ADOBE INC.
Form 10-K
January 25, 2019

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

FORM 10-K
(Mark One)
x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended November 30, 2018
or
o 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: 0-15175
Adobe Inc.
(Exact name of registrant as specified in its charter)

Delaware	77-0019522
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

345 Park Avenue, San Jose, California 95110-2704
(Address of principal executive offices)
(408) 536-6000
(Registrant's telephone number, including area code)

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

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, $0.0001 par value per share	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 x No o
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No x
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o
Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes x No o
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. x

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 x	Accelerated filer o	Non-accelerated filer o	Smaller reporting company o	Emerging growth company o

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

The aggregate market value of the registrant's common stock, $0.0001 par value per share, held by non-affiliates of the registrant on June 1, 2018, the last business day of the registrant's most recently completed second fiscal quarter, was $96,776,869,889 (based on the closing sales price of the registrant's common stock on that date). Shares of the registrant's common stock held by each officer and director and each person who owns 5% or more of the outstanding common stock of the registrant 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 January 18, 2019, 487,725,915 shares of the registrant's common stock, $0.0001 par value per share, were issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the registrant's 2019 Annual Meeting of Stockholders (the "Proxy Statement"), to be filed within 120 days of the end of the fiscal year ended November 30, 2018, are incorporated by reference in Part III hereof. Except with respect to information specifically incorporated by reference in this Form 10-K, the Proxy Statement is not deemed to be filed as part hereof.

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Forward-Looking Statements

In addition to historical information, this Annual Report on Form 10-K contains forward-looking statements, including statements regarding product plans, future growth, market opportunities, strategic initiatives, industry positioning, customer acquisition and retention, the amount of recurring revenue and revenue growth. In addition, when used in this report, the words “will,” “expects,” “could,” “would,” “may,” “anticipates,” “intends,” “plans,” “believes,” “ “targets,” “estimates,” “looks for,” “looks to,” “continues” and similar expressions, as well as statements regarding our focus fo the future, are generally intended to identify forward-looking statements. Each of the forward-looking statements we make in this report involves risks and uncertainties that could cause actual results to differ materially from these forward-looking statements. Factors that might cause or contribute to such differences include, but are not limited to, those discussed in the section entitled “Risk Factors” in Part I, Item 1A of this report. You should carefully review the risks described herein and in other documents we file from time to time with the U.S. Securities and Exchange Commission (the “SEC”), including our Quarterly Reports on Form 10-Q to be filed in 2019. You should not place undue reliance on these forward-looking statements, which speak only as of the date of this Annual Report on Form 10-K. We undertake no obligation to publicly release any revisions to the forward-looking statements or reflect events or circumstances after the date of this document, except as required by law.

PART I

ITEM 1. BUSINESS

Founded in 1982, Adobe Inc. (formerly Adobe Systems Incorporated) is one of the largest and most diversified software companies in the world. We offer a line of products and services used by creative professionals, marketers, knowledge workers, students, application developers, enterprises and consumers for creating, managing, delivering, measuring, optimizing, engaging and transacting with compelling content and experiences across personal computers, devices and media. We market our products and services directly to enterprise customers through our sales force and local field offices. We license our products to end users through app stores and our own website at www.adobe.com. We offer many of our products via a Software-as-a-Service (“SaaS”) model or a managed services model (both of which are referred to as hosted or cloud-based) as well as through term subscription and pay-per-use models. We also distribute certain products and services through a network of distributors, value-added resellers (“VARs”), systems integrators (“SIs”), independent software vendors (“ISVs”), retailers, software developers and original equipment manufacturers (“OEMs”). In addition, we license our technology to hardware manufacturers, software developers and service providers for use in their products and solutions. Our products run on personal and server-based computers, as well as on smartphones, tablets and other devices, depending on the product. We have operations in the Americas, Europe, Middle East and Africa (“EMEA”), and Asia-Pacific (“APAC”).

Adobe was originally incorporated in California in October 1983 and was reincorporated in Delaware in May 1997. Our executive offices and principal facilities are located at 345 Park Avenue, San Jose, California 95110-2704. Our telephone number is 408-536-6000 and our website is www.adobe.com. Investors can obtain copies of our SEC filings from this site free of charge, as well as from the SEC website at www.sec.gov. The information posted to our website is not incorporated into this Annual Report on Form 10-K.

BUSINESS OVERVIEW

For over 35 years, Adobe’s innovations have transformed how individuals, teams, businesses and governments interact. We help our customers create and deliver the most compelling experiences in a streamlined workflow and optimize those experiences for greater return on investment. Our solutions turn ordinary interactions into valuable digital experiences, across media and devices, anytime, anywhere.

While we continue to offer a broad portfolio of products, services, and solutions, we focus our investments in two strategic growth areas:

Digital Media—providing products, services and solutions that enable individuals, teams and enterprises to create, publish and promote their content anywhere. Our customers include content creators, web designers, app developers,

enthusiasts, and digital media professionals, as well as management in marketing departments and agencies, companies and publishers. Our customers also include knowledge workers who create, collaborate on and distribute documents. This is the core of what we have delivered for over 25 years, and we have evolved our business model to provide our customers with a range of flexible solutions that allow them to reach their full creative potential anytime, anywhere, on any device on projects of all types.
Digital Experience—providing enterprises and brands a comprehensive and integrated suite of products, services and solutions for creating, managing, executing, measuring and optimizing customer experiences that span from advertising to

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commerce. Our customers include marketers, advertisers, agencies, publishers, merchandisers, merchants, web analysts, data scientists, developers, marketing executives, information management executives, product development executives, and sales and support executives. Our robust Adobe Experience Platform provides enterprises and brands a profile that enables deep customer insights and personalized digital experiences delivered with our Adobe Experience Cloud solutions. By combining the creativity of our Digital Media business with the science of our Digital Experience offerings, we help our customers more efficiently and effectively make, manage, measure and monetize their content across channels and devices with an end-to-end workflow and feedback loop.

We believe we are uniquely positioned to be a leader in both the Digital Media and Digital Experience markets, where our mission is to change the world through digital experiences. By integrating products from each of these areas, our customers are able to utilize a comprehensive suite of solutions and services that no other company currently offers. In addition, our ability to deliver innovation and productivity improvements across customer workflows involving the creation, management, delivery, measurement and optimization of engaging content favorably positions Adobe as our customers continue investing in engaging their constituents digitally.

SEGMENTS

Our business is organized into three reportable segments: Digital Media, Digital Experience, and Publishing. These segments provide Adobe's senior management with a comprehensive financial view of our key businesses. Our segments are aligned around our two strategic growth opportunities described above, placing our Publishing business in a third segment that contains some of our mature products and solutions.

MARKET OVERVIEW

This overview provides an explanation of our markets and a discussion of strategic opportunities in fiscal 2019 and beyond for each of our segments. See "Results of Operations" within Part II, Item 7 titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" for further segment information.

Digital Media

Digital Media Opportunity

Recent technology trends in digital communications continue to provide a significant market opportunity for Adobe in digital media. In today's world where the velocity of creation and consumption of digital content is ever increasing, customers are looking for a way to meet demand with engaging online experiences. Adobe is in a strong position to capitalize on this opportunity by driving modernization and innovation that will accelerate the creative process across all platforms and devices, deepen engagement with communities, and accelerate long-term revenue growth by focusing on cloud-based offerings, which are licensed on a subscription basis.

The flagship of our Digital Media business is Adobe Creative Cloud—a subscription service that allows members to use Adobe's creative products integrated with cloud-delivered services across desktop, web and mobile devices. Creative Cloud members can download and access the latest versions of our creative products such as Photoshop, Illustrator, Premiere Pro, Lightroom CC, InDesign, Adobe XD and many more creative applications. To expand our reach and improve the way we serve the needs of our customers, we create different combinations of these services, including our launch of a mobile photography offering that has brought new customers into our franchise and grown the amount of our photography subscriptions. In addition, members can access built-in templates to jumpstart designs and step-by-step tutorials to sharpen skills and get up to speed quickly. Through Creative Cloud, members can access online services to sync, store, and share files across users' machines, access marketplace, social and community-based features within our Adobe Stock and Behance services, and create apps and websites, all at affordable subscription pricing for cost-sensitive customers.

Adobe continues to redefine the creative process with Adobe Creative Cloud so that our customers can obtain everything they need to create, collaborate and be inspired. A core part of our strategy is Adobe Sensei, a proprietary framework and set of intelligent services for dramatically improving the design and delivery of digital experiences. Adobe Sensei leverages Adobe's massive content and data assets, as well as its deep domain expertise in the creative, marketing and document segments, within a unified artificial intelligence ("AI") and machine learning framework to

help customers discover hidden opportunities, reduce tedious processes, and offer relevant experiences to every customer.
Adobe Creative Cloud addresses the needs of creative professionals such as artists, designers, developers, students and administrators. They rely on our products for publishing, web design and development, video and animation production, mobile

app and gaming development, and document creation and collaboration. End users of our creative products work in businesses ranging from large publishers, media companies and global enterprises, to smaller design agencies, and individual freelancers. Moreover, our creative products are used to create much of the printed and online information people see, read and interact with every day, including video, animation, mobile and advertising content. Knowledge workers, educators, hobbyists and consumers also use our products to create and deliver content. We have introduced new products, features and services to address emerging categories of content creation, such as voice-based prototyping, refined content creation tools, 3D, augmented reality, virtual reality and user experience design. New projects announced and solutions offered include Project Gemini, a mobile drawing and painting application, featuring live brushes that mimic natural media like oil paint and watercolors in amazingly lifelike ways; Adobe Premiere Rush, an easy-to-use video editing app that simplifies video creation and sharing on platforms including YouTube and Instagram, while delivering professional quality video results for social media marketers, video bloggers and video enthusiasts; and Photoshop on iPad to enable a seamless experience across devices, and attract a new, mobile-centric audience.

Adobe's Digital Media segment includes our Adobe Document Cloud business, built around our Acrobat family of products, including Adobe Acrobat and Adobe Acrobat Reader, and a set of integrated, cloud-based document services, including Adobe Sign and Adobe Scan. Tens of millions of knowledge workers worldwide interact with documents daily. For over 25 years, Acrobat has provided for the reliable creation and exchange of electronic documents, regardless of platform or application source type. Users can collaborate on documents with electronic comments and tailor the security of a file in order to distribute reliable Adobe PDF documents that can be viewed, printed or filled out utilizing our free Acrobat Reader on any device. Acrobat provides essential electronic document capabilities and services to help knowledge workers accomplish a wide variety of tasks ranging from simple publications and forms to mission-critical engineering documentation and architectural plans. With our Acrobat product and its innovative cloud services, we have extended the capabilities of our solutions. Users can turn slow, manual signing processes into automated experiences and collect signatures with Adobe Scan and Adobe Sign. In addition, we have mobile apps such as Adobe Scan that allows any user to create a PDF with the camera on their phone.

Digital Media Strategy

Our goal is to be the leading platform for creativity where we offer a range of products and services that allow individuals, teams and enterprises, both professionals and enthusiasts, to design and deliver amazing digital content. We believe there is significant opportunity for growth across all customer segments and expect Adobe Creative Cloud will drive sustained long-term revenue growth through a continued expansion of our customer base by acquiring new users in North America and international markets, especially in emerging markets where there is an opportunity to target new creative professionals and enthusiasts entering the market, and drive conversion of non-genuine Adobe users. Enabling students to create and tell their stories is another opportunity where Adobe Spark uniquely positions us to deliver on the needs of educators and students in and outside of classrooms.

We will continue to deepen our relationship with existing users through meeting their needs holistically and delivering additional features and value, including data-driven customer engagement, AI and machine learning through Adobe Sensei, and new design categories. As appropriate, we plan to optimize our pricing strategy and move our customers to higher priced and better value offerings and continue to employ targeted promotions that attract past customers and potential users to try out and ultimately subscribe to Adobe Creative Cloud. To target new customers and better address the needs of our existing customers, we will continue to invest in driving innovation to maintain the leadership position that we have established. We offer a marketplace for Creative Cloud subscribers to enable the delivery and purchase of stock content in our Adobe Stock service. Overall, our strategy with Creative Cloud is designed to enable us to increase our revenue with users, attract more new customers, and grow a recurring and predictable revenue stream that is recognized ratably.

As part of our Adobe Creative Cloud strategy, we utilize a data-driven operating model and our Adobe Experience Cloud solutions to drive customer awareness and licensing of our creative products and services through our website and across other channels. Adobe.com is increasingly becoming the destination site where we engage individual and small business customers to sign up for and renew Creative Cloud subscriptions. We offer free apps and trials to attract new customers and through a data-driven model, we optimize conversion of these trialists to paid subscribers. We utilize channel partners to target mid-size creative customers with our Creative Cloud for teams offering. Our direct sales force is focused on building relationships with our largest customers and driving adoption of our Creative Cloud for enterprise offering.

We offer many of the products included in Adobe Creative Cloud on a standalone basis, including subscriptions to the Creative Cloud version of certain point products. We also offer a range of other creative tools and services, including our hobbyist products such as Photoshop Elements and Premiere Elements, Adobe Fonts (formerly Typekit) and mobile apps such as Photoshop Mix, Photoshop Sketch, Photoshop Fix, Adobe Capture, and Adobe Spark. Further descriptions of our Digital Media products are included below under “Principal Products and Services.”

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In our Adobe Document Cloud business, Adobe Acrobat has achieved strong market adoption and a leadership position in document-intensive industries such as government, financial services, pharmaceutical, legal, aerospace, insurance and technical publishing. We believe there remain tens of millions of users - both individuals and enterprises - who need the capabilities provided by Acrobat and the service capabilities found in Document Cloud. We plan to build out a data driven operating model to market the benefits of our Document Cloud solutions, combined with the low entry point of subscription-based pricing, to individuals as well as small and medium-sized businesses, large enterprises and government institutions around the world. We intend to continue promoting the capabilities of our cloud-based document solutions and Adobe Sensei features to millions of Acrobat users and hundreds of millions of Acrobat Reader users. We aim to increase our seat penetration in our key markets through the utilization of our corporate and volume licensing programs. We also intend to increase our focus on marketing and licensing Acrobat in targeted vertical markets such as education, financial services, telecommunications and government, as well as on expanding into emerging markets. We will continue to engage in strategic partnerships to help drive the enterprise business, including our partnership with Microsoft. Our Adobe Sign service provides a green alternative to costly paper-based solutions, and is a more modern and convenient way for customers to digitally manage their documents, processes, and contract workflows. The Adobe Scan app for mobile devices can be used to capture paper documents as images and transform them into full-featured PDFs via Document Cloud services that can be shared immediately, essentially putting scanning capabilities in the pocket of every person. We believe that by growing the awareness of electronic signatures in the broader contract delivery and signing market, utilizing Adobe Sensei to enhance customer experiences through machine learning and AI, and continuing to add new capabilities to our Adobe Scan and Adobe Sign offerings, we can help our customers migrate away from paper-based express mailing and adopt our solution to modernize and digitize document experiences, growing our revenue with this business in the process.

Digital Experience

Digital Experience Opportunity

Consumers today increasingly demand compelling experiences in their digital interactions, that are seamless across channels and devices. Enterprises and brands recognize that customers have more choices and lower switching costs than ever before. In this new hyper-connected digital environment, it is the customer experience that differentiates brands and ultimately determines customer loyalty. As a result, businesses must determine how to best attract, engage, acquire and retain customers in a digital world where the reach and quality of experiences directly impact success. Delivering the best experience to a consumer at a given moment requires the right combination of data, insights and content. Executives are increasingly demanding solutions that optimize their consumers' experiences and deliver the greatest return on marketing and IT spend so they can demonstrate the business impact of their programs using objective metrics.

We believe there is a significant opportunity to address these challenges and help customers transform their businesses. The world's leading brands are increasingly steering their marketing, advertising, and development budgets toward digital experiences. As enterprises make this move to digital, our opportunity is accelerating as brands seek vendors to help them navigate this transition. Enterprises have a mandate to deliver meaningful experiences to their consumers across digital channels and in areas such as sales, support, and product interactions where consumers expect experiences to be consistent and personalized.

Our Adobe Experience Cloud business targets this large and growing opportunity by providing comprehensive solutions that include analytics, targeting, advertising optimization, digital experience management, marketing automation and engagement, cross-channel campaign management, content management, asset management, audience management, premium video delivery, digital commerce enablement, order management, predictive intelligence and monetization. These comprehensive solutions enable marketers to measure, personalize and optimize digital experiences across channels for optimal performance.

We believe the market for Adobe Experience Cloud is large and rapidly growing as more businesses and enterprises invest in solutions that aid their goals to transform how they engage with their customers and constituents digitally.

Digital Experience Strategy

Our goal is to be the leading provider of solutions that enable our customers to provide exceptional digital experiences and enable digital transformation. Our integrated cloud-based solutions enable enterprises to build personalized campaigns, offer shoppable experiences, manage advertising, and gain deep intelligence about their customers. Our content and data platform provides differentiation and competitive advantage.

Adobe Experience Cloud consists of the following cloud offerings:

- Adobe Advertising Cloud—delivers an end-to-end platform for managing advertising across traditional TV and digital formats, and simplifies the delivery of video, display and search advertising across channels and screens; uses Adobe Sensei to enable machine learning and predictive intelligence, automates digital media buying to traditional TV advertising; automates ad creation and integrates with Adobe Creative Cloud products; and combines capabilities

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from the Adobe Advertising Cloud Demand-Side Platform, Adobe Advertising Cloud Search, Adobe Advertising Cloud TV, and Adobe Advertising Cloud Creative offerings.

- Adobe Analytics Cloud—enables businesses to move from insights to actions in real time by uniquely integrating audiences as the core system of intelligence for the enterprise; makes data available across all Adobe clouds through the capture, aggregation, rationalization and understanding of vast amounts of disparate data and then translating that data into singular customer profiles; includes Adobe Analytics and Adobe Audience Manager.
- Adobe Marketing Cloud—provides an integrated set of solutions to help marketers differentiate their brands and engage their customers, helping businesses manage, personalize, and orchestrate campaigns and customer journeys across business-to-business ("B2B") and business-to-consumer ("B2C") use cases; includes Adobe Experience Manager ("AEM"), Adobe Campaign, Adobe Target, Marketo Engagement Platform, and Adobe Primetime.
- Magento Commerce Cloud—offers digital commerce enablement and order orchestration for both physical and digital goods across a range of industries, including consumer packaged goods, retail, wholesale, manufacturing and the public sector, and brings together digital commerce, order management and predictive intelligence to enable shopping experiences that scale from mid-market to enterprise businesses.

