

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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☒ ANNUAL REPORT PURSUANT TO SECT EXCHANGE ACT OF 1934	TION 13 OR 15(d) OF THE SECURITIES
For the Fiscal Year	Ended September 27, 2019 OR
☐ TRANSITION REPORT PURSUANT TO S EXCHANGE ACT OF 1934	ECTION 13 OR 15(d) OF THE SECURITIES
For the Transition Per Commission F	riod From To ile Number: 001-32431
	DOLBY _®
DOLBY LABO (Exact name of regis	PRATORIES, INC. trant as specified in its charter)
Delaware	90-0199783
(State or other jurisdiction of incorporation or organization) 1275 Market Street	(I.R.S. Employer Identification No.)
San Francisco, CA (Address of principal executive offices)	94103-1410 (Zip Code)
	5)-558-0200
Registrant's telepho	ne number, including area code
	suant to Section 12(b) of the Act:
Title of each class Trad Class A common stock, \$0.001 par value	ing Symbol(s) Name of each exchange on which registered The New York Stock Exchange
Securities registered pur	suant to Section 12(g) of the Act:
	of each class
	n stock, \$0.001 par value
Indicate by check mark if the registrant is a well-known sea Act. Yes ⊠ No □	
Indicate by check mark if the registrant is not required to fill Act. Yes ☐ No ☒	
	all reports required to be filed by Section 13 or 15(d) of the Securities ch shorter period that the registrant was required to file such reports), and ays. Yes \boxtimes No \square
	l electronically every Interactive Data File required to be submitted chapter) during the preceding 12 months (or for such shorter period that
Indicate by a check mark whether the registrant is a large at reporting company, or an emerging growth company. See the de company", and "emerging growth company" in Rule 12b-2 of the	scelerated filer, an accelerated filer, a non-accelerated filer, smaller finitions of "large accelerated filer", "accelerated filer", "smaller reporting e Exchange Act.
Large accelerated filer ⊠ Non-accelerated filer □	Accelerated filer Smaller reporting company
	Emerging growth company
If an emerging growth company, indicate by check mark if complying with any new or revised financial accounting standard	the registrant has elected not to use the extended transition period for ds provided pursuant to Section 13(a) of the Exchange Act.
· · · · · · · · · · · · · · · · · · ·	pany (as defined in Rule 12b-2 of the Exchange Act). Yes \square No \boxtimes
\$3.2 billion. This calculation excludes the shares of Class A and stockholders whose ownership exceeds 5% of the combined shar This calculation does not reflect a determination that such person	res of Class A and Class B common stock outstanding at March 29, 2019.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Definitive Proxy Statement to be filed with the Commission pursuant to Regulation 14A in connection with the registrant's 2020 Annual Meeting of Stockholders, to be filed subsequent to the date hereof, are incorporated by reference into Part III of this Report. Such Definitive Proxy Statement will be filed with the Securities and Exchange Commission not later than 120 days after the conclusion of the registrant's fiscal year ended September 27, 2019. Except with respect to information specifically incorporated by reference in this Form 10-K, the Definitive Proxy Statement is not deemed to be filed as part of this Form 10-K.

DOLBY LABORATORIES, INC. FORM 10-K TABLE OF CONTENTS

PART I

Item 1 –	Business	4
Item 1A –	Risk Factors	11
Item 1B -	Unresolved Staff Comments	26
Item 2 –	Properties	26
Item 3 –	Legal Proceedings	26
Item 4 –	Mine Safety Disclosures	27
	PART II	
Item 5 –	Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	28
Item 6 –	Selected Financial Data	30
Item 7 –	Management's Discussion and Analysis of Financial Condition and Results of Operations	31
Item 7A –	Quantitative and Qualitative Disclosures About Market Risk	44
Item 8 –	Consolidated Financial Statements	46
Item 9 –	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	91
Item 9A –	Controls and Procedures	91
Item 9B -	Other Information	92
	PART III	
Item 10 –	Directors, Executive Officers and Corporate Governance	93
Item 11 –	Executive Compensation	94
Item 12 –	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder	
	Matters	94
Item 13 -	Certain Relationships and Related Transactions, and Director Independence	95
Item 14 –	Principal Accounting Fees and Services	95
	PART IV	
Item 15 –	Exhibits, Financial Statement Schedules	96
Item 16 –	Form 10-K Summary	101
		101

GLOSSARY OF TERMS

The following table summarizes certain terms and abbreviations that may be used within the text of this report:

Abbreviation	Term
AAC	Advanced Audio Coding
AFS	Available-For-Sale (Securities)
AOCI	Accumulated Other Comprehensive Income
APIC	Additional-Paid In-Capital
ASC	Accounting Standards Codification
ASP	Average Selling Price
ASU	Accounting Standards Update
ATSC	Advanced Television Systems Committee
AVC	Advanced Video Coding
AVR	Audio/Video Receiver
CE	Consumer Electronics
CES	Consumer Electronics Show
CODM	Chief Operating Decision Maker
COGS	Cost Of Goods Sold
COSO	Committee Of Sponsoring Organizations (Of The Treadway Commission)
DD	Dolby Digital®
DD+ DMA	Dolby Digital Plus™ Digital Media Adenter
DTV	Digital Media Adapter Digital Television
DVB	Digital Video Broadcasting
DVD	Digital Versatile Disc
EPS	Earnings Per Share
ESP	Estimated Selling Price
ESPP	Employee Stock Purchase Plan
FASB	Financial Accounting Standards Board
FCPA	Foreign Corrupt Practices Act
G&A	General & Administrative
HD	High Definition
HDR	High-Dynamic Range
HDTV	High Definition Television
HE-AAC	High Efficiency Advanced Audio Coding
HEVC	High Efficiency Video Coding
HFR	High Frame Rate
HTIB	Home Theater In-A-Box
IC	Integrated Circuit
IP IPO	Intellectual Property
IPTV	Initial Public Offering Internet Protocol Television
IT	Information Technology
LP	Limited Partner/Partnership
NOL	Net Operating Loss
OCI	Other Comprehensive Income
ODD	Optical Disc Drive
OECD	Organization For Economic Co-Operation & Development
OEM	Original Equipment Manufacturer
OTT	Over-The-Top
PC	Personal Computer
PCS	Post-Contract Support
PP&E	Property, Plant, & Equipment
PSO	Performance-Based Stock Option
R&D	Research & Development
RSU S&M	Restricted Stock Unit Sales & Marketing
SERP	Supplemental Executive Retirement Plan
SoC	System(s)-On-A-Chip
SSP	Standalone selling price
STB	Set-Top Box
TPE	Third Party Evidence
TSR	Total Stockholder Return
UHD	Ultra High Definition
U.S. GAAP	Generally Accepted Accounting Principles In The United States
VSOE	Vendor Specific Objective Evidence

Forward Looking Statements

This Annual Report on Form 10-K contains forward-looking statements including, but not limited to statements regarding: operating results and underlying measures; demand and acceptance for our technologies and products; market growth opportunities and trends; our ability to maintain key partnership relationships; our plans, strategies, and expected opportunities; future competition; our stock repurchase program; and our dividend policy. Use of words such as "may," "will," "should," "expect," "plan," "anticipate," "believe," "estimate," "predict," "potential," "continue," or similar expressions indicates a forward-looking statement. Such forward-looking statements are based on management's reasonable and current assumptions and expectations. Actual results may differ materially from those discussed in these forward-looking statements due to a number of factors, including the risks set forth in Item 1A, "Risk Factors" and key challenges set forth in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations." Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. We disclaim any duty to update any of the forward-looking statements to conform our prior statements to actual results.

PART I

ITEM 1. BUSINESS

OVERVIEW

Dolby Laboratories creates audio and imaging technologies that transform entertainment and communications at the cinema, at home, at work, and on mobile devices. Founded in 1965, our strengths stem from expertise in analog and digital signal processing and digital compression technologies that have transformed the ability of artists to convey entertainment experiences to their audiences through recorded media. Such technologies led to the development of our noise-reduction systems for analog tape recordings, and have since evolved into multiple offerings that enable more immersive sound for cinema, digital television transmissions and devices, mobile devices, OTT video services, DVD and Blu-ray Discs, speaker products, PCs, and gaming consoles. Today, we derive the majority of our revenue from licensing our audio technologies. We also derive revenue from licensing our consumer imaging and communication technologies, as well as audio and imaging technologies for premium cinema offerings in collaboration with exhibitors. Finally, we provide products and services for a variety of applications in the cinema, broadcast, communications, and home entertainment markets.

OUR STRATEGY

Key elements of our strategy include:

Advancing the Science of Sight and Sound. We apply our understanding of the human senses, audio, and imaging engineering to develop technologies aimed at improving how people experience and interact with their entertainment and communications content.

Providing Creative Solutions. We promote the use of our solutions as creative tools, and provide our products, services, and technologies to filmmakers, sound mixers, and other content creators and providers. Our tools help showcase the quality and impact of their efforts and intent, which in turn may generate market demand.

Delivering Superior Experiences. Our technologies and solutions optimize playback and communications so that users may enjoy richer, clearer, and more immersive sound and sight experiences.

REVENUE GENERATION

The following table presents a summary of the composition of our revenue for all periods presented. Previously reported revenues in the tables below reflect the adoption of ASU 2014-09. Refer to Note 2 "Summary of Significant Accounting Policies" and Note 3. "Revenue Recognition" for further detail.

	Fiscal Year Ended		
Revenue	September 27, 2019	September 28, 2018	September 29, 2017
Licensing	89%	89%	89%
Products and services	11%	11%	11%
Total	100%	100%	100%

We generate revenue from licensing arrangements with over 500 electronics product OEM and software developer licensees.

Licensing

We license our technologies to a range of customers who incorporate them into their products for enhanced audio and imaging functionality whether it be at home, at work, on mobile devices, or at the cinema. Our key technologies are summarized in the table below. As it relates to AAC, HE-AAC, AVC, and HEVC, we jointly participate in patent licensing programs with other patent owners.

Technology	Description
AAC & HE-AAC	An advanced digital audio codec solution with higher bandwidth efficiency used for a wide range of media applications.
AVC	A digital video codec with high bandwidth efficiency used in a wide range of media devices.
Dolby® AC-4	A next-generation digital audio coding technology that increases transmission efficiency while delivering new audio experiences, including Dolby Atmos, to a wide range of playback devices.
Dolby Atmos®	An object-oriented audio technology for cinema and a wide range of media devices that allows sound to be precisely placed and moved anywhere in the listening environment including the overhead dimension. Dolby Atmos is an immersive experience that can be provided via multiple Dolby audio coding technologies.
Dolby Digital®	A digital audio coding technology that provides multichannel sound to a variety of media applications.
Dolby Digital Plus™	An advanced digital audio coding technology that offers more efficient audio transmission for a wide range of media applications and devices.
Dolby® TrueHD	A digital audio coding technology providing lossless encoding for premium quality media applications.
Dolby Vision®	An imaging technology combining high dynamic range and dynamic metadata to deliver higher color contrast, brighter contrast, and improved details for cinema and a wide range of media devices.
Dolby Voice®	An audio conferencing technology with superior spatial perception, voice clarity, and background noise reduction that emulates the in-person meeting experience.
HEVC	A next-generation digital video codec with high bandwidth efficiency to support ultra-high definition experiences for a wide range of media devices.

The following table presents the composition of our licensing business and revenues for all periods presented:

	Fiscal Year Ended			
Market	September 27, 2019	September 28, 2018	September 29, 2017	Main Offerings Incorporating Our Technologies
Broadcast	43%	41%	44%	STBs & Televisions
Mobile	17%	16%	15%	Smartphones & Tablets
CE	14%	15%	13%	DMAs, Blu-ray Disc devices, AVRs, Soundbars, DVDs, & HTIBs
PC	10%	11%	13%	Windows and macOS operating systems
Other	16%	17%	15%	Gaming consoles, Auto DVD, Dolby Cinema, & Dolby Voice
Total	100%	100%	100%	

We have various licensing models: a two-tier model, an integrated licensing model, a patent licensing model, and collaboration arrangements.

Two-Tier Licensing Model. Most of our consumer entertainment licensing business consists of a two-tier licensing model whereby our decoding technologies, included in reference software and firmware code, are first provided under license to semiconductor manufacturers whom we refer to as "implementation licensees." Implementation licensees incorporate our technologies in ICs which they sell to OEMs of consumer entertainment products, whom we refer to as "system licensees." System licensees separately obtain licensees from us that allow them to make and sell end-user products using ICs that incorporate our technologies.

Implementation licensees incorporate our technologies into their chipsets that, once approved by Dolby, are available for purchase from implementation licensees by OEMs for use in end-user products. Implementation licensees only pay us a nominal initial fee on contract execution as consideration for the ongoing services that we provide to assist in their implementation process. Revenues from these initial fees are recognized ratably over the contractual term as a component of licensing revenue.

System licensees provide us with prototypes of products, or self-test results of products that incorporate our technologies. Upon our confirmation that our technologies are optimally and consistently incorporated, the system licensee may buy ICs under a license for the same Dolby technology from our network of implementation licensees, and may further sell approved products to retailers, distributors, and consumers. For the use of our technologies, our system licensees pay an initial licensing fee as well as royalties, which represent the majority of

the revenue recognized from these arrangements. The amount of royalties we collect on a particular product depends on several factors including the nature of the implementations, the mix of Dolby technologies used, and the volume of products using our technologies that are shipped by the system licensee.

Integrated Licensing Model. We also license our technologies to software operating system vendors and to certain other OEMs that act as combined implementation and system licensees. These licensees incorporate our technologies in their software used on PCs, in mobile applications, or in ICs they manufacture and incorporate into their products. As with the two-tier licensing model, the combined implementation and system licensee pays us an initial licensing fee in addition to royalties as determined by the mix of Dolby technologies used, the nature of the implementations, and the volume of products using our technologies that are shipped, and is subject to the same quality control evaluation process.

Patent Licensing Model. We license our patents through patent pools which are arrangements between multiple patent owners to jointly offer and license pooled patents to licensees. We also license our patents directly to manufacturers that use our IP in their products. Finally, we generate service fees for managing patent pools on behalf of third party patent owners through our wholly-owned subsidiary, Via Licensing Corporation. By aggregating and offering pooled IP, patent pools deliver efficiencies that reduce transactional costs for both IP owners and licensees. The Via Licensing patent pools enable product manufacturers to efficiently and transparently secure patent licenses for audio coding, interactive television, digital radio, and wireless technologies. We offer our patents related to AAC, AVC, HE-AAC, HEVC, and other IP through patent licensing.

Recoveries. Licensing revenue recognized in any given quarter may include previous quarters' revenue from licensees and or settlements with third parties. Within the Results of Operations section of Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations," previous quarters' revenue and settlements are collectively referred to as "recoveries." Such recoveries have become a recurring element of our business and are particularly subject to fluctuation and unpredictability.

Collaboration Arrangements.

Dolby Cinema: We partner with exhibitors to deliver a premium cinema offering with Dolby Vision and Dolby Atmos at new and pre-existing venues. We receive a share of revenue at Dolby Cinema sites through box office receipts at the installed theaters, which is recognized as licensing revenue. In some instances, we also receive fixed or minimum amounts upfront, which are accounted for in our products and services revenue.

Dolby Voice: We enter into arrangements with audio and video conferencing providers where, in return for licensing our IP and know-how, we earn revenue based on access to our technology and services.

Products and Services

We design and manufacture audio and imaging products for the cinema, television, broadcast, and entertainment industries. Distributed in over 90 countries, these products are used in content creation, distribution, and playback to enhance image and sound quality, and improve transmission and playback. We also sell and/or lease hardware that facilitates the Dolby conferencing experience, including the Dolby Conference Phone for audio use only, and the Dolby Voice Room, our integrated solution that provides a video camera and a control hub integrated with the Dolby Conference Phone. Additionally, some of our Dolby Cinema arrangements involve fixed or minimum amounts, which are typically included in products sales.

We offer various services to support theatrical and television production for cinema exhibition, broadcast, and home entertainment, including equipment training and maintenance, mixing room alignment, equalization, as well as audio, color, and light image calibration. We also provide PCS for products sold and equipment installed at Dolby Cinema theaters operated by exhibitor partners and support the implementation of our technologies into products manufactured by our licensees.

Products and services revenue is derived primarily from sales of the following:

Product		Description		
Cinema	Cinema Imaging Products	Digital Cinema Servers used to load, store, decrypt, decode, watermark, and playback digital film files for presentation on digital cinema projectors and software used to encrypt, encode, and package digital media files for distribution.		
	Cinema Audio Products	Cinema Processors, amplifiers, and loudspeakers used to decode, render, and optimally playback digital cinema soundtracks including those using Dolby Atmos.		
	Dolby Conference Phone	An integral hardware component of the Dolby Voice conferencing solution that enhances full-room voice capture, spatial voice separation, and playback.		
Other	Dolby Voice Room	Video conferencing solution for huddle rooms and small conference rooms that combines a camera product with the Dolby Conference Phone and Dolby Voice technology.		
	Other Products	3-D glasses and kits, broadcast hardware and software used to encode, transmit, and decode multiple channels of high quality audio for DTV and HDTV distribution, monitors, and accessibility solutions for hearing and visually impaired consumers.		

INTELLECTUAL PROPERTY

We have a substantial base of IP assets, including patents, trademarks, copyrights, and trade secrets developed based on our technical expertise.

As of September 27, 2019, we had approximately 11,400 issued patents and approximately 4,100 pending patent applications in more than 100 jurisdictions throughout the world. Our currently issued patents expire at various times through August 2045.

Some of our patents relating to DD technologies have expired, and others will expire over the next several years. While in the past we derived a significant portion of our licensing revenue from our DD technologies, this is no longer the case as revenues attributed to DD technologies have declined and are expected to continue to decline. The primary products where DD is widely used include DVD players (but not Blu-ray players), TVs, and STBs. We have transitioned a number of our DD licensees to DD+ technologies, an extension of our DD technologies, whose patents generally expire later than the DD patents. We are continuing to make progress in transitioning other DD licensees to DD+.

We pursue a general practice of filing patent applications for our technologies in the U.S. and foreign countries where our customers manufacture, distribute, or sell licensed products. We actively pursue new applications to expand our patent portfolio to address new technological innovations, and we also make strategic acquisitions of technology and patents from time to time. We have multiple patents covering aspects and improvements for many of our technologies.

We have approximately 1,200 trademark registrations throughout the world for a variety of wordmarks, logos, and slogans. Our trademarks cover our various products, technologies, improvements, and features, as well as the services that we provide. These trademarks are an integral part of our technology licensing program, and licensees typically elect to place our trademarks on their products to inform consumers that their products incorporate our technology and meet our quality specifications.

We protect our IP rights both domestically and internationally. From time to time, OEMs have failed to report or have underreported shipments of their products that incorporate our technologies. We have also had problems with implementation licensees selling ICs with our technologies to third parties that are not system licensees. We anticipate that such problems will continue to occur. Accordingly, we have taken steps in the past to enforce our IP rights and expect to continue doing so in the future.

Moreover, in certain countries, we have relatively few or no issued patents. For example, in China, Taiwan, and India, we have only limited patent protection for our Dolby technologies. Consequently, we may realize less revenue from those regions in the future. Maintaining or growing our licensing revenue in developing countries such as China, Taiwan, and India will depend in part on our ability to obtain patent rights in these countries, which is uncertain. Further, because of the limitations of the legal systems in many countries, the effectiveness of patents obtained or that may in the future be obtained is uncertain.

INDUSTRY STANDARDS

Several Dolby technologies have been adopted as the explicit or de facto industry standard for broadcast, discrete media, and online delivery in various markets worldwide.

Explicit industry standards are adopted through a standardization process whereby government entities, industry standards-setting bodies, trade associations, and others evaluate and then prescribe the use of a technology. For example, as global broadcast standards for digital, HD, and UHD television have developed, Dolby audio technologies have been adopted or mandated in various regions of the world, highlights of which are as follows:

- DD+ and HE-AAC are mandated for use in terrestrial broadcast across many countries including France, Italy, the United Kingdom, Sweden, Germany, Poland, Turkey, and Russia. In addition, DD+ and HE-AAC are included in the digital terrestrial television specifications of emerging digital TV markets in Africa, South-East Asia, and India while operators in China have selected DD and DD+ as optional technologies for transmissions using the country's digital terrestrial television specification. In mobile devices, HE-AAC is specified for various applications in the 3GPP suite of standards, and is a de facto audio standard in entertainment services.
- DD+ is the de facto technology used by a wide range of pay-TV operators and streaming services
 worldwide and is included in popular operating systems such as iOS and Windows. It is also widely
 used by major OTT services such as Apple TV, Netflix, and Amazon, and is included in the
 specifications of these services.
- DD is mandated for HD broadcast in multiple regions including North America and South Korea, and for DVD players on a global basis.
- AC-4 is Dolby's next generation of audio coding technology that has been adopted for implementation
 in certain regions by worldwide standards organizations including the DVB and ATSC. AC-4 has also
 been adopted or proposed in forthcoming regional and country standards in North America and Europe.
 The transition for AC-4 continues to gain momentum, and is already being supported in a number of
 TVs that are available worldwide from major manufacturers.

In addition, Dolby technologies have become de facto industry standards in many consumer entertainment products. De facto industry standards are adopted by industry participants when technologies are introduced to the marketplace and become widely used. For example, prior to the adoption of HD terrestrial broadcast standards mandating Dolby technologies, many European HD broadcasters began broadcasting in DD or DD+, leading OEMs to include these technologies in their televisions and STBs for the European market.

RESEARCH AND DEVELOPMENT

We conduct R&D activities at numerous locations in the U.S. and internationally. Dolby's history of producing innovative technology has created many forms of IP. This IP generates licensing revenue that enables us to fund and pursue further innovation.

For much of the Company's history, we focused the majority of our R&D resources on developing leading audio technologies for consumer entertainment that today comprises most of our revenue. In recent years, we have expanded our efforts to identify and develop new technologies to include audio conferencing and imaging technologies. Each of these technologies can support many offerings, and we anticipate bringing new innovations to market in the future.

R&D expenses included in our consolidated statements of operations were as follows (in thousands):

	Fiscal Year Ended		
	September 27, 2019	September 28, 2018	September 29, 2017
Research & Development	\$237,871	\$236,794	\$233,312

PRODUCT MANUFACTURING

Our product quality is enabled through the use of well-established, and in some cases, highly automated, assembly processes along with rigorous testing of our products. Although we have some manufacturing facilities, we rely primarily upon contract manufacturers for the majority of our production capacity. We purchase components and fabricated parts from multiple suppliers; however, we rely on sole source suppliers for certain components used to manufacture our products. We source components and fabricated parts both locally and globally.

SALES AND MARKETING

Our marketing efforts focus on demonstrating how our solutions improve entertainment and communications experiences. We sell our solutions primarily using an internal sales organization to various customers in the markets where we operate. We promote our solutions and our brand through industry events such as trade-shows, film festivals, movie premieres, product launches, as well as through our website, public relations, direct marketing, co-marketing programs, and social media. In addition, we hold the naming rights to the Dolby Theatre, home to the Academy Awards® in Hollywood, California, where we showcase our technology and host high-profile events.

We maintain more than 20 sales offices in key regions around the globe. S&M expenses included in our consolidated statements of operations were as follows (in thousands):

	Fiscal Year Ended		
	September 27, 2019	September 28, 2018	September 29, 2017
Sales & Marketing	\$343,835	\$309,762	\$296,661

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CUSTOMERS

We license our technologies to a broad set of customers that operate in a wide range of industries, and we sell our professional products either directly to the end user or, more commonly, through dealers and distributors. Users of our professional products and services include film studios, content creators, post-production facilities, cinema operators, broadcasters, and video game designers.

In fiscal 2019, 2018, and 2017, we did not have any individual customers that accounted for more than 10% of our total revenue.

COMPETITION

The entertainment and communications industries are highly competitive, and we face aggressive competition in all areas of our business. Some of our current and future competitors may have significantly greater financial, technical, marketing, and other resources than we do, or may have more experience or advantages in the markets in which they compete. For example, some of our current or potential competitors may have an advantage over us based on greater experience in certain technology markets. In addition, some of our current or potential competitors may be able to offer integrated systems in certain markets for entertainment technologies, including audio, imaging, and digital rights management technologies, which could make competing technologies that we develop or acquire obsolete. By offering an integrated system solution, these potential competitors may also be able to offer competing technologies at lower prices than we can, which could adversely affect our operating results.

Many products that include our audio and imaging technologies also include technologies developed by our competitors. We believe that the principal competitive factors in our markets include some or all of the following:

- Degree of access and inclusion in industry standards;
- Technological performance, flexibility, and range of application;
- Brand recognition and reputation;
- Timeliness and relevance of new product introductions;
- Quality and reliability of products and services;

- Relationships with producers, directors, and distributors in the film industry, with television broadcast
 industry leaders, with OTT industry leaders, and with the management of semiconductor and consumer
 electronics OEMs;
- Availability of compatible high quality audio and video content; and
- Price.

Certain foreign governments, particularly in China, have advanced arguments under their competition laws that exert downward pressure on royalties for IP, which can result in a competitive disadvantage. The regulatory enforcement activities in such jurisdictions can be unpredictable, in some cases because these jurisdictions have only recently implemented competition laws.

Our technologies, products, and services span the audio and imaging sectors of several distinct and diverse industries, including the broadcasting, mobile, consumer entertainment, personal computer, gaming, cinema, and communications industries. The lack of a clear definition of the markets in which our products, services, and technologies are sold or licensed, the nature of our technologies, their potential use for various commercial applications, and the diverse nature of and lack of detailed reporting by our competitors, make it impracticable to quantify our position.

EMPLOYEES

As of September 27, 2019, we had 2,193 employees worldwide, of which 964 employees were based outside of the U.S. None of our employees are subject to a collective bargaining agreement.

CORPORATE AND AVAILABLE INFORMATION

We were founded in London, England in 1965 and incorporated in the State of New York in 1967. We reincorporated in California in 1976 and reincorporated in Delaware in September 2004. Our principal corporate offices are located at 1275 Market Street, San Francisco, California 94103. Our telephone number is (415) 558-0200.

Our Internet address is www.dolby.com. We make available on our website, free of charge, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and any amendments to those reports, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Our SEC reports can be accessed through the Investor Relations section of our Internet website. The information found on our Internet website is not part of this or any other report we file with or furnish to the SEC. The SEC also maintains a website that contains our SEC filings at www.sec.gov.

ITEM 1A. RISK FACTORS

The following risk factors and other information included in this Annual Report on Form 10-K should be carefully considered. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not currently known to us or that we currently deem less significant may also affect our business operations or financial results. If any of the following risks actually occur, our stock price, business, operating results and financial condition could be materially adversely affected.

