restated (filed herewith)
10.18*	Form of Indemnification Agreement executed by the Registrant and each of its officers and directors (incorporated by reference to Exhibit 10.8 filed with the Registrant’s Annual Report on Form 10-K filed on March 31, 2005)
10.19*	Employment Agreement, dated as of June 19, 2017, by and between the Registrant and Andrew Anagnost (incorporated by reference to Exhibit 10.1 filed with the Registrant’s Current Report on Form 8-K filed on June 19, 2017)
10.20*	Registrant’s Severance Plan dated August 27, 2018 (incorporated by reference to Exhibit 99.1 filed with the Registrant’s Current Report on Form 8-K filed on August 30, 2018)
10.21*	Registrant's 2012 Employee Stock Plan Form of Retirement Restricted Stock Unit Agreement, as amended and restated (filed herewith)
10.22	Office Lease between Registrant and the J.H.S. Trust for 111 McInnis Parkway, San Rafael, CA, as amended (incorporated by reference to Exhibit 10.1 filed with the Registrant’s Quarterly Report on Form 10-Q for the fiscal quarter ended October 31, 2004)
10.23	Fourth Amendment to Lease between Registrant and the J.H.S. Holdings L.P. for 111 McInnis Parkway, San Rafael, CA (incorporated by reference to Exhibit 10.30 filed with the Registrant’s Annual Report on Form 10-K filed on March 19, 2010)
10.24	Amended and Restated Credit Agreement, dated December 17, 2018, by and among the Registrant, the lenders from time to time party thereto and Citibank, N.A. as agent (incorporated by reference to Exhibit 10.1 filed with the Registrant's Current Report on Form 8-K filed on December 20, 2018)
10.25	Term Loan Agreement, dated December 17, 2018, by and among the Registrant, the lenders from time to time party thereto and Citibank, N.A. as agent (incorporated by reference to Exhibit 10.2 filed with the Registrant's Current Report on Form 8-K filed on December 20, 2018)
10.26	Agreement and Plan of Merger, dated as of November 20, 2018, by and among the Registrant, Araujo Acquisition Corp., PlanGrid, Inc. and Shareholder Representative Services LLC (incorporated by reference to Exhibit 2.1 filed with the Registrant’s Current Report on Form 8-K filed on November 20, 2018)

Exhibit No.	Description
21.1	List of Subsidiaries (filed herewith)
23.1	Consent of Independent Registered Public Accounting Firm (Ernst & Young LLP) (filed herewith)
24.1	Power of Attorney (contained in the signature page to this Annual Report)
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934 (filed herewith)
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934 (filed herewith)
32.1†	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)
101.INS ††	XBRL Instance Document
101.SCH ††	XBRL Taxonomy Extension Schema
101.CAL ††	XBRL Taxonomy Extension Calculation Linkbase
101.DEF ††	XBRL Taxonomy Extension Definition Linkbase
101.LAB ††	XBRL Taxonomy Extension Label Linkbase
101.PRE ††	XBRL Taxonomy Extension Presentation Linkbase

* Denotes a management contract or compensatory plan or arrangement.

† The certifications attached as Exhibit 32.1 that accompany this Annual Report on Form 10-K are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of Autodesk, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Form 10-K, irrespective of any general incorporation language contained in such filing.

†† The financial information contained in these XBRL documents is unaudited.

Board of Directors

Andrew Anagnost
President and Chief Executive Officer, Autodesk, Inc.

Stacy J. Smith
non-Executive Chairman of the Board, Autodesk, Inc.

Crawford W. Beveridge*

Karen Blasing

Reid French

Blake Irving

Mary T. McDowell

Stephen Milligan

Lorrie M. Norrington

Betsy Rafael

Company Executive Officers

Andrew Anagnost
President and Chief Executive Officer

Steven M. Blum
SVP, Worldwide Field Operations

Pascal W. Di Fronzo
SVP, Corporate Affairs, Chief Legal Officer & Secretary

Carmel Galvin
SVP, People and Places and Chief Human Resources Officer

R. Scott Herren
SVP and Chief Financial Officer

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#10-21 Symbiosis
Singapore 138633
Singapore

European Headquarters
Autodesk Ireland Operations Ltd
2nd Floor
1 Windmill Lane
Dublin
Ireland D02 F206

Legal Counsel

Wilson Sonsini Goodrich & Rosati Professional Corporation
650 Page Mill Road
Palo Alto, CA 94304
USA

Transfer Agent

Computershare Trust Company N.A.
By Regular Mail
PO BOX 50500
Louisville, KY, 40233-5000
USA

Independent Registered Public Accounting Firm

Ernst & Young, LLP
560 Mission Street, Suite 1600
San Francisco, CA 94105
USA

Notice of Annual Meeting

Held at Autodesk, Inc.'s San Francisco office at The Landmark at One Market Street, 2nd Floor, San Francisco, California, USA, June 12, 2019, 3:00 p.m. Pacific time.

Investor Relations

For more information, including copies of this annual report free of charge, write to us at: Investor Relations, Autodesk, Inc., 111 McInnis Parkway, San Rafael, CA 94903, USA; Phone us at +1-415-507-6705; email us at investor.relations@autodesk.com; or visit our website at: www.autodesk.com.

* Mr. Beveridge is not standing for reelection at the Annual Meeting. The Board thanks him for his distinguished service to Autodesk.

AUTODESK®

Autodesk, Inc., 111 McInnis Parkway, San Rafael, CA 94903