Adobe acquired Magento on June 18, 2018 and integrated it into the Adobe Experience Cloud as the Magento Commerce Cloud. Adobe acquired Marketo on October 31, 2018 and began integrating it into the Adobe Marketing Cloud as the Marketo Engagement Platform. Marketo Engagement Platform is a cloud platform for global business-to-business marketers driving new business growth by personalizing complex buyer journeys and empowering go-to-market teams to optimize the enterprise buyer experience. As part of the Adobe Marketing Cloud, the Marketo Engagement Platform simplifies how companies plan, orchestrate and measure engagement with prospects and customers at every stage of their experience through both lead and account-based marketing strategies, while uniquely aligning marketing and sales teams across every channel through a single, enterprise-grade platform.

We believe the AI and machine learning framework enabled by our strategy with Adobe Sensei enhances the delivery of digital experiences. By building on existing features such as Enhanced Anomaly Detection, Auto-Target, and other capabilities, we believe Adobe Sensei will increase the value we provide our customers and create a competitive differentiation in the market.

To drive growth of Adobe Experience Cloud, we also intend to focus on customer engagement, growing within existing customer accounts, and product differentiation. We are also investing in the Adobe Experience Platform, which is powered by Adobe Sensei to help users weave all their data together so they can better understand customer behavior and deliver the best experiences in real time. Our Open Data Initiative is an open alliance among Adobe, Microsoft and SAP, that enables a seamless flow of customer data within the Adobe Experience Platform. We utilize a direct sales force to market and license our Experience Cloud solutions, as well as an extensive ecosystem of partners, including marketing agencies, SIs and ISVs that help license and deploy our solutions to their customers. Strategic partnerships, such as the one we have formed with Microsoft , continue to increase our market reach. We have made significant investments to broaden the scale and size of all of these routes to market, and believe these investments will result in continued growth in revenue in our Digital Experience segment in fiscal 2019 and beyond.

Publishing

Our Publishing segment contains legacy products and services that address diverse market opportunities including eLearning solutions, technical document publishing, web conferencing, document and forms platform, web application development and high-end printing. Graphics professionals and professional publishers continue to require quality, reliability and efficiency in production printing, and our Adobe PostScript and Adobe PDF printing technologies provide advanced functionality to meet the sophisticated requirements of this marketplace. As high-end printing systems evolve and transition to fully digital, composite workflows, we believe we are well positioned to be a supplier of software and technology based on the Adobe PostScript and Adobe PDF standards for use by this industry. We generate revenue by licensing our technology to OEMs that manufacture workflow software, printers and other output devices. In fiscal 2018, we maintained a relatively consistent quarterly revenue run-rate with the mature products we market and license in our Publishing business.

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COMPETITION

The markets for our products and services are characterized by intense competition, new industry standards, evolving distribution models, disruptive technology developments, frequent product introductions, short product life cycles, price cutting with resulting downward pressure on gross margins and price sensitivity on the part of consumers. Our future success will depend on our ability to enhance and better integrate our existing products, introduce new products on a timely and cost-effective basis, meet changing customer needs, provide best-in-class information security to build customer confidence and combat cyber-attacks, extend our core technology into new applications and anticipate emerging standards, business models, software delivery methods and other technological changes.

Digital Media

No single company has offerings that match the capabilities of our Adobe Creative Cloud products and services, but we face collective competition from a variety of point offerings, free products and downloadable apps. Our competition includes offerings from companies such as Apple, Autodesk, Avid, Corel, Microsoft, Affinity, Quark and others, as well as from many lower-end offerings. We believe our greatest advantage in this space is the performance and scope of our integrated solutions, which work together as part of Creative Cloud. With Creative Cloud, we compete favorably on the basis of features and functionality, ease of use, product reliability, value and performance characteristics.

Professional digital imaging, drawing and illustration products are characterized by feature-rich competition, brand awareness and price sensitivity. Competition in this space is also emerging with drawing and illustration applications on tablet and smartphone platforms. The demand for professional web page layout and professional web content creation tools is constantly evolving and highly volatile. In this area, we face direct and indirect competition from desktop software companies and various proprietary and open source web-authoring tools.

We face competition from device, hardware and camera manufacturers as they try to differentiate their offerings by bundling, for free, their own digital imaging software or those of our competitors. Similarly, we face potential competition from operating system manufacturers as they integrate or offer hobbyist-level digital imaging and image management features with their operating systems. We also face competition from smartphone and tablet manufacturers that integrate imaging and video software into their devices to work with cameras that come as part of their smartphone and tablet offerings. In addition, social networking platforms such as Facebook (including Instagram), Snapchat, Twitter and Pinterest, as well as portal sites such as Google, Bing and Yahoo! are becoming a direct means to post, edit and share images, bypassing the step of using image editing and sharing software. Online storage and synchronization are becoming free and ubiquitous. Consumers will be encouraged to use the image and video editing software offered by those storage products, thus competing with our software.

In addition, the needs of digital imaging and video editing software users are constantly evolving due to rapid technology and hardware advancements in digital cameras, digital video cameras, printers, personal computers, tablets, smartphones and other new devices. Our imaging and video offerings, including Photoshop, Lightroom, After Effects, Premiere Pro, and Premiere Rush, face competition from established and emerging companies offering similar products.

New image editing applications for mobile devices and tablets with features that compete with our professional tools are also emerging as adoption of these devices grows. Our consumer digital imaging and video editing offerings are subject to intense competition, including customer price sensitivity and competitor brand awareness. We face direct and indirect competition in the consumer digital imaging space from a number of companies whose market software competes with our offerings.

The stock content marketplace has significant competition, especially in the microstock segment, where Adobe primarily operates today with our Adobe Stock offering. Key competitors in this segment include Shutterstock, Getty Images and a number of smaller companies. Deep product integration with Adobe Creative Cloud and superior reach and relationships with creative professionals around the world differentiate our Adobe Stock offerings.

The nature of traditional digital document creation, storage, and collaboration has been rapidly evolving as knowledge workers and consumers shift their behavior increasingly to non-desktop workflows. Competitors like Microsoft, Google, Box and Dropbox all offer competitive alternatives to our Adobe Document Cloud business for creating and managing PDFs. In addition, other PDF creation solutions can be found at a low cost or for free on the web or via mobile applications. To address these competitive threats, we are working to ensure our Document Cloud applications stay at the forefront of innovation in emerging opportunities such as PDF document generation, document collaboration and document security, document workflow management, easeful software integrations, enablement of paper to digital transformations, and accessibility and usability on multiple devices, including mobile and desktop.

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E-signatures have quickly become a core element of digital documents and are inherently part of a company's digital document transformation efforts. Partnerships and integrations between these companies and third-parties create an increasingly competitive landscape in this space. Competitors to Adobe Sign include DocuSign.

Digital Experience

The markets in which our Digital Experience business unit competes are growing rapidly and characterized by intense competition. Our Adobe Experience Cloud solutions face competition from large companies such as Google, IBM, Oracle, salesforce.com, SAP, SAS, Teradata, Shopify and others, in addition to point product solutions and focused competitors. Additionally, new competitors are constantly entering these markets. Some of these competitors provide SaaS solutions to customers, generally through a web browser, while others provide software that is installed by customers directly on their servers. In addition, we compete at times with our customers' or potential customers' internally developed applications. Of the competitors listed above, no single company has products identical to our Adobe Experience Cloud offerings. Adobe Experience Cloud competes in a variety of areas, including: reporting and analytics; cross-channel marketing and optimization; online marketing; audience management; advertising and real-time bidding technology; video delivery and monetization; marketing automation; digital commerce enablement; order management; web experience management and others.

Large software, internet and database management companies have expanded their offerings in the digital experience area, either by developing competing services or by acquiring existing competitors or strategic partners of ours. We believe competitive factors in our markets include the proven performance, security, scalability, flexibility and reliability of services; the strategic relationships and integration with third-party applications; the intuitiveness and visual appeal of user interfaces; demonstrable cost-effective benefits to customers; pricing; the flexibility of services to match changing business demands; enterprise-level customer service and training; perceived market leadership; the usability of services; real-time data and reporting; independence from portals and search engines; the ability to deploy the services globally; and success in educating customers in how to utilize services effectively. We believe we compete favorably with both the enterprise and low-cost alternatives based on many of these competitive factors including our strong feature set, the breadth of our offerings, our focus on global, multi-brand companies, our superior user experience, tools for building multi-screen, cross-channel applications, standards-based architecture, scalability and performance and leadership in industry standards efforts.

Creative and digital agencies, as well as SIs, are increasingly investing in acquiring their own digital experience technology to complement their creative services offerings. Adobe may face competition from these agencies and SIs as they come to market with best-of-breed offerings in one or more digital experience capabilities, or if agencies attempt to create a more complete technology platform offering. We believe our creative tools heritage differentiates us from our competitors. We have worked closely with marketing and creative customers for over 30 years. We also believe we have leadership in this space, with current customers representing leading global brands. Our comprehensive solutions extend more broadly than any other company in serving the needs of marketers and addressing this market opportunity; we integrate content and data, analytics, personalization, digital experience management, marketing automation, cross-channel campaign management, digital commerce, audience management, video delivery and monetization and social capabilities in our Adobe Experience Cloud. Most importantly, we provide a vision for our digital experience customers as we engage with them across the important aspects of their business, extending from their use of Adobe Creative Cloud and Adobe Document Cloud to how they manage, deliver, measure and monetize their content, participate in digital commerce, and create highly personalized and engaging shoppable experiences with our Experience Cloud.

Publishing

Our Publishing product offerings face competition from large-scale publishing systems, XML-based publishing companies, as well as lower-end desktop publishing products. Similarly, our web conferencing product faces competition from a number of established products from other companies, including Cisco, Citrix and Microsoft.

Competition involves a number of factors, including: product features, ease-of-use, printer service support, the level of customization and integration with other publishing system components, the number of hardware platforms supported, service and price. We believe we can successfully compete based upon the quality and features of our products, our strong brand among users, the widespread adoption of our products among printer service bureaus, and our extensive application programming interfaces.

In printing technologies, we believe the principal competitive factors for OEMs in selecting a page description language or a printing technology are product capabilities, market leadership, reliability, price, support and engineering development assistance. We believe that our competitive advantages include our technology competency, OEM customer relationships and our intellectual property portfolio.

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PRINCIPAL PRODUCTS AND SERVICES

Digital Media Offerings

Creative Cloud

Adobe Creative Cloud is a cloud-based subscription offering that enables creative professionals and enthusiasts alike to express themselves with apps and services that connect across devices, platforms and geographies. Members have access to a vibrant creative community, publishing services to deliver apps and websites, cloud storage to easily access their work, the ability to sync their files to virtually any device, collaboration capabilities with team members, and new products and exclusive updates as they are developed. Creative Cloud members can build a Creative Profile which persists wherever they are. A user's Creative Profile moves with them via Creative Cloud services from app to app and device to device, giving them immediate access to their personal files, photos, brushes, graphics, colors, fonts, text styles, desktop setting customizations and other important assets. Creative Cloud subscriptions include all of the applications listed below and many more.

Photoshop and Lightroom

Adobe Photoshop is the world's most advanced digital imaging and design app. It is used by photographers, designers, animators, web professionals, and video professionals, and is available to Adobe Creative Cloud subscribers. Lightroom CC, our cloud-based photo service for editing, organizing, storing and sharing photos, is also available to Creative Cloud subscribers. Customers can also subscribe to Photoshop or Lightroom CC as individual cloud-enabled subscription products, or through our Photography Plan, which is a cloud-enabled offering targeted at photographers and photo hobbyists and includes Lightroom CC, integrated cloud services, and Lightroom Classic, a desktop-only version of the photo service app.

We also offer Photoshop Elements, which is targeted at consumers who desire the brand and power of Photoshop through an easy-to-use interface. For tablet and smartphone users, we offer several mobile apps including Photoshop Sketch, Photoshop Mix, Photoshop Express, Lightroom for mobile and Photoshop Fix—all of which enable sophisticated photo editing and content creation using a touch-based interface on tablet and mobile devices.

Illustrator

Adobe Illustrator is our industry-standard vector graphics app used worldwide by designers of all types who want to create digital graphics and illustrations from web icons and product packaging to book illustrations and billboards, and for all kinds of media: print, web, interactive, video, and mobile. Illustrator is available to Adobe Creative Cloud subscribers, and customers can also subscribe to use it as an individual subscription product. Users can also utilize mobile apps such as Illustrator Draw to gain access to Illustrator capabilities on their tablets and mobile devices, and sync their work through Adobe CreativeSync for use with Illustrator on their desktop.

InDesign

Adobe InDesign is the industry-leading design and layout app for print and digital media. Our customers use it to design, preflight, and publish a broad range of content including newspapers and magazines for print, online, and tablet app delivery. From stationery, fliers and posters to brochures, annual reports, magazines and books with professional layout and typesetting tools, customers can create multicolumn pages that feature stylish typography and rich graphics, images, and tables. Tight integration with other Adobe offerings such as Photoshop, Illustrator and Acrobat enables customers to work productively in print and digital workflows. InDesign integrates seamlessly with Adobe InCopy, so customers can work on layouts simultaneously with writers and editors. Customers can also access Adobe digital publishing capabilities from within InDesign to create and publish engaging apps for a broad range of devices, including iOS, Android and Amazon-based devices. InDesign is available to Adobe Creative Cloud subscribers, and customers can also subscribe to use InDesign as an individual cloud-enabled subscription product.

Adobe Stock

Adobe Stock provides designers and businesses with access to millions of high-quality, curated, royalty-free photos, vectors, illustrations, videos, templates, and 3D assets, for all their creative projects. Adobe Stock is built into Adobe Creative Cloud apps, including Photoshop , Illustrator , and InDesign, enabling users to search, browse, and add images to their Creative Cloud Libraries, and obtain instant access to assets across desktop and mobile devices. Adobe Stock assets may be licensed directly within the Creative Cloud desktop apps, through stock.adobe.com, or as a multi-asset subscription.

Adobe XD

Adobe XD is our all-in-one experience design (XD) solution used to build user experiences (UX) and user interfaces (UI) when designing websites, mobile apps and more; Adobe XD enables users to go from concept to prototype faster. It contains intuitive tools that deliver precision and performance using timesaving features like Repeat Grid and flexible artboards to create everything from low-fidelity wireframes to fully interactive prototypes for any screen in minutes. Adobe XD also makes it easy to share prototypes with teammates via the web and show colleagues how multiscreen experiences look, feel and work with a single click. Adobe XD allows designers to design, prototype, and share digital experiences that extend beyond the screen, including triggers and speech playback to create audio interactions for voice-based smart assistants and other similar platforms. Adobe XD is available to Adobe Creative Cloud subscribers, and customers can also subscribe to use it as an individual cloud-enabled subscription product.

Adobe Premiere Pro and Adobe Premiere Rush

Adobe Premiere Pro is a leading nonlinear video editing tool used by filmmakers, videographers, and designers. Customers can import and combine various types of media, from video shot on a smartphone to 8K to virtual reality, and then edit in its native format without transcoding. Premiere Pro supports a vast majority of formats, and customers can use multiple graphics cards to accelerate render and export times. Premiere Pro is the only nonlinear editor that lets users have multiple projects open while simultaneously collaborating on a single project with their team. Workflows for color, graphics, audio, and immersive 360/VR in Premiere Pro take customers from first edit to final credits faster than ever. Adobe Premiere Rush (formerly Project Rush) is an all-in-one, easy-to-use video editing app that simplifies video creation and sharing on platforms including YouTube and Instagram, while delivering professional quality video results. Premiere Rush is uniquely positioned toward social media marketers, video bloggers, and video enthusiasts who are looking for an all-in-one app to create and share online videos. As part of Adobe Creative Cloud, Premiere Pro and Premiere Rush tightly integrates with other Adobe creative applications. Customers can also subscribe to use Premiere Pro and Premiere Rush as an individual cloud-enabled subscription product, or they can download the free Premiere Rush starter plan.

After Effects

Adobe After Effects is our industry-leading animation and creative compositing app used by a wide variety of motion graphics, visual effects artists, animators, designers and compositors. It offers superior control, a wealth of creative options, and integration with other post-production applications. After Effects works together seamlessly with other Adobe apps such as Premiere Pro, Photoshop, Illustrator, and Audition. After Effects is available to Adobe Creative Cloud subscribers, and customers can also subscribe to use it as an individual cloud-enabled subscription product.

Adobe Dimension

Adobe Dimension is designed to make it easy for graphic designers to create high-quality, photorealistic 3D images. Users can composite 2D and 3D assets to build product shots, scene visualizations, and abstract art. Dimension integrates well with other Adobe apps. Users can drag and drop background images from Photoshop and 3D models from Adobe Stock - without leaving Dimension. Dimension is available to Adobe Creative Cloud subscribers, and customers can also subscribe to use it as an individual cloud-enabled subscription product.

Adobe Fonts

Adobe Fonts brings thousands of fonts from foundry partners into one library for quick browsing, easy use on the web or on the user’s desktop, and endless typographic inspiration. Our full library of commercially-licensed fonts is offered through Adobe Creative Cloud. In addition, customers may subscribe to the standalone Adobe Fonts portfolio plan, or license individual fonts in the Adobe Fonts Marketplace.

Behance

Behance is the leading social community to showcase and discover creative work online. Adobe Portfolio allows users to quickly and simply build a fully customizable and hosted website that seamlessly syncs with Behance.

Adobe Spark

Adobe Spark is our integrated web and mobile software for creating and sharing impactful visual stories. Designed for everyday communication, Adobe Spark empowers users to transform words, images, and videos into dynamic web stories that engage audiences across multiple channels and on any device. The Adobe Spark web app seamlessly syncs with Spark Post, Spark Page and Spark Video iOS mobile apps, allowing users to create, edit and share their story from any location regardless of their design experience. Adobe Spark with premium features allows users to apply custom branding to anything they create; the premium product is offered as part of any Adobe Creative Cloud plan or as a standalone subscription. A free version is also still available to attract new users.