REVENUE GENERATION

Markets We Target

Dependence on Sales by Licensees. Our licensing businesses depend on OEMs and other licensees to incorporate our technologies into their products. Our license agreements generally do not have minimum purchase commitments, are typically non-exclusive, and frequently do not require incorporation or use of our technologies. Our revenue will decline if our licensees choose not to incorporate our technologies into their products or if they sell fewer products incorporating our technologies.

Trends in Optical Disc Media. For many years, movies have been distributed, purchased, and consumed through optical disc media, such as DVD and Blu-ray Disc. However, the rapid advancement of online and mobile content delivery has resulted in a trend toward movie downloading and streaming services. We expect the shift away from optical disc media to online media content consumption to continue, resulting in decreased revenue from DVD and Blu-ray Disc players.

Additionally, the number of PCs that include optical disc drives has decreased significantly in recent years. Because PC OEMs are required to pay us a higher per-unit royalty for Windows PCs that include optical disc playback functionality than Windows PCs that do not include such functionality, the continued decreasing inclusion of optical disc drives in PCs will result in lower per-unit royalties. Further, we rely on a small number of partnerships with key participants in the PC market. If we are unable to maintain these key relationships, we may experience a decline in PCs incorporating our technologies. Revenue from our PC market depends on several factors, including underlying PC unit shipment growth, the extent to which our technologies are included on computers, through operating systems or otherwise, and the terms of any royalties or other payments we receive.

Mobile Industry Risks. Successful penetration of the mobile device market is important to our future growth. The mobile device market, particularly smartphones and tablets, is characterized by rapidly changing market conditions, frequent product introductions and intense competition based on features and price. Our technologies are not mandated as an industry standard for mobile devices. We must continually convince mobile device OEMs and end users of mobile devices of the value of our technologies. With shorter product lifecycles, it is easier for mobile device OEMs to add or remove our technologies from mobile devices than it is for TV OEMs and other hardware OEMs.

In order to increase the value of our technologies in the mobile market, we have worked with online and mobile media content service providers to encode their content with our technologies, which could affect OEM and software vendor demand for our decoding technologies. However, the online and mobile media content services markets are also characterized by intense competition, evolving industry standards and business and distribution models, disruptive software and hardware technology developments, frequent product and service introductions and short life cycles, and price sensitivity on the part of consumers, all of which may result in downward pressure on pricing or the removal of our technologies by these providers and may result in decreased revenue from our mobile market.

Cinema Industry Risks. Revenue from Dolby Cinema and cinema product sales is subject to the pace of construction or upgrade of screens, the advent of new or competing technologies, the willingness of movie studios to produce films in our Dolby Atmos and Dolby Vision formats, consumer trends, box-office performance generally, and other events or conditions in the cinema industry. Although we have invested, and expect to continue to invest, a substantial amount of time and resources developing Dolby Cinema and building our partnerships in connection with the launch of Dolby Cinema locations, this is a relatively new market for us

and we may not recognize a meaningful amount of revenue from these efforts in the near future, or at all, if new Dolby Cinema locations are not ultimately successful, or if there is a decrease in the performance of our existing locations. Additionally, we have collaborations with multiple exhibitors in foreign markets, including Asia, Europe, and the Middle East, and we may face a number of risks in expanding Dolby Cinema in these and other new international markets. The revenue we receive from Dolby Cinema exhibitors are based on a portion of box-office receipts from the installed theaters, and the timing of such theater installations is dependent upon a number of factors beyond our control. In addition, the success of our Dolby Cinema offering will be tied to the pipeline and success of motion pictures available at Dolby Cinema locations generally. The success of Dolby Cinema depends in large part on our ability to differentiate our offering, deploy new sites in accordance with plans, provide a compelling experience, and attract and retain a viewing audience. In addition, a decrease in our ability to develop and introduce new cinema products and services successfully could affect licensing of our consumer technologies, because the strength of our brand and our ability to use professional product developments to introduce new consumer technologies would be negatively impacted.

Our revenue and associated demand from cinema product sales is dependent upon industry and economic cycles, along with our ability to develop and introduce new technologies, further our relationships with content creators, and promote new cinematic audio and imaging experiences. A significant portion of our growth opportunity lies in the China market, which is subject to economic risks as well as geo-political risks. Furthermore, future growth of our cinema products business also depends upon new theater construction and entering into an equipment replacement cycle whereby previously purchased cinema products are upgraded or replaced. To the extent that we do not make progress in these areas, or are faced with pricing pressures, competing technologies, or other global macroeconomic challenges our revenue may be adversely impacted.

Customers and Distributors

Loss of Key Licensee or Customer. A small number of our licensees or customers may represent a significant percentage of our licensing, products, or services revenue. Although we generally have agreements with these licensees or customers, these agreements typically do not require any minimum purchases or minimum royalty fees and do not prohibit licensees from using competing technologies or customers from purchasing products and services from competitors. Customer demand for our technologies and products can shift quickly as many of our markets are rapidly evolving. As a result of our increased presence across consumer electronic device markets where our technologies are not mandated and are subject to significant competition, the risk that a large licensee may reduce or eliminate its use of our technologies has increased.

Reliance on Semiconductor Manufacturers. Our licensing revenue from system licensees depends in large part upon the availability of ICs that implement our technologies. IC manufacturers incorporate our technologies into these ICs, which are then incorporated in consumer entertainment products. We do not manufacture these ICs, but rather depend on IC manufacturers to develop, produce, and then sell them to system licensees in accordance with their agreements. We do not control the IC manufacturers' decisions on whether or not to incorporate our technologies into their ICs, and we do not control their product development or commercialization efforts.

Consumer Spending Weakness. Weakness in general economic conditions may suppress consumer demand in our markets. Many of the products in which our technologies are incorporated are discretionary goods, such as PCs, TVs, STBs, Blu-ray Disc players, video game consoles, AVRs, mobile devices, in-car entertainment systems, and home-theater systems. Weakness in general economic conditions may also lead to licensees and customers becoming delinquent on their obligations to us or being unable to pay, resulting in a higher level of write-offs. Economic conditions may increase underreporting and non-reporting of royalty-bearing revenue by our licensees as well as increase the unauthorized use of our technologies.

Reliance on Distributors. We rely significantly on a global network of independent, regional distributors to market and distribute our cinema and broadcast products. Our distributor arrangements are non-exclusive and our distributors are not obligated to buy our products and can represent competing products, and they may be

unwilling or unable to dedicate the resources necessary to promote our portfolio of products. Our distributors could retain product channel inventory levels that exceed future anticipated sales, which could affect our future sales to those distributors. In addition, failure of our distributors to adhere to our policies designed to promote compliance with global anticorruption laws, export controls, and local laws, could subject us to criminal or civil penalties and stockholder litigation.

Marketing and Branding

Importance of Brand Strength. Maintaining and strengthening the Dolby brand is critical to maintaining and expanding our licensing, products, and services business, as well as our ability to offer technologies for new markets, including Dolby Voice for the communications market, Dolby Cinema, Dolby Vision and other imaging offerings for the consumer market, and others. Our continued success depends on our reputation for providing high quality technologies, products, and services across a wide range of entertainment markets, including the consumer entertainment, PC, broadcast, and gaming markets. If we fail to promote and maintain the Dolby brand successfully in licensing, products or services, our business will suffer. Furthermore, we believe that the strength of our brand may affect the likelihood that our technologies are adopted as industry standards in various markets and for various applications. Our ability to maintain and strengthen our brand will depend heavily on our ability to develop innovative technologies for the entertainment industry, to enter into new markets successfully, and to provide high quality products and services in these new markets.

Industry Standards

The entertainment industry has historically depended upon industry standards to ensure compatibility across delivery platforms and a wide variety of consumer entertainment products. We make significant efforts to design our products and technologies to address capability, quality, and cost considerations so that they either meet, or more importantly, are adopted as industry standards across the broad range of entertainment industry markets in which we participate, as well as the markets in which we plan to compete in the future. To have our products and technologies adopted as industry standards, we must convince a broad spectrum of standards-setting organizations throughout the world, as well as our major customers and licensees who are members of such organizations, to adopt them as such. The market for broadcast technologies has traditionally been heavily based on industry standards, often mandated by governments choosing from among alternative standards, and we expect this to continue to be the case in the future. However, the continued advancement of OTT media delivery and consumption may impact the importance of inclusion in certain broadcast standards in the future.

Difficulty Becoming Incorporated in an Industry Standard. Standards-setting organizations establish technology standards for use in a wide range of consumer entertainment products. It can be difficult for companies to have their technologies adopted as an industry standard, as multiple companies, including ones that typically compete against one another, are involved in the development of new technology standards for use in entertainment-oriented products. Furthermore, some standards-setting organizations choose to adopt a set of optional standards or a combination of mandatory and optional standards; in such cases, our technologies may be adopted only as an optional standard and not a mandatory standard. Standards may also change in ways that are unfavorable to Dolby.

Participants May Choose Among Alternative Technologies within Standards. Even when a standards-setting organization incorporates our technologies in an industry standard for a particular market, our technologies may not be the sole technologies adopted for that market. Furthermore, different standards may be adopted for different markets. Our operating results depend upon participants in that market choosing to adopt our technologies instead of competitive technologies that also may be acceptable under such standard. For example, the continued growth of our revenue from the broadcast market will depend upon both the continued global adoption of digital television generally, including in emerging markets, and the choice to use our technologies where it is one of several accepted industry standards.

Being Part of a Standard May Limit Our Licensing Practices. When a standards-setting organization mandates our technologies, we generally must agree to license such technologies on a fair, reasonable, and non-discriminatory basis, which could limit our control over the use of these technologies. In these situations, we must often limit the royalty rates we charge for these technologies, and we may be unable to limit to whom we license such technologies or to restrict many terms of the license. We have in the past, and may in the future, be subject to claims that our licensing of industry standard technologies may not conform to the requirements of the standards-setting organization. Allegations such as these could be asserted in private actions seeking monetary damages and injunctive relief, or in regulatory actions. Claimants in such cases could seek to restrict or change our licensing practices or our ability to license our technologies.

Royalty Reporting

Our operating results fluctuate based on the risks set forth in this section, as well as, among other factors, on:

- Royalty reports including positive or negative corrective adjustments;
- Retroactive royalties that cover extended periods of time; and
- Timing of revenue recognition under licensing agreements and other contractual arrangements, including recognition of unusually large amounts of revenue in any given quarter.

Inaccurate Licensee Royalty Reporting. We generate licensing revenue primarily from OEMs who license our technologies and incorporate those technologies into their products. Our license agreements generally obligate our licensees to pay us a specified royalty for every product they ship that incorporates our technologies, and we rely on our licensees to report their shipments accurately. However, we have difficulty independently determining whether our licensees are reporting shipments accurately, particularly with respect to software incorporating our technologies because unauthorized copies of such software can be made relatively easily. A third party may disagree with our interpretation of the terms of a license agreement or, as a result of an audit, a third party could challenge the accuracy of our calculation. We are regularly involved in discussions with third party technology licensees regarding license terms. Most of our license agreements permit us to audit our licensees' records, and we routinely exercise these rights, but audits are generally expensive, time-consuming, and potentially detrimental to our ongoing business relationships with our licensees. In the past, licensees have understated or failed to report the number of products incorporating our technologies that they shipped, and we have not been able to collect and recognize revenue to which we were entitled. We expect that we will continue to experience understatement and non-reporting of royalties by our licensees. We have been able to obtain certain recovery payments from licensees (either in the form of back payments or settlements), and such recoveries have become a recurring element of our business; however, we are unable to predict with certainty the revenue that we may recover in the future or our ability to continue to obtain such recoveries at all.

Royalties We Owe Others. In some cases, the products we sell and the technologies we license to our customers include IP that we have licensed from third parties. Our agreements with these third parties generally require us to pay them royalties for that use, and give the third parties the right to audit our calculation of those royalties. A third party may disagree with our interpretation of the terms of a license agreement or, as a result of an audit, a third party could challenge the accuracy of our calculation. We are regularly involved in discussions with third party technology licensors regarding license terms. A successful challenge by a third party could result in the termination of a license agreement or an increase in the amount of royalties we have to pay to the third party.

Estimation of sales-based royalties. As disclosed in Note 2 "Summary of Significant Accounting Policies—Recently Issued Accounting Standards," beginning in the first quarter of fiscal 2019, we adopted ASU 2014-09, Revenue from Contracts with Customers, or ASC 606. The transition from ASC 605 to ASC 606 most significantly impacts two key areas of our revenue accounting, as described below.

The first topic related to ASC 606 that significantly impacts us involves multi-year contracts. Most of our licensing arrangements with customers currently involve multi-year contracts, and in the past under ASC 605, it would have been unusual for all revenue from a multi-year contract to be recognized upfront (*i.e.*, upon execution

of the contract). Under ASC 606, the accounting framework has shifted, and now, certain terms and conditions (such as "minimum volume commitments") are more likely to result in upfront revenue recognition.

The second topic related to ASC 606 that significantly impacts us involves our estimation of shipments on which we generate sales—based royalties. Under ASC 606, we recognize a material portion of our licensing revenue based on our estimate of shipments to which we expect our licensees to submit royalty statements. Upon receipt of actual reporting of sales based royalties that we estimated previously, we record a favorable or unfavorable adjustment based on the difference, if any, between estimated and actual sales. The change may cause more volatility in our quarterly figures because of the estimation process and the corresponding true-up adjustments, which we disclose.

Such changes to our reporting practices could significantly affect our results of operations to the extent that actual revenues differ significantly from estimated revenues, or that we are required to accelerate recognition of revenue under certain arrangements, potentially causing the amount of revenue we recognize to vary materially from quarter to quarter. While the adoption of ASC 606 does not change the cash flows or total revenues we receive from our contracts with customers, it could result in changes to the timing of our reported revenue and income, which in turn could cause volatility in the price of our Class A common stock.

TECHNOLOGY TRENDS AND DEVELOPMENTS

Technology Innovation. Our revenue growth will depend upon our success in new and existing markets for our technologies, such as digital broadcast, mobile devices, online and mobile media distribution, cinema, consumer imaging and communications. The markets for our technologies and products are defined by:

- · Rapid technological change;
- New and improved technology and frequent product introductions;
- Changing consumer and licensee demands;
- · Evolving industry standards; and
- Technology and product obsolescence.

Our future success depends on our ability to enhance our technologies and products and to develop new technologies and products that address the market needs in a timely manner. Technology development is a complex, uncertain process requiring high levels of innovation, highly-skilled engineering and development personnel, and the accurate anticipation of technological and market trends. We may not be able to identify, develop, acquire, market, or support new or enhanced technologies or products on a timely basis, if at all.

Experience with New Markets and Business Models. Our future growth will depend, in part, upon our continued expansion into areas beyond our audio licensing business. Over the past few years, we have introduced Dolby Voice technology for the communications market, Dolby Vision for the home and cinema markets, and our branded-theater experience, Dolby Cinema. In connection with entering into these new markets, we face new sources of competition, new business models, and new customer relationships. In order to be successful in these markets, we will need to cultivate new industry relationships and strengthen existing relationships to bring our products, services, and technologies to market. Our limited experience to date in one or more of these markets could limit our ability to successfully execute on our growth strategy.

Incorporation of Dolby Formats into New Products & Availability of Content in Dolby Formats. The success of many of our newer initiatives, such as Dolby Atmos, Dolby Vision, and Dolby Cinema, is dependent upon the availability and success of (i) products that incorporate Dolby formats and (ii) content produced in Dolby formats. However, there is no guarantee that device makers will continue to incorporate Dolby formats into their products, that content creators will continue to release content in Dolby formats, or that either those products or that content will be commercially successful.

For instance, to broaden adoption of Dolby Vision and Dolby Atmos, we will need to continue to expand the array of products and consumer devices that incorporate Dolby Atmos and Dolby Vision, expand the pipeline of Dolby Atmos and Dolby Vision content available from content creators, and encourage consumer adoption in the face of competing products and technologies. Similarly, the success of Dolby Cinema is dependent upon our ability to partner with movie theater exhibitors to launch new Dolby Cinema sites and deploy new sites in accordance with plans, as well as the continued release and box-office success of new films in the Dolby Vision and Dolby Atmos formats released through Dolby Cinemas.

Further, the commercial success of products incorporating Dolby formats, content released in Dolby formats, and Dolby Cinemas generally, depends upon a number of factors outside of our control, including, but not limited to, consumer preferences, critical reception, timing of release, marketing efforts of third-parties, and general market conditions. Moreover, release and distribution of such products and content can be subject to delays in production or changes in release schedule, which can negatively impact the quantity, timing and quality of such products and content released in Dolby formats and available at Dolby Cinema theaters.

INTELLECTUAL PROPERTY

Our business is dependent upon protecting our patents, trademarks, trade secrets, copyrights, and other IP rights, the loss or expiration of which may significantly impact our results of operations and financial condition. Effective IP rights protection, however, may not be available under the laws of every country in which our products and services and those of our licensees are distributed. The efforts we have taken to protect our proprietary rights may not be sufficient or effective. We also seek to maintain select IP as trade secrets, and third parties or our employees could intentionally or accidentally compromise the IP that we maintain as trade secrets. In addition, protecting our IP rights is costly and time consuming. We have taken steps in the past to enforce our IP rights and expect to do so in the future. However, it may not be practicable or cost effective for us to enforce our IP rights fully, particularly in some countries or where the initiation of a claim might harm our business relationships.

We generally seek patent protection for our innovations. However, our patent program faces a number of challenges, including:

- Possibility that innovations may not be protectable;
- Failure to protect innovations that later turn out to be important;
- Insufficient patent protection to prevent third parties from designing around our patent claims;
- Our pending patent applications may not be approved; and
- Possibility that an issued patent may later be found to be invalid or unenforceable.

Patent Royalties and Expiration. Many of the technologies that we license to our system licensees are covered by patents, and the licensing revenue that we receive from those licenses depends in large part upon the life of such patents. In general, our agreements with our licensees require them to pay us a full royalty with respect to a particular technology only until the last patent covering that technology expires in a particular country. As of September 27, 2019, we had approximately 11,400 issued patents in addition to approximately 4,100 pending patent applications in more than 100 jurisdictions throughout the world. Our currently issued patents expire at various times through August 2045.

We seek to mitigate this risk in a variety of ways. We regularly look for opportunities to expand our patent portfolio through organic development and acquisitions. We develop proprietary technologies to replace licensing revenue from technologies covered by expiring patents with licensing revenue supported by patents with a longer remaining life. And, we develop and license our technologies in a manner designed to reduce the chance that a system licensee would develop competing technologies that do not include any Dolby IP.

In the case of our patent coverage related to DD, some of our relevant patents have expired, but others continue to apply. DD is our solution that includes technology necessary to implement AC-3 as it has been updated over time. We have continued to innovate and develop intellectual property to support the standard and its implementation. Our customers use our DD implementation for quality, reliability, and performance, even in

locations where we have not had applicable patent coverage. While in the past, we derived a significant portion of our licensing revenue from our DD technologies, this is no longer the case as revenues attributed to DD technologies have declined and are expected to continue to decline.

Many of our partners have adopted newer generations of our offerings such as DD+, and the range of products incorporating DD solutions is now limited to DVD players (but not Blu-ray players) and some TVs, STBs and soundbars. To continue to be successful in our audio licensing business, we must keep transitioning our DD licensees to our newer technologies, including our DD+ and Dolby AC-4 technologies.

Unauthorized Use of Our Intellectual Property. We have often experienced, and expect to continue to experience, problems with non-licensee OEMs and software vendors, particularly in China and certain emerging economies, incorporating our technologies and trademarks into their products without our authorization and without paying us any licensing fees. Manufacturers of ICs containing our technologies occasionally sell these ICs to third parties who are not our system licensees. These sales, and the failure of such manufacturers to report the sales, facilitate the unauthorized use of our IP. As emerging economies transition from analog to digital content, such as the transition from analog to digital broadcast, we expect to experience an increase in problems with this form of piracy.

Intellectual Property Litigation. Companies in the technology and entertainment industries frequently engage in litigation based on allegations of infringement or other violations of IP rights. We have faced such claims in the past, and we expect to face similar claims in the future. Any IP claims, with or without merit, could be time-consuming, expensive to litigate or settle, and could divert management resources and attention. In the past, we have settled claims relating to infringement allegations and agreed to make payments in connection with such settlements. An adverse determination in any IP claim could require that we pay damages or stop using technologies found to be in violation of a third party's rights and could prevent us from offering our products and services to others. In order to avoid these restrictions, we may have to seek a license for the technology, which may not be available on reasonable terms or at all. Licensors could also require us to pay significant royalties. As a result, we may be required to develop alternative non-infringing technologies, which could require significant effort and expense. If we cannot license or develop technologies for any aspects of our business found to be infringing, we may be forced to limit our product and service offerings and may be unable to compete effectively.

In some instances, we have contractually agreed to provide indemnifications to licensees relating to our IP. Additionally, at times we have chosen to defend our licensees from third party IP infringement claims even where such defense was not contractually required, and we may choose to take on such defense in the future.

Licensee Disputes. At times, we are engaged in disputes regarding the licensing of our IP rights, including matters related to our royalty rates and other terms of our licensing arrangements. These types of disputes can be asserted by our customers or prospective customers or by other third parties as part of negotiations with us or in private actions seeking monetary damages or injunctive relief, or in regulatory actions. In the past, licensees have threatened to initiate litigation against us based on potential antitrust claims or regarding our licensing royalty rate practices. Damages and requests for injunctive relief asserted in claims like these could be significant, and could be disruptive to our business.

U.S. and Foreign Patent Rights. Our licensing business depends in part on the uniform and consistent treatment of patent rights in the U.S. and abroad. Changes to the patent laws and regulations in the U.S. and abroad may limit our ability to obtain, license, and enforce our rights. Additionally, court and administrative rulings may interpret existing patent laws and regulations in ways that hurt our ability to obtain, license, and enforce our patents. We face challenges protecting our IP in foreign jurisdictions, including:

Our ability to enforce our contractual and IP rights, especially in countries that do not recognize and
enforce IP rights to the same extent as the U.S., Japan, Korea, and European countries do, which
increases the risk of unauthorized use of our technologies;

- Limited or no patent protection for our DD technologies in countries such as China, Taiwan, and India, which may require us to obtain patent rights for new and existing technologies in order to grow or maintain our revenue; and
- Because of limitations in the legal systems in many countries, our ability to obtain and enforce patents
 in many countries is uncertain, and we must strengthen and develop relationships with entertainment
 industry participants worldwide to increase our ability to enforce our IP and contractual rights without
 relying solely on the legal systems in the countries in which we operate.

OPERATIONS

Reliance on Key Suppliers. Our reliance on suppliers for some of the key materials and components we use in manufacturing our products involves risks, including limited control over the price, timely delivery, and quality of such components. We generally have no formal agreements in place with our suppliers for the continued supply of materials and components. Although we have identified alternate suppliers for most of our key materials and components, any required changes in our suppliers could cause delays in our operations and increase our production costs. In addition, our suppliers may not be able to meet our production demands as to volume, quality, or timeliness.

Moreover, we rely on sole source suppliers for some of the components that we use to manufacture our products, including specific charged coupled devices, light emitting diodes, and digital signal processors. These sole source suppliers may become unable or unwilling to deliver these components to us at an acceptable cost or at all, which could force us to redesign those specific products. Our inability to obtain timely delivery of key components of acceptable quality, any significant increases in the prices of components, or the redesign of our products could result in production delays, increased costs, and reductions in shipments of our products.

Product Quality. Our products, and products that incorporate our technologies, are complex and sometimes contain undetected software or hardware errors, particularly when first introduced or when new versions are released. In addition, we have limited control over manufacturing performed by contract manufacturers, which could result in quality problems. Furthermore, our products and technologies are sometimes combined with or incorporated into products from other vendors, sometimes making it difficult to identify the source of a problem or, in certain instances, making the quality of our implementation dependent in part upon the quality of such other vendors' products. Any negative publicity or impact relating to these product problems could affect the perception of our brand and market acceptance of our products or technologies. These errors could result in a loss of or delay in market acceptance of our products or cause delays in delivering them and meeting customer demands, any of which could reduce our revenue and raise significant customer relations issues. In addition, if our products or technologies contain errors, we could be required to replace or reengineer them or rely upon parties who have incorporated our technologies into their products to implement updates to address such issues, which could cause delays or increase our costs. Moreover, if any such errors cause unintended consequences, we could incur substantial costs in defending and settling product liability claims. Although we generally attempt to contractually limit our liability, if these contract provisions are not enforced, or are unenforceable for any reason, or if liabilities arise that are not effectively limited, we could incur substantial costs in defending and settling product liability claims.

Production Processes and Production. Production difficulties or inefficiencies can interrupt production, resulting in our inability to deliver products on time or in a cost effective manner, which could harm our competitive position. While we have three production facilities, we increasingly use contract manufacturers for a significant portion of our production capacity. Our reliance on contract manufacturers for the manufacture of our products involves risks, including limited control over timely delivery and quality of such products. If production of our products is interrupted, we may not be able to manufacture products on a timely basis. A shortage of manufacturing capacity for our products could negatively impact our operating results and damage our customer relationships. We may be unable to quickly adapt our manufacturing capacity to rapidly changing market conditions and a contract manufacturer may encounter similar difficulties. Likewise, we may be unable to quickly respond to fluctuations in customer demand or contract manufacturer interruptions. At times we underutilize our manufacturing facilities as a result of reduced demand for some of our products.

Data Security. We rely on information technology systems in the conduct of our business, including systems designed and managed by third parties. Many of these systems contain sensitive and confidential information, including our trade secrets and proprietary business information, and personal data, as well as content and information owned by or pertaining to our customers, suppliers and business partners. The secure maintenance of this information is critical to our operations and business strategy. Increasingly, companies are subject to a wide variety of attacks on their networks and systems on an ongoing basis. Our information technology and infrastructure may be vulnerable to penetration or attacks by hackers, malware, software bugs or other technical malfunctions, or other disruptions. If we use a vendor that stores information as part of its service or product offerings, we assess the security of such services prior to using the service. Nevertheless, our sensitive, confidential or proprietary information may be misappropriated by that vendor or others who may inappropriately access the vendor's system.

While we have taken a number of steps to protect our information technology systems (including physical access controls, encryption, and authentication technologies), the number and sophistication of malicious attacks that companies have experienced has increased over the past few years. In addition, because techniques used by hackers (many of whom are highly sophisticated and well-funded) to access or sabotage networks and computer systems change frequently and often are not recognized until after they are used, we may be unable to anticipate or immediately detect these techniques. This could delay our response or the effectiveness of our response and impede our operations and ability to limit our exposure to third-party claims and other potential liability. Attacks on our systems are sometimes successful, and, in some instances, we might be unaware of an incident or its magnitude and effects. We also may suffer data security breaches and the unauthorized access to, misuse or acquisition of, personal data or other sensitive and confidential information as the result of intentional or inadvertent breaches or other compromises by our employees or service providers. Any data security breach or other incident, whether external or internal in origin, could compromise our networks and systems, creating system disruptions or slowdowns and exploiting security vulnerabilities of our products. Any such breach or other incident can result in the information stored on our networks and systems being improperly accessed or acquired, publicly disclosed, lost, or stolen, which could subject us to liability to our customers, suppliers, business partners and others. We seek to detect and investigate such attempts and incidents and to prevent their recurrence where practicable through changes to our internal processes and tools, but in some cases preventive and remedial action might not be successful. In addition, despite the implementation of network security measures, our networks also may be vulnerable to computer viruses, malware, ransomware, social engineering, denial of service, and similar other disruptions. Disruptions to our information technology systems, due to outages, security breaches or other causes, could also have severe consequences to our business, including financial loss and reputational damage.

A variety of provincial, state, national, and international laws and regulations apply to the collection, use, retention, protection, disclosure, transfer and other processing of personal data. These laws and regulations are evolving and may result in ever-increasing regulatory and public scrutiny and escalating levels of enforcement and sanctions. For example, the California Consumer Privacy Act of 2018, or CCPA, which goes into effect on January 1, 2020, may require us (among other obligations) to modify certain of our information practices, provide new disclosures to California consumers, and afford such consumers various privacy rights. Our actual or perceived failure to adequately comply with applicable laws and regulations relating to privacy and data protection could result in regulatory fines, investigations and enforcement actions, penalties and other liabilities, claims for damages by affected individuals, and damage to our reputation, any of which could have a material adverse effect on our operations, financial performance and business.

Fluctuations in Foreign Currency Exchange Rates. We earn revenues, pay expenses, own assets and incur liabilities in foreign countries using several currencies other than the U.S. dollar. As a result, we face exposure to adverse movements in currency exchange rates as the financial results of our international operations are translated from local currency into U.S. dollars upon consolidation. The majority of our revenue generated from international markets is denominated in U.S. dollars, while the operating expenses of our foreign subsidiaries are predominantly denominated in local currencies. Therefore, our operating expenses will increase when the U.S. dollar weakens against the local currency and decrease when the U.S. dollar strengthens against the local currency. Additionally, foreign exchange rate fluctuations on transactions denominated in currencies other than the functional currency result in gains or losses that are reflected in our consolidated statements of operations.

Additional risks related to fluctuations in foreign currency exchange rates are described in the Foreign Currency Exchange Risk section of Part II, Item 7A "Quantitative and Qualitative Disclosures About Market Risk."

Business Interruptions by Natural Disasters and Other Events Beyond Our Control. Although we maintain crisis management plans, our business operations are subject to interruption by natural disasters and catastrophic events beyond our control, including, but not limited to, earthquakes, hurricanes, typhoons, tropical storms, floods, tsunamis, fires, droughts, tornadoes, public health issues and pandemics, severe changes in climate, war, terrorism, and geo-political unrest and uncertainties. Additionally, several of our offices, including our corporate headquarters in San Francisco, are located in seismically active regions. Because we do not carry earthquake insurance for earthquake—related losses and significant recovery time could be required to resume operations, our financial condition and operating results could be materially adversely affected in the event of a major earthquake or catastrophic event.

COMPETITION

The markets for our technologies are highly competitive, and we face competitive threats and pricing pressure in our markets. Consumers may perceive the quality of the visual and audio experiences produced by some of our competitors' technologies to be equivalent or superior to the sight and sound experiences produced by our technologies. Some of our current or future competitors may have significantly greater financial, technical, marketing, and other resources than we do, or may have more experience or advantages in the markets in which they compete. These competitors may also be able to offer integrated systems in markets for entertainment technologies on a royalty-free basis or at a lower price than our technologies, including audio, imaging, and other technologies, which could make competing technologies that we develop less attractive.

Pricing Pressures. The markets for the consumer entertainment products in which our technologies are incorporated are intensely competitive and price sensitive. We expect to face increased royalty pricing pressure for our technologies as we seek to drive the adoption of our technologies into online content and portable devices, such as tablets and smartphones. Retail prices for consumer entertainment products that include our sound technologies, such as DVD and Blu-ray players and home theater systems, have decreased significantly, and we expect prices to decrease for the foreseeable future. In response, OEMs have sought to reduce their product costs, which can result in additional downward pressure on the licensing fees we charge.

Customers as Competitors. We face competitive risks in situations where our customers are also current or potential competitors. For example, Samsung and Technicolor are significant licensee customers, but are also competitors with respect to some of our consumer, broadcast, and cinema technologies. Our customers may choose to use competing technologies they have developed or in which they have an interest rather than use our technologies. The existence of important customer relationships may influence which strategic opportunities we pursue, as we may forgo some opportunities in the interests of preserving a critical customer relationship.

Competition from Other Audio Formats, Imaging Solutions, and Integrated System Offerings. We believe that the success we have had licensing our audio technologies is due, in part, to the perception that our technologies provide a high quality solution for multichannel audio and the strength of our brand. However, both free and proprietary sound technologies are becoming increasingly prevalent, and we expect competitors to continue to enter this field with other offerings. Furthermore, to the extent that customers perceive our competitors' products as providing the same or similar advantages as our technologies at a lower or comparable price, there is a risk that these customers may treat sound encoding technologies as commodities, resulting in loss of status of our technologies, decline in their use, and significant pricing pressure. For example, we face competition with respect to our HDR imaging technology, Dolby Vision, and there can be no assurance that additional consumers will adopt Dolby Vision in the near future, or at all, or that we will maintain our existing customers.

In addition, some of our current or potential competitors may be able to offer integrated systems in certain markets for entertainment technologies, including audio, imaging, and digital rights management technologies, which could make competing technologies that we develop or acquire obsolete. By offering an integrated system

solution, these potential competitors may also be able to offer competing technologies at lower prices than we can, which could adversely affect our operating results.

Competition for Employees. In order to be successful, we must attract, develop, and retain employees, including employees to work on our growth initiatives where our current employees may lack experience with the business models and markets we are pursuing. Competition for experienced employees in our markets can be intense. In order to attract and retain employees, we must provide a competitive compensation package, including cash and equity compensation. Our equity awards include stock options and restricted stock units. The future value of these awards is uncertain, and depends on our stock price performance over time. In order for our compensation packages to be viewed as competitive, prospective employees must perceive our equity awards to be a valuable benefit.

STRATEGIC ACTIVITIES

Importance of Industry Relationships. To be successful, we must maintain and grow our relationships with a broad range of industry participants, including:

- Content creators, such as film directors, studios, mobile and online content producers, and music producers;
- Content distributors, such as studios, film exhibitors, broadcasters, operators, and OTT video service providers and video game publishers;
- · Leading companies in the audio and video conferencing markets; and
- Device manufacturers.

Industry relationships have historically played an important role in the markets that we serve, particularly in the entertainment market. For example, sales of our products and services are particularly dependent upon our relationships with major film studios and broadcasters, and licensing of our technologies is particularly dependent upon our relationships with system licensees and IC manufacturers. If we fail to maintain and strengthen these relationships, these entertainment industry participants may be less likely to purchase and use our technologies, products, and services, or create content incorporating our technologies. Industry relationships also play an important role in other markets we serve; for instance, our partner relationships in the audio and video conferencing markets are important to our communications business.

Consequences of M&A Activity. We evaluate a wide array of possible strategic transactions, including acquisitions. We consider these types of transactions in connection with, among other things, our efforts to strengthen our audio and cinema businesses and expand beyond sound technologies. Although we cannot predict whether or not we will complete any such acquisitions or other transactions in the future, any of these transactions could be significant in relation to our market capitalization, financial condition, or results of operations. The process of integrating an acquired company, business, or technology may create unforeseen difficulties and expenditures. Foreign acquisitions involve unique risks in addition to those mentioned above, including those related to integration of operations across different geographies, cultures, and languages; currency risks; and risks associated with the economic, political, and regulatory environment in specific countries. Future acquisitions could result in potentially dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities, amortization expenses, and write-offs of goodwill. Future acquisitions may also require us to obtain additional equity or debt financing, which may not be available on favorable terms or at all. Also, the anticipated benefits of our acquisitions may not materialize.

We face various risks in integrating acquired businesses, including:

- Diversion of management time and focus from operating our business to acquisition integration challenges;
- Cultural and logistical challenges associated with integrating employees from acquired businesses into our organization;
- Retaining employees, suppliers and customers from businesses we acquire;

- The need to implement or improve internal controls, procedures, and policies appropriate for a public
 company at businesses that prior to the acquisition may have lacked effective controls, procedures, and
 policies;
- Possible write-offs or impairment charges resulting from acquisitions;
- Unanticipated or unknown liabilities relating to acquired businesses; and
- The need to integrate acquired businesses' accounting, management information, manufacturing, human resources, and other administrative systems to permit effective management.

LEGAL AND REGULATORY COMPLIANCE

International Business and Compliance. We are dependent on international sales for a substantial amount of our total revenue. Approximately 64%, 67% and 65% of our revenue was derived outside of the U.S. in fiscal 2019, 2018, and 2017, respectively. We are subject to a number of risks related to conducting business internationally, including:

- U.S. and foreign government trade restrictions, including those which may impose restrictions on the
 importation of programming, technology, or components to or from the U.S., and those which may put
 restrictions or prohibitions on the exportation, reexportation, sale, shipment or other transfer of
 programming, technology, components, and/or services to foreign persons;
- Changes in trade relationships, including new tariffs, trade protection measures, import or export licensing requirements, trade embargoes and other trade barriers;
- Tariffs imposed by the U.S. on goods from other countries or tariffs imposed by other countries on U.S. goods, including the tariffs imposed over the course of 2018 and 2019 by the U.S. government on various imports from China and by the Chinese government on certain U.S. goods, the scope and duration of which remain uncertain;
- Compliance with applicable international laws and regulations, including antitrust and other
 competition laws, that may change unexpectedly, differ, or conflict with laws in other countries where
 we conduct business, or are otherwise not harmonized with one another;
- Foreign government taxes, regulations, and permit requirements, including foreign taxes that we may not be able to offset against taxes imposed upon us in the U.S., and other laws limiting our ability to repatriate funds to the U.S.;
- Potential adverse changes in the political and/or economic stability of foreign countries or in their diplomatic relations with the U.S.;
- Difficulty in establishing, staffing, and managing foreign operations, including but not limited to restrictions on the ability to obtain or retain licenses required for operation, relationships with local labor unions and works councils, investment restrictions and/or requirements, and restrictions on foreign ownership of subsidiaries;
- Adverse fluctuations in foreign currency exchange rates and interest rates, including risks related to any interest rate swap or other hedging activities we undertake;
- Poor recognition of IP rights;
- Difficulties in enforcing contractual rights;
- Multi-jurisdictional data protection and privacy laws, including the European Union's General Data
 Protection Regulation and restrictions on transferring personally identifiable information outside of a
 jurisdiction;
- Political or social instability in the U.K. and Europe (including but not limited to uncertainty resulting from the Brexit referendum in the U.K.) and in Russia, the Middle East, North Africa, Latin America and other emerging markets;
- Uncertainties related to any geopolitical, economic and regulatory effects or changes due to the current political climate in the U.S.;

- · Natural disasters, war or events of terrorism; and
- The global macroeconomic environment and potential slowing of key markets we serve, such as the current economic challenges in China.

Any or all of these factors may impact the demand for, and profitability of, our technologies and products, as well as our customers' products that incorporate our technologies.

Certain foreign governments, particularly in China, have advanced arguments under their competition laws that exert downward pressure on royalties for IP. The regulatory enforcement activities in such jurisdictions can be unpredictable, in some cases because these jurisdictions have only recently implemented competition laws. From time to time, we are the subject of requests for information, market conduct examinations, inquires or investigations by industry groups and/or regulatory agencies in these jurisdictions. For instance, in October 2018 and September 2019, the Korean Fair Trade Commission requested information relating to our business practices in South Korea, and we are cooperating with such requests. In the event that we are involved in significant disputes or are the subject of a formal action by a regulatory agency, our results could be negatively impacted and we could be exposed to costly and time-consuming legal proceedings.

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 such as the FCPA and U.S. export controls. Although we implement policies and procedures designed to ensure compliance with the FCPA and U.S. export controls, there can be no assurance that all of our employees, distributors, dealers, and agents will not take actions in violation of our policies or these regulations.

Costs of Environmental Laws and Regulation. Our operations use substances regulated under federal, state, local, and international laws governing the environment, including those governing the discharge of pollutants into the air and water, the management, disposal, and labeling of hazardous substances and wastes, and the cleanup of contaminated sites. In addition, future environmental laws and regulations have the potential to affect our operations, increase our costs, decrease our revenue, or change the way we design or manufacture our products. We face increasing complexity in our product design as we adjust to requirements relating to the materials composition of our products. For some products, substituting particular components containing regulated hazardous substances is more difficult or costly, and additional redesign efforts could result in production delays. We could incur costs, fines, and civil or criminal sanctions, third party property damage or personal injury claims, or could be required to incur substantial investigation or remediation costs, if we were to violate or become liable under environmental laws.

Conflict Minerals. SEC rules require the disclosure of the use of tantalum, tin, tungsten, and gold (commonly referred to as "conflict minerals") that are sourced from the Democratic Republic of the Congo and surrounding countries. This requirement could affect the sourcing, availability and pricing of materials used in our products as well as the companies we use to manufacture our products. In circumstances where sources of conflict minerals from the Democratic Republic of the Congo or surrounding countries are not validated as conflict free, we may take actions to change materials, designs or manufacturers to reduce the possibility that our contracts to manufacture products that contain conflict minerals finance or benefit local armed groups in the region. The SEC disclosure requirements could adversely affect the sourcing, supply and pricing of materials used in our products. As there may be only a limited number of suppliers that can certify to us that they are offering "conflict free" conflict minerals, we cannot be sure that we will be able to obtain necessary conflict minerals from such suppliers in sufficient quantities or at competitive prices. These actions could also add engineering and other costs in connection with the manufacturing of our products.

We may not be able to sufficiently verify the origins for the minerals used in our products. Our reputation may suffer if we determine that our products contain conflict minerals that are not determined to be conflict free or if we are unable to sufficiently verify the origins for all conflict minerals used in our products. In addition, some customers may require that all of our products are certified to be conflict free and if we cannot satisfy these customers, they may choose a competitor's products.

Tax Rates and Liabilities. We are a U.S. multi-national company that is subject to tax in multiple U.S. and foreign jurisdictions. We must use judgment to determine our worldwide tax provision. We receive significant tax benefits from a portion of our foreign sales, and realizability of these benefits are contingent upon existing current tax laws and regulations in the U.S. and countries where we operate. The following could materially affect our effective tax rate:

- Changes in geographic mix of earnings, where earnings are lower than anticipated in countries with lower tax rates and higher than anticipated in countries with higher tax rates;
- Changes in the valuation of our deferred tax assets and liabilities;
- Changes in transfer pricing arrangements;
- Outcomes of tax audits:
- Changes in accounting principles; or
- Changes in tax laws and regulations in the countries in which we operate, including an increase in tax rates, or an adverse change in the treatment of an item of income or expense.

The recent U.S. tax law changes enacted through the Tax Cuts and Jobs Act ("Tax Act") require us to exercise significant judgment in interpreting its provisions. As we evaluate the full impact of current and future guidance that is introduced, our results may materially differ from previous estimates, and those differences may materially affect our financial position. In addition, the Tax Act includes certain international provisions that became effective for us beginning in fiscal 2019. The application of the Tax Act and any changes that we make to our corporate trading structure could adversely affect our tax rate and cash flow in future years.

The Organization of Economic Cooperation and Development ("OECD"), an international association of many countries including the United States, has made changes to many long-standing transfer pricing and cross-border taxation rules. In addition, the European Union and its European Commission are proposing model legislation and investigating companies that might be in violation of European Union competition rules against unjustified state aid. Further, the OECD, European Union, European Commission, and individual countries have made and could make additional competing jurisdictional claims over the taxes owed on earnings of multinational companies in their respective countries or regions. To the extent these actions take place in the countries that we operate, it is possible that in the future, these efforts may increase uncertainty and have an adverse impact on our effective tax rates or operations.

We are subject to the periodic examination of our income tax returns by tax authorities. We regularly assess the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of our provision for income taxes, but an adverse decision by tax authorities exceeding our reserves could significantly impact our financial results.

STOCK-RELATED ISSUES

Controlling Stockholder. At September 27, 2019, the Dolby family and their affiliates owned 1,568,770 shares of our Class A common stock and 36,146,233 shares of our Class B common stock. As of September 27, 2019, the Dolby family and their affiliates had voting power of 99.8% of our outstanding Class B common stock, which combined with their shares of our Class A common stock, represented 85.2% of the combined voting power of our outstanding Class A and Class B common stock. Under our certificate of incorporation, holders of Class B common stock are entitled to ten votes per share while holders of Class A common stock are entitled to one vote per share. Generally, shares of Class B common stock automatically convert into shares of Class A common stock upon transfer of such Class B common stock, other than transfers to certain specified persons and entities, including the spouse and descendants of Ray Dolby and the spouses and domestic partners of such descendants.

As a result of this dual class structure, the Dolby family and their affiliates will, for the foreseeable future, have significant influence over our management and affairs, and will be able to control virtually all matters requiring stockholder approval, including the election of directors and significant corporate transactions such as mergers or other sales of our company or assets, even if they come to own considerably less than 50% of the total number of outstanding shares of our Class A and Class B common stock. Absent a transfer of Class B common

stock that would trigger an automatic conversion as described above, there is no threshold or time deadline at which the shares of Class B common stock will automatically convert into shares of Class A common stock.

Moreover, the Dolby family and their affiliates may take actions in their own interests that our other stockholders do not view as beneficial.

Insider Sales of Common Stock. If our large shareholders, officers, directors or employees sell, or indicate an intention to sell, substantial amounts of our Class A common stock in the public market, including shares of Class A common stock issuable upon conversion of shares of Class B common stock, the trading price of our Class A common stock could decline.

Stock Repurchase Program. Our stock repurchase program may reduce the public float of shares available for trading on a daily basis. Such purchases may be limited, suspended, or terminated at any time without prior notice. There can be no assurance that we will buy additional shares of our Class A common stock under our stock repurchase program or that any future repurchases will have a positive impact on our stock price or earnings per share. Important factors that could cause us to discontinue or decrease our share repurchases include, among others, unfavorable market conditions, the market price of our Class A common stock, the nature of other investment or strategic opportunities presented to us, the rate of dilution of our equity compensation programs, our ability to make appropriate, timely, and beneficial decisions as to when, how, and whether to purchase shares under the stock repurchase program, and the availability of funds necessary to continue purchasing stock. If we curtail our repurchase program, our stock price may be negatively affected.

Dividend Program. We cannot provide assurance that we will continue to increase dividend payments and/or pay dividends. We are not obligated to pay dividends on our Class A and Class B common stock. In October 2014, we announced a quarterly cash dividend program for our stockholders that was initiated by our Board of Directors. Since the initial commencement of our dividend program, our Board of Directors has annually approved an increase to our cash dividend. Although we anticipate paying regular quarterly dividends for the foreseeable future, dividend declarations and the establishment of future record and payment dates are subject to the Board of Directors' continuing determination that the dividend policy is in the best interests of our stockholders. The dividend policy may be changed or canceled at the discretion of the Board of Directors at any time. If we do not pay dividends, the market price of our Class A common stock must appreciate for investors to realize a gain on their investment. This appreciation may not occur and our Class A common stock may in fact depreciate in value.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our principal corporate office and worldwide headquarters, which we own, is at 1275 Market Street, San Francisco, California.

Other Properties

We also own a commercial office building located in Sunnyvale, California, and lease additional R&D, sales, product testing, and administrative facilities from third parties in California, New York, and internationally, including in Asia, Europe, Australia, the Middle East, and South America. We believe that our current facilities are adequate to meet our needs for the near future, and that suitable additional or alternative space will be available on commercially reasonable terms to accommodate our foreseeable future operations.

Dolby Wootton Bassett, LLC, of which Dagmar Dolby as Trustee of the Dagmar Dolby Trust under the Dolby Family Trust Instrument dated May 7, 1999 (the "Dagmar Dolby Trust") is the sole member, and the Dagmar Dolby Trust own a majority financial interest in real estate entities that own or from whom we lease certain facilities located in California and the U.K. We own the remaining financial interests in these real estate entities. Our ownership interest in these consolidated affiliated entities, in addition to information regarding the location of the property leased to Dolby Laboratories as of September 27, 2019 is summarized within the table below. The leases for these facilities expire at various times through 2025.

Entity Name	Minority Ownership Interest	Location Of Properties	Approximate Square Footage
Dolby Properties Brisbane, LLC	49.0%	Brisbane, California	43,500
Dolby Properties Burbank, LLC	49.0%	Burbank, California	22,000
Dolby Properties, LP	10.0%	Wootton Bassett, England	17,500

100 Potrero Avenue, San Francisco, California

Since 1980, we have leased a corporate office, warehouse space, and additional parking located at 100, 130, and 140 Potrero Avenue, San Francisco, California from the various Dolby family trusts. The lease for this office expires on October 31, 2024, and provides approximately 70,000 square feet of space. The Dolby family trusts retain the right to sublease approximately 1,099 square feet of office space in the premises with prior notice to us, at a rental rate equal to the then current base rent per square foot paid by us plus \$14 per square foot per year (reflecting estimated costs payable by us for the operation and maintenance of the premises, subject to an annual increase of 1.5% per year during each year of the sublease term).

We have ceased occupancy of the leased space at 100, 130, and 140 Potrero Avenue, and do not intend to re-occupy those locations. We remain responsible for operating expenses, taxes, and the condition, operation, repair, maintenance, security, and management of the premises. We have also agreed to indemnify and hold the Dolby family trusts, as landlord, harmless from and against certain liabilities, damages, claims, costs, penalties, and expenses arising from our conduct related to the premises. In fiscal 2019, we entered a sublease with a subtenant for the remaining lease term at 100 Potrero Avenue, pursuant to which the subtenant is required to reimburse us with respect to the foregoing expenses and taxes with respect to the subleased premises and to indemnify and hold us harmless with respect to the subleased premises in the same manner described above.

ITEM 3. LEGAL PROCEEDINGS

We are involved in various legal proceedings from time to time arising from the normal course of business activities, including claims of alleged infringement of IP rights, commercial, employment, and other matters. In our opinion, resolution of these pending matters is not expected to have a material adverse impact on our

operating results or financial condition. Given the unpredictable nature of legal proceedings, it is possible that an unfavorable resolution of one or more such proceedings could materially affect our future operating results or financial condition in a particular period; however, based on the information known by us as of the date of this filing and the rules and regulations applicable to the preparation of our consolidated financial statements, any such amounts are either immaterial or it is not possible to provide an estimated amount of any such potential losses.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

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

Market Information

Our Class A common stock is traded on the New York Stock Exchange ("NYSE") under the symbol "DLB." Our Class B common stock is neither listed nor publicly traded. As of October 25, 2019, there were 25 holders of record of our Class A common stock and 39 holders of record of our Class B common stock. The number of Class A beneficial stockholders is substantially greater than the number of holders of record since a large portion of our common stock is held through brokerage firms.

Dividend Policy

In October 2014, we announced a quarterly cash dividend program for our stockholders that was initiated by our Board of Directors. Since the program was initiated, a quarterly dividend has been declared and paid to all eligible stockholders of Class A and Class B common stock. Most recently, on November 14, 2019, we announced a dividend in the amount of \$0.22 per share, payable on December 4, 2019, to stockholders of record as of the close of business on November 26, 2019.

Dividend declarations and the establishment of future record and payment dates are subject to the Board of Directors' continuing determination that the dividend policy is in the best interests of our stockholders. The dividend policy may be changed or canceled at the discretion of the Board of Directors at any time. See Note 8 "Stockholders' Equity & Stock-Based Compensation" to our consolidated financial statements for additional information related to the quarterly dividend. Further discussion of our recurring quarterly dividend is included within Shareholder Return in Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Sales of Unregistered Securities

None.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

In November 2009, our Board of Directors announced a stock repurchase program ("program"), providing for the repurchase of our Class A common stock. Stock repurchases under the program may be made through open market transactions, negotiated purchases, or otherwise, at times and in amounts that we consider appropriate. The timing of repurchases and the number of shares repurchased depend upon a variety of factors, including price, regulatory requirements, the rate of dilution from our equity compensation plans, and other market conditions. The program does not have a specified expiration date, and can be limited, suspended, or terminated at our discretion at any time without prior notice. Shares repurchased under the program will be returned to the status of authorized but unissued shares of Class A common stock.

The following table summarizes the initial amount of authorized repurchases as well as additional repurchases approved by our Board of Directors as of September 27, 2019 (in thousands):

\$ 250,000
300,000
250,000
100,000
200,000
200,000
350,000
350,000
\$2,000,000

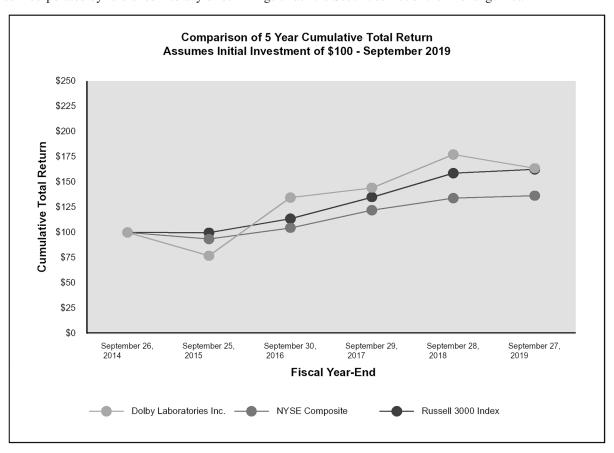
The following table provides information regarding our share repurchases made under this program during the fourth quarter of fiscal 2019:

Repurchase Activity	Total Shares Purchased	Average Price Paid Per Share (1)	As Part Of Publicly Announced Programs	Authorized Repurchases (2)
June 29, 2019 - July 26, 2019	_	\$ —	_	\$ 65.0 million
July 27, 2019 - August 23, 2019	668,830	59.45	668,830	\$375.2 million
August 24, 2019 - September 27, 2019	233,357	61.33	233,357	\$360.9 million
Total	902,187		902,187	

⁽¹⁾ Average price paid per share excludes commission costs.

Stock Price Performance Graph

The following graph compares the total cumulative return of our Class A common stock with the total cumulative return for the New York Stock Exchange Composite Index ("NYSE Composite") and the Russell 3000 Index ("Russell 3000") for the five fiscal years ended September 27, 2019. The figures represented below assume an investment of \$100 in our Class A common stock at the closing price of \$41.26 on September 26, 2014, and in the NYSE Composite and Russell 3000 on the same date and the reinvestment of dividends into shares of common stock. The comparisons in the table are required by the Securities and Exchange Commission and are not intended to forecast or be indicative of possible future performance of our Class A common stock. This graph shall not be deemed "filed" for purposes of Section 18 of Securities Exchange Act of 1934, as amended ("Exchange Act") or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any of our filings under the Securities Act or the Exchange Act.