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Acrobat and Adobe Document Cloud

Adobe Document Cloud modernizes document experiences by offering a complete portfolio of secure digital document solutions that speed business transactions through streamlined digital workflows. With Document Cloud, users can create, review, approve, sign and track documents, whether on a desktop or mobile device.

At the heart of Adobe Document Cloud is Adobe Acrobat DC, the industry standard for PDF creation and conversion. Acrobat enables users to create secure, reliable and compact Adobe PDF documents from desktop authoring applications such as Microsoft Office software, graphics applications and more. Acrobat enables automated collaborative workflows with a rich set of commenting tools and review tracking features and includes everything needed to create and distribute rich, secure electronic documents that can be viewed easily within leading web browsers or on computer desktops via the free Adobe Acrobat Reader.

Adobe Acrobat is available to both Adobe Creative Cloud and Adobe Document Cloud subscribers. Customers can also license Acrobat Pro or Acrobat Standard (which has a subset of Acrobat Pro features) as individual point products, either as a cloud-enabled subscription or in the form of desktop software. Adobe Acrobat Reader is also available as a free mobile app that allows users to view, annotate, and scan documents. Acrobat Reader is our free software for reliable viewing, searching, reviewing and printing of Adobe PDF documents on a variety of hardware and operating system platforms. Users of both Acrobat and Acrobat Reader can also access, edit and save changes to their PDF files stored on the Dropbox website or mobile app.

Our Adobe Scan app can be used for free on mobile devices to provide scanning capabilities in the pocket of every person. It captures paper documents as images and transforms them into full-featured and versatile PDFs via Adobe Document Cloud services for instant sharing with others.

Our Adobe Sign e-signature service allows users to securely electronically send and sign any document from any device. Adobe Sign has a mobile app companion allowing users to e-sign documents and forms, send them for signature, track responses in real-time, and obtain instant signatures with in-person signing. It integrates with users' enterprise systems through a comprehensive set of applicable programming interfaces, and Adobe Experience Manager Forms and Advanced Workflows for Adobe Sign, to create forms and provide seamless experiences to customers across web and mobile sites. Adobe Sign is Microsoft's preferred e-sign solution and is integrated into Microsoft Office 365, Microsoft Dynamics 365, and Microsoft SharePoint.

Adobe Experience Cloud Products and Services

Adobe Experience Cloud includes our Advertising Cloud, Analytics Cloud, Marketing Cloud, and Magento Commerce Cloud offerings, which are each described below.

Adobe Advertising Cloud

Adobe Advertising Cloud is an independent ad platform that unifies and automates all media, screens, data, and creativity at scale. With Adobe Advertising Cloud and its use of Adobe Sensei AI and data integrations, customers can identify and amplify their high-value audiences for more personal and accurate targeting; seamlessly unite creative, data, and media buying across all screens and formats; protect their brand by preventing their campaigns from mixing with content and properties that do not align with their image; scale bidding and optimization strategies; implement programmatic creative management using automated advertisement creation for both prospecting and retargeting customers; generate advertisements at scale using Adobe Creative Cloud apps; and use data insights that reveal customers' interests and past behaviors to create relevant, targeted ads. Adobe Advertising Cloud includes Adobe Advertising Cloud Demand Side Platform, Adobe Advertising Cloud Search, Adobe Advertising Cloud TV, and Adobe Advertising Cloud Creative offerings described below.

Adobe Advertising Cloud Demand-Side Platform (DSP)

Adobe Advertising Cloud DSP uses data to build identities and find optimal mixes to reach audiences. Adobe Advertising Cloud DSP manages tactics that span multiple sites simultaneously, effortlessly, and nearly instantly. It is the first independent demand-side platform that brings cross-screen and cross-channel integrations for planning, buying, measurement, and optimization. It is the only omnichannel demand-side platform that supports all forms of TV (linear, addressable, and connected), video, display, native, audio, social, and search campaigns. With real-time, in-dash reporting, custom reports, raw activity logs, and reporting APIs, customers get the ultimate flexibility to analyze campaign performance and make faster, more informed optimization choices. When combined with our proprietary ad creative management platform, integrated brand surveys, and other Adobe Experience Cloud products, customers have the ability to deliver engaging, personalized experiences.

Adobe Advertising Cloud Search

Adobe Advertising Cloud Search powered by Adobe Sensei AI brings customers the most comprehensive search management through the automation of search, shopping, and retargeting campaigns. Adobe Advertising Cloud Search offers model transparency and accuracy reports that give insight into actual performance rather than just forecasts for clicks, cost and revenue. It helps Adobe Sensei to make the right decisions to most efficiently meet customers' performance goals. With an intuitive navigation and time-saving workflows, it delivers powerful, real-time integration with Adobe Analytics, Adobe Audience Manager and Adobe Campaign and connects users' data, audience segments, and other marketing channels.

Adobe Advertising Cloud TV

Adobe Advertising Cloud TV advances TV advertising through software. By using data and automation, Adobe Advertising Cloud TV helps customers make smarter TV buying decisions, deliver precision against their audiences, and increase the impact of their TV advertising with access to over 30,000 audience data attributes. With access to the most broadcast and linear cable inventory of any platform, Adobe Advertising Cloud TV opens the door to the entire TV experience – linear, addressable, and connected TV to reach 100+ million households across national, local, video-on-demand, and more.

Adobe Advertising Cloud Creative

Adobe Advertising Cloud Creative uniquely brings together designers and marketing professionals in a self-serve, intuitive interface. The direct integration with Adobe Creative Cloud apps enhances collaboration between customers' ad production and media teams, enabling users to automatically create thousands of ads at scale. Using Adobe Advertising Cloud Creative, users can target, sequence, iterate, and optimize personalized ad experiences for their audiences. Adobe Advertising Cloud Creative is part of the Adobe Advertising Cloud DSP and can be enabled to work with other media buying properties.

Adobe Analytics Cloud

Adobe Analytics Cloud uses advanced machine learning and automation to provide a core intelligence engine for enterprises that allow customers to put real-time insights into action. With Adobe Analytics Cloud, enterprise-level marketing analytics is made understandable and accessible to everyone in the organization; targeting is improved, as our customers can connect their analytics with real-time activation so the transition from insight to action is fast; users are provided with an objective view of their customers' journeys across every device and channel that helps them achieve better understanding of their ROI; and segmentation is more precise as our customers can discover and create high-value audiences and understand the best way to reach them. The following is a brief description of the solutions that comprise the Adobe Analytics Cloud.

Adobe Analytics

Adobe Analytics is our industry leading solution that helps our customers create a holistic view of their business by turning consumer interactions into actionable insights. From attribution and predictive modeling to contribution analysis and propensity scoring, Adobe Analytics is immersed in machine learning and AI. With intuitive and interactive dashboards and reports, our customers can sift, sort, and share real-time information to provide insights that can be used to identify problems and opportunities and to drive conversion and relevant consumer experiences. Our Analysis Workspace provides analysts our most powerful tools available at a click so they can create and curate reusable projects that are customized to their needs. Adobe Analytics enables web, social, video, mobile, attribution, and predictive analytics across online and offline channels to continuously improve the performance of marketing activities. Adobe Analytics lets users integrate everything from web, email, and CRM to voice and connected car data smoothly. It also provides the ability to perform advanced ad-hoc segmentation and to integrate data from offline and third-party sources.

Adobe Audience Manager

Adobe Audience Manager is a data management platform that helps digital publishers build unique audience profiles to identify the most valuable segments and use them across any digital channel. Adobe Audience Manager consolidates audience information from all available sources. It then identifies, quantifies and optimizes high-value target audiences, which can then be offered to advertisers via an integrated, secure, privacy-friendly management system that works across all advertising distribution platforms. Adobe Audience Manager provides access to multiple data sources, offering digital publishers the ability to use a wide variety of third-party data as well as Audience Manager's private data co-op.

Adobe Marketing Cloud

Adobe Marketing Cloud provides a complete set of integrated digital marketing solutions. It contains everything necessary to deliver first-class digital experiences. Adobe Marketing Cloud enables our customers to manage their content and assets; grow audiences and increase engagement to optimize customer experiences; personalize content and deliver optimized experiences at scale that are meaningful to each of their customers; orchestrate individual cross-channel campaigns that encourage meaningful customer experiences; and plan, orchestrate and measure engagement with their prospects and customers at every stage of the experience journey on a single platform. Adobe Marketing Cloud also provides a solution that allows our customers to monetize video experiences. The following is a brief description of the solutions that comprise the Adobe Marketing Cloud.

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Adobe Experience Manager
Adobe Experience Manager is a leading digital experience management solution that uses AI tools to help customers organize, create, and manage the delivery of creative assets and other content across digital marketing channels, including web, mobile, email, communities and video. It enables customers to manage content on premise or host it in the cloud, delivering agile and rapid deployment. With this ultimate control of content and campaigns, our customers can deliver real-time and personalized experiences to their consumers that help build customers' brand, drive demand and extend reach. Adobe Experience Manager includes digital asset management, web content management, digital publishing, integrated mobile app development, enterprise-level forms management, and social capabilities, providing customers with tools enabling users to improve their market and brand perception and provide a personalized experience to their consumers.

Adobe Campaign
Adobe Campaign is optimized for B2C experiences involving high volume email and cross-channel campaign management. Adobe Campaign enables marketers to manage the customer journey and orchestrate personalized experiences determined by each consumer's behaviors and preferences. As part of its feature set, Adobe Campaign provides visual campaign orchestration, allowing for intuitive design and automated consumer experiences across channels, from one-off campaigns to triggered messages, with a graphically rich interface. Marketers can also integrate consumer data from across marketing channels to develop and deliver more relevant marketing experiences to their consumers through email, mobile, offline channels, and more. Features also include targeted segmentation, multilingual email execution, real-time interaction, in-app messaging, and operational reporting to easily see how well campaigns are performing.

Adobe Target
Adobe Target lets our customers test, target and personalize content across multiple devices. With Adobe Target, our customers have the tools they need to quickly discover what gets noticed and what increases conversion and engagement. It paves a path from simple testing to targeting to true segmentation and optimization through A/B and multivariate testing, AI-powered automation at scale, content targeting and automated decision-making. Adobe Target capabilities also enable our customers to test and target adaptive or responsive mobile web experiences.

Marketo Engagement Platform

Marketo Engagement Platform is optimized for B2B, cross-channel campaigns requiring lead management, account-based marketing and revenue attribution technology by bringing together planning, engagement and measurement capabilities into an integrated marketing platform. Marketo Engagement Platform simplifies how companies plan, orchestrate and measure engagement with prospects and customers at every stage of their experience. It offers a feature-rich and cloud-native platform with a set of solutions for delivering transformative customer experiences across industries and companies of all sizes.

Adobe Primetime
Adobe Primetime is a multiscreen TV platform that helps broadcasters, cable networks, and pay-TV providers create and monetize engaging, personalized viewing experiences. When integrated with Adobe Experience Cloud solutions, media sellers can optimize campaign and advertisement delivery in real time. Adobe Primetime combined with Adobe Analytics captures detailed authentication and viewing behavior across devices and delivers effective insights.

Magento Commerce Cloud
Magento Commerce Cloud offers digital commerce enablement and order orchestration for both physical and digital goods across a range of industries, including consumer packaged goods, retail, wholesale, manufacturing and the public sector. Magento Commerce Cloud brings together digital commerce, order management and predictive intelligence to enable shopping experiences that scale from mid-market to enterprise businesses. Based on an open-source ecosystem, Magento Commerce Cloud extends beyond the web shopping cart to every shoppable experience, including email, mobile, in-store, and marketplaces. Magento Commerce Cloud combined with the Adobe Experience Cloud offers a single, end-to-end platform for content creation, marketing, advertising, analytics and commerce for business-to-business and business-to-consumer customers globally.

Other Products and Services

We also offer a broad range of other enterprise and digital media products and services. Information about other products not referenced here can be found on our corporate website, www.adobe.com.

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OPERATIONS

Marketing and Sales

We market and license our products directly using our sales force and certain local offices and through our own website at www.adobe.com. We also market and distribute our products through sales channels, which include distributors, retailers, software developers, SIs, ISVs and VARs, as well as through OEM and hardware bundle customers.

Our local field offices include locations in Australia, Austria, Belgium, Brazil, Canada, Chile, China, Columbia, Czech Republic, Denmark, Finland, France, Germany, Hong Kong, India, Ireland, Israel, Italy, Japan, Mexico, Moldova, the Netherlands, New Zealand, Norway, Poland, Romania, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, United Arab Emirates, the United Kingdom and the United States.

We sell the majority of our products through a software subscription model where our customers purchase access to a product for a specific period of time during which they always have rights to use the most recent version of that product. We also license perpetual versions of our software with maintenance and support, which includes rights to upgrades, when and if available, support, updates and enhancements.

For fiscal 2018, 2017 and 2016, there were no customers that represented at least 10% of net revenue. As of fiscal year end 2018 and 2017, no single customer was responsible for over 10% of our trade receivables.

Services and Support

We provide expert consulting, customer success management, technical support, and learning services across all our customer segments, including enterprises, small and medium businesses, creative professionals, and consumers. With a focus on ensuring sustained customer success and realized value, this comprehensive portfolio of services is designed to help customers and partners maximize the return on their investments in our cloud solutions and licensed products. Our service and support revenue consists primarily of consulting fees, software maintenance, technical support fees and training fees.

Consulting Services

We have a global professional services team dedicated to designing and implementing solutions for our largest customers. Our professional services team uses a comprehensive, customer-focused methodology that has been refined over years of capturing and analyzing best practices from numerous customer engagements across a diverse mix of solutions, industries, and customer segments. Increasingly, our customers seek to integrate across Adobe's products and cloud solutions, and engage our professional services teams to share their expertise in leading customers' digital strategies and multi-solution integrations. Using our methodology, our professional services teams are able to accelerate customers' time to value, and maximize the return customers earn on their investment in Adobe solutions.

A key component of Adobe's strategy is developing a large partner ecosystem to expand the reach and breadth of Adobe solutions in the global marketplace. In order to assist partners in building their respective digital practices, Adobe Global Services provides a comprehensive set of deliverables through Adobe's Solution Partner Program. The breadth of services described in the program provides system integrators, agencies, and regional partners the tools required to develop core capabilities for positioning and building with Adobe technology, as well as implementing and running customer platforms. We believe that through these programmatic services and support, our joint customers benefit greatly by the combination of Adobe technology and the deep customer context that our global partners represent.

Customer Success Account Management

Adobe Customer Solutions provides post-sales Customer Success Managers, who work with specific enterprise customers on an ongoing basis to understand their current and future business needs, promote faster solution adoption, and align product capabilities to customers' business objectives to maximize the return on their investment in Adobe's offerings. We engage customers to share innovative best practices, relevant industry and vertical knowledge, and proven success strategies based on our extensive engagements with leading marketers and brands. The performance of these teams is directly associated with customer-focused outcomes, notably ongoing customer retention.

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Technical Support

Adobe provides enterprise maintenance and support services to customers of subscription products as part of the subscription entitlement, and to perpetual license customers via annual fee-based maintenance and support programs. These offerings provide:

- technical support on the products they have purchased from Adobe;
- "how to" help in using our products; and
- product upgrades and enhancements during the term of the maintenance and support or subscription period, which is typically one to three years.

We provide product support through a global support organization that includes several regional and global support centers, supplemented with outsourced vendors for specific services. Customers can seek help through multiple channels including phone, chat, web, social media, and email, allowing quick and easy access to the information they need. These teams are responsible for providing timely, high-quality technical expertise on all our products.

Certain consumers are eligible to receive Getting Started support, to assist with easy adoption of their products. Support for some products and in some countries may vary. For enterprise customers with greater support needs, we offer personalized service options through Premium Services options, delivered by technical account managers who can also provide proactive risk mitigation services and on-site support services for those with business critical deployments.

Lastly, we also offer delivery assurance, technical support, and enablement services to partners and developer organizations. Through the Adobe Partner Connection Reseller Program, we provide developers with high-quality tools, software development kits, information and services.

Digital Learning Services

Adobe Global Services offers a comprehensive portfolio of learning and enablement services to assist our customer and partner teams in the use of our products, including those within Digital Experience, Digital Media and other legacy products and solutions. Our training portfolio includes a large number of free online self-service learning options on www.training.adobe.com. Adobe Digital Learning Services also has an extensive portfolio of fee-based learning programs including a wide range of traditional classroom, virtual, and on-demand training and certifications delivered by our team of training professionals and partners across the globe.

These core offerings are complemented by our custom learning services, which support our largest enterprise customers and their unique requirements. Solution-specific skills assessments help our enterprise customers objectively assess the knowledge and competencies within their marketing teams and tailor their learning priorities accordingly. Finally, aligned with our cloud strategy, we have introduced a new learning subscription service that enables customers to access both business and technical Digital Experience training over a 12-month period, which is a scalable approach to supporting long-term learning.

Investments

From time to time we make direct investments in privately held companies. We enter into these investments with the intent of securing financial returns as well as for strategic purposes, as they often increase our knowledge of emerging markets and technologies and expand our opportunities to provide Adobe products and services.

PRODUCT DEVELOPMENT

A continuous high level of investment is required for the enhancement of existing solutions and the development of new solutions due to the speed of technological change that characterizes the software industry. We develop our software internally, as well as acquire products or technology developed by others by purchasing the stock or assets of the business entity that owns the technology. In other instances, we have licensed or purchased the intellectual property ownership rights of programs developed by others with license or technology transfer agreements that may obligate us to pay a flat license fee or royalties, typically based on a dollar amount per unit or a percentage of the revenue generated by those programs.

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PROTECTING AND LICENSING OUR PRODUCTS

We protect our intellectual property through a combination of patents, copyrights, trademarks and trade secrets, foreign intellectual property laws, confidentiality procedures and contractual provisions. We have United States and foreign patents and pending applications that relate to various aspects of our products and technology. Although our patents have value, no single patent is essential to any of our principal businesses. We have also registered, and applied for the registration of, U.S. and international trademarks, service marks, domain names and copyrights.

Our enterprise customers license our hosted offerings as On-demand Services or Managed Services, and consumers primarily use our desktop software and mobile apps. We license our desktop software to users under ‘click through’ or signed license agreements containing restrictions on duplication, disclosure, and transfer. Similarly, cloud products and services are provided to users under ‘click through’ or signed agreements containing restrictions on access and use.

Despite our efforts to protect our proprietary technology and our intellectual property rights, unauthorized parties may attempt to copy or obtain and use our technology to develop applications with the same functionality as our application. Policing unauthorized use of our technology and intellectual property rights is difficult. We believe that our transition from perpetual-use software licenses to a subscription-based business model combined with the increased focus on cloud-based computing has and may continue to improve our efforts to combat the pirating of our products.

EMPLOYEES

As of November 30, 2018, we employed 21,357 people. We have not experienced work stoppages and believe our employee relations are good.

AVAILABLE INFORMATION

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 our Investor Relations website at www.adobe.com/adbe as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The information posted on our website is not incorporated into this report.

EXECUTIVE OFFICERS

Adobe’s executive officers as of January 18, 2019 are as follows:

Name	Age	Positions
Shantanu Narayen	55	Chairman, President and Chief Executive Officer Mr. Narayen currently serves as our Chairman of the Board, President and Chief Executive Officer. He joined Adobe in January 1998 as Vice President and General Manager of our engineering technology group. In January 1999, he was promoted to Senior Vice President, Worldwide Products, and in March 2001 he was promoted to Executive Vice President, Worldwide Product Marketing and Development. In January 2005, Mr. Narayen was promoted to President and Chief Operating Officer, and effective December 2007, he was appointed our Chief Executive Officer and joined our Board of Directors. In January 2017, he was named our Chairman of the Board. Mr. Narayen serves as lead independent director on the board of directors of Pfizer, a multinational pharmaceutical corporation. He previously served as a director of Dell from September 2009 to October 2013. Mr. Narayen holds a B.S. in Electronics Engineering from Osmania University in India, a M.S. in Computer Science from Bowling Green State University and an M.B.A. from the Haas School of Business, University of California, Berkeley.
John Murphy	50	Executive Vice President and Chief Financial Officer Mr. Murphy currently serves as our Executive Vice President and Chief Financial Officer. He joined Adobe in March 2017 and served as our Senior Vice President, Chief Accounting Officer and Corporate Controller until April 2018. Prior to joining Adobe, Mr. Murphy served as Senior Vice President, Chief Accounting Officer and Corporate Controller of Qualcomm Incorporated from September 2014 to March 2017. He previously served as Senior Vice President, Controller and Chief

Accounting Officer of DIRECTV Inc. from November 2007 until August 2014, and Vice President and General Auditor of DIRECTV from October 2004 to November 2007. Prior to joining DIRECTV he worked at several global companies, including Experian, Nestle, and Atlantic Richfield (ARCO), in a variety of finance and accounting roles. He served as Director of DirecTV Holdings LLC from November 2007 until August 2014. Mr. Murphy serves on the Corporate Advisory Board of the Marshall School of Business at the University of Southern California. He holds an MBA from the Marshall School of Business at the University of Southern California, a B.S. in Accounting from Fordham University and is a Certified Public Accountant.

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Name	Age	Positions
Scott Belsky	38	Chief Product Officer and Executive Vice President, Creative Cloud Mr. Belsky joined Adobe in December 2017 as Chief Product Officer and Executive Vice President, Creative Cloud. Prior to joining Adobe in December 2017, Belsky was a venture investor at Benchmark in San Francisco from February 2016 to December 2017. Prior to Benchmark, Belsky led Adobe's mobile strategy for Creative Cloud from December 2012 to January 2016, having joined the company through the acquisition of Behance. Belsky co-founded Behance in 2006 and served as its CEO for over 6 years. He is an early advisor and investor to Pinterest, Uber, and Warby Parker among other early-stage companies, and co-founded and serves on the board of Prefer, a referrals platform that empowers the careers of independent professionals. Mr. Belsky also serves on the advisory board of Cornell University's Entrepreneurship Program and as President of the Smithsonian Cooper-Hewitt National Design Museum board of trustees.
Bryan Lamkin	58	Executive Vice President and General Manager, Digital Media Mr. Lamkin currently serves as Executive Vice President and General Manager, Digital Media. He rejoined Adobe in February 2013 as Senior Vice President, Technology and Corporate Development. From June 2011 to May 2012, Mr. Lamkin served as President and Chief Executive Officer of Clover, a mobile payments platform. Prior to Clover, Mr. Lamkin co-founded and served as the Chief Executive Officer of Bagcheck, a sharing and discovery platform, from June 2010 to May 2011. From April 2009 to June 2010, Mr. Lamkin served as Senior Vice President of Consumer Products and Applications at Yahoo!, a global technology company providing online search, content and communication tools. From May 2008 to April 2009, Mr. Lamkin served as Executive in Residence at Sutter Hill Ventures. Mr. Lamkin previously was with Adobe from 1992 to 2006 and held various senior management positions including Senior Vice President, Creative Solutions Business Unit.
Ann Lewnes	57	Executive Vice President and Chief Marketing Officer Ms. Lewnes joined Adobe in November 2006 and currently serves as Executive Vice President and Chief Marketing Officer. Prior to joining Adobe, Ms. Lewnes spent 20 years at Intel Corporation, where she was Vice President of Sales and Marketing. Ms. Lewnes is a board member of Mattel, The Ad Council, and the Adobe Foundation.
Donna Morris	51	Chief Human Resources Officer and Executive Vice President, Employee Experience Ms. Morris currently serves as Chief Human Resources Officer and Executive Vice President of Adobe's Global Customer and Employee Experience organization. Ms. Morris joined Adobe as Senior Director of Global Talent Management in April 2002 through the acquisition of Accelio Corporation, a Canadian software company, where she served as Vice President of Human Resources and Learning. In December 2005, Ms. Morris was promoted to Vice President Global Human Resources Operations and subsequently to Senior Vice President Human Resources in March 2007. Ms. Morris is a director of Marvell Technology Group Limited and the Adobe Foundation.
Abhay Parasnis	44	Executive Vice President and Chief Technology Officer Mr. Parasnis joined Adobe in July 2015 as Senior Vice President of Adobe's Cloud Technology & Services organization and Chief Technology Officer. Prior to joining Adobe, he served as President and Chief Operating Officer at Kony, Inc. from March 2013 to March 2015. From January 2012 to November 2013, Mr. Parasnis was a Senior Vice President and later Strategic Advisor for the Oracle Public Cloud at Oracle. Prior to joining Oracle, he was General Manager of Microsoft Azure AppFabric at Microsoft from April 2009 to December 2011.

		Executive Vice President, General Counsel and Corporate Secretary
Dana Rao	49	Mr. Rao currently serves as our Executive Vice President, General Counsel and Corporate Secretary. He joined Adobe in April 2012 and served as our Vice President, Intellectual Property and Litigation where he spearheaded strategic initiatives including the company's litigation efforts, and its patent, trademark and copyright portfolio strategies until June 2018. Prior to joining Adobe, Mr. Rao was with Microsoft Corporation for 11 years, serving in a variety of roles including Associate General Counsel of Intellectual Property and Licensing, where he oversaw all patent matters for Microsoft's entertainment and devices division as well as the company-wide patent acquisition team. From 1997 until March 2001, he served as a patent attorney at Fenwick & West. He holds a B.S. in Electrical Engineering from Villanova University and a J.D. from George Washington University.

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Name	Age	Positions
Bradley Rencher	45	Executive Vice President and General Manager, Digital Experience Mr. Rencher serves as Executive Vice President and General Manager of Adobe's Digital Experience business unit. Mr. Rencher joined Omniture, Inc. in January 2008 as Vice President of Corporate Development and was promoted to Senior Vice President of Business Operations prior to Adobe's acquisition of Omniture in 2009. Following the acquisition, he joined Adobe as Vice President of Business Operations. Mr. Rencher was promoted to Vice President and General Manager, Omniture business unit in 2010 and subsequently to Senior Vice President in 2011. Prior to joining Omniture, Mr. Rencher was a member of the technology investment banking team at Morgan Stanley from 2005 to 2008 and a member of the investment banking team at RBC Capital Markets from 1998 to 2004. Mr. Rencher is a director of Pluralsight and the Utah Symphony.
Matthew Thompson	60	Executive Vice President, Worldwide Field Operations Mr. Thompson currently serves as Executive Vice President, Worldwide Field Operations. Mr. Thompson joined Adobe in January 2007 as Senior Vice President, Worldwide Field Operations. In January 2013, he was promoted to Executive Vice President, Worldwide Field Operations. Prior to joining Adobe, Mr. Thompson served as Senior Vice President of Worldwide Sales at Borland Software Corporation, a software delivery optimization solutions provider, from October 2003 to December 2006. Prior to joining Borland, Mr. Thompson was Vice President of Worldwide Sales and Field Operations for Marimba, Inc., a provider of products and services for software change and configuration management, from February 2001 to January 2003. From July 2000 to January 2001, Mr. Thompson was Vice President of Worldwide Sales for Calico Commerce, Inc., a provider of eBusiness applications. Prior to joining Calico, Mr. Thompson spent six years at Cadence Design Systems, Inc., a provider of electronic design technologies. While at Cadence, from January 1998 to June 2000, Mr. Thompson served as Senior Vice President, Worldwide Sales and Field Operations and from April 1994 to January 1998 as Vice President, Worldwide Professional Services. Mr. Thompson is a board member of NCR Corporation.
Mark Garfield	48	Vice President, Chief Accounting Officer and Corporate Controller Mr. Garfield currently serves as our Vice President, Chief Accounting Officer and Corporate Controller. Prior to joining Adobe in December 2018, Mr. Garfield served as the Vice President of Finance of Cloudflare, Inc. commencing in November 2017. He served as Senior Vice President and Chief Accounting Officer at Symantec Corporation from March 2014 to October 2017. Prior to joining Symantec, he was at Brightstar Corporation where he served primarily as Senior Vice President and Chief Accounting Officer from January 2013 to February 2014. Mr. Garfield served as Director of Finance at Advanced Micro Devices from August 2010 to December 2012. Prior to Advanced Micro Devices, Mr. Garfield also served in senior level finance roles at LoudCloud and Ernst and Young. Mr. Garfield holds a B.A. in Business Economics from University of California at Santa Barbara.

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ITEM 1A. RISK FACTORS

As previously discussed, our actual results could differ materially from our forward-looking statements. Below we discuss some of the factors that could cause these differences. These and many other factors described in this report could adversely affect our operations, performance and financial condition.

Our competitive position and results of operations could be harmed if we do not compete effectively.

The markets for our products and services are characterized by intense competition, new industry standards, evolving distribution models, limited barriers to entry, disruptive technology developments, short product life cycles, customer price sensitivity and frequent product introductions (including alternatives with limited functionality available at lower costs or free of charge). Any of these factors could create downward pressure on pricing and gross margins and could adversely affect our renewal and upsell and cross-sell rates, as well as our ability to attract new customers. Our future success will depend on our continued ability to enhance and integrate our existing products and services, introduce new products and services in a timely and cost-effective manner, meet changing customer expectations and needs, extend our core technology into new applications, and anticipate emerging standards, business models, software delivery methods and other technological developments. Furthermore, some of our competitors and potential competitors enjoy competitive advantages such as greater financial, technical, sales, marketing and other resources, broader brand awareness, and access to larger customer bases. As a result of these advantages, potential and current customers might select the products and services of our competitors, causing a loss of our market share. In addition, consolidation has occurred among some of our competitors. Further consolidations in these markets may subject us to increased competitive pressures and may harm our results of operations.

For additional information regarding our competition and the risks arising out of the competitive environment in which we operate, see the section entitled “Competition” contained in Part I. Item 1 of this report.

If we cannot continue to develop, acquire, market and offer new products and services or enhancements to existing products and services that meet customer requirements, our operating results could suffer.

The process of developing and acquiring new technology products and services and enhancing existing offerings is complex, costly and uncertain. If we fail to anticipate customers’ rapidly changing needs and expectations or adapt to emerging technological trends, our market share and results of operations could suffer. We must make long-term investments, develop, acquire or obtain appropriate intellectual property and commit significant resources before knowing whether our predictions will accurately reflect customer demand for our products and services. If we misjudge customer needs in the future, our new products and services may not succeed and our revenues and earnings may be harmed. Additionally, any delay in the development, acquisition, marketing or launch of a new offering or enhancement to an existing offering could result in customer attrition or impede our ability to attract new customers, causing a decline in our revenue, earnings or stock price and weakening our competitive position.

We offer our products on a variety of hardware platforms. Consumers continue to migrate from personal computers to tablet and mobile devices. If we cannot continue adapting our products to tablet and mobile devices, or if our competitors can adapt their products more quickly than us, our business could be harmed. Releases of new devices or operating systems may make it more difficult for our products to perform or may require significant costs in order for us to adapt our solutions to such devices or operating systems. These potential costs and delays could harm our business.

Introduction of new technology could harm our business and results of operations.

The expectations and needs of technology consumers are constantly evolving. Our future success depends on a variety of factors, including our continued ability to innovate, introduce new products and services efficiently, enhance and integrate our products and services in a timely and cost-effective manner, extend our core technology into new applications, and anticipate emerging standards, business models, software delivery methods and other technological developments. Integration of our products and services with one another and other companies’ offerings creates an increasingly complex ecosystem that is partly reliant on third parties. If any disruptive technology, or competing products, services or operating systems that are not compatible with our solutions, achieve widespread acceptance, our operating results could suffer and our business could be harmed.

The introduction of certain technologies may reduce the effectiveness of our products. For example, some of our products rely on third-party cookies, which are placed on individual browsers when consumers visit websites that contain advertisements. We use these cookies to help our customers more effectively advertise, gauge the performance of their advertisements, and detect and prevent fraudulent activity. Consumers can block or delete cookies through their browsers or “ad-blocking” software or applications. The most common Internet browsers allow consumers to modify their browser settings to prevent cookies from being accepted by their browsers, or are set to block third-party cookies by default. Increased use of methods, software or applications that block cookies could harm our business.

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Security breaches in data centers we manage, or third parties manage on our behalf, may compromise the confidentiality, integrity, or availability of employee and customer data, which could expose us to liability and adversely affect our reputation and business.

We process and store significant amounts of employee and customer data, most of which is hosted by third-party service providers. A security incident impacting our own data centers or those controlled by our service providers may compromise the confidentiality, integrity or availability of this data. Unauthorized access to or loss or disclosure of data stored by Adobe or our service providers may occur through break-ins, breaches of a secure network by an unauthorized party, software vulnerabilities or coding errors, employee theft or misuse or other misconduct. It is also possible that unauthorized access to or disclosure of customer data may be obtained through inadequate use of security controls by customers or employees. Accounts created with weak or recycled passwords could allow cyber-attackers to gain access to customer data. Additionally, failure by customers to remove accounts of their own employees, or the granting of accounts by the customer in an uncontrolled manner, may allow for access by former or unauthorized customer representatives. If there were an inadvertent disclosure of customer data, or if a third party were to gain unauthorized access to the data we possess on behalf of our customers, our operations could be disrupted, our reputation could be damaged and we could be subject to claims or other liabilities, regulatory investigations, or fines. In addition, such perceived or actual unauthorized loss or disclosure of the information we collect or breach of our security could damage our reputation, result in the loss of customers and harm our business.

We rely on data centers managed both by Adobe and third parties to host and deliver our services, as well as access, collect, use, transmit, and store data, and any interruptions or delays in these hosted services, or failures in data collection or transmission could expose us to liability and harm our business and reputation.

Much of our business relies on hardware and services that are hosted, managed, and controlled directly by Adobe or third-party service providers, including our online store at adobe.com, Creative Cloud, Document Cloud, and Experience Cloud solutions. We do not have redundancy for all of our systems, many of our critical applications reside in only one of our data centers, and our disaster recovery planning may not account for all eventualities. If our business relationship with a third-party provider of hosting or content delivery services is negatively affected, or if one of our content delivery suppliers were to terminate its agreement with us, without adequate notice, we might not be able to deliver the corresponding hosted offerings to our customers, which could subject us to reputational harm, costly and time intensive notification requirements, and cause us to lose customers and future business. Occasionally, we migrate data among data centers and to third-party hosted environments. If a transition among data centers or to third-party service providers encounters unexpected interruptions, unforeseen complexity, or unplanned disruptions despite precautions undertaken during the process, this may impair our delivery of products and services to customers and result in increased costs and liabilities, which may harm our operating results and our business.

It is also possible that hardware or software failures or errors in our systems (or those of our third-party service providers) could result in data loss or corruption, cause the information that we collect or maintain to be incomplete or contain inaccuracies that our customers regard as significant, or cause us to fail to meet committed service levels or comply with regulatory notification requirements. Furthermore, our ability to collect and report data may be delayed or interrupted by a number of factors, including access to the Internet, the failure of our network or software systems, security breaches or significant variability in visitor traffic on customer websites. In addition, computer viruses, worms, or other malware may harm our systems, causing us to lose data, and the transmission of computer viruses or other malware could expose us to litigation or regulatory investigation, and costly and time intensive notification requirements.

We may also find, on occasion, that we cannot deliver data and reports to our customers in near real time because of a number of factors, including significant spikes in customer activity on their websites or failures of our network or software, or the failure of our third-party service providers’ network or software. If we fail to plan infrastructure capacity appropriately and expand it proportionally with the needs of our customer base, and we experience a rapid and significant demand on the capacity of our data centers or those of third parties, service outages could occur, and our customers could suffer impaired performance of our services. Such a strain on our infrastructure capacity could subject us to regulatory notification requirements, violations of service level agreement commitments, financial liabilities, result in customer dissatisfaction, or harm our business. If we supply inaccurate information or experience interruptions in our ability to capture, store and supply information in near real time or at all, our reputation could be harmed and we could lose customers as a result, or we could be found liable for damages or incur other losses.