⁽²⁾ Amounts represent the approximate dollar value of the maximum remaining number of shares that may yet be purchased under the stock repurchase program, and excludes commission costs.

ITEM 6. SELECTED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and our audited consolidated financial statements and the accompanying notes included within this filing. The consolidated balance sheet data for the fiscal years ended September 27, 2019 and September 28, 2018, and consolidated statements of operations data for the fiscal years ended September 27, 2019, September 28, 2018, and September 29, 2017 were derived from our audited consolidated financial statements included in this report. The consolidated statements of operations data for the fiscal years ended September 30, 2016, and September 25, 2015 and consolidated statements of operations data for the fiscal years ended September 30, 2016 and September 25, 2015 were derived from our audited consolidated financial statements not included in this report.

The historical financial results presented below are not necessarily indicative of results to be achieved in future periods. Note that fiscal 2016 consisted of 53 weeks, while all other fiscal years presented consisted of 52 weeks. All amounts presented below are displayed in thousands, except per share amounts.

	Fiscal Year Ended										
	Sep	tember 27, 2019	•	tember 28, 2018 adjusted) (1)	•	2017		ember 30, 016 ⁽¹⁾		tember 25, 2015 (1)	
Operations:											
Revenue	\$1	,241,620	\$1	1,054,600	\$1	,080,177	\$1.	,025,738	\$	970,638	
Gross margin	1	,080,766		927,038		961,648		916,756		875,822	
Operating expenses		823,689		743,533		714,515		684,961		662,594	
Income before provision for income taxes		282,307		196,374		255,145		235,904		245,782	
Net income attributable to Dolby Laboratories, Inc		255,151		41,746		206,481		185,860		181,390	
Net Income Per Share:											
Basic	\$	2.51	\$	0.40	\$	2.03	\$	1.85	\$	1.77	
Diluted	\$	2.44	\$	0.39	\$	2.00	\$	1.81	\$	1.75	
Weighted-Average Shares Outstanding:											
Basic		101,629		103,377		101,784		100,717		102,354	
Diluted		104,572		106,978		103,286		102,424		103,862	
Cash dividends declared per common share	\$	0.79	\$	0.67	\$	0.58	\$	0.50	\$	0.42	
Cash dividend paid per common share	\$	0.76	\$	0.64	\$	0.56	\$	0.48	\$	0.40	

	Fiscal Year Ended							
	September 27, 2019	September 28, 2018 (as adjusted) (1)	September 29, 2017 (as adjusted) (1)		September 25, 2015 (1)			
Cash and cash equivalents	\$ 797,210	\$ 918,063	\$ 627,017	\$ 516,112	\$ 531,926			
Working capital	1,074,687	1,211,378	1,061,218	546,647	611,548			
Short-term and long-term investments	298,733	365,920	562,121	515,533	459,916			
Total assets	2,821,749	2,865,387	2,836,463	2,310,106	2,133,293			
Total stockholders' equity—Dolby Laboratories, Inc	2,307,351	2,363,936	2,391,627	1,970,256	1,807,068			

⁽¹⁾ The selected financial data for the fiscal years ended September 28, 2018 and September 29, 2017 have been adjusted to reflect the adoption of ASU 2014-09, Revenue from Contracts with Customers, or "ASC 606". The selected financial data for fiscal years ended September 30, 2016 and September 25, 2015 presented in the table above reflects ASC 605, and has not been recast for, and does not reflect the adoption of ASC 606. For additional information, refer to Note 2 "Summary Of Significant Accounting Policies" to our consolidated financial statements.

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

The following discussion contains forward-looking statements that are subject to risks and uncertainties. Actual results may differ substantially from those referred to herein due to a number of factors, including but not limited to key challenges listed below and risks described in Item 1A, "Risk Factors" and elsewhere in this Annual Report on Form 10-K. We disclaim any duty to update any of the forward-looking statements to conform our prior statements to actual results.

Investors and others should note that we disseminate information to the public about our company, our products, services and other matters through various channels, including our website (www.dolby.com), our investor relations website (http://investor.dolby.com), SEC filings, press releases, public conference calls, and webcasts, in order to achieve broad, non-exclusionary distribution of information to the public. We encourage investors and others to review the information we make public through these channels, as such information could be deemed to be material information.

We are focused on expanding our leadership in audio solutions for entertainment content and delivering dynamic new audio and imaging technologies. This will broaden the number of Dolby experiences that people can enjoy which in turn will help drive our revenue growth. Following is a discussion of the key markets that we address and the various Dolby technologies and solutions that serve these markets.

EXPANDING OUR LEADERSHIP IN AUDIO AND IMAGING ENTERTAINMENT EXPERIENCES AUDIO AND IMAGING LICENSING

The majority of our licensing revenue is derived from the licensing of audio and imaging technologies for premium entertainment playback. Our audio technologies are primarily comprised of DD+, Dolby Atmos, AC-4, and our AAC and HE-AAC technologies and related patent licensing programs. Our imaging technologies are primarily comprised of Dolby Vision and our AVC and HEVC technologies and related patent licensing programs. The following are certain highlights from fiscal 2019 and key challenges related to audio and imaging licensing, by market.

Broadcast

Highlights: We have an established presence in developed markets with respect to our DD+ and HE-AAC audio technologies in broadcast services and devices. In recent years, we have expanded our offerings in the broadcast market through the introduction of newer technologies, including our Dolby Atmos and AC-4 audio technologies, Dolby Vision, as well as AVC and HEVC imaging technologies which we license through patent pools.

We continue to see more products introduced in the broadcast market that incorporate our newer technologies. In fiscal 2019, Panasonic joined our growing list of TV partners supporting Dolby Vision, and Vizio expanded their support of Dolby Vision throughout their entire 4K TV lineup. A number of TV partners have released models that feature the combined experience of Dolby Vision and Dolby Atmos, including LG, Sony, TCL, and TP Vision. In addition, the first STBs supporting Dolby Vision and Dolby Atmos were launched in fiscal 2019, while the transition to our AC-4 technologies continued to gain momentum globally.

We also saw more instances of live content experiences featuring Dolby Atmos. Selected NBA basketball games became the first professional sports in North America broadcast in Dolby Atmos, and DirectTV delivered certain college football primetime games in Dolby Atmos on ESPN. In addition, BT and CCTV continued delivering Premier League Soccer and The Champions League Final in Dolby Atmos.

Key Challenges: Our pursuit of growth and further adoption of our technologies may be impacted by a number of factors. In some emerging growth countries, such as China, we face difficulties enforcing our contractual and IP rights, including instances in which our licensees fail to accurately report the shipment of

products using our technologies. We must continue to present compelling reasons for consumers to demand our audio and imaging technologies, including ensuring that there is a breadth of available content in our formats and such content is being widely distributed. To the extent that OEMs do not incorporate our technologies in current and future products, our revenue could be impacted. Additionally, in the broadcast market, as well as other markets, we face geopolitical challenges including changes in diplomatic and trade relationships, trade protection measures, and import or export licensing requirements.

Mobile

Highlights: We continue to focus on adoption of our technologies across major mobile ecosystems such as Apple, Android, and Amazon. HE-AAC and HEVC are widely adopted audio and video technologies across mobile devices, respectively. We offer these technologies through our patent licensing programs. We also continue to focus on the expansion of our DD+, AC-4, Dolby Atmos, and Dolby Vision technologies in the mobile market.

During fiscal 2019, the breadth of mobile devices supporting Dolby technologies increased globally. For example, Apple announced the support of the combined experience of Dolby Vision and Dolby Atmos in their latest iOS devices. Dolby Atmos-enabled mobile devices are now available in the market from a growing list of partners such as Samsung, Amazon, Oppo and Lenovo.

Key Challenges: Growth in this market is dependent on several factors. Due to short product life cycles, mobile device OEMs can readily add or remove certain of our technologies from their devices. Our success depends on our ability to address the rapid pace of change in mobile devices, and we must continuously collaborate with mobile device OEMs to incorporate our technologies. Further, we rely on a small number of partnerships with key participants in the mobile market. If we are unable to maintain these key relationships, we may experience a decline in mobile devices incorporating our technologies. Finally, we must continue to support the development and distribution of Dolby content via various ecosystems. To the extent that OEMs do not incorporate our technologies in current and future products, our revenue could be impacted.

Consumer Electronics

Highlights: We have an established presence in the home theater market across devices such as AVRs, soundbars, Blu-Ray players, and DMAs, through the inclusion of our DD+ technology, and increasingly through the inclusion of our Dolby Atmos technology, as well as our AAC and HE-AAC technologies and related patent licensing programs. These hardware offerings can be paired with a growing array of Dolby enabled content via OTT services and Blu-ray discs.

In fiscal 2019, the availability of devices compatible with Dolby technologies gained momentum, as a number of streaming services indicated that they will be supporting Dolby Vision and Dolby Atmos enabled content. Apple announced that its new content programming and video subscription service, Apple TV+, which is expected to be released in the market during calendar year 2019, will support Dolby Vision and Dolby Atmos. In addition, Disney's new streaming service, Disney+, will support content in Dolby Vision and Dolby Atmos. Additional OTT services supporting the combined experience of Dolby Vision and Dolby Atmos include Netflix, Amazon, Tencent, and iQiYi. With the growing list of global streaming partners supporting our technologies, there are now over 2,400 pieces of content available in Dolby Vision, and over 1,600 pieces available in Dolby Atmos.

In addition, the first Dolby Atmos enabled smart speaker, the Amazon Echo Studio, was announced in fiscal 2019. The availability of Dolby-Atmos enabled soundbars also continued to grow in fiscal 2019 as three of our partners, Samsung, Sony, and Vizio, introduced their new lineup of soundbars. Certain models are now available starting at \$300. In general, as entry level price points decline, a wider range of consumers have the ability to purchase products incorporating Dolby technologies.

Key Challenges: We must continue to present compelling reasons for consumers to demand our technologies wherever they enjoy entertainment content, while promoting creation and broad availability of

content in our formats. To the extent that OEMs do not incorporate our technologies in current and future products, our revenue could be impacted.

Personal Computers

Highlights: DD+ continues to enhance playback in both Mac and Windows operating systems, including native support in their respective Safari and Microsoft Edge browsers. Dolby's presence in these browsers enables us to reach more users through new types of content, including streaming video entertainment.

In fiscal 2019, a number of PC models were announced or released supporting the combined experience of Dolby Vision and Dolby Atmos. Apple's newest MacBook supporting Dolby Vision and Dolby Atmos via their latest MacOS was announced during the year, and Lenovo expanded their lineup of PCs that support Dolby Vision and Dolby Atmos. In addition, Dell released several Dolby Vision enabled PC models throughout the year, while Samsung and Huawei extended their support of Dolby Atmos to more PC models.

Key Challenges: PC revenues have been impacted by a decline in the portion of PCs that have optical disc functionality in recent years, which has resulted in a decline in our ASPs, and we expect this decline in ASPs to continue. If declining conditions and trends persist, and OEMs do not incorporate our technologies in current and future products, our PC revenues could face continuing downward pressure. We must continuously collaborate and maintain our key partnership relationships with PC manufacturers to incorporate our technologies, and we must continue to support the development and distribution of Dolby content via various ecosystems.

Other

Highlights: DD+ is incorporated in both the Xbox and PlayStation gaming consoles and platforms. The Xbox gaming console also supports the combined experience of Dolby Vision and Dolby Atmos. Customers can purchase an OEM gaming headset bundled with Dolby Atmos for Headphones, or an app on the Microsoft app store to enable Dolby Atmos on their headphones.

We also generate revenue from the automotive industry primarily through disc playback devices as well as other elements of the entertainment system.

Key Challenges: The gaming console market continues to be challenged by competition from mobile devices and gaming PCs, which have faster refresh cycles and appeal to a broader consumer base. This may impact our future revenues.

CINEMA AND OTHER

Cinema Products & Services

Highlights: To help enable the playback of content in Dolby formats, we offer a range of servers and audio processors to cinema exhibitors globally. We continue to see adoption of Dolby Atmos by studios, content creators, post-production facilities, and exhibitors. At the end of fiscal 2019, there were over 5,000 Dolby Atmosenabled screens installed or committed across 90 countries around the world, and over 1,500 Dolby Atmose theatrical titles announced or released.

We also offer a variety of newer cinema products, which include the IMS3000, an integrated imaging and audio server with Dolby Atmos, the Dolby Multichannel Amplifier, and our 3-Axis speaker. These products allow us to offer exhibitors a more complete Dolby Atmos solution that is often more cost effective than what was previously available to them.

Key Challenges: Demand for our cinema products is dependent upon industry and economic cycles and box office performance generally, along with our ability to develop and introduce new technologies, further our relationships with content creators, and promote new cinematic audio and imaging experiences. A significant

portion of our growth opportunity lies in international markets, such as China, which are subject to economic risks as well as geo-political risks. To the extent that these factors persist or worsen, we may be faced with pricing pressures or competing technologies, our revenue may be affected.

Dolby Cinema

Highlights: In fiscal 2019, we continued to expand our global presence for Dolby Cinema. At the end of the year, we had over 230 Dolby Cinema locations in operation across 11 countries, and a total of more than 400 screens open or committed. During the year, several of the top global box office films were featured in Dolby Cinema, including "Avengers: Endgame" and "The Lion King." The breadth of motion pictures for Dolby Cinema continues to grow with over 260 theatrical titles in Dolby Vision and Dolby Atmos having been announced or released from all the major studios.

Key Challenges: Although the premium large format market for the cinema industry is currently growing, Dolby Cinema competes with other existing offerings. Our success depends on our ability to differentiate our offering, deploy new sites in accordance with plans, and attract and retain a global viewing audience. In addition, the success of our Dolby Cinema offering will be tied to global box office performance generally.

Dolby Voice

Highlights: Our newest audio and video conferencing offering is Dolby Voice Room, which is aimed at customers in the growing huddle room space. In fiscal 2019, we added LogMeIn as a partner, joining BlueJeans and Highfive. Also in fiscal 2019, together with BlueJeans and LogMeIn, we introduced a "Room as a Service" offering, which enables our customers access to our partner's conferencing services with our Dolby Voice Room solution for a monthly subscription fee. We continue to focus on expanding Dolby Voice's availability to the global market for audio and video conferencing services.

Key Challenges: Our success in this market will depend on the number of service providers and enterprise customers we are able to attract, the volume of products that we are able to sell, and the volume of usage of the service.

Revenue From Significant Customers

In fiscal 2019, 2018, and 2017, we did not have any individual customers that accounted for more than 10% of our total revenue.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our consolidated financial statements and accompanying notes are prepared in accordance with U.S. GAAP, pursuant to SEC rules and regulations. The preparation of these financial statements requires us to establish accounting policies and make certain estimates and assumptions that affect the reported amounts of assets and liabilities, revenue and expenses. The SEC considers an accounting policy and estimate to be critical if it is both important to a company's financial condition or results of operations and requires significant judgment by management in its application. On a regular basis, we evaluate our assumptions, judgments, and estimates, and historically, actual results have not differed significantly from them. If actual results or events differ materially from our judgments and estimates, our reported financial condition and results of operation for future periods could be materially affected. We have reviewed the selection and development of the critical accounting policies and estimates discussed below with the Audit Committee of our Board of Directors.

Revenue Recognition

We derive our revenue primarily from the licensing of our technologies and patents. In determining how revenue should be recognized, a five-step process is used, which requires judgment and estimates within the revenue recognition process. Generally, revenue is recognized upon transfer of control of promised products, services or intellectual property and technologies ("IP") rights to customers in an amount that reflects the consideration that we expect to receive in exchange for those products, services or licensing of the IP rights. The primary judgments include estimating sales-based revenues in advance of receiving statements from our licensees, estimating variable consideration, identifying the performance obligations in the contract, and determining whether the performance obligations are distinct, and allocating consideration accordingly.

Most of our licensing arrangements are structured as sales-based whereby we are paid a unit-based royalty. The unit based sales data that triggers the royalty obligation is generally reported to us in the quarter after triggering the royalty obligation. We apply the royalty exception to these arrangements, which requires that we recognize sales-based royalties at the later of when the sales occur based on our estimates or the completion of our performance obligations. These estimates involve the use of historical data and judgment for several key attributes including industry estimates of expected shipments, the percentage of markets using our technologies, and average sale prices. Generally, our estimates represent the current period's shipments for which we expect our licensees to submit royalty statements in the following quarter. Upon receipt of royalty statements from the licensees with the actual reporting of sales-based royalties that we previously estimated, we record a favorable or unfavorable adjustment based on the difference, if any, between estimated and actual sales.

We also enter into fixed and guaranteed licensing fees arrangements, which require the licensee to pay a fixed, non-refundable fee independent of the actual sales. In these cases, control is transferred and the transaction price—the amount we expect to be entitled to in exchange for the license right—is recognized upon the later of contract execution or the effective date. Transaction price is determined at contract execution and, to the extent variable consideration applies, is updated each subsequent reporting period until the completion of the contract. In addition, we evaluate whether a significant financing component exists when we recognize revenue in advance of customer payments that occur over time and extend beyond one year. In general, if the payment arrangements extend beyond the first year of the contract, we treat a portion of the payments as a financing component. The discount rate used for each arrangement reflects the rate that would be used in a separate financing transaction between us and the licensee at contract inception and takes into account the credit characteristics of the licensee and market interest rates as of the date of the agreement. As such, the amount of fixed fee revenue recognized at the beginning of the license term will be reduced by the calculated financing component. The portion related to the financing component is recorded as interest income, and is not material to our consolidated financial statements.

Our arrangements often include promises to transfer multiple performance obligations, such as license rights, multiple products, PCS, or services. In such arrangements where we have identified distinct performance obligations within the contract, we determine the SSP for each distinct performance obligation, the timing of revenue recognition for each distinct performance obligation and allocate the transaction price accordingly. SSPs for distinct performance obligations are based on direct observable pricing. In instances where the SSP is not directly observable, such as when we do not sell the product or service separately, we determine the SSP using information that may include market conditions, entity-specific factors and other inputs. In some licensing arrangements, we use the residual approach when the SSP for one or more promised goods or services is highly variable or uncertain. Under the residual approach, the unallocated portion of the transaction price can be allocated to a delivered performance obligation.

For additional information, see Note 3 "*Revenue Recognition*" to our consolidated financial statements in Part II, Item 8 of this Annual Report.

IMPACT OF NEW ACCOUNTING STANDARDS NOT YET ADOPTED

Leases. In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842), which amends the existing accounting standards for leases. Under the new standard, a lessee will be required to recognize a lease liability and

right-of-use asset for most leases. The new standard also modifies the classification criteria and accounting for salestype and direct financing leases, and requires additional disclosures to enable users of financial statements to understand the amount, timing, and uncertainty of cash flows arising from leases.

We will adopt the new standard using the modified retrospective transition method, thereby recognizing the cumulative effect of initially applying Topic 842 as an adjustment to opening retained earnings on the adoption date, without revising the balances in comparative periods. We have evaluated the impact of Topic 842, and upon adoption, we will recognize a lease liability and right-of-use asset for each of our existing lease arrangements, which we anticipate to be material on our consolidated balance sheet. Adoption of the standard will not have a material impact on our consolidated income statement or our consolidated statement of cash flow.

We plan to elect to utilize the transition guidance within the new standard which allows us to retain the historical lease classification and initial direct costs for any leases that exist prior to adoption of the standard. All new leases executed subsequent to adoption will be evaluated, and accounted for under Topic 842. ASU 2016-02 is effective for Dolby beginning September 28, 2019. We are still completing our assessment of the remaining lease term of our existing leases, assessing the completeness of our population of leases, and finalizing our determination of the discount rate used to calculate the right of use asset and lease liability.

Income Taxes: Comprehensive Income. On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act ("Tax Act"). In February 2018, the FASB issued ASU 2018-02, Income Statement—Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects From Accumulated Other Comprehensive Income, which allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Act and requires entities to provide certain disclosures regarding stranded tax effects. The ASU is effective for Dolby beginning September 28, 2019. We do not believe that this standard will have a material impact on our consolidated financial statements.

Collaborative Arrangements. In November 2018, the FASB issued ASU 2018-18, Collaborative Arrangements (Topic 808): Clarifying the Interaction between Topic 808 and Topic 606, which clarifies that certain transactions between participants in a collaborative arrangement should be accounted for under ASC 606 when the counterparty is a customer. In addition, ASU 2018-18 precludes an entity from presenting consideration from a transaction in a collaborative arrangement as revenue from contracts with customers if the counterparty is not a customer for that transaction. This standard will be effective for Dolby beginning September 26, 2020, and we do not currently plan to early adopt. We do not believe that this standard will have a material impact on our consolidated financial statements.

Financial Instruments. In June 2016, the FASB issued ASU 2016-13, Financial Instruments (Topic 326): Measurement of Credit Losses on Financial Instruments, which modifies the measurement of expected credit losses of certain financial instruments, including trade receivables, contract assets, and lease receivables. This standard will be effective for Dolby beginning September 26, 2020, and we do not currently plan to early adopt. We do not believe that this standard will have a material impact on our consolidated financial statements.

RESULTS OF OPERATIONS

For each line item included on our consolidated statements of operations described and analyzed below, the significant factors identified as the leading drivers contributing to the overall fluctuation are presented in descending order of their impact on the overall change (from an absolute value perspective). This discussion and analysis highlights comparisons of material changes in the consolidated financial statements for years ended September 27, 2019, September 28, 2018, and September 29, 2017. Note that adjustments related to previously under-reported sales-based royalties as well as unlicensed settlement activity, are collectively referred to as "recoveries." Amounts displayed, except percentages, are in thousands.

Revenue and Gross Margin

Licensing

Licensing revenue consists of fees earned from licensing our technologies to customers who incorporate them into their products and services to enable and enhance audio, imaging, and voice capabilities. The technologies that we license are either internally developed, acquired, or licensed from third parties. A significant portion of our licensing revenue pertains to customer-shipment royalties that we recognize based on estimates of our licensees' shipments in the current period. Within the current period, to the extent that shipment data reported by licensees differs from estimates we made and recorded in the prior quarter, we recognize an adjustment to revenue for such difference. Our comparisons for fiscal years 2018 and 2017 financial information as recast under ASC 606 reflects the impact of certain contract modifications which results in a reduction of our previously reported revenues in those periods.

Our cost of licensing consists mainly of amortization of certain purchased intangible assets and intangible assets acquired in business combinations, depreciation, third party royalty obligations, and associated fees.

	Fiscal Year Ended		ì	2019 vs. 2018		2018 vs. 2017	
Licensing	September 27, 2019	September 28, 2018	September 29, 2017	\$	%	\$	%
Revenue	\$1,107,280	\$940,777	\$965,864	\$166,503	18%	\$(25,087)	(3)%
Percentage of total revenue	89%	89%	89%				
Cost of licensing	57,531	42,583	39,329	14,948	35%	3,254	8%
Gross margin	1,049,749 95%	898,194 <i>95%</i>	926,535 96%	151,555	17%	(28,341)	(3)%

Factor		Revenue		Gross Margin		
Mobile	1	Higher revenues from patent licensing and the adoption of our technologies into more devices, partially offset by lower recoveries				
Broadcast	1	Higher revenues from patent licensing, recoveries, and TVs, partially offset by lower volume of STBs				
Other	1	Higher revenues from Dolby Cinema, gaming, and automotive recoveries, partially offset by lower licensing in Dolby Voice	\leftrightarrow	No significant fluctuations		
CE	1	Higher volume of DMAs and higher patent licensing, partially offset by lower recoveries				
PC	1	Higher revenues from recoveries and patent licensing, partially offset by lower ASP from decreasing number of PCs with optical disc functionality				

2018 vs. 2017

Factor		Revenue	Gross Margin		
PC	4	Lower ASP from decreasing number of PCs with optical disc functionality and lower recoveries, partially offset by higher patent licensing			
СЕ	1	Higher patent licensing and higher volume of DMAs, partially offset by lower volume of DVDs			
Broadcast	V	Lower patent licensing, volume of STBs and TVs, and lower recoveries	\leftrightarrow	No significant fluctuations	
Other	1	Higher patent licensing, revenue from Dolby Cinema, and Via administrative fees, partially offset by lower recoveries in automotive			
Mobile	1	Higher recoveries and adoption of our technologies into more devices, partially offset by lower patent licensing			

Products and Services

Products revenue is generated from the sale of audio, imaging, and voice products for the cinema, television broadcast, communications, and consumer products industries. Also included in products revenue are amounts relating to Dolby Cinema arrangements that involve fixed or minimum amounts. Cost of products consists of materials, labor, and manufacturing overhead, amortization of certain intangible assets, as well as third party royalty obligations.

Services revenue consists of fees for support theatrical and television production for cinema exhibition, broadcast, and home entertainment, including equipment training and maintenance, mixing room alignment, equalization, as well as audio, color, and light image calibration. Services revenue also includes PCS for products sold and equipment installed at Dolby Cinema theaters operated by exhibitor partners and support for the implementation of our technologies into products manufactured by our licensees. Cost of services consists of personnel and personnel-related costs for providing our professional services, software maintenance and support, external consultants, and other direct expenses incurred on behalf of customers.

	Fiscal Year Ended			2019 vs. 2018		2018 vs. 2017	
Products and Services	September 27, 2019	September 28, 2018	September 29, 2017	\$	%	\$	%
Revenue Percentage of total revenue	\$134,340 11%	\$113,823	\$114,313 11%	\$20,517	18%	\$ (490)	—%
Cost of products and services	103,323	84,979	79,200	18,344	22%	5,779	7%
Gross margin Gross margin percentage	31,017 23%	28,844 25%	35,113 31%	2,173	8%	(6,269)	(18)%

2019 vs. 2018

Factor Revenue			Gross Margin		
Products	1	Higher revenues from Dolby Cinema and Dolby Voice products, and higher units of cinema equipment	\rightarrow	Higher excess & obsolete charges	
Services	\leftrightarrow	No significant fluctuations		Higher utilization of available capacity	

Factor		Revenue	Gross Margin			
Products	\leftrightarrow	No significant fluctuations	\	Lower utilization of manufacturing capacity and higher excess & obsolete charges, partially offset by improved mix of products		
Support & Other	→	Decreased support and maintenance services	\	Lower utilization of available capacity		

Operating Expenses

Research and Development

R&D expenses consist primarily of employee compensation and benefits expenses, stock-based compensation, consulting and contract labor costs, depreciation and amortization, facilities costs, costs for outside materials, and information technology expenses.