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

As a global company, Adobe is subject to global privacy and data security laws, regulations, and codes of conduct that apply to our various business units. These laws and regulations may be inconsistent across jurisdictions and are subject to evolving and differing (sometimes conflicting) interpretations. Government regulators, privacy advocates and class action attorneys are increasingly scrutinizing how companies collect, process, use, store, share and transmit personal data. This increased scrutiny may result in new interpretations of existing laws, thereby further impacting Adobe's business. Globally, new and emerging laws, such as the General Data Protection Regulation ("GDPR") in Europe, state laws in the U.S. on privacy, data and related technologies, such as the California Consumer Privacy Act, as well as industry self-regulatory codes create new compliance obligations and expand the scope of potential liability, either jointly or severally with our customers and suppliers. While we have invested in readiness to comply with applicable requirements, these new and emerging laws, regulations and codes may affect our ability (and our enterprise customers' ability) to reach current and prospective customers, to respond to both enterprise and individual customer requests under the laws (such as individual rights of access, correction, and deletion of their personal information), and to implement our business models effectively. These new laws may also impact our innovation and business drivers in developing new and emerging technologies (e.g., artificial intelligence and machine learning). These requirements, among others, may impact demand for our offerings and force us to bear the burden of more onerous obligations in our contracts. Any perception of our practices, products or services as a violation of individual privacy rights may subject us to public criticism, class action lawsuits, reputational harm, or investigations or claims by regulators, industry groups or other third parties, all of which could disrupt our business and expose us to increased liability. Additionally, we collect and store information on behalf of our business customers and if our customers fail to comply with contractual obligations or applicable laws, it could result in litigation or reputational harm to us.

Transferring personal information across international borders is becoming increasingly complex. For example, European data transfers outside the European Economic Area are highly regulated. The mechanisms that we and many other companies rely upon for European data transfers (e.g. Privacy Shield and Model Clauses) are being contested in the European court system. We are closely monitoring developments related to requirements for transferring personal data outside the EU and other countries that have similar trans-border data flow requirements. These requirements may result in an increase in the obligations required to provide our services in the EU or in sanctions and fines for non-compliance. Several other countries, including Australia and Japan, have also established specific legal requirements for cross-border transfers of personal information. Other countries, such as India, are considering requirements for data localization (e.g. where personal data must remain in the country). If the mechanisms for transferring personal information from certain countries or areas, including Europe to the United States should be found invalid or if other countries implement more restrictive regulations for cross-border data transfers (or not permit data to leave the country of origin), such developments could harm our business, financial condition and results of operations.

Security vulnerabilities in our products and systems could lead to reduced revenue or to liability claims.

Maintaining the security of our products, computers and networks is a critical issue for us and our customers. Security researchers, criminal hackers and other third parties regularly develop new techniques to penetrate computer and network security measures and, as we have previously disclosed, certain parties have in the past managed to breach and misuse some of our systems and software in order to access our end users' authentication and payment information. In addition, cyber-attackers also develop and deploy viruses, worms, credential stuffing attack tools, and other malicious software programs, some of which may be specifically designed to attack our products, systems, computers or networks. Sophisticated hardware and operating system applications that we develop or procure from third parties may contain defects in design or manufacture, including bugs, vulnerabilities and other problems that could unexpectedly compromise the security of the system or impair a customer's ability to operate or use our products. The costs to prevent, eliminate, notify affected parties of, or alleviate cyber- or other security problems, bugs, viruses, worms, malicious software programs and security vulnerabilities are significant, and our efforts to address these problems may not be successful or may be delayed and could result in interruptions, delays, cessation of service and loss of existing or potential customers. It is impossible to predict the extent, frequency or impact these problems may have on us.

Outside parties have in the past and may in the future attempt to fraudulently induce our employees or users of our products or services to disclose sensitive information via illegal electronic spamming, phishing or other tactics. Unauthorized parties may also attempt to gain physical access to our facilities in order to infiltrate our information systems or attempt to gain logical access to our products, services, or information systems for the purpose of exfiltrating content and data. These actual and potential breaches of our security measures and the accidental loss, inadvertent disclosure or unauthorized dissemination of proprietary information or sensitive, personal or confidential data about us, our employees, our customers or their end users, including the potential loss or disclosure of such information or data as a result of hacking, fraud, trickery or other forms of deception, could expose us, our employees, our customers or the individuals affected to a risk of loss or misuse of this information. This may result in litigation and liability or fines, our compliance with costly and time intensive notice requirements, governmental inquiry or oversight or a loss of customer confidence, any of which could harm our business or damage our brand and reputation, possibly impeding our present and future success in retaining and attracting new customers and thereby requiring time and resources to repair our brand and reputation. These risks will likely increase as we expand our hosted offerings, integrate our products and services, and store and process more data, including personal information.

These problems affect our products and services in particular because cyber-attackers tend to focus their efforts on popular offerings with a large user base, and we expect them to continue to do so. Critical vulnerabilities may be identified in some of our applications and services and those of our third-party service providers. These vulnerabilities could cause such applications and services to crash and could allow an attacker to take control of the affected system, which could result in liability to us or limit our ability to conduct our business and deliver our products and services to customers. We devote significant resources to address security vulnerabilities through engineering more secure products, enhancing security and reliability features in our products and systems, code hardening, conducting rigorous penetration tests, deploying updates to address security vulnerabilities, reviewing our service providers' security controls, and improving our incident response time, but these security vulnerabilities cannot be totally eliminated. The cost of these steps could reduce our operating margins, and we may be unable to implement these measures quickly enough to prevent cyber-attackers from gaining unauthorized access into our systems and products. Despite our preventative efforts, actual or perceived security vulnerabilities in our products and systems may harm our reputation or lead to claims against us (and have in the past led to such claims), and could lead some customers to stop using certain products or services, to reduce or delay future purchases of products or services, or to use competing products or services. If we do not make the appropriate level of investment in our technology systems or if our systems become out-of-date or obsolete and we are not able to deliver the quality of data security customers require, our business could be adversely affected. Customers may also adopt security measures designed to protect their existing computer systems from attack, which could delay adoption of new technologies. Further, if we or our customers are subject to a future attack, or our technology is used in a third-party attack, we could be subject to costly and time intensive notice requirements, and it may be necessary for us to take additional extraordinary measures and make additional expenditures to take appropriate responsive and preventative steps. Any of these events could adversely affect our revenue or margins. Moreover, delayed sales, lower margins or lost customers resulting from disruptions caused by cyber-attacks or preventative measures could adversely affect our financial results, stock price and reputation.

Some of our enterprise offerings have extended and complex sales cycles, which can make our sales cycles unpredictable.

Sales cycles for some of our enterprise offerings, including our Adobe Experience Cloud solutions and ETLAs in our Digital Media business, are multi-phased and complex. The complexity in these sales cycles is due to several factors, including:

- the need for our sales representatives to educate customers about the use and benefit of large-scale deployments of our products and services, including technical capabilities, security features, potential cost savings and return on investment;
- the desire of organizations to undertake significant evaluation processes to determine their technology requirements prior to making information technology expenditures;
- the need for our representatives to spend a significant amount of time assisting potential customers in their testing and evaluation of our products and services;
- intensifying competition within the industry;
- the negotiation of large, complex, enterprise-wide contracts;
- the need for our customers to obtain requisition approvals from various decision makers within their organizations due to the complexity of our solutions touching multiple departments within customers' organizations; and
- customer budget constraints, economic conditions and unplanned administrative delays.

We spend substantial time and expense on our sales efforts without assurance that potential customers will ultimately purchase our solutions. As we target our sales efforts at larger enterprise customers, these trends are expected to continue and could have a greater impact on our results of operations. Additionally, our enterprise sales pattern has historically been uneven, where a higher percentage of a quarter's total sales occur during the final weeks of each quarter, which is common in our industry. Our extended sales cycle for these products and services makes it difficult to predict when a given sales cycle will close.

Subscription offerings could create risks related to the timing of revenue recognition.

We generally recognize revenue from subscription offerings ratably over the terms of their subscription agreements, which range from 1 to 36 months. As a result, most of the subscription revenue we report in each quarter is the result of subscription agreements entered into during previous quarters. Any reduction in new or renewed subscriptions in a quarter may not be reflected in our revenue results until a later quarter. Declines in new or renewed subscriptions may decrease our revenue in future quarters. Lower sales, reduced demand for our products and services, and increases in our attrition rate may not be fully reflected in our results of operations until future periods. Our subscription model could also make it difficult for us to rapidly increase our revenue from subscription-based or hosted services through additional sales in any period, as revenue from new customers will be recognized over the applicable subscription term.

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Additionally, in connection with our sales efforts to enterprise customers and our use of ETLAs, a number of factors could affect our revenue, including longer-than-expected sales and implementation cycles, potential deferral of revenue due to multiple-element revenue arrangements and alternative licensing arrangements. If any of our assumptions about revenue from our subscription-based offerings prove incorrect, our actual results may vary materially from those anticipated.

If our customers fail to renew subscriptions in accordance with our expectations, our future revenue and operating results could suffer.

Our Adobe Experience Cloud, Creative Cloud, and Document Cloud offerings typically involve subscription-based offerings pursuant to product and service agreements. Revenue from our subscription customers is generally recognized ratably over the term of their agreements, which typically range from 1 to 36 months. Our customers have no obligation to renew their subscriptions for our services after the expiration of their initial subscription period, and customers may not renew their subscriptions at the same or higher level of service, for the same number of seats or for the same duration of time, if at all. Moreover, under certain circumstances, some of our customers have the right to cancel their agreements prior to the expiration of the terms. Our varied customer base combined with the flexibility we offer in the length of our subscription-based agreements complicates our ability to precisely forecast renewal rates. Therefore, we cannot provide assurance that we will be able to accurately predict future customer renewal rates.

Our customers' renewal rates may decline or fluctuate as a result of a number of factors, including their level of satisfaction with our services, our ability to continue enhancing features and functionality, the reliability (including uptime) of our subscription offerings, the prices of offerings and those offered by our competitors, the actual or perceived information security of our systems and services, decreases in the size of our customer base, reductions in our customers' spending levels or declines in customer activity as a result of economic downturns or uncertainty in financial markets. If our customers do not renew their subscriptions or if they renew on terms less favorable to us, our revenue may decline.

We may not realize the anticipated benefits of past or future investments or acquisitions, and integration of acquisitions may disrupt our business and management.

We may not realize the anticipated benefits of an investment or acquisition of a company, division, product or technology, each of which involves numerous risks. These risks include:

- inability to achieve the financial and strategic goals for the acquired and combined businesses;
- difficulty in, and the cost of, effectively integrating the operations, technologies, products or services, and personnel of the acquired business;
- entry into markets in which we have minimal prior experience and where competitors in such markets have stronger market positions;
- disruption of our ongoing business and distraction of our management and other employees from other opportunities and challenges;
- inability to retain personnel of the acquired business;
- inability to retain key customers, distributors, vendors and other business partners of the acquired business;
- inability to take advantage of anticipated tax benefits;
- incurring acquisition-related costs or amortization costs for acquired intangible assets that could impact our operating results;
- elevated delinquency or bad debt write-offs related to receivables of the acquired business we assume;

- increased accounts receivables collection times and working capital requirements associated with acquired business models;

- additional costs of bringing acquired companies into compliance with laws and regulations applicable to a multinational corporation;

- difficulty in maintaining controls, procedures and policies during the transition and integration;

- impairment of our relationships with employees, customers, partners, distributors or third-party providers of our technologies, products or services;
- failure of our due diligence processes to identify significant problems, liabilities or other challenges of an acquired company or technology;
- exposure to litigation or other claims in connection with, or inheritance of claims or litigation risk as a result of, an acquisition, such as claims from terminated employees, customers, former stockholders or other third parties;
- incurring significant exit charges if products or services acquired in business combinations are unsuccessful;
- inability to conclude that our internal controls over financial reporting are effective;
- inability to obtain, or obtain in a timely manner, approvals from governmental authorities, which could delay or prevent such acquisitions;
- the failure of strategic investments to perform as expected or to meet financial projections;
- delay in customer and distributor purchasing decisions due to uncertainty about the direction of our product and service offerings; and
- incompatibility of business cultures.

Mergers and acquisitions of technology companies are inherently risky. If we do not complete an announced acquisition transaction or integrate an acquired business successfully and in a timely manner, we may not realize the benefits of the acquisition to the extent anticipated, and in certain circumstances an acquisition could harm our financial position.

Our business could be harmed if we fail to effectively manage critical strategic third-party business relationships.

As our offerings expand and our customer base grows, our relationships with strategic partners become increasingly valuable. If our contractual relationships with these third parties were to terminate, or if we were unable to renew on favorable terms, our business could be harmed. This is especially the case when the third party's offerings are integrated with our products and services, or where the third party's offerings are difficult to substitute or replace. Alternative arrangements for such products and services may not be available to us, or on commercially reasonable terms, and we may experience business interruptions upon a transition to an alternative partner. The failure of third parties to provide acceptable products and services or to update their technology may result in a disruption to our business operations and those of our customers, which may reduce our revenues and profits, cause us to lose customers and damage our reputation.

We face various risks associated with our operating as a multinational corporation.

As a global business that generates approximately 43% of our total revenue from sales to customers outside of the Americas, we are subject to a number of risks, including:

- foreign currency fluctuations and controls;
- international and regional economic, political and labor conditions, including any instability or security concerns abroad;
- tax laws (including U.S. taxes on foreign subsidiaries);

- increased financial accounting and reporting burdens and complexities;
- changes in, or impositions of, legislative or regulatory requirements;
- changes in laws governing the free flow of data across international borders;
- failure of laws to protect our intellectual property rights adequately;
- inadequate local infrastructure and difficulties in managing and staffing international operations;

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- delays resulting from difficulty in obtaining export licenses for certain technology, tariffs, quotas and other trade barriers;
- the imposition of governmental economic sanctions on countries in which we do business or where we plan to expand our business;
- costs and delays associated with developing products in multiple languages;
- operating in locations with a higher incidence of corruption and fraudulent business practices; and
- other factors beyond our control, such as terrorism, war, natural disasters and pandemics.

Some of our third-party business partners have international operations and are also subject to these risks and if our third-party business partners are unable to appropriately manage these risks, our business may be harmed. If sales to any of our customers outside of the Americas are reduced, delayed or canceled because of any of the above factors, our revenue may decline.

We are subject to risks associated with compliance with laws and regulations globally, which may harm our business.

We are a global company subject to varied and complex laws, regulations and customs, both domestically and internationally. These laws and regulations relate to a number of aspects of our business, including trade protection, import and export control, data and transaction processing security, payment card industry data security standards, records management, user-generated content hosted on websites we operate, privacy practices, data residency, corporate governance, anti-trust and competition, employee and third-party complaints, anti-corruption, gift policies, conflicts of interest, securities regulations and other regulatory requirements affecting trade and investment. The application of these laws and regulations to our business is often unclear and may at times conflict. For example, in many foreign countries, particularly in those with developing economies, it is common to engage in business practices that are prohibited by U.S. regulations applicable to us, including the Foreign Corrupt Practices Act. We cannot provide assurance that our employees, contractors, agents, and business partners will not take actions in violation of our internal policies or U.S. laws. Compliance with these laws and regulations may involve significant costs or require changes in our business practices that result in reduced revenue and profitability. Non-compliance could also result in fines, damages, criminal sanctions against us, our officers or our employees, prohibitions on the conduct of our business, and damage to our reputation.

In addition, approximately 49% of our employees are located outside the United States. Accordingly, we are exposed to changes in laws governing our employee relationships in various U.S. and foreign jurisdictions, including laws and regulations regarding wage and hour requirements, fair labor standards, employee data privacy, unemployment tax rates, workers' compensation rates, citizenship requirements and payroll and other taxes, which likely would have a direct impact on our operating costs.

Changes in accounting principles, or interpretations thereof, could have a significant impact on our financial position and results of operations.

We prepare our consolidated financial statements in accordance with accounting principles generally accepted in the United States of America ("GAAP"). These principles are subject to interpretation by the SEC and various bodies formed to interpret and create appropriate accounting principles. A change in these principles, how the principles are interpreted, or the adoption of new accounting standards can have a significant effect on our reported results, and could even retroactively affect previously reported transactions, and may require that we make significant changes to our systems, processes and controls.

Changes resulting from these new standards may result in materially different financial results and may require that we change how we process, analyze and report financial information and that we change financial reporting controls. For additional information regarding these new standards, see the section titled "Recent Accounting Pronouncements

Not Yet Effective" within Part II. Item 8, Note 1. Basis of Presentation and Summary of Significant Accounting Policies.

Such changes in accounting principles may have an adverse effect on our business, financial position, and income, or cause an adverse deviation from our revenue and profitability targets, which may negatively impact our financial results.

Changes in tax rules and regulations, or interpretations thereof, may adversely affect our effective tax rates.

We are a United States-based multinational company subject to tax in multiple U.S. and foreign tax jurisdictions. The Tax Act, enacted into law on December 22, 2017, changes existing U.S. tax law applicable to us and includes adoption of a territorial tax system requiring us to incur a transition tax on previously untaxed earnings and profits of our foreign subsidiaries. A significant portion of our foreign earnings for the current fiscal year were earned by our Irish subsidiaries. As part of the adoption of a territorial

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tax system, the Tax Act also provides an exemption from federal income taxes for distributions from foreign subsidiaries made after December 31, 2017 that were not subject to the one-time transition tax. In addition, certain international provisions introduced in the Tax Act will be effective for us in fiscal 2019. These provisions and changes that we may make to our corporate tax structure could adversely affect our tax rate and cash flow in future years.
Our income tax expense has differed from the tax computed at the U.S. federal statutory income tax rate due primarily to discrete items and to tax on earnings from foreign operations. Unanticipated changes in our tax rates could affect our future results of operations. Our future effective tax rates could be unfavorably affected by changes in the tax rates in jurisdictions where our income is earned, by changes in or our interpretation of tax rules and regulations in the jurisdictions in which we do business, by unanticipated decreases in the amount of earnings in countries with low statutory tax rates, by unexpected negative changes in business and market conditions that could reduce certain tax benefits, or by changes in the valuation of our deferred tax assets and liabilities.

In addition, in the United States, the European Commission, countries in the European Union and other countries where we do business, we are subject to potential changes in relevant tax, accounting and other laws, regulations and interpretations, including changes to tax laws applicable to corporate multinationals such as Adobe. These countries and other governmental bodies have or could make unprecedented assertions about how taxation is determined in their jurisdictions that are contrary to the way in which we have interpreted and historically applied the rules and regulations described above in our income tax returns filed in such jurisdictions. In the current global tax policy environment, any changes in laws, regulations and interpretations related to these assertions could adversely affect our effective tax rates or result in other costs to us which could adversely affect our operations and financial results.