	Fiscal Year Ended			2019 vs.	2018	2018 vs. 2017	
	September 27, 2019	September 28, 2018	September 29, 2017	\$	%	\$	%
Research and development	\$237,871	\$236,794	\$233,312	\$1,077	_ 9	% \$3,482	1%
Percentage of total revenue	19%	22%	22%				

2019 vs. 2018

Category		Key Drivers			
Research & Development	\leftrightarrow	No significant fluctuations			

2018 vs. 2017

Category		Key Drivers					
Facilities	1	Higher costs associated with our worldwide headquarters					
Depreciation & Amortization	4	Lower depreciation as certain assets have been fully depreciated					
Compensation & Benefits	1	Higher headcount on R&D projects along with merit increases across the employee base					

Sales and Marketing

S&M expenses consist primarily of employee compensation and benefits expenses, stock-based compensation, marketing and promotional expenses for events such as trade shows and conferences, marketing campaigns, travel-related expenses, consulting fees, facilities costs, depreciation and amortization, information technology expenses, and legal costs associated with the protection of our IP.

	Fiscal Year Ended			2019 vs. 2	018 2	2018 vs. 2017	
	September 27, 2019	September 28, 2018	September 29, 2017	\$	%	\$	%
Sales and marketing	\$343,835	\$309,762	\$296,661	\$34,073	11% \$1	13,101	4%
Percentage of total revenue	28%	29%	27%				

2019 vs. 2018

Category		Key Drivers
Legal, Professional, & Consulting	1	Increased IP related activities aimed at revenue generation
Marketing Programs	1	Higher costs related to marketing programs, including branding activities, and new product launches

Category		Key Drivers				
Legal, Professional, & Consulting	1	Increased IP related activities aimed at revenue generation				
Compensation & Benefits	1	Higher headcount and merit increases across the employee base				
Marketing Programs	1	Higher costs related to marketing efforts for growth initiatives				

General and Administrative

G&A expenses consist primarily of employee compensation and benefits expenses, stock-based compensation, depreciation, facilities and information technology costs, as well as professional fees and other costs associated with external consulting and contract labor.

]	2019 vs. 2018		2018 vs. 2017			
	September 27, 2019	September 28, 2018	September 29, 2017	\$	<u>%</u>	\$	%
General and administrative	\$205,425	\$197,423	\$171,686	\$8,002	4%	\$25,737	15%
Percentage of total revenue	17%	19%	16%				

2019 vs. 2018

Category		Key Drivers		
Legal, Professional, & Consulting	1	Higher costs associated with various legal activities and patent filings		
Compensation & Benefits	个	Higher headcount and merit increases across the existing employee base		
Bad Debt	1	Higher charges recorded in the current period		

2018 vs. 2017

Category	Key Drivers		
Compensation & Benefits	1	Increase in headcount, merit increases, and higher employer costs	
Legal, Professional, & Consulting	1	Higher costs associated with various legal activities, patent filings, and implementing regulatory changes	
Stock-Based Compensation	1	Higher fair value of awards	

Restructuring

Restructuring charges/(credits) recorded as operating expenses in our statements of operations represent costs associated with separate individual restructuring plans implemented in various fiscal periods. The extent of our costs arising as a result of these actions, including fluctuations in related balances between fiscal periods, is based on the nature of activities under the various plans.

	Fiscal Year Ended			2019 vs. 2018		2018 vs. 2017	
	September 27, 2019	September 28, 2018	September 29, 2017	\$	%	\$	%
Restructuring charges/(credits)	\$36,558	\$(446)	\$12,856	\$37,004	(8,297)%	\$(13,302)	(103)%
Percentage of total revenue	3%	—%	1%				

Restructuring charges recorded in fiscal 2019 of \$33.5 million represents costs incurred as a result of our early exit of leased facilities. Included in those costs are the write-off of the carrying value of the leasehold improvements associated with the facilities and other expenses associated with the exit of the facilities.

Restructuring charges recorded in fiscal 2019 also include \$3.1 million associated with a reorganization of our marketing function that resulted in severance and other related benefits for approximately 50 positions that were eliminated.

Restructuring charges recorded in fiscal 2017 were incurred in relation to our fiscal 2017 restructuring plan, and represent costs to reduce certain activities in order to reallocate resources towards higher priority investment areas. For additional information on our Restructuring programs, see Note 12 "*Restructuring*" to our consolidated financial statements.

Other Income/Expense

Other income/(expense) primarily consists of interest income earned on cash and investments and the net gains/(losses) from foreign currency transactions, derivative instruments, and sales of marketable securities from our investment portfolio.

	Fiscal Year Ended			2019 vs	s. 2018	2018 vs. 2017	
Other Income/Expense	September 27, 2019	September 28, 2018	September 29, 2017	\$	%	\$	%
Interest income		\$18,970 (198)	\$ 9,577 (127)	\$ 5,949 28	31% (14)%	\$ 9,393 (71)	98% 56%
net	481 \$25,230	(5,903) \$12,869	(1,438) \$ 8,012	6,384 \$12,361	(108)% 96%	(4,465) \$ 4,857	$\frac{311\%}{\mathbf{61\%}}$
							$\overline{}$

2019 vs. 2018

Category		Key Drivers
Other Income/(Expense)	1	Decrease in other expense due to impairment charges recorded in the prior year on cost method equity investments that did not re-occur in 2019, higher valuation of current year equity method investment valuations, and lower foreign currency translation losses
Interest Income	个	Higher yields on investment balances

2018 vs. 2017

Category		Key Drivers
Interest Income	个	Higher yields on our increased investment balances
Other Income/(Expense)	4	Increase in other expense primarily due to impairment charges recorded on cost method equity investments

Income Taxes

Our effective tax rate is based on our annual fiscal year results and is affected each period-end by several factors. These include changes in our projected fiscal year results, recurring items such as tax rates and relative income earned in foreign jurisdictions, as well as discrete items such as changes to our uncertain tax positions that may occur in, but are not necessarily consistent, between periods. Our fiscal 2018 income tax provision reflects amounts accrued in connection with the Tax Act enacted in December 2017. For additional information related to effective tax rates, see Note 11 "*Income Taxes*" to our consolidated financial statements.

	Fiscal Year Ended						
	September 27, 2019	September 28, 2018	September 29, 2017				
Provision for income taxes	\$(26,802)	\$(154,069)	\$(48,039)				
Effective tax rate	9%	78%	19%				

2019 vs. 2018

Factor	Impact On Effective Tax Rate		
Enactment of Tax Act	\downarrow	Lower tax expense due to a large tax charge for US tax reform in the prior year, a large tax benefit in the current year, and the reduction of the federal statutory rate	

Factor		Impact On Effective Tax Rate		
Enactment of Tax Act	1	Higher tax provision for deemed repatriation and write-down of deferred tax assets offset by higher benefit for the reduction of the federal statutory rate		
Valuation Allowance	个	Higher tax provision reflecting valuation allowance for California R&D Tax Credits		
Stock-Based Compensation	1	Higher benefit related to the settlement of stock-based awards		

LIQUIDITY, CAPITAL RESOURCES, AND FINANCIAL CONDITION

Our principal sources of liquidity are cash, cash equivalents, and investments, as well as cash flows from operations. We believe that these sources will be sufficient to satisfy our currently anticipated cash requirements through at least the next twelve months. As of September 27, 2019, we had cash and cash equivalents of \$797.2 million, which mainly consisted of cash and highly-liquid money market funds. In addition, we had short and long-term investments of \$298.7 million, which consisted primarily of municipal debt securities, certificates of deposit, government bonds, commercial paper, corporate bonds, and U.S. agency securities.

The following table presents selected financial information as of the fiscal years ended September 27, 2019 and September 28, 2018 (amounts displayed are in thousands):

		September 28, 2018
Cash and cash equivalents	\$ 797,210	\$ 918,063
Short-term investments	119,146	178,138
Long-term investments	179,587	187,782
Accounts receivable, net	189,115	166,133
Accounts payable and accrued liabilities	283,356	265,050
Working capital	1,074,687	1,211,378

Capital Expenditures and Uses of Capital

Our capital expenditures consist of purchases of land, building, building fixtures, laboratory equipment, office equipment, computer hardware and software, leasehold improvements, and production and test equipment. Included in capital expenditures are amounts associated with Dolby Cinema locations. We continue to invest in S&M and R&D to promote the overall growth of our business and technological innovation.

We retain sufficient cash holdings to support our operations, and we also purchase investment grade securities diversified among security types, industries, and issuers. We have used cash generated from our operations to fund a variety of activities related to our business in addition to our ongoing operations, including business expansion and growth, acquisitions, and repurchases of our Class A common stock. We have historically generated significant cash from operations. However these cash flows and the value of our investment portfolio could be affected by various risks and uncertainties, as described in Part I, Item 1A "Risk Factors."

Shareholder Return

We have returned cash to stockholders through both repurchases of Class A common stock under our repurchase program initiated in fiscal 2010 and our quarterly dividend program initiated in fiscal 2015. Refer to Note 8 "Stockholders' Equity & Stock-Based Compensation" of our consolidated financial statements for a summary of dividend payments made under the program during fiscal 2019 and additional information regarding our stock repurchase program.

Stock Repurchase Program. Our stock repurchase program was approved in fiscal 2010, and since then we have completed approximately \$1.6 billion of stock repurchases under the program.

Quarterly Dividend Program. During the first quarter of fiscal 2015, we initiated a recurring quarterly cash dividend program for our stockholders. For fiscal 2019, quarterly dividends of \$0.19 per share were paid on our Class A and Class B common stock to eligible stockholders of record.

Cash Flows Analysis

For the following comparative analysis performed for each of the sections of the statement of cash flows, the significant factors identified as the leading drivers contributing to the fluctuation are presented in descending order of their impact relative to the overall change (amounts displayed in thousands).

	riscai year Ended			
	September 27, 2019	September 28, 2018		
Net cash provided by operating activities	\$327,674	\$352,202		

Net cash provided by operating activities decreased \$24.5 million in fiscal 2019 compared to fiscal 2018, primarily due to the following:

Factor		Impact On Cash Flows					
Net Income	1	Fiscal 2018 results included a loss in Q1 due to impact of the Tax Act					
Working Capital	\downarrow	Lower inflows due to increases in accounts receivable and contract assets					
Deferred Income Taxes	4	Deferred tax asset increased due to additional tax benefit recognized from the repatriation transition tax recorded in fiscal 2018					

Investing Activities

	Fiscal Ye	ar Ended
	September 27, 2019	September 28, 2018
Net cash provided by (used in) investing activities	\$(56,229)	\$78,086

Net cash used in investing activities was \$134.3 million greater in fiscal 2019 compared to fiscal 2018, primarily due to the following:

Factor		Impact On Cash Flows					
Purchase of Investments		Higher outflows for the purchase of marketable investment securities					
Capital Expenditures	^	Higher expenditures for PP&E					
Proceeds From Investments	\rightarrow	Lower inflows from the sale & maturity of marketable investment securities					

Financing Activities

	Fiscal Ye	ar Ended
	September 27, 2019	September 28, 2018
Net cash used in financing activities	\$(385,281)	\$(133,629)

Net cash used in financing activities increased \$251.7 million in fiscal 2019 compared to fiscal 2018, primarily due to the following:

Factor		Impact On Cash Flows					
Share Repurchases	4	Higher outflows from increases in common stock repurchases					
Common Stock Issuance	\downarrow	Lower inflows from employee stock option exercises					

Off-Balance Sheet Arrangements and Contractual Obligations

As of September 27, 2019, we did not engage in off-balance sheet financing arrangements other than operating leases for office space and computer equipment, and the following table presents a summary of our contractual obligations and commitments as of that date (in thousands):

	Payments Due By Fiscal Period							
	1 Year	2-3 Years	4-5 Years	More Than 5 Years	Total			
Naming rights	\$ 7,909	\$16,116	\$16,521	\$70,344	\$110,890			
Operating leases	17,231	16,520	10,717	12,355	56,823			
Purchase obligations	37,675	6,044	_		43,719			
Donation commitments	4,243	282	282	1,059	5,866			
Total	\$67,058	\$38,962	\$27,520	\$83,758	\$217,298			

Naming Rights. In fiscal 2012, we entered into an agreement for naming rights and related benefits with respect to the Dolby Theatre in Hollywood, California, the location of the Academy Awards. The term of the agreement is 20 years (beginning in fiscal 2012), over which we make payments on a semi-annual basis. Our payment obligations are conditioned in part on the Academy Awards being held and broadcast from the Dolby Theatre.

Operating Leases. Operating lease payments represent our commitments for future minimum rent made under non-cancelable leases for office space, including those payable to our principal stockholder and portions attributable to the controlling interests in our wholly owned subsidiaries.

Purchase Obligations. Our purchase obligations consist of agreements to purchase goods and services, entered into in the ordinary course of business. These represent non-cancelable commitments for which a penalty would be imposed if the agreement was canceled for any reason other than an event of default as described by the agreement.

Donation Commitments. Our donation commitments relate to non-cancelable obligations to the Museum of the Academy of Motion Picture Arts and Sciences in Los Angeles, California, and the Smithsonian Institution in Washington, DC. Our commitment to the Museum of the Academy of Motion Picture Arts and Sciences is for 15 years from its expected opening date in 2020, and the Smithsonian Institution is for the next 5 years. Both donation commitments consist of the installation of imaging and audio products in the theaters and providing maintenance services in exchange for various marketing, branding, and publicity benefits.

Unrecognized Tax Benefits. As of September 27, 2019, we had an accrued liability for unrecognized tax benefits without interest, penalties, and related deferred tax assets, totaling \$108.5 million. We are unable to estimate when any cash settlement with a taxing authority might occur and, therefore, have not reflected these anticipated future outflows in the table above.

For additional details regarding our contractual obligations, see Note 13 "Commitments & Contingencies" to our consolidated financial statements.

Indemnification Clauses

We are party to certain contractual agreements under which we have agreed to provide indemnification of varying scope and duration to the other party relating to our licensed IP. Historically, we have not made any payments for these indemnification obligations and no amounts have been accrued in our consolidated financial statements with respect to these obligations. Since the terms and conditions of the indemnification clauses do not explicitly specify our obligations, we are unable to reasonably estimate the maximum potential exposure for which we could be liable. In addition, we have entered into indemnification agreements with our officers, directors, and certain employees, and our certificate of incorporation and bylaws contain similar indemnification obligations. For additional details regarding indemnification clauses within our contractual agreements, see Note 13 "Commitments & Contingencies" to our consolidated financial statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Sensitivity

As of September 27, 2019, we had cash and cash equivalents of \$797.2 million, which consisted of cash and highly liquid money market funds. In addition, we had both short and long-term investments of \$298.7 million, which consisted primarily of municipal debt securities, corporate bonds, government bonds, and U.S. agency securities. Our investment policy is focused on the preservation of capital and support for our liquidity requirements. Under the policy, we invest in highly rated securities with a minimum credit rating of A- while limiting the amount of credit exposure to any one issuer other than the U.S. government. At September 27, 2019, the weighted-average credit quality of our investment portfolio was AA-, with a weighted-average maturity of approximately sixteen months. We do not invest in financial instruments for trading or speculative purposes, nor do we use leveraged financial instruments. We utilize external investment managers who adhere to the guidelines of our investment policy.

The investments within our fixed-income portfolio are subject to fluctuations in interest rates, which could affect our financial position, and to a lesser extent, results of operations. Based on our investment portfolio balance as of September 27, 2019, hypothetical changes in interest rates of 1% and 0.5% would have an impact on the carrying value of our portfolio of approximately \$3.8 million and \$1.9 million, respectively.

Foreign Currency Exchange Risk

We maintain business operations in foreign countries, most significantly in Australia, China, Germany, the Netherlands, Poland and the United Kingdom. Additionally, a growing portion of our business is conducted outside of the U.S. through subsidiaries with functional currencies other than the U.S. dollar, most notably:

- Australian Dollar
- British Pound
- Chinese Yuan
- Euro
- Polish Zloty

As a result, we face exposure to adverse movements in currency exchange rates as the financial results of our international operations are translated from local currency into U.S. dollars upon consolidation. The majority of our revenue generated from international markets is denominated in U.S. dollars, while the operating expenses of our foreign subsidiaries are predominantly denominated in local currencies. Therefore, our operating expenses will increase when the U.S. dollar weakens against the local currency and decrease when the U.S. dollar strengthens against the local currency. Additionally, foreign exchange rate fluctuations on transactions denominated in currencies other than the functional currency result in gains or losses that are reflected in our consolidated statements of operations. Our foreign operations are subject to the same risks present when conducting business internationally, including, but not limited to, changes in economic and geopolitical climate, differing tax structures, foreign exchange rate volatility and other regulations and restrictions.

In fiscal 2019, we implemented a cash flow hedge program using forward currency contracts to reduce the impact of currency volatility on U.S. dollar operating expenses and margins. The effective portions of cash flow hedges are recorded at fair value with changes in the fair value as a component in AOCI, until the hedged item is recognized in earnings. Amounts in AOCI are expected to be released to the same line item in the consolidated statements of operations concurrently with the hedged costs, within the next twelve months.

We also enter into foreign currency forward contracts to hedge against assets and liabilities for which we have foreign currency exchange rate exposure and selected anticipated expenses. The contracts hedging receivables and payables are carried at fair value with changes in the fair value recorded to other income, net, in our consolidated statements of operations. The contracts hedging foreign currency denominated operating expenses are carried at fair value with changes in the fair value recorded to other comprehensive income until the hedged expenses are reported in our consolidated statements of operations. As of September 27, 2019 and September 28, 2018, the outstanding derivative instruments had maturities of equal to or less than 12 months, and the total notional amounts of outstanding contracts were \$29.0 million and \$25.1 million, respectively.

For additional information related to our foreign currency forward contracts, see Note 2 "Summary of Significant Accounting Policies" to our consolidated financial statements.

A sensitivity analysis was performed on all of our foreign currency forward contracts as of September 27, 2019. This sensitivity analysis was based on a modeling technique that measures the hypothetical market value resulting from a 10% shift in the value of exchange rates relative to the U.S. dollar. For these forward contracts, duration modeling was used where hypothetical changes are made to the spot rates of the currency. A 10% increase in the value of the U.S. dollar would lead to an increase in the fair value of our financial instruments by \$0.1 million. Conversely, a 10% decrease in the value of the U.S. dollar would result in a decrease in the fair value of these financial instruments by \$0.1 million.

ITEM 8. CONSOLIDATED FINANCIAL STATEMENTS DOLBY LABORATORIES, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm	47
Consolidated Balance Sheets	50
Consolidated Statements of Operations	51
Consolidated Statements of Comprehensive Income	52
Consolidated Statements of Stockholders' Equity	53

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors Dolby Laboratories, Inc.:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of Dolby Laboratories, Inc. and subsidiaries (the Company) as of September 27, 2019 and September 28, 2018, the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows for each of the years in the three-year period ended September 27, 2019, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of September 27, 2019, based on criteria established in *Internal Control—Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of September 27, 2019 and September 28, 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended September 27, 2019, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 27, 2019 based on criteria established in *Internal Control—Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company has changed its method of accounting for revenue from contracts with customers due to the adoption of FASB Accounting Standards Update 2014-09, *Revenue from Contracts with Customers (Topic 606)*. The Company adopted Topic 606 using the full retrospective approach.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting in Item 9A. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material

weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the (consolidated) financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the (consolidated) financial statements and (2) involved our especially challenging, subjective, or complex judgment. The communication of a critical audit matter does not alter in any way our opinion on the (consolidated) financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Assessment of revenue estimate related to sales-based licensing arrangements

As discussed in Notes 2 and 3 to the consolidated financial statements, revenue is derived principally from the licensing of technologies and patents to various types of licensees. The Company recognized total licensing revenue of \$1.11 billion for the year ended September 27, 2019. The Company estimates and records sales-based licensing revenue from its licensees' shipments in the same period in which those shipments occur. After receiving the royalty statements from the licensees, which is generally in the quarter after those shipments have occurred, the Company will record an adjustment based on the difference between the estimated and actual sales-based licensing revenue.

We identified the assessment of the revenue estimate related to the Company's sales-based licensing arrangements as a critical audit matter. Auditor judgment was required to evaluate the Company's estimation of sales-based licensing revenue, which included the Company's use of historical data, industry estimates of expected shipments, market penetration, and average sale prices.

The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls over the Company's sales-based licensing revenue estimation process, including controls over (1) the review of historical data, (2) third-party industry expectations for shipments of units, (3) the estimated percentage of market penetration, and (4) estimated average sales prices. We tested the Company's process to develop the sales-based licensing revenue estimate. Specifically, we evaluated the sources of the historical data and assumptions that the Company used by considering their relevance and reliability. We performed sensitivity analyses over key assumptions to assess the impact on the sales-based licensing revenue estimate of reasonably possible changes to the assumptions. In addition, we compared the Company's historical sales-based licensing revenue estimates to actual sales-based licensing royalties

received from licensees during the year, to assess the Company's ability to accurately estimate.

We have served as the Company's auditor since 2002.

/s/ KPMG LLP

San Francisco, California November 22, 2019

DOLBY LABORATORIES, INC. CONSOLIDATED BALANCE SHEETS

(in thousands, except share and per share amounts)

	September 27, 2019	September 28, 2018 (as adjusted)
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 797,210	\$ 918,063
Restricted cash	8,383	7,187
Short-term investments	119,146	178,138
Accounts receivable, net of allowance for doubtful accounts of \$9,775 and \$5,258	189,115	166,133
Contract assets	195,651	165,959
Inventories, net	32,331	26,206
Prepaid expenses and other current assets	39,704	34,890
Total current assets	1,381,540	1,496,576
Long-term investments	179,587	187,782
Property, plant and equipment, net	537,432	514,182
Intangible assets, net	180,891	184,019
Goodwill	334,829	327,982
Deferred taxes	114,075	74,766
Other non-current assets	93,395	80,080
Total assets	\$2,821,749	\$2,865,387
LIABILITIES AND STOCKHOLDERS' EQUITY Current liabilities: Accounts payable	\$ 15,212	\$ 21,922
Accrued liabilities	268,144	243,128
Income taxes payable	3,506	2,680
Contract liabilities	19,991	17,468
Total current liabilities	306,853	285,198
Non-current contract liabilities	24,404	25,887
Other non-current liabilities	177,462	183,799
Total liabilities Stockholders' equity:	508,719	494,884
Class A, \$0.001 par value, one vote per share, 500,000,000 shares authorized: 63,911,270 shares issued and outstanding at September 27, 2019 and 63,978,752 at September 28, 2018	58	61
issued and outstanding at September 27, 2019 and 39,261,035 at September 28, 2018	41	41
Additional paid-in capital	_	66,127
Retained earnings	2,327,877	2,313,539
Accumulated other comprehensive (loss)	(20,625)	(15,832)
Total stockholders' equity—Dolby Laboratories, Inc.	2,307,351	2,363,936
Controlling interest	5,679	6,567
Total stockholders' equity	2,313,030	2,370,503
Total liabilities and stockholders' equity	\$2,821,749	\$2,865,387

DOLBY LABORATORIES, INC. CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share amounts)

	Fiscal Year Ended				
	September 27, 2019	September 28, 2018 (as adjusted)	September 29, 2017 (as adjusted)		
Revenue:					
Licensing	\$1,107,280	\$ 940,777	\$ 965,864		
Products and services	134,340	113,823	114,313		
Total revenue	1,241,620	1,054,600	1,080,177		
Cost of revenue:					
Cost of licensing	57,531	42,583	39,329		
Cost of products and services	103,323	84,979	79,200		
Total cost of revenue	160,854	127,562	118,529		
Gross margin	1,080,766	927,038	961,648		
Operating expenses:					
Research and development	237,871	236,794	233,312		
Sales and marketing	343,835	309,762	296,661		
General and administrative	205,425	197,423	171,686		
Restructuring charges/(credits)	36,558	(446)	12,856		
Total operating expenses	823,689	743,533	714,515		
Operating income	257,077	183,505	247,133		
Other income/expense:					
Interest income	24,919	18,970	9,577		
Interest expense	(170)	(198)	(127)		
Other income/(expense), net	481	(5,903)	(1,438)		
Total other income	25,230	12,869	8,012		
Income before income taxes	282,307	196,374	255,145		
Provision for income taxes	(26,802)	(154,069)	(48,039)		
Net income including controlling interest	255,505	42,305	207,106		
Less: net (income) attributable to controlling interest	(354)	(559)	(625)		
Net income attributable to Dolby Laboratories, Inc.	\$ 255,151	\$ 41,746	\$ 206,481		
Net income per share:					
Basic	\$ 2.51	\$ 0.40	\$ 2.03		
Diluted	\$ 2.44	\$ 0.39	\$ 2.00		
Weighted-average shares outstanding:					
Basic	101,629	103,377	101,784		
Diluted	104,572	106,978	103,286		
Related party rent expense and restructuring charges:					
Included in operating expenses	\$ 16,360	\$ 3,483	\$ 3,142		
Included in net income attributable to controlling interest	\$ 572	\$ 712	\$ 702		
Cash dividend declared per common share	\$ 0.79	\$ 0.67	\$ 0.58		
Cash dividend paid per common share	\$ 0.76	\$ 0.64	\$ 0.56		

See accompanying notes to consolidated financial statements

DOLBY LABORATORIES, INC. CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(in thousands)

	F	Fiscal Year Ended			
	September 27, 2019	September 28, 2018 (as adjusted)	September 29, 2017 (as adjusted)		
Net income including controlling interest	\$255,505	\$42,305	\$207,106		
Currency translation adjustments, net of tax of (\$439), \$106, and \$(621) Unrealized gains/(losses) on investments, net of tax of \$58, \$89, and \$38	(10,166) 5,146	(5,578) (2,571)	3,653 (1,119)		
Total other comprehensive income/(loss), net of tax	(5,020)	(8,149)	2,534		
Total comprehensive income	250,485 (127)	34,156 (489)	209,640 (715)		
Comprehensive income attributable to Dolby Laboratories, Inc	\$250,358	\$33,667	\$208,925		

DOLBY LABORATORIES, INC. CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(in thousands)

Dolby Laboratories, Inc.