Moreover, we are subject to the continual examination of our income tax returns by the U.S. Internal Revenue Service (“IRS”) and other domestic and foreign tax authorities. These tax examinations are expected to focus on our intercompany transfer pricing practices as well as other matters. We regularly assess the likelihood of outcomes resulting from these examinations to determine the adequacy of our provision for income taxes and have reserved for adjustments that may result from these examinations. We cannot provide assurance that the final determination of any of these examinations will not have an adverse effect on our operating results and financial position.

Uncertainty about current and future economic conditions and other adverse changes in general political conditions in any of the major countries in which we do business could adversely affect our operating results.
As our business has grown, we have become increasingly subject to the risks arising from adverse changes in economic and political conditions, both domestically and globally. Uncertainty about the effects of current and future economic and political conditions on us, our customers, suppliers and partners makes it difficult for us to forecast operating results and to make decisions about future investments. If economic growth in countries where we do business slows, customers may delay or reduce technology purchases, advertising spending or marketing spending. This could result in reductions in sales of our products and services, more extended sales cycles, slower adoption of new technologies and increased price competition. Among our customers are government entities, including the U.S. federal government, and our revenue could decline if spending cuts impact the government’s ability to purchase our products and services. Deterioration in economic conditions in any of the countries in which we do business could also cause slower or impaired collections on accounts receivable, which may adversely impact our liquidity and financial condition.
A disruption in financial markets could impair our banking partners, on which we rely for operating cash management and affect our derivative counterparties. Any of these events would likely harm our business, financial condition, and results of operations.
Political instability or adverse political developments in or around any of the major countries in which we do business would also likely harm our business, results of operations and financial condition.
The success of some of our product and service offerings depends on our ability to continue to attract and retain customers of and contributors to our online marketplaces for creative content.

The success of some of our product and service offerings, such as Adobe Stock, depends on our ability to continue to attract new customers and contributors to these online marketplaces for creative content, as well as our ability to continue to retain existing customers and contributors. An increase in paying customers has generally resulted in more content from contributors, which increases the size of our collection and in turn attracts new paying customers. We rely on the functionality and features of our online marketplaces, the size and content of our collection and the effectiveness of our marketing efforts to attract new customers and contributors and retain existing ones. New technologies may render the features of our online marketplaces obsolete, our collection may fail to grow as anticipated or our marketing efforts may be unsuccessful, any of which may adversely affect our results of operations.

Our intellectual property portfolio is a valuable asset and we may not be able to protect our intellectual property rights, including our source code, from infringement or unauthorized copying, use or disclosure.

Our intellectual property portfolio is a valuable asset. Infringement or misappropriation of our patents, trademarks, trade secrets, copyrights and other intellectual property rights could result in lost revenues and ultimately reduce their value. Preventing unauthorized use or infringement of our intellectual property rights is inherently difficult. We actively combat software piracy as we enforce our intellectual property rights, but we nonetheless lose significant revenue due to illegal use of our software. If piracy activities continue at historical levels or increase, they may further harm our business. We apply for patents in the U.S. and internationally to protect our newly created technology and if we are unable to obtain patent protection for the technology described in our pending patent, or if the patent is not obtained timely, this could result in revenue loss, adverse effects on operations, and harm to our business. We offer our products and services in foreign countries and we may seek intellectual property protection from those foreign legal systems. Some of those foreign countries may not have as robust or comprehensive of intellectual property protection laws and schemes as those offered in the U.S. In some foreign countries, the mechanisms to enforce intellectual property rights may be inadequate to protect our technology, which could harm our business.

If unauthorized disclosure of our source code occurs through security breach, cyber-attack or otherwise, we could 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 products by copying functionality, which could cause us to lose customers and could adversely affect our revenue and operating margins. 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, there is a risk that our confidential information and trade secrets may be disclosed or published without our authorization, and in these situations, enforcing our rights may be difficult or costly.

We may incur substantial costs defending against third parties alleging that we infringe their proprietary rights.

We have been, are currently, and may in the future be, subject to claims, negotiations and complex, protracted litigation relating to disputes regarding the validity or alleged infringement of third-party intellectual property rights, including patent rights. Intellectual property disputes and litigation are typically costly and can be disruptive to our business operations by diverting the attention of management and key personnel. We may not prevail in every lawsuit or dispute. Third-party intellectual property disputes, including those initiated by patent assertion entities, could subject us to significant liabilities, require us to enter into royalty and licensing arrangements on unfavorable terms, prevent us from licensing certain of our products or offering certain of our services, subject us to injunctions restricting our sale of products or services, cause severe disruptions to our operations or the markets in which we compete, or require us to satisfy indemnification commitments with our customers, including contractual provisions under various license arrangements and service agreements. In addition, we may incur significant costs in acquiring the necessary third-party intellectual property rights for use in our products, in some cases to fulfill contractual obligations with our customers. Any of these occurrences could significantly harm our business.

We may incur losses associated with currency fluctuations and may not be able to effectively hedge our exposure.

Our operating results are subject to fluctuations in foreign currency exchange rates due to the global scope of our business. Global economic events, including trade disputes, economic sanctions and emerging market volatility, and associated uncertainty may cause currencies to fluctuate. We attempt to mitigate a portion of these risks through foreign currency hedging based on our judgment of the appropriate trade-offs among risk, opportunity and expense. We regularly review our program to partially hedge our exposure to foreign currency fluctuations and make adjustments as necessary. Our hedging activities may not offset more than a portion of the adverse financial impact resulting from unfavorable movement in foreign currency exchange rates, which could adversely affect our financial condition or results of operations.

Failure of our third-party customer service and technical support providers to adequately address customers' requests could harm our business and adversely affect our financial results.

Our customers rely on our customer service support organization to resolve issues with our products and services. We outsource a substantial portion of our customer service and technical support activities to third-party service providers. We depend heavily on these third-party customer service and technical support representatives working on our behalf, and we expect to continue to rely heavily on third parties in the future. This strategy presents risks to our business due to the fact that we may not be able to influence the quality of support as directly as we would be able to do if our own employees performed these activities. Our customers may react negatively to providing information to, and receiving support from, third-party organizations, especially if these third-party organizations are based overseas. If we encounter problems with our third-party customer service and technical support providers, our reputation may be harmed, our ability to sell our offerings could be adversely affected, and we could lose customers and associated revenue.

Revenue, margin or earnings shortfalls or the volatility of the market generally may cause the market price of our stock to decline.

In the past, the market price for our common stock experienced significant fluctuations and it may do so in the future. A number of factors may affect the market price for our common stock, such as:

- shortfalls in, or changes in expectations about our revenue, margins, earnings, Annualized Recurring Revenue ("ARR"), sales of our Adobe Experience Cloud offerings, or other key performance metrics;
- changes in estimates or recommendations by securities analysts;
- whether our results meet analysts' expectations;
- compression or expansion of multiples used by investors and analysts to value high technology SaaS companies;
- the announcement of new products or services, product enhancements, service introductions, strategic alliances or significant agreements by us or our competitors;
- the loss of large customers or our inability to increase sales to existing customers, retain customers or attract new customers;
- recruitment or departure of key personnel;
- variations in our or our competitors' results of operations, changes in the competitive landscape generally and developments in our industry;
- general socio-economic, political or market conditions; and
- unusual events such as significant acquisitions by us or our competitors, divestitures, litigation, regulatory actions and other factors, including factors unrelated to our operating performance.

In addition, the market for technology stocks or the stock market in general may experience uneven investor confidence, which may cause the market price for our common stock to decline for reasons unrelated to our operating performance. Volatility in the market price of a company's securities for a period of time may increase the company's susceptibility to securities class action litigation. Oftentimes, this type of litigation is expensive and diverts management's attention and resources which may adversely affect our business.

Contracting with government entities exposes us to additional risks inherent in the government procurement process.

We provide products and services, directly and indirectly, to a variety of government entities, both domestically and internationally. Risks associated with licensing and selling products and services to government entities include more extended sales and collection cycles, varying governmental budgeting processes and adherence to complex procurement regulations and other government-specific contractual requirements. We may be subject to audits and investigations relating to our government contracts and any violations could result in various civil and criminal penalties and administrative sanctions, including termination of contracts, payment of fines, and suspension or debarment from future government business, as well as harm to our reputation and financial results.

If we are unable to recruit and retain key personnel, our business may be harmed.

Much of our future success depends on the continued service, availability and performance of our senior management. These individuals have acquired specialized knowledge and skills with respect to Adobe. The loss of any of these individuals could harm our business, especially if we have not been successful in developing adequate succession plans. Our business is also dependent on our ability to retain, hire and motivate talented, highly skilled personnel across all levels of our organization. Experienced personnel in the information technology industry are in high demand and competition for their talents is intense in many areas where our employees are located. We may experience higher compensation costs to retain senior management and experienced personnel that may not be offset by improved productivity or increased sales. If we are unable to continue to successfully attract and retain key personnel, our business may be harmed.

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We continue to hire personnel in countries where exceptional technical knowledge and other expertise are offered at lower costs, which increases the efficiency of our global workforce structure and reduces our personnel related expenditures. Nonetheless, as globalization continues, competition for these employees in these countries has increased, which may impact our ability to retain these employees and increase our expenses resulting from competitive compensation. We may continue to expand our international operations and international sales and marketing activities, which would require significant management attention and resources. We may be unable to scale our infrastructure effectively or as quickly as our competitors in these markets, and our revenue may not increase to offset these expected increases in costs and operating expenses, causing our results to suffer.

We believe that a critical contributor to our success to date has been our corporate culture, which we have built to foster innovation, teamwork and employee satisfaction. As we grow, including from the integration of employees and businesses acquired in connection with previous or future acquisitions, we may find it difficult to maintain important aspects of our corporate culture, which could negatively affect our ability to retain and recruit personnel who are essential to our future success.

Failure to manage our sales and distribution channels effectively could result in a loss of revenue and harm to our business.

We contract with a number of software distributors and other strategic partners, none of which is individually responsible for a material amount of our total net revenue for any recent period. Nonetheless, if any single agreement with one of our distributors were terminated, any prolonged delay in securing a replacement distributor could have a negative impact on our results of operations.

Successfully managing our indirect distribution channel efforts to reach various customer segments for our products and services is a complex process across the broad range of geographies where we do business or plan to do business. Our distributors and other channel partners are independent businesses that we do not control. Notwithstanding the independence of our channel partners, we face legal risk and potential reputational harm from the activities of these third parties including, but not limited to, export control violations, workplace conditions, corruption and anti-competitive behavior.

We cannot be certain that our distribution channel will continue to market or sell our products and services effectively. If our distribution channel is not successful, we may lose sales opportunities, customers and revenue. Our distributors also sell our competitors' products and services, and if they favor our competitors' products or services for any reason, they may fail to market our products or services effectively or to devote resources necessary to provide effective sales, which would cause our results to suffer. We also distribute some products and services through our OEM channel, and if our OEMs decide not to bundle our applications on their devices, our results could suffer. In addition, the financial health of our distributors and our continuing relationships with them are important to our success. Some of these distributors may be unable to withstand adverse changes in economic conditions, which could result in insolvency, the inability of such distributors to obtain credit to finance purchases of our products and services, or a delay in paying their obligations to us.

We also sell some of our products and services through our direct sales force. Risks associated with this sales channel include more extended sales and collection cycles associated with direct sales efforts, challenges related to hiring, retaining and motivating our direct sales force, and substantial amounts of ongoing training for sales representatives. Moreover, recent hires may not become as productive as we would like, as in most cases it takes a significant period of time before they achieve full productivity. Our business could be seriously harmed if our expansion efforts do not generate a corresponding significant increase in revenue and we are unable to achieve the efficiencies we anticipate. In addition, the loss of key sales employees could impact our customer relationships and future ability to sell to certain accounts covered by such employees.

If our goodwill or amortizable intangible assets become impaired, then we could be required to record a significant charge to earnings.

GAAP requires us to test for goodwill impairment at least annually. In addition, we review our goodwill and amortizable intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Factors that may be considered a change in circumstances indicating that the carrying value of our goodwill or amortizable intangible assets may not be recoverable include declines in stock price, market capitalization or cash flows, and slower growth rates in our industry. Depending on the results of our review, we could be required to record a significant charge to earnings in our financial statements during the period in which any impairment of our goodwill or amortizable intangible assets were determined, negatively impacting our results of operations.

We have issued $1.9 billion of notes in debt offerings and have a $2.25 billion term loan, and may incur other debt in the future, which may adversely affect our financial condition and future financial results.

We have $1.9 billion in senior unsecured notes and a $2.25 billion senior unsecured term loan outstanding. We also have a $1 billion senior unsecured revolving credit agreement, which is currently undrawn. This debt may adversely affect our financial condition and future financial results by, among other things:

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- increasing our vulnerability to adverse changes in general economic and industry conditions;

- requiring the dedication of a portion of our expected cash flow from operations to service our indebtedness, thereby reducing the amount of expected cash flow available for other purposes, including capital expenditures and acquisitions; and

- limiting our flexibility in planning for, or reacting to, changes in our business and our industry.

Our senior unsecured notes and senior unsecured credit agreements impose restrictions on us and require us to maintain compliance with specified covenants. Our ability to comply with these covenants may be affected by events beyond our control. If we breach any of the covenants and do not obtain a waiver from the lenders or noteholders, then, subject to applicable cure periods, 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 both our debt and equity securities, as well as the potential costs associated with a refinancing of our debt. Under certain circumstances, if our credit ratings are downgraded or other negative action is taken, the interest rate payable by us under our revolving credit facility and term loan could increase. Downgrades in our credit ratings could also affect the terms of any such financing and restrict our ability to obtain additional financing in the future.

Catastrophic events may disrupt our business.

We are a highly automated business and rely on our network infrastructure and enterprise applications, internal technology systems and website for our development, marketing, operations, support, hosted services and sales activities. In addition, some of our businesses rely on third-party hosted services, and we do not control the operation of third-party data center facilities serving our customers from around the world, which increases our vulnerability. A disruption, infiltration or failure of these systems or third-party hosted services in the event of a major earthquake, fire, flood, tsunami or other weather event, power loss, telecommunications failure, software or hardware malfunctions, pandemics, cyber-attack, war, terrorist attack or other catastrophic event that our disaster recovery plans do not adequately address, could cause system interruptions, reputational harm, loss of intellectual property, delays in our product development, lengthy interruptions in our services, breaches of data security and loss of critical data. Any of these events could prevent us from fulfilling our customers’ orders or could negatively impact a country or region in which we sell our products, which could in turn decrease that country’s or region’s demand for our products. Our corporate headquarters, a significant portion of our research and development activities, certain of our data centers and certain other critical business operations are located in the San Francisco Bay Area, and additional facilities where we conduct significant operations are located in the Salt Lake Valley Area, both of which are near major earthquake faults. A catastrophic event that results in the destruction or disruption of any of our data centers or our critical business or information technology systems could severely affect our ability to conduct normal business operations and, as a result, our future operating results could be adversely affected.

Climate change may have a long-term impact on our business.

While we seek to partner with organizations that mitigate their business risks associated with climate change, we recognize that there are inherent risks wherever business is conducted. Access to clean water and reliable energy in the communities where we conduct our business, whether for our offices or for our vendors, is a priority. Our major sites in California, Utah and India are vulnerable to prolonged droughts due to climate change. In the event of a natural disaster that disrupts business due to limited access to these resources, we have the potential to experience losses to our business, and added costs to resume operations. To accurately assess and take potential proactive action as appropriate, Adobe is aligned with the guidelines of the Financial Stability Board’s (“FSB”) Task Force on Climate-related Financial Disclosures (“TCFD”) recommendations.

Our investment portfolio may become impaired by deterioration of the financial markets.

Our cash equivalent and short-term investment portfolio as of November 30, 2018 consisted of corporate debt securities, foreign government securities and U.S. Treasury securities, money market mutual funds, municipal securities, time deposits and asset-backed securities. We follow an established investment policy and set of guidelines to monitor and help mitigate our exposure to interest rate and credit risk. The policy sets forth credit quality standards and limits our exposure to any one issuer, as well as our maximum exposure to various asset classes.

Should financial market conditions worsen in the future, investments in some financial instruments may pose risks arising from market liquidity and credit concerns. In addition, any deterioration of the capital markets could cause our other income and expense to vary from expectations. As of November 30, 2018, we had no material impairment charges associated with our short-term investment portfolio, and although we believe our current investment portfolio has little risk of material impairment, we

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cannot predict future market conditions, market liquidity or credit availability, and can provide no assurance that our investment portfolio will remain materially unimpaired.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The following table sets forth the location, approximate square footage and use of our principal properties during fiscal 2018:

Location	Owned / Leased	Approximate Square Footage		Use
Americas:				
San Jose, California	Owned & leased	1,081,000	(1)	Research, product development, sales, marketing and administration
San Francisco, California	Owned & leased	549,000	(2)	Research, product development, sales, marketing and administration
Lehi, Utah	Owned & leased	282,000	(3)	Research, product development, sales, marketing and administration
Hillsboro, Oregon	Owned	85,000		Data center
APAC:				
Bangalore, India	Owned & leased	422,000	(4)	Research, product development, sales and administration
Noida, India	Owned & leased	554,000	(5)	Research, product development, sales and administration
Japan	Leased	64,000		Research, product development, sales and administration
EMEA:				
Bucharest, Romania	Leased	97,000		Research and product development
Dublin, Ireland	Leased	42,000		Administration
Maidenhead, United Kingdom	Leased	49,000		Product development, sales, marketing and administration

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(1) We own approximately 989,000 square feet of our San Jose properties where our headquarters is located.

(2) We own approximately 346,000 square feet of our San Francisco properties.

(3) We own approximately 257,000 square feet of our Lehi properties.

(4) We own approximately 250,000 square feet of our Bangalore properties.

(5) We own our Noida properties except for a land lease for one of our buildings. The term for the land lease is until 2091.

We lease or sublease the properties we occupy under operating leases. Such leases expire at various times through 2031, with the exception of our ground lease in Noida.

In general, all facilities are in good condition, suitable for the conduct of our business and are operating at an average capacity of approximately 91%.