				Dono	y Laborator	ics, iiic.				
	Clas		Clas		, PYG	Retained		Total Stockholders'		
	Shares	Amount	Shares	Amount	APIC	Earnings	AOCI	Equity	Interest	Total
Balance at September 30, 2016 (as adjusted) (1)	57,018	\$ 57	44,404	\$ 44	\$ 42,032	\$2,188,526	\$(10,197)	\$2,220,462	\$ 8,479	\$2,228,941
Net income	_	_	_	_	_	206,481		206,481	625	207,106
Other comprehensive income, net of tax	_	_	_	_		_	2,444	2,444	90	2,534
Distributions to controlling interest		_	_	_		_	_		(2,094)	(2,094)
Stock-based compensation expense	_	_	_	_	65,343	_	_	65,343	_	65,343
Repurchase of common stock		(2)	_	_	(99,998)	_	_	(100,000)	_	(100,000)
Cash dividends declared and paid on common stock	_	_	_	_		(57,059)	_	(57,059)	_	(57,059)
Tax benefit from employee stock plans		_	_	_	1,634	_	_	1,634	_	1,634
Common stock issued under employee stock plans		2	_	_	69,996	_	_	69,998	_	69,998
Tax withholdings on vesting of restricted stock		_	_	_	(17,676)	_	_	(17,676)	_	(17,676)
Common stock transfers—Class B to Class A	1,530	1	(1,530)	(1)						
Balance at September 29, 2017 (as adjusted)	59,282	58	42,874	43	61,331	2,337,948	(7,753)	2,391,627	7,100	2,398,727
Net income		_	_	_	_	41,746	_	41,746	559	42,305
Other comprehensive income, net of tax	_	_	_	_	_	_	(8,079)	(8,079)	(70)	(8,149)
Distributions to controlling interest		_	_	_	_	_	_	_	(1,022)	(1,022)
Stock-based compensation expense	_	_	_	_	71,249	_	_	71,249	_	71,249
Repurchase of common stock	(2,381)	(2)	_	_	(150,468)	_	_	(150,470)	_	(150,470)
Cash dividends declared and paid on common stock		_	_	_	_	(66,155)	_	(66,155)	_	(66,155)
Tax benefit from employee stock plans	_	_	_	_	_	_	_	_	_	_
Common stock issued under employee stock plans		3	_	_	106,159	_	_	106,162	_	106,162
Tax withholdings on vesting of restricted stock	(358)	_	_	_	(22,144)	_	_	(22,144)	_	(22,144)
Common stock transfers—Class B to Class A	3,613	2	(3,613)	(2)	_		_	_	_	
Balance at September 28, 2018 (as adjusted)	63,979	61	39,261	41	66,127	2.313.539	(15.832)	2,363,936	6,567	2,370,503
Net income		_	_	_	_	255,151		255,151	354	255,505
Other comprehensive income, net of tax		_	_	_	_	_	(4,793)	(4,793)	(227)	(5,020)
Distributions to controlling interest		_	_	_	_	_			(1,015)	(1,015)
Stock-based compensation expense			_	_	76,580	_	_	76,580		76,580
Repurchase of common stock	(5,268)	(4)	_	_	(177, 264)	(163,317)	_	(340,585)	_	(340,585)
Cash dividends declared and paid on common stock			_	_		(77,496)	_	(77,496)	_	(77,496)
Tax benefit from employee stock plans		_	_	_	_		_	_	_	_
Common stock issued under employee stock plans		1	_	_	57,345	_	_	57,346	_	57,346
Tax withholdings on vesting of restricted stock		_	_	_	(22,788)	_	_	(22,788)		(22,788)
Common stock transfers—Class B to Class A		_	(3,031)	_	_	_	_	_	_	_
Balance at September 27, 2019	63,911	\$ 58	36,230	\$ 41	\$ —	\$2,327,877	\$(20,625)	\$2,307,351	\$ 5,679	\$2,313,030

⁽¹⁾ The cumulative effect of the adoption of ASU 2014-09, *Revenue from Contracts with Customers ("ASC 606")* resulted in an adjustment to retained earnings of \$250.2 million as of September 30, 2016.

DOLBY LABORATORIES, INC. CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)

	Fiscal Year Ended				
			September 29,		
	September 27, 2019	(as adjusted)	2017 (as adjusted)		
Operating activities:					
Net income including controlling interest	\$ 255,505	\$ 42,305	\$ 207,106		
Depreciation and amortization	85,123	81,283	84,308		
Stock-based compensation	76,580	71,249	65,343		
Amortization of premium on investments	358	2,473	2,758		
Provision for doubtful accounts	4,523	2,413	924		
Deferred income taxes Restructuring charge for exit of leased facility	(40,191) 33,251	61,059	(35,046)		
Other non-cash items affecting net income		7,570	2,886		
Changes in operating assets and liabilities:					
Accounts receivable, net	(27,492)	100,129	(56,559)		
Contract assets	(29,708)	(2,502)	(5,519)		
Inventories	(16,098)	(6,602)	(11,922)		
Prepaid expenses and other assets		(52,485)	(12,302)		
Accounts payable and accrued liabilities		(29,019)	103,505		
Income taxes, net	(2,186)	39,738	26,950		
Contract liabilities	1,084	(59)	4,980		
Other non-current liabilities	(13,996)	34,650	381		
Net cash provided by operating activities	327,674	352,202	377,793		
Investing activities:					
Purchases of investment securities	(265,361)	(174,195)	(289,530)		
Proceeds from sales of investment securities	200,636	123,058	84,047		
Proceeds from maturities of investment securities	136,951	237,432	152,324		
Purchases of property, plant, and equipment		(72,814)	(99,617)		
Payments for business acquisitions, net of cash acquired	(14,919)	(22,852)	_		
Purchase of intangible assets	(17,255)	(12,543)	(5,250)		
Net cash provided by/(used in) investing activities	(56,229)	78,086	(158,026)		
Financing activities:					
Proceeds from issuance of common stock	57,346	106,162	69,998		
Repurchase of common stock	(340,585)	(150,470)	(100,000)		
Payment of cash dividend	(77,496)	(66,155)	(57,059)		
Distribution to controlling interest	(1,015)	(1,022)	(2,094)		
Shares repurchased for tax withholdings on vesting of restricted stock	(22,788)	(22,144)	(17,676)		
Payment of deferred consideration for prior business combination	(743)				
Net cash used in financing activities	(385,281)	(133,629)	(106,831)		
Effect of foreign exchange rate changes on cash, cash equivalents, and					
restricted cash	(5,821)	(5,777)	1,675		
Net increase/(decrease) in cash, cash equivalents, and restricted cash	(119,657) 925,250	290,882 634,368	114,611 519,757		
Cash, cash equivalents, and restricted cash at end of period	\$ 805,593	\$ 925,250	\$ 634,368		
Supplemental disclosure: Cash paid for income taxes, net of refunds received	\$ 59,722	\$ 60,875	\$ 56,760		
	•	•	•		
Non-cash investing and financing activities:	\$ (224)	\$ 7,990	\$ (0.612)		
Property, plant, and equipment purchased and unpaid at period-end Purchase consideration payable for acquisition	\$ (324) \$ 1,700	\$ 7,990 \$ 3,750	\$ (9,613) \$ —		
Purchase consideration payable for intangibles		\$ 3,730	\$ — \$ —		
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DOLBY LABORATORIES, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Basis of Presentation

Principles of Consolidation

The consolidated financial statements include the accounts of Dolby Laboratories, Inc. and our wholly owned subsidiaries. In addition, we have consolidated the financial results of jointly owned affiliated companies in which our principal stockholder has a controlling interest. We report these controlling interests as a separate line in our consolidated statements of operations as net income attributable to controlling interest and in our consolidated balance sheets as a controlling interest. We eliminate all intercompany accounts and transactions upon consolidation.

Use of Estimates

The preparation of our financial statements in accordance with U.S. GAAP requires management to make certain estimates and assumptions that affect the amounts reported and disclosed in our consolidated financial statements and accompanying notes. Actual results could differ from our estimates. Significant items subject to such estimates and assumptions include:

- · Estimates of sales-based royalty revenue that has not been reported by our licensees at period end
- Estimation of variable consideration from our customers
- Estimated standalone selling prices of distinct performance obligations in an customer contract
- Valuation allowances for accounts receivable
- · Carrying values of inventories and certain PP&E, goodwill, and intangible assets
- Fair values of investments
- Accrued liabilities, including liabilities for unrecognized tax benefits
- Deferred income tax assets and liabilities
- Stock-based compensation

Fiscal Year

Our fiscal year is a 52 or 53 week period ending on the last Friday in September. The fiscal years presented herein include the 52 week periods ended September 27, 2019 (fiscal 2019), September 28, 2018 (fiscal 2018), and September 29, 2017 (fiscal 2017).

Reclassifications

We have reclassified certain prior period amounts within our consolidated financial statements and accompanying notes to conform to our current period presentation. These reclassifications did not affect total revenue, operating income, operating cash flows or net income.

2. Summary of Significant Accounting Policies

Concentration of Credit Risk

Our financial instruments that are exposed to concentrations of credit risk principally consist of cash, cash equivalents, investments, and accounts receivable. Our investment portfolio consists of investment grade securities diversified amongst security types, industries, and issuers. All our securities are held in custody by a recognized financial institution. Our policy limits the amount of credit exposure to a maximum of 5% to any one issuer, except for the U.S. Treasury, and we believe no significant concentration risk exists with respect to these investments. The majority of our licensing revenue is generated from customers outside of the U.S. We manage this risk by performing

regular evaluations of the creditworthiness of our licensing customers. In fiscal 2019, 2018, and 2017, we did not have any individual customers whose revenue exceeded 10% of our total revenue.

Cash and Cash Equivalents

We consider all short-term highly liquid investments with original maturities of 90 days or less from the date of purchase to be cash equivalents. Cash and cash equivalents primarily consist of funds held in general checking accounts, money market accounts, commercial paper, and government bonds.

Restricted Cash

Restricted cash on our consolidated balance sheets consists of cash contributed by Dolby and third-party licensors to Via Licensing Corporation, our wholly-owned subsidiary, that may only be used for licensor enforcement actions or licensee compliance activities related to certain Via-administered patent pools, as well as to disperse costs associated with any audit of Via Licensing Corporation for the Wideband Code Division Multiple Access (W-CDMA) patent pool.

Investments

All of our investments are classified as available-for-sale securities, with the exception of our mutual fund investments held in our supplemental retirement plan, which are classified as trading securities. Investments that have an original maturity of 91 days or more at the date of purchase and a current maturity of less than one year are classified as short-term investments, while investments with a current maturity of more than one year are classified as long-term investments. Our investments are recorded at fair value in our consolidated balance sheets. Unrealized gains and losses on our AFS securities are reported as a component of AOCI, while realized gains and losses, other-than-temporary impairments, and credit losses are reported as a component of net income. Upon sale, gains and losses are reclassified from AOCI into earnings, and are determined based on specific identification of securities sold.

We evaluate our investment portfolio for credit losses and other-than-temporary impairments by comparing the fair value with the cost basis for each of our investment securities. An investment is impaired if the fair value is less than its cost basis. If any portion of the impairment is deemed to be the result of a credit loss, the credit loss portion of the impairment is included as a component of net income. If we deem it probable that we will not recover the full cost basis of the security, the security is other-than-temporarily impaired, and the impairment loss is recognized as a component of net income.

Allowance for Doubtful Accounts

We maintain a provision for estimated losses on receivables resulting from our customers' inability to make required payments. In determining the provision, we evaluate the collectability of our accounts receivable based upon a variety of factors. In cases where we are aware of circumstances that may impair a specific customer's ability to meet its financial obligations, we record a specific allowance against amounts due, and thereby reduce the net recognized receivable to the amount reasonably believed to be collectible. For all other customers, we recognize allowances for doubtful accounts based on our actual historical write-off experience in conjunction with the length of time the receivables are past due, geographic risk and the current business environment. Actual future losses from uncollectible accounts may differ from our estimates.

Inventories

Inventories are accounted for using the first-in, first-out method, and are valued at the lower of cost and net realizable value. We evaluate our ending inventories for estimated excess quantities and obsolescence. Our evaluation includes the analysis of future sales demand by product within specific time horizons. Inventories in excess of projected future demand are written down to their net realizable value. In addition, we assess the impact of changing technology on our inventory balances and write-off inventories that are considered obsolete. Write-downs and write-offs of inventory are recorded as a cost of products in our consolidated statements of operations. We classify inventory that we do not expect to sell within twelve months as other non-current assets in our consolidated balance sheets.

Property, Plant, and Equipment

PP&E is stated at cost less accumulated depreciation. Depreciation expense is recognized on a straight-line basis according to estimated useful lives assigned to each of our different categories of PP&E as summarized within the following table:

PP&E Category	Useful Life
Computer equipment and software	3 to 5 years
Machinery and equipment	3 to 8 years
Furniture and fixtures	5 to 8 years
Leasehold improvements	Lesser of useful life or related lease term
Equipment provided under operating leases	
Buildings and building improvements	

We capitalize certain costs incurred during the construction phase of a project or asset into construction-in-progress until the construction process is complete. Once the related asset is placed into service, we transfer its carrying value into the appropriate fixed asset category and begin depreciating the value over its useful life.

Equipment Provided Under Operating Leases. We account for our cinema equipment installed at third party sites under collaborative or other arrangements as operating leases, and depreciate these assets on a straight-line basis over their estimated useful life.

Internal Use Software. We account for the costs of computer software developed for internal use by capitalizing costs of materials and external consultants. These costs are included in PP&E, net of accumulated amortization in our consolidated balance sheets. Our capitalized internal use software costs are typically amortized on a straight-line basis over estimated useful lives of three to five years. Costs incurred during the preliminary project and post-implementation stages are charged to expense.

Goodwill, Intangible Assets, and Long-Lived Assets

We test goodwill for impairment annually during our third fiscal quarter and whenever events or changes in circumstances indicate that the carrying amount may be impaired. We perform a qualitative assessment as a determinant for whether the two-step annual goodwill impairment test should be performed.

In performing the qualitative assessment, we consider events and circumstances, including macroeconomic conditions, industry and market considerations, cost factors, overall financial performance, changes in management or key personnel, changes in strategy, changes in customers, changes in the composition or carrying amount of a reporting unit's net assets, and changes in the price of our common stock. If, after assessing the totality of events or circumstances, we determine that it is more likely than not that the fair value of a reporting unit is greater than its carrying amount, then the two-step goodwill impairment test is not performed.

If the two-step goodwill test is performed, we evaluate and test our goodwill for impairment at a reportingunit level using expected future cash flows to be generated by the reporting unit. If the carrying amount of a reporting unit exceeds its fair value, an impairment loss is recognized for any excess of the carrying amount of the reporting unit's goodwill over the calculated fair value of the goodwill. A reporting unit is an operating segment or one level below. Our operating segment is aligned with the management principles of our business. For fiscal 2019, we completed our annual goodwill impairment assessment in the fiscal quarter ended June 29, 2019. We determined in our qualitative review that it is more likely than not that the fair value of our reporting unit is substantially in excess of the respective carrying amount. Accordingly, there was no impairment, and the "Step One" goodwill impairment test was not required. We did not incur any goodwill impairment losses in any of the periods presented.

Intangible assets are stated at their original cost less accumulated amortization, and those with definite lives are amortized over their estimated useful lives. Our intangible assets principally consist of acquired technology, patents, trademarks, customer relationships and contracts, the majority of which are amortized on a straight-line basis over their useful lives using a range from three to eighteen years.

We review long-lived assets, including intangible assets, for impairment whenever events or a change in circumstances indicate an asset's carrying value may not be recoverable. Recoverability of an asset is measured by comparing its carrying value to the total future undiscounted cash flows that the asset is expected to generate. If it is determined that an asset is not recoverable, an impairment loss is recorded in the amount by which the carrying value of the asset exceeds its estimated fair value.

Revenue Recognition

We enter into revenue arrangements with our customers to license technologies, trademarks and patents for sound, imaging and voice solutions, and to sell products and services. We recognize revenue when we satisfy a performance obligation by transferring control over the use of a license, product, or service to a customer.

For additional financial information and a summary our accounting policy, refer to Note 3. "Revenue Recognition" to our consolidated financial statements.

Cost of Revenue

Cost of licensing. Cost of licensing primarily consists of amortization expenses associated with purchased intangible assets and intangible assets acquired in business combinations. Cost of licensing also includes IP royalty obligations to third parties, depreciation of our Dolby Cinema equipment provided under operating leases in collaborative arrangements, and direct fees incurred.

Cost of products and services. Cost of products primarily consists of the cost of materials related to products sold, applied labor, and manufacturing overhead. Our cost of products also includes third party royalty obligations paid to license IP that we include in our products. Cost of services primarily consists of the personnel and personnel-related costs of employees performing our professional services, and those of outside consultants, and reimbursable expenses incurred on behalf of customers.

Stock-Based Compensation

We measure expenses associated with all employee stock-based compensation awards using a fair-value method and record such expense in our consolidated financial statements on a straight-line basis over the requisite service period.

Advertising and Promotional Costs

Advertising and promotional costs are charged to S&M expense as incurred. Our advertising and promotional costs were as follows (in thousands):

	Fiscal Year Ended			
	September 27, 2019	September 28, 2018	September 29, 2017	
Advertising and promotional costs	\$49,118	\$49,519	\$47,402	

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Foreign Currency Activities

Foreign Currency Translation. We maintain business operations in foreign countries. We translate the assets and liabilities of our international subsidiaries, the majority of which are denominated in non-U.S. dollar functional currencies, into U.S. dollars using exchange rates in effect at the end of each period. Revenues and expenses of these subsidiaries are translated using the average rates for the period. Gains and losses from these translations are included in AOCI within stockholders' equity.

Foreign Currency Transactions. Certain of our foreign subsidiaries transact in currencies other than their functional currency. Therefore, we re-measure non-functional currency assets and liabilities of these subsidiaries using exchange rates at the end of each period. As a result, we recognize foreign currency transaction and re-measurement gains and losses, which are recorded within other income, net in our consolidated statements of operations. These losses were as follows (in thousands):

	Fiscal Year Ended			
	September 27, 2019	September 28, 2018	September 29, 2017	
Foreign currency transaction (losses)	\$(260)	\$(823)	\$(74)	

Foreign Currency Exchange Risk. In an effort to reduce the risk that our earnings will be adversely affected by foreign currency exchange rate fluctuations, we enter into foreign currency forward contracts to hedge against assets and liabilities for which we have foreign currency exchange rate exposure. These derivative instruments are carried at fair value with changes in the fair value recorded to other income/(expense), net, in our consolidated statements of operations. While not designated as hedging instruments, these foreign currency forward contracts are used to reduce the exchange rate risk associated primarily with intercompany receivables and payables. These contracts do not subject us to material balance sheet risk due to exchange rate movements as gains and losses on these derivatives are intended to offset gains and losses on the related receivables and payables for which we have foreign currency exchange rate exposure. As of September 27, 2019 and September 28, 2018, the outstanding derivative instruments had maturities of equal to or less than 31 days and 31 days, respectively, and the total notional amounts of outstanding contracts were \$29.0 million and \$25.1 million, respectively. The fair values of these contracts were nominal as of September 27, 2019 and September 28, 2018, and were included within prepaid expenses and other current assets and within accrued liabilities in our consolidated balance sheets.

Income Taxes

We use the asset and liability method, under which deferred income tax assets and liabilities are determined based upon the difference between the financial statement carrying amounts and the tax bases of assets and liabilities, and NOL carryforwards are measured using the enacted tax rate expected to apply to taxable income in the years in which the differences are expected to be reversed. In assessing the realizability of deferred tax assets, we consider whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The realization of deferred tax assets is additionally dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. We consider the scheduled reversal of deferred tax liabilities and projected future taxable income in making this assessment, and we record a valuation allowance to reduce our deferred tax assets when it's more-likely-than-not that some portion or all of the deferred tax assets will not be realized.

We record an unrecognized tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by the tax authorities. We include interest and penalties related to gross unrecognized tax benefits within our provision for income taxes. To the extent accrued interest and penalties do not ultimately become payable, amounts accrued are reduced in the period that such determination is made and are reflected as a reduction of the overall income tax provision.

Repatriation of Undistributed Foreign Earnings. The Tax Cuts and Jobs Act of 2017 ("the Tax Act"), provides an exemption from federal income taxes for distributions by foreign subsidiaries made after December 31, 2017 that were not subject to the transition tax. Therefore, we have provided for U.S. state income taxes and foreign withholding taxes on undistributed earnings of certain foreign subsidiaries to the extent such earnings are no longer considered to be indefinitely reinvested in the operations of those subsidiaries. We consider the earnings of certain foreign subsidiaries to be indefinitely reinvested outside the U.S. on the basis of

estimates that future domestic cash generation will be sufficient to meet future domestic cash needs, and our specific plans for reinvestment of those subsidiary earnings.

Recently Issued Accounting Standards

We continually assess any ASUs or other new accounting pronouncements issued by the FASB to determine their applicability and impact on us. Where it is determined that a new accounting pronouncement will result in a change to our financial reporting, we take the appropriate steps to ensure that such changes are properly reflected in our consolidated financial statements or notes thereto.

Adopted Standards

At the beginning of fiscal 2019, we adopted the following standards:

Revenue Recognition. We adopted ASU 2014-09, Revenue from Contracts with Customers ("ASC 606"), which outlines a comprehensive revenue recognition model. The standard requires revenue recognition to account for the transfer of promised goods or services to customers in an amount that reflects the consideration to which we expect to be entitled in exchange for those goods or services, and in our case, requires the use of more judgment and estimates than the previous accounting requirements. ASC 606 also includes Subtopic 340-40, Other Assets and Deferred Costs—Contracts with Customers, under which the incremental costs associated with obtaining a contract are required to be capitalized and amortized as expense as the contract's performance obligations are satisfied. We do not capitalize sales commission costs because our performance obligations on which we pay commissions are complete at contract execution.

We adopted ASC 606 utilizing the full retrospective method of transition which requires a recast of each prior reporting period presented. The most significant impacts of adopting ASC 606 are as follows:

- We estimate and record per-unit royalty-based revenue earned from our licensees' shipments in the same period in which those shipments occur, instead of recognizing our per-unit royalty-based revenue in the quarter in which it is reported to us by our licensees, which is generally in the quarter after those shipments have occurred. To the extent that our revenues are influenced by seasonal trends, the trends will impact revenue one fiscal quarter earlier than was previously the case;
- We record a favorable or unfavorable adjustment based on the difference between estimated and actual sales when we receive reporting of sales—based royalties on royalty statements from the licensees, generally in the subsequent fiscal quarter;
- For certain transactions that have extended payment and minimum commitment terms with no further performance obligations, we recognize licensing revenues on the later of contract execution or effective date regardless of when the amounts are due and payable;
- We recorded a one-time adjustment of \$174.4 million to the period ending September 29, 2018 retained earnings to reflect the full impact of the accounting upon adoption.

We adjusted our consolidated financial statements from amounts previously reported to reflect the adoption of the new standard. Select condensed consolidated statement of income line items, which reflect the adoption of the new standard, are as follows (in thousands, except per share data):

Fiscal Y	ear-To-	Date	Ended
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	September 28, 2018 (as previously reported)	Effect of Adopting ASC 606	September 28, 2018 (as adjusted)
Revenue	\$1,171,924	\$(117,324)	\$1,054,600
Gross margin	1,043,664	(116,626)	927,038
Provision for income taxes	(190,062)	35,993	(154,069)
Net income attributable to Dolby Laboratories, Inc		(80,500)	41,746
Diluted earnings per share	\$ 1.14	\$ (0.75)	\$ 0.39

Select consolidated balance sheet line items, which reflect the adoption of the new standard, are as follows (in thousands):

	September 28, 2018 (as previously reported)	Effect of Adopting ASC 606	September 28, 2018 (as adjusted)
ASSETS			
Accounts receivable, net	\$ 137,151	\$ 28,982	\$ 166,133
Contract assets	_	165,959	165,959
Prepaid expenses and other current assets	35,209	(319)	34,890
Deferred taxes	101,070	(26,304)	74,766
Other non-current assets	42,280	37,800	80,080
LIABILITIES AND STOCKHOLDERS' EQUITY			
Accrued liabilities	223,594	19,534	243,128
Contract liabilities	23,931	(6,463)	17,468
Non-current contract liabilities	40,064	(14,177)	25,887
Other non-current liabilities	150,960	32,839	183,799
Retained earnings	2,139,154	174,385	2,313,539

Select consolidated statement of cash flows line items, which reflect the adoption of the new standard, are as follows (in thousands):

	Fiscal Year-to-Date Ended			
	September 28, 2018 (as previously reported) ¹	Effect of Adopting ASC 606	September 28, 2018 (as adjusted)	
Operating activities:				
Net income including controlling interest	\$122,805	\$ (80,500)	\$ 42,305	
Adjustments to reconcile net income to net cash				
provided by operating activities:				
Provision for doubtful accounts	2,507	(94)	2,413	
Deferred income taxes	89,934	(28,875)	61,059	
Changes in operating assets and liabilities:				
Accounts receivable	(65,723)	165,852	100,129	
Contract assets	_	(2,502)	(2,502)	
Prepaid expenses and other assets	(14,895)	(37,590)	(52,485)	
Accounts payable and other liabilities	15,690	(44,709)	(29,019)	
Contract liabilities	4,362	(4,421)	(59)	
Other non-current liabilities	1,811	32,839	34,650	
Net cash provided by operating activities	352,202		352,202	

Previously reported statement of cash flows in the table above reflects the adoption of ASU 2016-18. The impact to our previously reported condensed consolidated statement of cash flows is not material. Refer to disclosure below for further detail.

In our adoption and as allowed by ASC 606, we:

• used the transaction price at the date on which the contract was completed rather than estimating variable consideration amounts in the comparative reporting period;

- did not disclose the amount of the transaction price allocated to the remaining performance obligations or provide an explanation of when we expect to recognize that amount as revenue for reporting periods presented before the date of initial adoption;
- reflected the aggregate effect of contract modifications in accounting for the contracts open as of the earliest reporting period presented;
- did not adjust transaction prices for the effects of a significant financing component, if at contract
 inception, we expected the period between customer payment and the transfer of goods or services to
 be one year or less.

We adopted Accounting Standards Update No. 2016-08, Revenue from Contracts with Customers ("ASC 606"), Principal versus Agent Considerations (Reporting Revenue Gross versus Net) ("ASU 2016-08"), which amended the principal-versus-agent implementation guidance and illustrations in ASU 2014-09. ASU 2016-08 clarifies that an entity should evaluate when it is the principal or agent for each specified good or service promised in a contract with a customer. We evaluated our contracts executed with and on our behalf with Via Licensing Corporation, our whollyowned subsidiary that manages patent pools on behalf of third party patent owners and concluded that Via performs its functions as an agent to the patent pool licensors, which includes Dolby. Accordingly, we recognize our administrative fees and royalties net of the consideration paid to the patent licensors in the pool.

Cash Flow Classification. During the first quarter of fiscal 2019, we adopted ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments. The new standard addresses eight specific cash flow issues related to the classification and presentation of cash receipts and payments in the statement of cash flows. The adoption of these updates did not have a material impact on Dolby's consolidated financial statements.

Income Taxes: Intra-Entity Asset Transfers. During the first quarter of fiscal 2019, we adopted ASU 2016-16, Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory. The new standard requires the recognition of the income tax consequences of an intercompany asset transfer, other than transfers of inventory, when the transfer occurs. For intercompany transfers of inventory, the income tax effects will continue to be deferred until the inventory has been sold to a third party. The adoption of the guidance did not have a material impact on Dolby's consolidated financial statements.

Restricted Cash. During the first quarter of fiscal 2019, we adopted ASU 2016-18, Restricted Cash—a consensus of the FASB Emerging Issues Task Force, which clarifies how entities should present restricted cash and restricted cash equivalents in the statement of cash flows. The new standard requires entities to show the changes in the total of cash, cash equivalents, restricted cash and restricted cash equivalents in the statement of cash flows. We adopted the new guidance using the retrospective transition approach. The reclassified restricted cash balances from investing activities to changes in cash, cash equivalents, and restricted cash on the consolidated statements of cash flows were not material for all periods presented. The adjusted consolidated statement of cash flows for the prior comparative period has been reclassified as a result of the adoption of the new standard.

Accounting for Hedging Activities. During the first quarter of fiscal 2019, we adopted ASU 2017-12, Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities. The new standard eliminates the requirement to separately measure and report hedge ineffectiveness. In the third quarter of fiscal 2019, we implemented a cash flow hedging program using forward currency contracts. This standard applies to the presentation and disclosure of the cash flow hedging program, which was not material in relation to our consolidated financial statements as a whole. The adoption of the standard did not have a material impact on Dolby's consolidated financial statements.

Standards Not Yet Adopted

Leases. In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, which amends the existing accounting standards for leases. Under the new standard, a lessee will be required to recognize a lease liability and right-of-use asset for most leases. The new standard also modifies the classification criteria and accounting for

sales-type and direct financing leases, and requires additional disclosures to enable users of financial statements to understand the amount, timing, and uncertainty of cash flows arising from leases.

We will adopt the new standard using the modified retrospective transition method, thereby recognizing the cumulative effect of initially applying Topic 842 as an adjustment to opening retained earnings on the adoption date, without revising the balances in comparative periods. We have evaluated the impact of Topic 842, and upon adoption, we will recognize a lease liability and right-of-use asset for each of our existing lease arrangements, which we anticipate to be material on our consolidated balance sheet. Adoption of the standard will not have a material impact on our consolidated income statement or our consolidated statement of cash flow.

We plan to elect to utilize the transition guidance within the new standard which allows us to retain the historical lease classification and initial direct costs for any leases that exist prior to adoption of the standard. All new leases executed subsequent to adoption will be evaluated, and accounted for under Topic 842. ASU 2016-02 is effective for Dolby beginning September 28, 2019. We are still completing our assessment of the remaining lease term of our existing leases, assessing the completeness of our population of leases, and finalizing our determination of the discount rate used to calculate the right of use asset and lease liability.

Income Taxes: Comprehensive Income. On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act ("Tax Act"). In February 2018, the FASB issued ASU 2018-02, Income Statement—Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects From Accumulated Other Comprehensive Income, which allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Act and requires entities to provide certain disclosures regarding stranded tax effects. The ASU is effective for Dolby beginning September 28, 2019. We do not believe that this standard will have a material impact on our consolidated financial statements.

Collaborative Arrangements. In November 2018, the FASB issued ASU 2018-18, Collaborative Arrangements (Topic 808): Clarifying the Interaction between Topic 808 and Topic 606, which clarifies that certain transactions between participants in a collaborative arrangement should be accounted for under ASC 606 when the counterparty is a customer. In addition, ASU 2018-18 precludes an entity from presenting consideration from a transaction in a collaborative arrangement as revenue from contracts with customers if the counterparty is not a customer for that transaction. This standard will be effective for Dolby beginning September 26, 2020, and we do not currently plan to early adopt. We do not believe that this standard will have a material impact on our consolidated financial statements.

Financial Instruments. In June 2016, the FASB issued ASU 2016-13, Financial Instruments (Topic 326): Measurement of Credit Losses on Financial Instruments, which modifies the measurement of expected credit losses of certain financial instruments, including trade receivables, contract assets, and lease receivables. This standard will be effective for Dolby beginning September 26, 2020, and we do not currently plan to early adopt. We do not believe that this standard will have a material impact on our consolidated financial statements.

3. Revenue Recognition

We enter into revenue arrangements with our customers to license technologies, trademarks and patents for sound, imaging and voice solutions, and to sell products and services. We recognize revenue when we satisfy a performance obligation by transferring control over the use of a license, product, or service to a customer.

A. Identification of the Contract or Contracts with Customers

We generally determine that a contract with a customer exists upon the execution of an agreement and after consideration of collectability, which could include an evaluation of the customer's payment history, the existence of a standby letter-of-credit between the customer's financial institution and our financial institution, public financial information, and other factors. At contract inception, we also evaluate whether two or more non-standard agreements with a customer should be combined and accounted for as a single contract.

B. Identification of Performance Obligations in a Contract

We generate revenues principally from the following sources, which represent performance obligations in our contracts with customers:

- *Licensing*. We license our technologies, including patents, to a range of customers who incorporate them into their products for enhanced audio, imaging and voice functionality across broadcast, mobile, CE, PC, gaming, and other markets.
- *Product Sales*. We design and provide audio and imaging products for the cinema, television, broadcast, communications, and entertainment industries.
- *Services.* We provide various services to support theatrical and television production for cinema exhibition, broadcast, and home entertainment, including equipment training, mixing room alignment, equalization, as well as audio, color and light image calibration.
- *PCS*. We provide PCS for products sold and for the equipment leased, and we support the implementation of our licensing technologies in our licensees' products.
- Equipment Leases. We collaborate with established cinema exhibitors to offer Dolby Cinema, a
 branded premium cinema offering for movie audiences by leasing equipment and licensing our
 intellectual property.
- *Licensing Administration Fees.* We generate service fees for managing patent pools on behalf of third party patent owners through our wholly-owned subsidiary, Via Licensing Corporation.

Some of our revenue arrangements include multiple performance obligations, such as hardware, software, support and maintenance, and extended warranty services. We evaluate whether promised products and services are distinct performance obligations.

The majority of our arrangements with multiple performance obligations pertain to our digital cinema server and processor sales that include the following distinct performance obligations to which we allocate portions of the transaction price based on their stand-alone selling price:

- Digital cinema server hardware and embedded software, which is highly dependent on and highly interrelated with the hardware. Accordingly, the hardware and embedded software represent a single performance obligation.
- The right to support and maintenance, which is included with the purchase of the digital cinema server hardware, is a distinct performance obligation.
- The right to receive commissioning services is a distinct performance obligation within the sale of the Dolby Atmos Cinema Processor. These services consist of the review of venue designs specifying proposed speaker placement as well as calibration services performed for installed speakers to ensure optimal playback.

C. Determination of Transaction Price for Performance Obligations in a Contract

After identifying the distinct performance obligations, we determine the transaction price in accordance with the terms of the underlying executed contract which may include variable consideration such as discounts, rebates, refunds, rights of returns, and incentives. We assess and update, if necessary, the amount of variable consideration to

which we are entitled for each reporting period. At the end of each reporting period, we estimate and accrue a liability for returns and adjustments as a reduction to revenue based on several factors, including past returns history.

With the exception of our sales-based royalties, we evaluate whether a significant financing component exists when we recognize revenue in advance of customer payments that occur over time. For example, some of our licensing arrangements include payment terms greater than one year from when we transfer control of our IP to a licensee and the receipt of the final payment for that IP. If a significant financing component exists, we classify a portion of the transaction price as interest income, instead of recognizing all of the transaction price as revenue. We do not adjust the transaction price for the effects of financing if, at contract inception, the period between the transfer of control to a customer and final payment is expected to be one year or less.

D. Allocation of Transaction Price to Distinct Performance Obligations in a Contract

For our sales-based royalties where the license is the predominant item to which the royalties relate, we present all revenues as licensing.

For revenue arrangements that include multiple performance obligations, we determine the stand-alone selling price for each distinct performance obligation based on the actual selling prices made to customers. If the performance obligation is not sold separately, we estimate the stand-alone selling price. We do so by considering market conditions such as competitor pricing strategies, customer specific information and industry technology lifecycles, internal conditions such as cost and pricing practices, or applying the residual approach method when the selling price of the good, most commonly a license, is highly variable or uncertain.

Once the transaction price—including any variable consideration—has been determined, we allocate the transaction price to the performance obligations identified in the contract, and recognize revenue as or when control is transferred for each distinct performance obligation.

E. Revenue Recognition as Control is Transferred to a Customer

We generate our licensing revenue by licensing our technologies and patents to various types of licensees, such as chip manufacturers ("implementation licensees"), consumer product manufacturers, software vendors, and communications service providers. Our revenue recognition policies for each of these arrangements are summarized below.

Initial fees from implementation licensees. Implementation licensees incorporate our technologies into their chipsets that, once approved by Dolby, are available for purchase by OEMs for use in end-user products. Implementation licensees only pay us a nominal initial fee on contract execution as consideration for the ongoing services that we provide to assist in their implementation process. Revenues from these initial fees are recognized ratably over the contractual term as a component of licensing revenue.

Sales-based licensing fees. In our royalty bearing licensing agreements with OEMs, control is transferred upon the later of contract execution or the contract's effective date. We apply the royalty exception, which requires that we recognize sales-based royalties at the later of when the sales occur based on our estimates or the completion of our performance obligations. These estimates involve the use of historical data and judgment for several key attributes including industry estimates of expected shipments, the percentage of markets using our technologies, and average sale prices. Generally, our estimates represent the current period's shipments to which we expect our licensees to submit royalty statements in the following quarter. Upon receipt of royalty statements from the licensees with the actual reporting of sales-based royalties that we estimated previously, we record a favorable or unfavorable adjustment based on the difference, if any, between estimated and actual sales. In the fourth quarter of fiscal 2019, we recorded a favorable adjustment of approximately \$9 million, which was primarily related to January through March shipments and largely based on actual royalty statements received from licensees.

Fixed and guaranteed licensing fees. In certain cases, our arrangements require the licensee to pay fixed, non-refundable fees independent of the actual number of units they may distribute in the future. In these cases, control is

transferred and fees are recognized upon the later of contract execution or the effective date. Additionally and separate from initial fees from implementation licensees, our sales- and usage-based licensing agreements include a nominal fee, which is also recognized at a point in time in which control of the IP has been transferred. Revenues from these arrangements are included as a component of licensing revenue.

Recoveries. Through compliance efforts, we identify under-reported licensed activity related to non-current periods. We may record a favorable or unfavorable revenue adjustment in connection with the findings from these compliance efforts generally upon resolution with the licensee through agreement of the findings, or upon receipt of the licensee's correction statement. Revenues from these arrangements are included as a component of licensing revenue.

We undertake activities aimed at identifying potential unauthorized uses of our technologies, which when successful result in the recognition of revenue. Recoveries stem from third parties who agree to remit payments to us based on past use of our technology. In these scenarios, a legally binding contract did not exist at time of use of our technology, and therefore, we recognize revenue recoveries upon execution of the agreement as that is the point in time to which a contract exists and control is transferred. These revenues are classified as licensing revenue.

In general, we classify legal costs associated with activities aimed at identifying potential unauthorized uses of our technologies, auditing existing licensees, and on occasion, pursuing litigation as S&M in our consolidated statements of operations.

We recognize licensing revenue gross of withholding taxes, which our licensees remit directly to their local tax authorities, and for which we receive a partial foreign tax credit in our income tax provision.

In addition to our licensing arrangements, we also enter into arrangements to deliver products and services.

Product Sales. Revenue from the sale of products is recognized when the customer obtains control of the promised good or service, which is generally upon shipment. Payments are generally made within 90 days of sale

Services. We provide various services, such as engineering services related to movie soundtrack print mastering, equipment training and maintenance, mixing room alignment, equalization, and image calibration, which we bill on a fixed fee and time and materials basis. Most of these services are of a short duration and are recognized as control of the performance obligations are transferred which is when the related services are performed.

Collaborative Arrangements. We collaborate with established cinema exhibitors to offer Dolby Cinema, a branded premium cinema offering for movie audiences. Under such collaborations, Dolby and the exhibitor are both active participants, and share the risks and rewards associated with the business. Accordingly, these collaborations are governed by revenue sharing arrangements under which Dolby receives revenue based on monthly box office reports from exhibitors in exchange for the use of our imaging and sound technologies, our proprietary designs and trademarks as well as for the use of our equipment at the exhibitor's venue. The use of our equipment meets the definition of a lease, and for the related portion of Dolby's share of revenue, we apply ASC 840, Leases, and recognize revenue based on monthly box office reports from exhibitors. Our revenue share is recognized as licensing revenue in our consolidated statements of operations.

In addition, we also enter into agreements where a portion involves guaranteed payments, which in some cases result in classifying the payments as a sales-type lease. In such arrangements, we consider control to transfer at the point in time to which we have installed and tested the equipment, at which point we record such guaranteed payments as product revenue.

Via Administration Fee. We generate service fees for managing patent pools on behalf of third party patent owners through our wholly-owned subsidiary, Via Licensing Corporation. As an agent to licensors in the patent pool, Via receives a share of the sales-based royalty that the patent pool licensors earn from licensees. As such, we apply the sales-based royalty exception as the service provided is directly related to the patent pool licensors' provision of IP, which results in recognition based on estimates of the licensee's quarter shipments that use the pool's patents. In

addition to sales-based royalties, Via also has contracts where the fees are fixed. The revenue share Via receives from licensors on fixed fee contracts is recognized over the term in which we are providing services associated with the fixed fee contract. We recognize our administrative fees net of the consideration paid to the patent licensors in the pool as licensing revenue.

Deferred revenue, which is a component of contract liabilities, represents amounts that are ultimately expected to be recognized as revenue, but for which we have yet to satisfy the performance obligation. On September 27, 2019, we had \$41.8 million of remaining performance obligations, 45% of which we expect to recognize as revenue in fiscal 2020, 20% in fiscal 2021, and the balance of 35% in fiscal years beyond 2022.

F. Disaggregation of revenue

The following table presents a summary of the composition of our revenue for all periods presented:

	Fiscal Year-To-Date Ended			
	September 27, 2019		September 28	3, 2018
			(as adjust	ed)
Revenue				
Licensing	\$1,107,280	89%	\$ 940,777	89%
Products and services	134,340	11%	113,823	11%
Total revenue	\$1,241,620	100%	\$1,054,600	100%

The following table presents the composition of our licensing revenue for all periods presented:

	Fiscal Year-To-Date Ended				
	September 27, 2019		September 2	28, 2018	
			(as adjus	ted)	
Revenue By Market					
Broadcast	\$ 474,147	43%	\$385,705	41%	
Mobile	193,052	17%	148,356	16%	
CE	154,399	14%	144,132	15%	
PC	113,597	10%	106,765	11%	
Other	172,085	16%	155,819	17%	
Total licensing revenue	\$1,107,280	100%	\$940,777	100%	

We license our technologies in approximately 60 countries, and our licensees distribute products that incorporate our technologies throughout the world. As shown in the table below, we generate the majority of our revenue from outside the United States. Geographic data for our licensing revenue is based on the location of our licensees' headquarters, products revenue is based on the destination to which we ship our products, and services revenue is based on the location where services are performed.

	Fiscal Year-To-Date Ended			
	September 27, 2019		September 27, 2019 September 2	
			(as adjust	ed)
Revenue By Geographic Location				
United States	\$ 449,203	36%	\$ 353,235	33%
International	792,417	64%	701,365	67%
Total revenue	\$1,241,620	100%	\$1,054,600	100%

G. Contract balances

Our contract assets represent rights to consideration from licensees for the use of our IP that we have estimated in a given quarter in the absence of receiving actual royalty statements from licensees. These estimates reflect our best judgment at that time, and are developed using a number of inputs, including historical data, industry estimates of expected shipments, anticipated sales price and performance, and third-party data supporting the percentage of markets using our technologies. In the event that our estimates differ from actual amounts reported, we record an adjustment in the quarter in which the report is received which is typically the quarter following our estimate. Actual

amounts reported are typically paid within sixty days following the end of the quarter of shipment. The main drivers for change in the contract assets account are variances in quarterly estimates, and to a lesser degree, timing of receipt of actual royalty statements.

Our contract liabilities consist of advance payments and billings in advance of performance, deferred revenue that is typically satisfied within one year, and deferred interest where we have significant financing. The non-current portion of contract liabilities is separately disclosed in our consolidated balance sheets. We present the net contract asset or liability when we have both contract assets and contract liabilities for a single contract. In the fourth quarter of fiscal 2019, we recognized \$6.6 million from prior period deferred revenue and deferred interest from arrangements which include a significant financing component.

The following table presents a summary of the balances to which contract assets and liabilities related to revenue are recorded for all periods presented:

	September 27, 2019	September 28, 2018	Change (\$)	Change (%)
		(as adjusted)		
Accounts receivable, net	\$189,115	\$166,133	\$22,982	14%
Contract assets	195,651	165,959	29,692	18%
Other non-current assets	93,395	80,080	13,315	17%
Contract liabilities—current	19,991	17,468	2,523	14%
Contract liabilities—non-current	24,404	25,887	(1,483)	(6)%
Other non-current liabilities	177,462	183,799	(6,337)	(3)%

4. Composition of Certain Financial Statement Captions

The following tables present detailed information from our consolidated balance sheets as of September 27, 2019 and September 28, 2018 (amounts displayed in thousands).

Accounts Receivable

Accounts Receivable, Net	September 27, 2019	September 28, 2018 (as adjusted)
Trade accounts receivable	\$151,996	\$108,929
Accounts receivable from patent administration program licensees	46,894	62,462
Accounts receivable, gross	198,890	171,391
Less: allowance for doubtful accounts	(9,775)	(5,258)
Total	\$189,115	<u>\$166,133</u>

Trade accounts receivable includes unbilled accounts receivable balances of \$57.2 million as of September 27, 2019 related to amounts that are contractually owed. The unbilled balance represents our unconditional right to consideration related to fixed fee contracts which we are entitled to as a result of satisfying, or partially satisfying, performance obligations, as well as Via's unconditional right to consideration related to their patent administration programs.

Allowance for Doubtful Accounts	Balance	G&A	Deductions	Ending Balance
For fiscal year ended:				
September 29, 2017	\$2,370	\$ 924	\$(327)	\$2,967
September 28, 2018 (as adjusted)	2,967	2,413	(122)	5,258
September 27, 2019	5,258	4,523	(6)	9,775

Inventories

Inventories	September 27, 2019	September 28, 2018
Raw materials	\$ 8,031	\$ 6,095
Work in process	4,872	4,044
Finished goods	19,428	16,067
Total	\$32,331	\$26,206

Inventories are stated at the lower of cost and net realizable value. Inventory with a consumption period expected to exceed twelve months is recorded within other non-current assets in our consolidated balance sheets. We have included \$3.0 million and \$2.6 million of raw materials inventory within other non-current assets in our consolidated balance sheets as of September 27, 2019 and September 28, 2018, respectively. Based on anticipated inventory consumption rates, and aside from existing write-downs due to excess inventory, we do not believe that material risk of obsolescence exists prior to ultimate sale.

Prepaid Expenses And Other Current Assets

Prepaid Expenses And Other Current Assets	September 27, 2019	September 28, 2018 (as adjusted)
Prepaid expenses	\$17,997	\$18,508
Other current assets	20,924	13,946
Income tax receivable	783	2,436
Total	\$39,704	\$34,890

As of September 27, 2019, other current assets include the carrying value of \$2.2 million of land and building that are currently held for sale. Management has committed to a plan to sell the property. Based on current estimated selling prices in the market, we have determined that no indicators of potential impairment exist.

Accrued Liabilities

Accrued Liabilities	September 27, 2019	September 28, 2018 (as adjusted)
Accrued royalties	\$ 2,957	\$ 2,648
Amounts payable to patent administration program partners	58,899	69,061
Accrued compensation and benefits	78,716	84,491
Accrued professional fees		9,749
Unpaid PP&E additions		13,956
Other accrued liabilities	93,024	63,223
Total	\$268,144	\$243,128

Other Non-Current Liabilities

Other Non-Current Liabilities	September 27, 2019	(as adjusted)
Supplemental retirement plan obligations	\$ 3,466	\$ 3,388
Non-current tax liabilities (1)	136,323	129,253
Other liabilities	37,673	51,158
Total	\$177,462	\$183,799

⁽¹⁾ Refer to Note 11 "Income Taxes" for additional information related to tax liabilities.

5. Investments & Fair Value Measurements

We use cash holdings to purchase investment grade securities diversified among security types, industries, and issuers. All of our investment securities are measured at fair value, and are recorded within cash equivalents and both short-term and long-term investments in our consolidated balance sheets. With the exception of our mutual fund investments held in our SERP and classified as trading securities, all of our investments are classified as AFS securities.

Our investment securities primarily consist of government bonds, certificates of deposit, municipal debt securities, corporate bonds, U.S. agency securities, and commercial paper. In addition, our cash and cash equivalents also consist of highly-liquid money market funds. Consistent with our investment policy, none of our municipal debt investments are supported by letters of credit or standby purchase agreements. Our cash and investment portfolio consisted of the following (in thousands):

Sepi	tem	ber	27	,
	20	10		

	2019						
		Unrealized			Estimated Fair Value		
_	Cost	Gains	Losses	Total	Level 1	Level 2	Level 3
Cash and cash equivalents:							
Cash \$ Cash equivalents:	680,287	\$ —	\$ — \$	680,287	\$680,287	\$ —	\$—
Corporate bonds	1,000		_	1,000		1,000	
Money market funds	115,270 653		_	115,270 653	115,270 653	_	
-	797,210			797,210		1,000	
Cash and cash equivalents	197,210			797,210	790,210		
Short-term investments:	1 265	1		1 266		1 266	
Certificate of deposit U.S. agency securities	1,265 10,973		(9)	1,266 10,972	_	1,266 10,972	
Government bonds	8,381	11	(1)	8,391	5,784	2,607	_
Commercial paper	6,347	9	_	6,356	_	6,356	_
Corporate bonds	76,802	172	(34)	76,940		76,940	
Municipal debt securities	15,210	18	(7)	15,221	_	15,221	_
Short-term investments	118,978	219	(51)	119,146	5,784	113,362	_
Long-term investments:							
Asset backed securities	400	2	_	402		402	_
U.S. agency securities	7,102		_	7,248	_	7,248	_
Government bonds	23,563		_	23,750	,	4,080	
Corporate bonds	134,360	,		136,060	_	136,060	
Municipal debt securities	10,315	87	(6)	10,396		10,396	_
Other long-term investments (1)	1,731			1,731			
Long-term investments	177,471	2,122	(6)	179,587	19,670	158,186	
Total cash, cash equivalents, and investments	51,093,659	\$2,341	\$ (57)\$	1,095,943	\$821,664	\$272,548	<u>\$—</u>
Investments held in supplemental retirement plan:							
Assets Included in prepaid expenses and other current assets & other non-current assets	3,564		_	3,564	3,564	_	
Liabilities Included in accrued liabilities & other non-current liabilities	3,564	_	_	3,564	3,564	_	
Currency derivatives as hedge instruments:							
Assets	_	_	_	_		_	
Included in other current assets Liabilities Included in other accrued expenses	_	_	(242)	(242)) —	(242)) —

⁽¹⁾ Other long-term investments as of September 27, 2019 includes an investment that is not carried at fair value including an equity method investment of \$1.7 million.

September 28, 2018

			**	1	- T- 4*				
			Unrealize		Estimated Fair Value				
	Cost	Gains	Losses	Total	Level 1	Level 2	Level 3		
Cash and cash equivalents:									
Cash	\$ 905,660	\$—	\$ - \$	905,660	\$905,660	\$ —	\$		
Cash equivalents:	5.050			5.050		5.050			
Commercial paper	5,058 1,005		_	5,058 1,005		5,058 1,005	_		
Money market funds	3,301			3,301	3,301	1,005			
Municipal debt securities	545	_	(1)	544		544	_		
Government bonds	2,495	_		2,495	2,495	_	_		
Cash and cash equivalents	918,064	$\overline{}$	(1)	918,063	911,456	6,607	_		
Short-term investments:									
Certificate of deposit	12,875	14	_	12,889	_	12,889	_		
U.S. agency securities	11,997	_	(135)	11,862	_	11,862	_		
Government bonds	7,970	_	(15)	7,955	,	_	_		
Commercial paper	4,276			4,276		4,276	_		
Corporate bonds	111,245	50	(494)	110,801	_	110,801	_		
Municipal debt securities	30,475		(120)	30,355		30,355			
Short-term investments	178,838	64	(764)	178,138	7,955	170,183			
Long-term investments:									
U.S. agency securities	9,791	_	(166)	9,625		9,625	_		
Government bonds	15,966		(317)	15,649	- ,		_		
Corporate bonds	146,561	33	(1,810)	144,784		144,784	_		
Municipal debt securities	17,235 355	— 246	(112)	17,123 601		17,123	_		
Other long-term investments (1)									
Long-term investments	189,908	279	(2,405)	187,782	15,895	171,532			
Total cash, cash equivalents, and investments	\$1,286,810	\$343	\$(3,170)\$	1,283,983	\$935,306	\$348,322	\$ —_		
Investments held in supplemental retirement plan:									
Assets	3,486	_	_	3,486	3,486	_	_		
Included in prepaid expenses and other current									
	2.407			2.407	2.406				
	3,486	_	_	3,486	3,486	_	_		
Included in prepaid expenses and other current assets & other non-current assets Liabilities	3,486	_	_	3,486	3,486	_	_		

⁽¹⁾ Other long-term investments as of September 28, 2018 include a marketable equity security of \$0.2 million, and other investments that are not carried at fair value including an equity method investment of \$0.4 million. During fiscal 2018, we recorded write-off charges to reduce the carrying value of two cost method equity investments to zero in recognition of an other-than-temporary impairment for each investment.

Fair Value Hierarchy. Fair value is the exchange price that would be received for an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability, in an orderly transaction between market participants at the measurement date. We minimize the use of unobservable inputs and use observable market data, if available, when determining fair value. We classify our inputs to measure fair value using the following three-level hierarchy:

Level 1: Quoted prices in active markets at the measurement date for identical assets and liabilities. We base the fair value of our Level 1 financial instruments, which are traded in active markets, using quoted market prices for identical instruments.

Level 2: Prices may be based upon quoted prices in active markets or inputs not quoted on active markets but are corroborated by market data. We obtain the fair value of our Level 2 financial instruments from a professional pricing service, which may use quoted market prices for identical or comparable instruments, or model driven valuations using observable market data or inputs corroborated by observable market data. To validate the fair value determination provided by our primary pricing service, we perform quality controls over values received which include comparing our pricing service provider's assessment of the fair values of our investment securities against the fair values of our investment securities obtained from another independent source, reviewing the pricing movement in the context of overall market trends, and reviewing trading information from our investment managers. In addition, we assess the

inputs and methods used in determining the fair value in order to determine the classification of securities in the fair value hierarchy.