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ITEM 3. LEGAL PROCEEDINGS

In connection with disputes relating to the validity or alleged infringement of third-party intellectual property rights, including patent rights, we have been, are currently and may in the future be subject to claims, negotiations or complex, protracted litigation. Intellectual property disputes and litigation may be very costly and can be disruptive to our business operations by diverting the attention and energies of management and key technical personnel. Although we have successfully defended or resolved past litigation and disputes, we may not prevail in any ongoing or future litigation and disputes. Third-party intellectual property disputes could subject us to significant liabilities, require us to enter into royalty and licensing arrangements on unfavorable terms, prevent us from licensing certain of our products or offering certain of our services, subject us to injunctions restricting our sale of products or services, cause severe disruptions to our operations or the markets in which we compete, or require us to satisfy indemnification commitments with our customers including contractual provisions under various license arrangements and service agreements.

In addition to intellectual property disputes, we are subject to legal proceedings, claims and investigations in the ordinary course of business, including claims relating to commercial, employment and other matters. Some of these disputes and legal proceedings may include speculative claims for substantial or indeterminate amounts of damages. We consider all claims on a quarterly basis in accordance with GAAP and, based on known facts, assess whether potential losses are considered reasonably possible, probable and estimable. Based upon this assessment, we then evaluate disclosure requirements and whether to accrue for such claims in our financial statements. This determination is then reviewed and discussed with the Audit Committee of the Board of Directors and our independent registered public accounting firm.

We make a provision for a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. These provisions are reviewed at least quarterly and adjusted to reflect the impacts of negotiations, settlements, rulings, advice of legal counsel and other information and events pertaining to a particular case. Unless otherwise specifically disclosed in our Consolidated Financial Statements and notes thereto, we have determined that no provision for liability or disclosure is required related to any claim against us because: (a) there is not a reasonable possibility that a loss exceeding amounts already recognized (if any) may be incurred with respect to such claim; (b) a reasonably possible loss or range of loss cannot be estimated; or (c) such estimate is immaterial.

All legal costs associated with litigation are expensed as incurred. Litigation is inherently unpredictable. However, we believe that we have valid defenses with respect to the legal matters pending against us. It is possible, nevertheless, that our consolidated financial position, cash flows or results of operations could be negatively affected by an unfavorable resolution of one or more of such proceedings, claims or investigations.

In connection with our piracy conversion efforts, conducted both internally and through organizations such as the Business Software Alliance, from time to time we undertake litigation against alleged copyright infringers. Such lawsuits may lead to counter-claims alleging improper use of litigation or violation of other laws. We believe we have valid defenses with respect to such counter-claims; however, it is possible that our consolidated financial position, cash flows or results of operations could be negatively affected in any particular period by the resolution of one or more of these counter-claims.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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PART II

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 "ADBE."

Stockholders

According to the records of our transfer agent, there were 1,030 holders of record of our common stock on January 18, 2019. Because many of such shares are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

Dividends

We do not anticipate paying any cash dividends in the foreseeable future.

Issuer Purchases of Equity Securities

Below is a summary of stock repurchases for the three months ended November 30, 2018. See Note 12 of our Notes to Consolidated Financial Statements for information regarding our stock repurchase programs.

Period	Total Number of Shares Repurchased	Average Price Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans	Approximate Dollar Value that May Yet be Purchased Under the Plan
	(in thousands, except average price per share)			
Beginning repurchase authority [1]				$ 8,397,282
September 1 — September 28, 2018				
Shares repurchased	945	$ 261.72	945	$ (247,282)
October 27 — November 30, 2018				
Shares repurchased	616	$ 243.52	616	$ (150,000) [2]
Total	1,561		1,561	$ 8,000,000

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(1) In January 2017, the Board of Directors granted authority to repurchase up to $2.5 billion in common stock through the end of fiscal 2019. In May 2018, the Board of Directors approved another authority to repurchase up to $8.0 billion in common stock through the end of fiscal 2021. As of November 30, 2018, there is no remaining balance under our January 2017 authority.

(2)

In October 2018, we entered into a structured stock repurchase agreement with a large financial institution whereupon we provided them with a prepayment of $300 million. As of November 30, 2018, approximately $150.0 million of the prepayment remained under this agreement.

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ITEM 6. SELECTED FINANCIAL DATA

The following selected consolidated financial data (presented in thousands, except per share amounts and employee data) is derived from our Consolidated Financial Statements. As our historical operating results are not necessarily indicative of future operating results, this data should be read in conjunction with the Consolidated Financial Statements and notes thereto, and with Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations.

	Fiscal Years				
	2018	2017	2016	2015	2014
Operations:					
Revenue	$9,030,008	$7,301,505	$5,854,430	$4,795,511	$4,147,065
Gross profit	$7,835,009	$6,291,014	$5,034,522	$4,051,194	$3,524,985
Income before income taxes	$2,793,876	$2,137,641	$1,435,138	$873,781	$361,376
Net income	$2,590,774	$1,693,954	$1,168,782	$629,551	$268,395
Net income per share:					
Basic	$5.28	$3.43	$2.35	$1.26	$0.54
Diluted	$5.20	$3.38	$2.32	$1.24	$0.53
Shares used to compute basic net income per share	490,564	493,632	498,345	498,764	497,867
Shares used to compute diluted net income per share	497,843	501,123	504,299	507,164	508,480
Financial position:[1]					
Cash, cash equivalents and short-term investments	$3,228,962	$5,819,774	$4,761,300	$3,988,084	$3,739,491
Working capital[2]	$555,913	$3,720,356	$3,028,139	$2,608,336	$2,107,893
Total assets	$18,768,682	$14,535,556	$12,697,246	$11,714,500	$10,781,991
Debt, non-current	$4,124,800	$1,881,421	$1,892,200	$1,895,259	$907,248
Stockholders' equity	$9,362,114	$8,459,869	$7,424,835	$7,001,580	$6,775,905
Additional data:					
Worldwide employees	21,357	17,973	15,706	13,893	12,499

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(1) Information associated with our financial position is as of the Friday closest to November 30 for the five fiscal periods through 2018.

(2) For fiscal 2014, our working capital did not include the effects of the adoption of ASU No. 2015-17, Balance Sheet Classification of Deferred Taxes, which required all deferred tax assets and liabilities and any related valuation allowance to be classified as non-current on our Consolidated Balance Sheets. The new standard was adopted prospectively starting fiscal 2015.

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

The following discussion should be read in conjunction with our Consolidated Financial Statements and Notes thereto.

ACQUISITIONS

During fiscal 2018, we completed our acquisitions of Marketo, a privately held marketing cloud platform company, for $4.74 billion and Magento, a privately held commerce platform company, for $1.64 billion. As of the end of fiscal 2018, we are continuing to integrate Marketo and Magento into our Digital Experience reportable segment.

During fiscal 2017, we completed our acquisition of TubeMogul, a publicly held video advertising platform company, for $560.8 million. As of the end of fiscal 2018, we have integrated TubeMogul into our Digital Experience reportable segment.

We also completed other immaterial business acquisitions during the fiscal years presented.

See Note 2 of our Notes to Consolidated Financial Statements for pro forma financial information related to the Marketo acquisition. Pro forma information has not been presented for our other acquisitions during the fiscal years presented as the impact to our Consolidated Financial Statements was not material.

Subsequent to November 30, 2018, we acquired the remaining interest in Allegorithmic SAS ("Allegorithmic"), a privately held 3D editing and authoring software company for gaming and entertainment, for approximately $105.0 million in cash consideration. Allegorithmic will be integrated into our Digital Media reportable segment for financial reporting purposes in the first quarter of fiscal 2019.

See Note 2 of our Notes to Consolidated Financial Statements for further information regarding these acquisitions.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

In preparing our Consolidated Financial Statements in accordance with GAAP and pursuant to the rules and regulations of the SEC, we make assumptions, judgments and estimates that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosures of contingent assets and liabilities. 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. On a regular basis, we evaluate our assumptions, judgments and estimates. We also discuss our critical accounting policies and estimates with the Audit Committee of the Board of Directors.

We believe that the assumptions, judgments and estimates involved in the accounting for business combinations and income taxes have the greatest potential impact on our Consolidated Financial Statements. These areas are key components of our results of operations and are based on complex rules requiring us to make judgments and estimates, so we consider these to be our critical accounting policies. Historically, our assumptions, judgments and estimates relative to our critical accounting policies have not differed materially from actual results.

Business Combinations

We allocate the purchase price of acquired companies to the tangible and intangible assets acquired and liabilities assumed based upon their estimated fair values at the acquisition date. The purchase price allocation process requires management to make significant estimates and assumptions 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, market conditions and information obtained from management of the acquired companies and are inherently uncertain. Examples of critical estimates 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 software license sales, subscriptions, support agreements, consulting contracts and acquired developed technologies and patents;
- historical and expected customer attrition rates and anticipated growth in revenue from acquired customers;
- the acquired company's trade name and trademarks as well as assumptions about the period of time the acquired trade name and trademarks will continue to be used in the combined company's product portfolio;
- the expected use of the acquired assets; and
- discount rates.

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In connection with the purchase price allocations for our acquisitions, we estimate the fair value of the deferred revenue obligations assumed. The estimated fair value of these obligations is determined utilizing a cost build-up approach. The cost build-up approach determines fair value by estimating the costs related to fulfilling the obligations plus a normal profit margin.

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

Accounting for Income Taxes

We use the asset and liability method of accounting for income taxes. Under this method, income tax expense is recognized for the amount of taxes payable or refundable for the current year. In addition, deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the financial reporting and tax bases of assets and liabilities, and for operating losses and tax credit carryforwards. Management must make assumptions, judgments and estimates to determine our current provision for income taxes and also our deferred tax assets and liabilities.

Our assumptions, judgments and estimates relative to the current provision for income taxes take into account current tax laws, our interpretation of current tax laws and possible outcomes of current and future audits conducted by foreign and domestic tax authorities. We have established reserves for income taxes to address potential exposures involving tax positions that could be challenged by tax authorities. In addition, we are subject to the continual examination of our income tax returns by the U.S. Internal Revenue Service ("IRS") and other domestic and foreign tax authorities. We expect future examinations to focus on our intercompany transfer pricing practices as well as other matters. We regularly assess the likelihood of outcomes resulting from these examinations to determine the adequacy of our provision for income taxes and have reserved for potential adjustments that may result from such examinations. We believe such estimates to be reasonable; however, the final determination of any of these examinations could significantly impact the amounts provided for income taxes in our Consolidated Financial Statements.

Recent Accounting Pronouncements

See Note 1 of our Notes to Consolidated Financial Statements for information regarding recent accounting pronouncements that are of significance, or potential significance to us.

RESULTS OF OPERATIONS

Overview of 2018

For fiscal 2018, we reported strong financial results consistent with the continued execution of our long-term plans for our two strategic growth areas, Digital Media and Digital Experience (formerly Digital Marketing), while continuing to market and license a broad portfolio of products and solutions.

In our Digital Media segment, we are a market leader with Creative Cloud, our subscription-based offering which provides desktop tools, mobile apps and cloud-based services for designing, creating and publishing rich and immersive content. Creative Cloud delivers value with deep, cross-product integration, frequent product updates and feature enhancements, cloud-based services including storage and syncing of files across users' machines, access to marketplace, social and community-based features with our Adobe Stock and Behance services, app creation capabilities, tools which assist with enterprise deployments and team collaboration, and affordable pricing for cost-sensitive customers.

We offer Creative Cloud for individuals, students, teams and enterprises. We expect Creative Cloud will drive sustained long-term revenue growth through a continued expansion of our customer base by acquiring new users on account of low cost of entry and delivery of additional features and value to Creative Cloud, as well as keeping existing customers current on our latest release. We have also built out a marketplace for Creative Cloud subscribers to enable the delivery and purchase of stock content in our Adobe Stock service. Overall, our strategy with Creative Cloud is designed to enable us to increase our revenue with users, attract more new customers, and grow our recurring and predictable revenue stream that is recognized ratably.

We continue to implement strategies that will accelerate awareness, consideration and purchase of subscriptions to our Creative Cloud offerings. These strategies include increasing the value Creative Cloud users receive, such as offering new desktop and mobile applications, as well as targeted promotions and offers that attract past customers and potential users to try out and ultimately subscribe to Creative Cloud. Because of the shift towards Creative Cloud subscriptions and Enterprise Term License Agreements (“ETLAs”), revenue from perpetual licensing of our Creative products has been immaterial to our business.

We are also a market leader with our Adobe Document Cloud offerings built around our Adobe Acrobat family of products, including Adobe Acrobat Reader DC, and a set of integrated cloud-based document services, including Adobe Sign. Acrobat provides reliable creation and exchange of electronic documents, regardless of platform or application source type. Document

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Cloud, which we believe enhances the way people manage critical documents at home, in the office and across devices, includes Adobe Acrobat DC and Adobe Sign, and a set of integrated services enabling users to create, review, approve, sign and track documents whether on a desktop or mobile device. Adobe Acrobat DC, with a touch-enabled user interface, is offered both through subscription and perpetual licenses.

Annualized Recurring Revenue ("ARR") is currently the key performance metric our management uses to assess the health and trajectory of our overall Digital Media segment. ARR should be viewed independently of revenue, deferred revenue and unbilled deferred revenue as ARR is a performance metric and is not intended to be combined with any of these items. We adjust our reported ARR on an annual basis to reflect any material exchange rates changes. Our reported ARR results in fiscal 2018 are based on currency rates set at the start of fiscal 2018 and held constant throughout the year. We calculate ARR as follows:

Creative ARR	Annual Value of Creative Cloud Subscriptions and Services + Annual Digital Publishing Suite Contract Value + Annual Creative ETLA Contract Value
Document Cloud ARR	Annual Value of Document Cloud Subscriptions and Services + Annual Document Cloud ETLA Contract Value
Digital Media ARR	Creative ARR + Document Cloud ARR

Creative ARR exiting fiscal 2018 was $6.03 billion, up from $4.77 billion at the end of fiscal 2017. Document Cloud ARR exiting fiscal 2018 was $801 million, up from $614 million at the end of fiscal 2017. Total Digital Media ARR grew to $6.83 billion at the end of fiscal 2018, up from $5.39 billion at the end of fiscal 2017. Revaluing our ending ARR for fiscal 2018 using currency rates at the beginning of fiscal 2019, our Digital Media ARR at the end of fiscal 2018 would be $6.71 billion or approximately $123 million lower than the ARR reported above.

Our success in driving growth in ARR has positively affected our revenue growth. Creative revenue in fiscal 2018 was $5.34 billion, up from $4.17 billion in fiscal 2017 and representing 28% year-over-year growth. Document Cloud revenue in fiscal 2018 was $981.8 million, up from $836.7 million in fiscal 2017 and representing 17% year-over-year revenue growth as we continue to transition Document Cloud to a subscription-based model. Total Digital Media segment revenue grew to $6.33 billion in fiscal 2018, up from $5.01 billion in fiscal 2017 and representing 26% year-over-year growth.

We are a market leader in the fast-growing category addressed by our Digital Experience segment. Our Digital Experience business provides comprehensive solutions that include analytics, social marketing, targeting, media optimization, digital experience management, cross-channel campaign management, marketing automation, audience management, commerce, premium video delivery and monetization. These comprehensive solutions enable marketers to measure, personalize and optimize marketing campaigns and digital experiences across channels for optimal marketing performance.

Our hierarchy of solutions in the Digital Experience segment, available in our Adobe Experience Cloud, consists of the following cloud offerings:

- Adobe Advertising Cloud—delivers an end-to-end platform for managing advertising across traditional TV and digital formats, and simplifies the delivery of video, display and search advertising across channels and screens.

- Adobe Analytics Cloud—enables businesses to move from insights to actions in real time by uniquely integrating audiences as the core system of intelligence for the enterprise; makes data available across all Adobe clouds through the

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capture, aggregation, rationalization and understanding of vast amounts of disparate data and then translating that data into singular customer profiles; includes Adobe Analytics and Adobe Audience Manager.

- Adobe Marketing Cloud—provides an integrated set of solutions to help marketers differentiate their brands and engage their customers, helping businesses manage, personalize, and orchestrate campaigns and customer journeys; includes Adobe Experience Manager (“AEM”), Adobe Campaign, Adobe Target, Marketo Engagement Platform and Adobe Primetime.

- Magento Commerce Cloud—provides digital commerce, order management and predictive intelligence based on a unified commerce platform enabling shopping experiences across a wide array of industries. This cloud offering was integrated into the Adobe Experience Cloud after our acquisition of privately held Magento in June 2018.

In addition to chief marketing officers, chief revenue officers and digital marketers, users of our Adobe Experience Cloud solutions include advertisers, campaign managers, digital marketers, publishers, data analysts, content managers, social marketers and marketing executives. These customers often are involved in workflows that utilize other Adobe products, such as our Digital Media offerings. By combining the creativity of our Digital Media business with the science of our Digital Experience business, we help our customers to more efficiently and effectively make, manage, measure and monetize their content across every channel with an end-to-end workflow and feedback loop.

In October 2018, we acquired privately held marketing cloud platform company Marketo. We began integrating Magento, as discussed above, and Marketo into our Digital Experience business in the second half of fiscal 2018.

We utilize a direct sales force to market and license our Adobe Experience Cloud solutions, as well as an extensive ecosystem of partners, including marketing agencies, systems integrators and independent software vendors that help license and deploy our solutions to their customers. We have made significant investments to broaden the scale and size of all of these routes to market, and our recent financial results reflect the success of these investments.

We achieved record Adobe Experience Cloud revenue of $2.44 billion in fiscal 2018, up from $2.03 billion in fiscal 2017 which represents 20% year-over-year growth. Driving the increase in Adobe Experience Cloud revenue was the increase in subscription revenue across our offerings which grew to $1.95 billion in fiscal 2018 from $1.55 billion in fiscal 2017, representing 26% year-over-year growth. Also contributing to the increase in Digital Experience subscription revenue, to a lesser extent, was revenue associated with Magento’s commerce platform offerings and Marketo’s marketing cloud platform offerings. We expect that the addition of Marketo and Magento, and continued demand across our portfolio of Adobe Experience Cloud solutions, will drive revenue growth in future years.

Financial Performance Summary for Fiscal 2018

- Total Digital Media ARR of approximately $6.83 billion as of November 30, 2018 increased by $1.44 billion, or 27%, from $5.39 billion as of December 1, 2017. The change in our Digital Media ARR was primarily due to strong adoption of our Creative Cloud and Adobe Document Cloud offerings.

- Creative revenue of $5.34 billion increased by $1.17 billion, or 28%, during fiscal 2018, from $4.17 billion in fiscal 2017. The increase was primarily due to the increase in subscription revenue associated with our Creative Cloud offerings.

- Adobe Experience Cloud revenue of $2.44 billion increased by $413.4 million, or 20%, during fiscal 2018, from $2.03 billion in fiscal 2017. The increase was primarily due to the increase in subscription revenue across our offerings.

- Our total deferred revenue of $3.05 billion as of November 30, 2018 increased by $559.1 million, or 22%, from $2.49 billion as of December 1, 2017. The increase was primarily due to increases in new contracts and the timing of renewals related to our Digital Media offerings and, to a lesser extent, deferred revenue assumed from Magento and Marketo.

- Cost of revenue of $1.19 billion increased by $184.5 million, or 18%, during fiscal 2018, from $1.01 billion in fiscal 2017. The increase was primarily due to increases in media rebill costs associated with our Advertising Cloud offerings and hosting services and data center costs.

- Operating expenses of $4.99 billion increased by $871.7 million, or 21%, during fiscal 2018, from $4.12 billion in fiscal 2017. The increase was primarily due to increases in base compensation and related benefits costs and stock-based compensation expense associated with headcount growth.

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- Net income of $2.59 billion increased by $896.8 million, or 53%, during fiscal 2018 from $1.69 billion in fiscal 2017 primarily due to increases in subscription revenue and, to a lesser extent, the decrease in the provision for income taxes.

- Net cash flow from operations of $4.03 billion during fiscal 2018 increased by $1.12 billion, or 38%, from $2.91 billion during fiscal 2017 primarily due to higher net income.

Revenue (dollars in millions)

Revenue for fiscal 2016 benefited from an extra week in the first quarter of fiscal 2016 due to our 52/53-week financial calendar whereby fiscal 2016 was a 53-week year compared with fiscal 2018 and 2017, which were 52-week years.

	Fiscal 2018	Fiscal 2017	Fiscal 2016	% Change 2018-2017	% Change 2017-2016
Subscription	$7,922.2	$6,133.9	$4,584.8	29 %	34 %
Percentage of total revenue	88 %	84 %	78 %		
Product	622.1	706.7	800.5	(12)%	(12)%
Percentage of total revenue	7 %	10 %	14 %		
Services and support	485.7	460.9	469.1	5 %	(2)%
Percentage of total revenue	5 %	6 %	8 %		
Total revenue	$9,030.0	$7,301.5	$5,854.4	24 %	25 %

Our subscription revenue is comprised primarily of fees we charge for our subscription and hosted service offerings including Creative Cloud and certain of our Adobe Experience Cloud and Document Cloud services. We recognize subscription revenue ratably over the term of agreements with our customers, beginning with commencement of service.

We have the following reportable segments—Digital Media, Digital Experience and Publishing. Subscription revenue by reportable segment for fiscal 2018, 2017 and 2016 is as follows (dollars in millions):

	Fiscal 2018	Fiscal 2017	Fiscal 2016	% Change 2018-2017	% Change 2017-2016
Digital Media	$5,857.7	$4,480.8	$3,370.8	31 %	33 %
Digital Experience	1,949.3	1,552.5	1,123.2	26 %	38 %
Publishing	115.2	100.6	90.8	15 %	11 %
Total subscription revenue	$7,922.2	$6,133.9	$4,584.8	29 %	34 %

In fiscal 2018, we moved our legacy enterprise offerings from our Digital Experience segment into Publishing. Prior year information in the table above has been reclassified to reflect this change. See below for additional details.

Our services and support revenue is comprised of consulting, training and maintenance and support, primarily related to the licensing of our enterprise offerings and the sale of our hosted Adobe Experience Cloud services. Our support revenue also includes technical support and developer support to partners and developer organizations related to our desktop products. Our maintenance and support offerings, which entitle customers to receive desktop product upgrades and enhancements or technical support, depending on the offering, are generally recognized ratably over the term of the arrangement.

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Segments

In fiscal 2018, we categorized our products into the following reportable segments:

- Digital Media—Our Digital Media segment provides tools and solutions that enable individuals, small and medium businesses and enterprises to create, publish, promote and monetize their digital content anywhere. Our customers include traditional content creators, web application developers and digital media professionals, as well as their management in marketing departments and agencies, companies and publishers. Our customers also include knowledge workers who create, collaborate on and distribute documents.
- Digital Experience—Our Digital Experience segment provides solutions and services for how digital advertising and marketing are created, managed, executed, measured and optimized. Our customers include digital marketers, advertisers, publishers, merchandisers, web analysts, chief marketing officers, chief information officers and chief revenue officers. This segment also includes our Marketo marketing cloud platform offerings and Magento commerce platform offerings, both acquired in fiscal 2018.
- Publishing—Our Publishing segment addresses market opportunities ranging from the diverse authoring and publishing needs of technical and business publishing to our legacy type and OEM printing businesses. It also includes our web conferencing and document and forms platforms.

In fiscal 2018, we moved our legacy enterprise offerings—Adobe Connect web conferencing platform and Adobe LiveCycle, an enterprise document and forms platform—from our Digital Experience segment into Publishing, in order to more closely align our Digital Experience business with the strategic growth opportunity. Prior year information in the tables below have been reclassified to reflect this change.

Segment Information (dollars in millions)

	Fiscal 2018	Fiscal 2017	Fiscal 2016	% Change 2018-2017	% Change 2017-2016
Digital Media	$6,325.3	$5,010.6	$3,941.0	26 %	27 %
Percentage of total revenue	70 %	69 %	67 %		
Digital Experience	2,443.7	2,030.3	1,631.4	20 %	24 %
Percentage of total revenue	27 %	28 %	28 %		
Publishing	261.0	260.6	282.0	— %	(8)%
Percentage of total revenue	3 %	3 %	5 %		
Total revenue	$9,030.0	$7,301.5	$5,854.4	24 %	25 %

Fiscal 2018 Revenue Compared to Fiscal 2017 Revenue

Digital Media

Revenue from Digital Media increased $1.31 billion during fiscal 2018 as compared to fiscal 2017, primarily driven by increases in revenue associated with our Creative offerings.

Revenue associated with our Creative offerings, which includes our Creative Cloud, perpetually licensed Creative and stock photography offerings, increased during fiscal 2018. The increase was primarily due to an increase in subscription revenue across all of our Creative Cloud offerings driven by the increase in net new subscriptions.

Adobe Document Cloud revenue, which includes our Acrobat product family and Adobe Sign service, increased during fiscal 2018 as compared to fiscal 2017 primarily due to increases in subscriptions revenue driven by strong adoption of our Document Cloud.

Digital Experience

Revenue from Digital Experience increased $413.4 million during fiscal 2018, as compared to fiscal 2017 primarily due to subscription revenue growth associated with our Adobe Experience Cloud offerings. The increase in subscription revenue was primarily driven by continued adoption of our AEM offerings which is part of our Marketing Cloud and growth in revenue associated with our Analytics Cloud. Also contributing to the increase in subscription revenue, but to a lesser extent, was revenue associated with our Magento Commerce Cloud and

Advertising Cloud.

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Fiscal 2017 Revenue Compared to Fiscal 2016 Revenue

Digital Media

Revenue from Digital Media increased $1.07 billion during fiscal 2017 as compared to fiscal 2016, primarily driven by increases in revenue associated with our creative offerings.

Revenue associated with our Creative offerings, which includes our Creative Cloud, perpetually licensed Creative and stock photography offerings, increased during fiscal 2017 as compared to fiscal 2016. The increase was primarily due to an increase in subscription revenue associated with our Creative Cloud offerings driven by increases in individual, team and enterprise subscriptions. Also contributing to the increase in revenue was revenue growth associated with our Creative Cloud Photography Plan subscription offering.

Document Cloud revenue, which includes our Acrobat product family and Adobe Sign service, increased during fiscal 2017 as compared to fiscal 2016 primarily due to increases in Document Cloud subscription revenue, offset in part by expected declines in revenue associated with our perpetually licensed Acrobat offering. Also contributing to the increase in Document Cloud revenue was an increase in Adobe Sign revenue.

Digital Experience

Revenue from Digital Experience increased $398.9 million during fiscal 2017, as compared to fiscal 2016 primarily due to subscription revenue growth associated with our Adobe Experience Cloud. The increase in subscription revenue was driven by strong performance with our Marketing Cloud offerings, which include AEM and Adobe Campaign, and our Analytics Cloud offerings, which includes Audience Manager. Also contributing to the increase in Adobe Experience Cloud revenue were increases in revenue associated with our Advertising Cloud offerings, including TubeMogul which we acquired in fiscal 2017.

Geographical Information (dollars in millions)

	Fiscal 2018	Fiscal 2017	Fiscal 2016	% Change 2018-2017	% Change 2017-2016
Americas	$5,116.8	$4,216.5	$3,400.1	21 %	24 %
Percentage of total revenue	57 %	58 %	58 %		
EMEA	2,550.0	1,985.1	1,619.2	28 %	23 %
Percentage of total revenue	28 %	27 %	28 %		
APAC	1,363.2	1,099.9	835.1	24 %	32 %
Percentage of total revenue	15 %	15 %	14 %		
Total revenue	$9,030.0	$7,301.5	$5,854.4	24 %	25 %

Fiscal 2018 Revenue by Geography Compared to Fiscal 2017 Revenue by Geography

Overall revenue during fiscal 2018 increased in all geographic regions as compared to fiscal 2017 primarily due to increases in Digital Media and Digital Experience revenue. Within each geographic region, the fluctuations in revenue by reportable segment were attributable to the factors noted in the segment information above. Further, the overall increase in EMEA revenue during fiscal 2018 was positively impacted by the relative weakening of the U.S. Dollar against EMEA currencies as discussed below.

Fiscal 2017 Revenue by Geography Compared to Fiscal 2016 Revenue by Geography

Overall revenue during fiscal 2017 increased in all geographic regions as compared to fiscal 2016 primarily due to increases in Digital Media and Digital Experience revenue. Within each geographic region, the fluctuations in revenue by reportable segment were attributable to the factors noted in the segment information above. The overall increase in EMEA revenue was slightly offset by declines due to the relative strength of the U.S. Dollar against EMEA currencies as discussed below.

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Included in the overall change in revenue for fiscal 2018 and fiscal 2017 were impacts associated with foreign currency as shown below. Our currency hedging program is used to mitigate a portion of the foreign currency impact to revenue.

(in millions)	Fiscal 2018	Fiscal 2017
Revenue impact:	Increase/(Decrease)	
Euro	$ 96.3	$ (2.3)
British Pound	21.6	(46.1)
Japanese Yen	2.8	4.0
Other currencies	1.9	6.1
Total revenue impact	122.6	(38.3)
Hedging impact:		
Euro	29.1	13.7
British Pound	11.3	7.1
Japanese Yen	8.2	12.1
Total hedging impact	48.6	32.9
Total impact	$ 171.2	$ (5.4)

During fiscal 2018, the U.S. Dollar weakened against EMEA currencies, which positively impacted revenue in U.S. Dollar equivalents. In addition, we had $48.6 million in hedging gains from our EMEA currency hedging programs during fiscal 2018.

During fiscal 2017, the U.S. Dollar strengthened against the British Pound, which negatively impacted revenue in EMEA measured in U.S. Dollar equivalents. The net foreign currency impact to revenue was offset in part by hedging gains from our EMEA and Japanese Yen currencies hedging programs during fiscal 2017.

See Note 17 of our Notes to the Consolidated Financial Statements for further geographic information.

Backlog

Deferred revenue on our consolidated balance sheet consists of billings and payments received in advance of revenue recognition for our products and solutions and does not represent the total contract value of existing annual or multi-year, non-cancellable commercial subscription, SaaS and managed services agreements or government contracts with fiscal funding clauses. Unbilled deferred revenue represents expected future billings that are contractually committed under our existing subscription, SaaS and managed services agreements that have not been invoiced and are not recorded in deferred revenue within our financial statements. Our presentation of unbilled deferred revenue backlog may differ from that of other companies in the industry. As of November 30, 2018, we had unbilled deferred revenue backlog, including that of our fiscal 2018 acquisitions, of approximately $5.05 billion of which approximately 40% to 50% is not reasonably expected to be billed during fiscal 2019. Comparatively, we had unbilled deferred revenue backlog of approximately $3.94 billion as of December 1, 2017, of which approximately 40% to 50% was not reasonably expected to be billed during fiscal 2018.

We expect that the amount of unbilled deferred revenue backlog will change from period to period due to certain factors, including the timing and duration of large customer subscriptions, SaaS and managed service agreements, varying billing cycles of these agreements, the timing of customer renewals, the timing of when unbilled deferred revenue backlog is to be billed, changes in customer financial circumstances and foreign currency fluctuations. Additionally, the unbilled deferred revenue backlog for multi-year subscription agreements that are billed annually is typically higher at the beginning of the contract period, lower prior to renewal and typically increases when the agreement is renewed. Accordingly, fluctuations in unbilled deferred revenue backlog may not be a reliable indicator of future business prospects and the related revenue associated with these contractual commitments.

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Cost of Revenue (dollars in millions)

	Fiscal 2018	Fiscal 2017	Fiscal 2016	% Change 2018-2017	% Change 2017-2016
Subscription	$807.2	$623.0	$461.9	30 %	35 %
Percentage of total revenue	9 %	9 %	8 %		
Product	46.0	57.1	68.9	(19)%	(17)%
Percentage of total revenue	1 %	1 %	1 %		
Services and support	341.8	330.4	289.1	3 %	14 %
Percentage of total revenue	4 %	5 %	5 %		
Total cost of revenue	$1,195.0	$1,010.5	$819.9	18 %	23 %

Subscription

Cost of subscription revenue consists of third-party royalties and expenses related to operating our network infrastructure, including depreciation expense and operating lease payments associated with computer equipment, data center costs, salaries and related expenses of network operations, implementation, account management and technical support personnel, amortization of certain intangible assets and allocated overhead. We enter into contracts with third parties for hosting services and use of data center facilities. Our data center costs largely consist of the amounts we pay to these third parties for rack space, power and similar items. Cost of subscription revenue also includes media costs related to impressions purchased from third-party ad inventory sources for our Adobe Advertising Cloud offerings.

Cost of subscription revenue increased due to the following:

	% Change 2018-2017	% Change 2017-2016
Media rebill costs	8 %	9 %
Hosting services and data center costs	8	7
Royalty costs	4	6
Base compensation and related benefits associated with headcount	1	6
Incentive compensation, cash and stock-based	3	5
Amortization of purchased intangibles	2	2
Depreciation expense	—	(1)
Software licenses	2	—
Various individually insignificant items	2	1
Total change	30 %	35 %

Product

Cost of product revenue includes product packaging, third-party royalties, excess and obsolete inventory, amortization related to localization costs, purchased intangibles and acquired rights to use technology and the costs associated with the manufacturing of our products.

Cost of product revenue decreased during fiscal 2018 and fiscal 2017 as compared to the corresponding year-ago periods primarily due to decreased royalty costs as a result of declines in obligations to certain key vendors for technology use.

Services and Support

Cost of services and support revenue is primarily comprised of employee-related costs and associated costs incurred to provide consulting services, training and product support.

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Cost of services and support revenue increased due to the following:

	% Change 2018-2017	% Change 2017-2016
Base compensation and related benefits associated with headcount	1 %	13 %
Incentive compensation, cash and stock-based	1	1
Professional and consulting fees	—	(3)
Various individually insignificant items	1	3
Total change	3 %	14 %

Compensation costs increased during fiscal 2017 as compared to fiscal 2016 primarily due to increases in headcount resulting from decreased usage of outside consultants that were providing consulting and training services to customers.

Operating Expenses (dollars in millions)

	Fiscal 2018	Fiscal 2017	Fiscal 2016	% Change 2018-2017	% Change 2017-2016
Research and development	$1,537.8	$1,224.1	$976.0	26 %	25 %
Percentage of total revenue	17 %	17 %	17 %		
Sales and marketing	2,620.8	2,197.6	1,910.2	19 %	15 %
Percentage of total revenue	29 %	30 %	33 %		
General and administrative	744.9	624.7	576.2	19 %	8 %
Percentage of total revenue	8 %	9 %	10 %		
Amortization of purchased intangibles	91.1	76.5	78.5	19 %	(3)%
Percentage of total revenue	1 %	1 %	1 %		
Total operating expenses	$4,994.6	$4,122.9	$3,540.9	21 %	16 %

Research and Development, Sales and Marketing and General and Administrative Expenses

Research and development, sales and marketing and general and administrative expenses increased during fiscal 2018 as compared to fiscal 2017 due to increases in base compensation and related benefits costs and stock-based compensation expenses associated with headcount growth.

Research and development, sales and marketing and general and administrative expenses increased during fiscal 2017 as compared to fiscal 2016 primarily due to increases in base compensation and related benefits costs driven by headcount increases and stock-based compensation expense.

Research and Development

Research and development expenses consist primarily of salary and benefit expenses for software developers, contracted development efforts, related facilities costs and expenses associated with computer equipment used in software development.

Research and development expenses increased due to the following:

	% Change 2018-2017	% Change 2017-2016
Base compensation and related benefits associated with headcount	14 %	11 %
Incentive compensation, cash and stock-based	8	9
Professional and consulting fees	3	4
Various individually insignificant items	1	1
Total change	26 %	25 %

We believe that investments in research and development, including the recruiting and hiring of software developers, are critical to remain competitive in the marketplace and are directly related to continued timely development of new and enhanced offerings and solutions. We will continue to focus on long-term opportunities available in our end markets and make significant investments in the development of our subscription and service offerings, applications and tools.

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Sales and Marketing

Sales and marketing expenses consist primarily of salary and benefit expenses, sales commissions, travel expenses and related facilities costs for our sales, marketing, order management and global supply chain management personnel. Sales and marketing expenses also include the costs of programs aimed at increasing revenue, such as advertising, trade shows, public relations and other market development programs.

Sales and marketing expenses as a percentage of revenue during fiscal 2018 decreased slightly compared to fiscal 2017 primarily due to our revenue growing at a faster pace compared with the increases in sales and marketing expenses.

Sales and marketing expenses increased due to the following:

% Change 2018-2017	% Change 2017-2016