Level 3: Unobservable inputs are used when little or no market data is available and reflect management's estimates of assumptions that market participants would use in pricing the asset or liability.

The following table describes the valuation techniques and inputs applicable to each class of security held within our investment portfolio as of September 27, 2019:

Asset Type	Primary Source	Update Frequency	Fair Value Methodology	Secondary Source
Level 1				
Money Market Funds	ICE (Intercontinental Exchange)	Daily	\$1 per share	Not Applicable
U.S. Government Bonds	ICE (Intercontinental Exchange)	Daily	Institutional Bond Quotes—evaluations based on various market and industry inputs	Bloomberg
Level 2				
Certificates of Deposit	Exchange)	Monthly	Market Prices	Bloomberg
Commercial Paper	U.S. Bank Pricing Unit	Daily	Matrix Pricing	Not Applicable
Corporate Bonds	ICE (Intercontinental Exchange)	Daily	Institutional Bond Quotes—evaluations based on various market and industry inputs	Bloomberg
Municipal Debt Securities	ICE (Intercontinental Exchange)	Daily	Evaluations based on various market and industry inputs	Bloomberg
U.S. Agency Securities	ICE (Intercontinental Exchange)	Daily	Institutional Bond Quotes—evaluations based on various market and industry inputs	Bloomberg
Int'l Government Bonds	ICE (Intercontinental Exchange) Extel Financial Ltd	Daily	Evaluations based on various market factors	Bloomberg

Securities In Gross Unrealized Loss Position. We periodically evaluate our investments for other-than-temporary declines in fair value. The unrealized losses on our AFS securities were primarily the result of unfavorable changes in interest rates subsequent to the initial purchase of these securities. The following table presents the gross unrealized losses and fair value for those AFS securities that were in an unrealized loss position as of September 27, 2019 and September 28, 2018 (in thousands):

	September 27, 2019			September 28, 2018				
	Less Than	12 Months		Than 12 onths	Less Than	12 Months		Than 12 onths
Investment Type	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Certificate of deposit	\$ 300	<u>\$</u> —	\$ —	\$ —	\$ —	<u></u> \$ —	\$ —	<u></u> \$—
U.S. agency securities	_	_	4,787	(9)	_	_	21,486	(302)
Government bonds	1,426	_	· —		16,633	(332)	· —	<u> </u>
Commercial paper					5,737	(1)		
Corporate bonds	7,647	(3)	27,078	(32)	143,051	(1,680)	52,162	(624)
Municipal debt securities	9,552	(13)	900		41,058	(191)	6,965	(41)
Total	\$18,925	\$ (16)	\$32,765	<u>\$ (41)</u>	\$206,479	<u>\$(2,204</u>)	\$80,613	<u>\$(967)</u>

Although we had certain securities that were in an unrealized loss position as of September 27, 2019, we expect to recover the full carrying value of these securities as we do not intend to, nor do we currently anticipate a need to sell these securities prior to recovering the associated unrealized losses. As a result, we do not consider any portion of the unrealized losses at either September 27, 2019 or September 28, 2018 to represent an other-than-temporary impairment, nor do we consider any of the unrealized losses to be credit losses.

Investment Maturities. The following table summarizes the amortized cost and estimated fair value of the AFS securities within our investment portfolio based on stated maturities as of September 27, 2019 and September 28, 2018, which are recorded within cash equivalents and both short and long-term investments in our consolidated balance sheets (in thousands):

	September 27, 2019		September 28, 2018	
Range of maturity	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Due within 1 year	\$238,186	\$238,354	\$191,241	\$190,541
Due in 1 to 2 years	93,948	94,899	122,131	120,545
Due in 2 to 3 years	81,793	82,957	67,423	66,637
Total	\$413,927	\$416,210	\$380,795	\$377,723

6. Property, Plant, & Equipment

PP&E are recorded at cost, with depreciation expense included in cost of licensing, cost of products, cost of services, R&D, S&M, and G&A expenses in our consolidated statements of operations. Depreciation expense was \$55.5 million, \$54.8 million, and \$53.4 million in fiscal 2019, 2018, and 2017, respectively.

As of September 27, 2019 and September 28, 2018, PP&E consisted of the following (in thousands):

Property, Plant, & Equipment	September 27, 2019	September 28, 2018
Land	\$ 41,918	\$ 43,342
Buildings and building improvements	282,924	283,474
Leasehold improvements	66,730	66,866
Machinery and equipment	128,525	111,603
Computer equipment and software	219,455	194,079
Furniture and fixtures	34,191	30,556
Equipment provided under operating leases	161,372	139,201
Construction-in-progress	19,616	7,342
Property, plant, and equipment, gross	954,731	876,463
Less: accumulated depreciation	(417,299)	(362,281)
Property, plant, & equipment, net	\$ 537,432	\$ 514,182

7. Goodwill & Intangible Assets

Goodwill

The following table outlines changes to the carrying amount of goodwill (in thousands):

	Goodwill
Balance at September 29, 2017	\$311,087
Acquired goodwill	18,394
Translation adjustments	(1,499)
Balance at September 28, 2018	\$327,982
Acquired goodwill	9,367
Translation adjustments	
Balance at September 27, 2019	\$334,829

Intangible Assets

Intangible assets are stated at their original cost less accumulated amortization. Intangible assets subject to amortization consisted of the following (in thousands):

	Se	ptember 27, 20	19	September 28, 2018		
Intangible Assets, Net	Cost	Accumulated Amortization		Cost	Accumulated Amortization	Net
Acquired patents and technology	\$338,075	\$(176,867)	\$161,208	\$319,082	\$(152,775)	\$166,307
Customer relationships	64,728	(45,510)	19,218	58,342	(41,012)	17,330
Other intangibles	22,902	(22,437)	465	22,742	(22,360)	382
Total	\$425,705	\$(244,814)	\$180,891	\$400,166	\$(216,147)	\$184,019

During fiscal 2019 and 2018, we purchased various patents and developed technology for purchase consideration of \$27.3 million and \$21.0 million, and upon acquisition, these intangible assets had a weighted-average useful life of 7.9 years and 10.5 years, respectively. These acquisitions facilitate our R&D efforts, technologies and potential product offerings.

Amortization expense for our intangible assets is included in cost of licensing, cost of products, R&D and S&M expenses in our consolidated statements of operations. Amortization expense was \$29.7 million, \$26.5 million, and \$30.9 million in fiscal 2019, 2018 and 2017, respectively. As of September 27, 2019, expected amortization expense of our intangible assets in future periods was as follows (in thousands):

Fiscal Year	Amortization Expense
2020	\$ 31,064
2021	30,825
2022	28,582
2023	23,646
2024	21,725
Thereafter	45,049
Total	\$180,891

8. Stockholders' Equity & Stock-Based Compensation

We provide stock-based awards as a form of compensation for employees, officers and directors. We have issued stock-based awards in the form of stock options and RSUs under our equity incentive plans, as well as shares under our ESPP.

Common Stock—Class A and Class B

Our Board of Directors has authorized two classes of common stock, Class A and Class B. At September 27, 2019, we had authorized 500,000,000 Class A shares and 500,000,000 Class B shares. At September 27, 2019, we had 63,911,270 shares of Class A common stock and 36,229,820 shares of Class B common stock issued and outstanding. Holders of our Class A and Class B common stock have identical rights, except that holders of our Class A common stock are entitled to one vote per share and holders of our Class B common stock are entitled to ten votes per share. Shares of Class B common stock can be converted to shares of Class A common stock at any time at the option of the stockholder and automatically convert upon sale or transfer, except for certain transfers specified in our amended and restated certificate of incorporation.

2005 Stock Incentive Plan

Following shareholder approval in January 2005, our 2005 Stock Plan was adopted by our Board of Directors on February 16, 2005, the day prior to the completion of our IPO. Our 2005 Stock Plan, as amended and restated, provides for the ability to grant incentive stock options, non-qualified stock options, restricted stock, RSUs, stock appreciation rights, deferred stock units, performance units, performance bonus awards, and performance shares. A total of 46.0 million shares of our Class A common stock is authorized for issuance under the 2005 Stock Plan. For

awards granted prior to February 2011, any shares subject to an award with a per share price less than the fair market value of our Class A common stock on the date of grant and any shares subject to an outstanding RSU award will be counted against the authorized share reserve as two shares for every one share subject to the award, and if returned to the 2005 Stock Plan, such shares will be counted as two shares for every one share returned. For those awards granted from February 2011 onward, any shares subject to an award with a per share price less than the fair market value of our Class A common stock on the date of grant and any shares subject to an outstanding RSU award will be counted against the authorized share reserve as 1.6 shares for every one share subject to the award, and if returned to the 2005 Stock Plan, such shares will be counted as 1.6 for every one share returned.

Stock Options. Stock options are granted at fair market value on the date of grant. Options granted to employees and officers from June 2008 onward generally vest over four years, with 25% of the shares subject to the option becoming exercisable on the one-year anniversary of the date of grant and the balance of the shares vesting in equal monthly installments over the following 36 months. These options expire on the earlier of ten years after the date of grant or three months after termination of service. All options granted vest over the requisite service period and upon the exercise of stock options, we issue new shares of Class A common stock under the 2005 Stock Plan. Our 2005 Stock Plan also allows us to grant stock awards which vest based on the satisfaction of specific performance criteria.

Performance-Based Stock Options. In fiscal 2016, we began granting PSOs to our executive officers with shares of our Class A common stock underlying such options. The contractual term for the PSOs is seven years, with vesting contingent upon market-based performance conditions, representing the achievement of specified Dolby annualized TSR targets at the end of a three-year measurement period following the date of grant. If the minimum conditions are met, the PSOs earned will cliff vest on the third anniversary of the grant date, upon certification of achievement of the performance conditions by our Compensation Committee. Anywhere from 0% to 125% of the shares subject to a PSO may vest based on achievement of the performance conditions at the end of the three-year performance period.

In valuing the PSOs, which will be recognized as compensation cost, we used a Monte Carlo valuation model. Aside from the use of an expected term for the PSOs commensurate with their shorter contractual term, the nature of the valuation inputs used in the Monte Carlo valuation model were consistent with those used to value our non-performance based options granted under the 2005 Plan. Compensation cost is being amortized on a straight-line basis over the requisite service period.

On December 15, 2018, we granted PSOs to our executive officers exercisable for an aggregate of 241,100 shares at the target award amount, which would be exercisable up to an aggregate of 301,375 shares at 125% of the target award amount. On December 15, 2017, we granted PSOs to our executive officers exercisable for an aggregate of 264,000 shares at the target award amount, which would be exercisable up to an aggregate of 330,000 shares at 125% of the target award amount. On December 15, 2016, we granted PSOs to our executive officers exercisable for an aggregate of 276,199 shares at the target award amount, which would be exercisable for an aggregate of up to 345,248 shares at 125% of the target award amount. On December 15, 2015, we granted PSOs to our executive officers, which vested in December 2018 at 125% of the target award amount, for an aggregate of 334,623 shares. As of September 27, 2019, PSOs which would be exercisable for an aggregate of 758,299 shares at the target award amount (1,193,737 shares at 125% of the target award amount) were outstanding.

The following table summarizes information about stock options issued under our 2005 Stock Plan:

Weighted

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	Shares	Weighted- Average Exercise Price	Average Remaining Contractual Life	Aggregate Intrinsic Value (1)
	(in thousands)		(in years)	(in thousands)
Options outstanding at September 28, 2018	7,365	\$43.51		
Grants	1,253	64.61		
Exercises	(1,177)	36.17		
Forfeitures and cancellations	(240)	54.24		
Options outstanding at September 27, 2019 Options vested and expected to vest at September 27,	7,201	48.03	6.3	\$114,500
2019	6,921	47.43	6.2	114,091
Options exercisable at September 27, 2019	4,355	\$41.18	5.4	98,496

⁽¹⁾ Aggregate intrinsic value is based on the closing price of our Class A common stock on September 27, 2019 of \$63.79 and excludes the impact of options that were not in-the-money.

Restricted Stock Units. Beginning in fiscal 2008, we began granting RSUs to certain directors, officers and employees under our 2005 Stock Plan. Awards granted to employees and officers generally vest over four years, with equal annual cliff-vesting. Awards granted to directors prior to November 2010 generally vest over three years, with equal annual cliff-vesting. Awards granted after November 2010 and prior to fiscal 2014 to new directors vest over approximately two years, with 50% vesting per year, while awards granted from November 2010 onward to ongoing directors generally vest over approximately one year. Awards granted to new directors from fiscal 2014 onward vest on the earlier of the first anniversary of the award's date of grant, or the day immediately preceding the date of the next annual meeting of stockholders that occurs after the award's date of grant. Our 2005 Stock Plan also allows us to grant RSUs that vest based on the satisfaction of specific performance criteria, although no such awards had been granted as of September 27, 2019. At each vesting date, the holder of the award is issued shares of our Class A common stock. Compensation expense from these awards is equal to the fair market value of our Class A common stock on the date of grant and is recognized on a straight-line basis over the requisite service period.

The following table summarizes information about RSUs issued under our 2005 Stock Plan:

	Shares	Weighted-Average Grant Date Fair Value
	(in thousands)	
Non-vested at September 28, 2018	2,806	\$51.62
Granted	1,348	64.97
Vested	(1,062)	48.08
Forfeitures	(287)	56.83
Non-vested at September 27, 2019	2,805	\$58.84

The fair value as of the respective vesting dates of RSUs were as follows (in thousands):

	Fiscal Year Ended			
	September 27, 2019	September 28, 2018	September 29, 2017	
Restricted stock units—vest date fair value	\$69,956	\$64,755	\$51,985	

Employee Stock Purchase Plan. Our plan allows eligible employees to have up to 10 percent of their eligible compensation withheld and used to purchase Class A common stock, subject to a maximum of \$25,000 worth of stock purchased in a calendar year or no more than 1,000 shares in an offering period, whichever is less. An offering period consists of successive six-month purchase periods, with a look back feature to our stock price at the commencement of a one-year offering period. The plan provides for a discount equal to 15 percent of the lower of the closing price of our Class A common stock on the New York Stock Exchange on the first and last day of the offering periods. The plan also includes an automatic reset feature that provides for an offering period to be reset and recommenced to a new lower-priced offering if the offering price of a new offering period is less than that of the immediately preceding offering period.

Stock Option Valuation Assumptions

We use the Black-Scholes option pricing model to determine the estimated fair value of employee stock options at the date of the grant. The Black-Scholes model includes inputs that require us to make certain estimates and assumptions regarding the expected term of the award, as well as the future risk-free interest rate, and the volatility of our stock price over the expected term of the award.

Expected Term. The expected term of an award represents the estimated period of time that options granted will remain outstanding, and is measured from the grant date to the date at which the option is either exercised or canceled. Our determination of the expected term involves an evaluation of historical terms and other factors such as the exercise and termination patterns of our employees who hold options to acquire our Class A common stock, and is based on certain assumptions made regarding the future exercise and termination behavior.

Risk-Free Interest Rate. The risk-free interest rate is based on the yield curve of United States Treasury instruments in effect on the date of grant. In determining an estimate for the risk-free interest rate, we use average interest rates based on these instruments' constant maturities with a term that approximates and corresponds with the expected term of our awards.

Expected Stock Price Volatility. The expected volatility represents the estimated volatility in the price of our Class A common stock over a time period that approximates the expected term of the awards, and is determined using a blended combination of historical and implied volatility. Historical volatility is representative of the historical trends in our stock price for periods preceding the measurement date for a period that is commensurate with the expected term. Implied volatility is based upon externally traded option contracts of our Class A common stock.

Dividend Yield. The dividend yield is based on our anticipated dividend payout over the expected term of our option awards. Dividend declarations and the establishment of future record and payment dates are subject to the Board of Directors' continuing determination that the dividend policy is in the best interests of our stockholders. The dividend policy may be changed or canceled at the discretion of the Board of Directors at any time.

The weighted-average assumptions used in the determination of the fair value of our stock options were as follows:

	Fiscal Year Ended			
	September 27, 2019	September 28, 2018	September 29, 2017	
Expected term (in years)	4.90	5.06	5.13	
Risk-free interest rate	2.7%	2.2%	2.1%	
Expected stock price volatility	22.9%	22.6%	27.4%	
Dividend yield	1.1%	1.1%	1.1%	

The following table summarizes the weighted-average fair value (per share) of stock options granted and the total intrinsic value of stock options exercised (in thousands):

	Fiscal Year Ended			
	September 27, 2019	September 28, 2018	September 29, 2017	
Stock options granted—weighted-average grant date fair value	\$ 14.16	\$ 13.19	\$ 11.39	
Stock options exercised—intrinsic value	33,226	63,973	28,544	

Stock-Based Compensation Expense

Stock-based compensation expense for equity awards granted to employees is determined by estimating their fair value on the date of grant, and recognizing that value as an expense on a straight-line basis over the requisite service period in which our employees earn the awards. Compensation expense related to these equity awards is recognized net of estimated forfeitures, which reduce the expense recorded in the consolidated statements of operations. The selection of applicable estimated forfeiture rates is based on an evaluation of trends in our historical forfeiture data with consideration for other potential driving factors. If in subsequent periods actual forfeitures significantly differ from our initial estimates, we will revise such estimates accordingly. The estimated annual forfeiture rates used for awards granted were 9.78%, 9.91% and 10.16% in fiscal 2019, 2018, and 2017, respectively.

The following two tables separately present stock-based compensation expense both by award type and classification in our consolidated statements of operations (in thousands):

Expense—By Award Type

Fiscal Year Ended			
September 27, 2019	September 28, 2018	September 29, 2017	
\$ 17,742	\$ 21,083	\$ 18,630	
54,650	46,162	43,171	
4,188	4,004	3,542	
76,580	71,249	65,343	
(12,884)	(12,595)	(18,959)	
\$ 63,696	\$ 58,654	\$ 46,384	
	September 27, 2019 \$ 17,742 54,650 4,188 76,580 (12,884)	September 27, 2019 September 28, 2018 \$ 17,742 \$ 21,083 54,650 46,162 4,188 4,004 76,580 71,249 (12,884) (12,595)	

Expense—By Income Statement Classification

	Fiscal Year Ended				
Compensation Expense—By Classification	September 27, 2019	September 28, 2018	September 29, 2017		
Cost of products and services	\$ 1,710	\$ 1,574	\$ 1,458		
Research and development	23,191	19,515	18,497		
Sales and marketing	28,137	24,997	26,175		
General and administrative	23,542	25,163	19,213		
Total stock-based compensation	76,580	71,249	65,343		
Estimated benefit from income taxes	(12,884)	(12,595)	(18,959)		
Total stock-based compensation, net of tax	<u>\$ 63,696</u>	\$ 58,654	<u>\$ 46,384</u>		

The tax benefit that we recognize from shares issued under our ESPP is excluded from the tables above. This benefit was as follows (in thousands):

	Fiscal Year Ended			
	September 27, 2019	September 28, 2018	September 29, 2017	
Tax benefit—shares issued under ESPP	\$353	\$577	\$802	

Unrecognized Compensation Expense. At September 27, 2019, total unrecognized compensation expense associated with employee stock options expected to vest was approximately \$25.3 million, which is expected to be recognized over a weighted-average period of 2.1 years. At September 27, 2019, total unrecognized compensation expense associated with RSUs expected to vest was approximately \$109.3 million, which is expected to be recognized over a weighted-average period of 2.3 years.

Common Stock Repurchase Program

In November 2009, we announced a stock repurchase program ("program"), providing for the repurchase of up to \$250.0 million of our Class A common stock. The following table summarizes the initial amount of authorized repurchases as well as additional repurchases approved by our Board of Directors as of September 27, 2019 (in thousands):

Authorization Period	Authorization Amount
Fiscal 2010: November 2009	\$ 250,000
Fiscal 2010: July 2010	300,000
Fiscal 2011: July 2011	250,000
Fiscal 2012: February 2012	100,000
Fiscal 2015: October 2014	200,000
Fiscal 2017: January 2017	200,000
Fiscal 2018: July 2018	350,000
Fiscal 2019: July 2019	350,000
Total	\$2,000,000

Stock repurchases under the program may be made through open market transactions, negotiated purchases, or otherwise, at times and in amounts that we consider appropriate. The timing of repurchases and the number of shares repurchased depend upon a variety of factors, including price, regulatory requirements, the rate of dilution from our equity compensation plans and other market conditions. The program does not have a specified expiration date, and can be limited, suspended or terminated at our discretion at any time without prior notice. Shares repurchased under the program will be returned to the status of authorized but unissued shares of Class A common stock. As of September 27, 2019, the remaining authorization to purchase additional shares is approximately \$361 million.

The following table provides information regarding share repurchase activity under the program in fiscal 2019:

Quarterly Repurchase Activity	Shares Repurchased	Cost (1)	Average Price Paid Per Share (2)
		(in thousands)	
Q1 - Quarter ended December 28, 2018	1,642,107	\$112,570	\$68.54
Q2 - Quarter ended March 29, 2019	1,318,250	85,351	64.73
Q3 - Quarter ended June 28, 2019	1,405,065	88,653	63.08
Q4 - Quarter ended September 27, 2019	902,187	54,011	59.94
Total	5,267,609	\$340,585	

⁽¹⁾ Cost of share repurchases includes the price paid per share and applicable commissions.

Dividend Program

The following table summarizes dividends declared under the program during fiscal 2019:

Fiscal Period	Announcement Date	Record Date	Payment Date	Dividend Per Common Share	Dividend Payment
Fiscal 2019					
Q1 - Quarter ended December 28, 2018	January 30, 2019	February 12, 2019	February 21, 2019	\$0.19	\$19.5 million
Q2 - Quarter ended March 29, 2019	May 1, 2019	May 14, 2019	May 22, 2019	\$0.19	\$19.3 million
Q3 - Quarter ended June 28, 2019	August 1, 2019	August 12, 2019	August 20, 2019	\$0.19	\$19.2 million
Q4 - Quarter ended September 27, 2019	November 14, 2019	November 26, 2019	December 4, 2019	\$0.22	\$22.0 million(1)

⁽¹⁾ The dividend payment amount is estimated based on the number of shares of our Class A and Class B common stock that we estimate will be outstanding as of the Record Date.

⁽²⁾ Average price paid per share excludes commission costs.

9. Accumulated Other Comprehensive Income

Other comprehensive income consists of three components: unrealized gains or losses on our AFS marketable investment securities, gains and losses on derivatives in cash flow hedge relationships not yet recognized in earnings, and the gains and losses from the translation of assets and liabilities denominated in non-U.S. dollar functional currencies. Until realized and reported as a component of net income, these comprehensive income items accumulate and are included within accumulated other comprehensive income, a subsection within stockholders' equity in our consolidated balance sheets. Unrealized gains and losses on our investment securities are reclassified from AOCI into earnings when realized upon sale, and are determined based on specific identification of securities sold. Unrealized gains and losses on our cash flow hedges are reclassified from AOCI into earnings when the hedged operating expenses are recognized.

The following table summarizes the changes in the accumulated balances during the period, and includes information regarding the manner in which the reclassifications out of AOCI into earnings affect our consolidated statements of operations (in thousands):

	Fiscal Year Ended September 27, 2019			Fiscal Year Ended September 28, 2018				
	Investment Securities		Currency Translation Adjustments		Investment Securities		Currency Translation Adjustments	Total
Beginning Balance	\$(2,948)	\$ —	\$(12,884)	\$(15,832)	\$ (377)	\$ —	\$ (7,376)	\$ (7,753)
Other comprehensive income before reclassifications: Unrealized gains/(losses)	5,131	(176)		4,955	(2,213)	_		(2,213)
Foreign currency translation gains/(losses) (1) Income tax effect—benefit/(expense)	37		(9,500) (439)	(9,500) (402)			(5,614)	(5,614)
Net of tax	5,168	(176)	(9,939)	(4,947)	(2,213)	_	(5,508)	(7,721)
Realized gains/(losses) (1)	(43)	176	_	133	(447)	_	_	(447)
Income tax effect—benefit/(expense) (2)	21			21	89			89
Net of tax	(22)	176	_	154	(358)		_	(358)
Net current-period other comprehensive income/(loss)	5,146	_	(9,939)	(4,793)	(2,571)	_	(5,508)	(8,079)
Ending Balance	\$ 2,198	<u>\$ —</u>	\$(22,823)	\$(20,625)	\$(2,948)	\$ —	\$(12,884)	\$(15,832)

⁽¹⁾ Realized gains or losses, if any, from the sale of our AFS investment securities or from foreign currency translation adjustments are included within other income/expense, net in our consolidated statements of operations.

10. Earnings Per Share

Basic EPS is computed by dividing net income attributable to Dolby Laboratories, Inc. by the number of weighted-average shares of Class A and Class B common stock outstanding during the period. Through application of the treasury stock method, diluted EPS is computed in the same manner, except that the number of weighted-average shares outstanding is increased by the number of potentially dilutive shares from employee incentive plans during the period.

Basic and diluted EPS are computed independently for each fiscal quarter and year-to-date period, which involves the use of different weighted-average share count figures relating to quarterly and annual periods. As a result, and after factoring the effect of rounding to the nearest cent per share, the sum of all four quarter-to-date EPS figures may not equal year-to-date EPS.

⁽²⁾ The income tax benefit or expense is included within provision for income taxes in our consolidated statements of operations.

Potentially dilutive shares represent the hypothetical number of incremental shares issuable under the assumed exercise of outstanding stock options (both vested and unvested) and vesting of outstanding RSUs. The calculation of dilutive shares outstanding excludes out-of-the-money stock options (e.g., such options' exercise prices were greater than the average market price of our common stock for the period) because their inclusion would have been antidilutive.

The following table sets forth the computation of basic and diluted EPS attributable to Dolby Laboratories, Inc. (in thousands, except per share amounts):

	Fiscal Year Ended				
	September 27, 2019				
Numerator:					
Net income attributable to Dolby Laboratories, Inc	\$255,151	\$ 41,746	\$206,481		
Denominator:					
Weighted-average shares outstanding—basic Potential common shares from options to purchase	101,629	103,377	101,784		
common stock	1,922	2,370	1,098		
Potential common shares from restricted stock units	1,021	1,231	404		
Weighted-average shares outstanding—diluted	104,572	106,978	103,286		
Net income per share attributable to Dolby Laboratories, Inc.:					
Basic	\$ 2.51	\$ 0.40	\$ 2.03		
Diluted	\$ 2.44	\$ 0.39	\$ 2.00		
Antidilutive awards excluded from calculation:					
Stock options	2,340	1,043	160		
Restricted stock units	1	6	_		

11. Income Taxes

Our income tax expense, deferred tax assets and liabilities, and reserves for unrecognized tax benefits reflect management's best assessment of estimated current and future taxes to be paid. We are subject to income taxes in both the United States and numerous foreign jurisdictions. Significant judgments and estimates are required in determining the consolidated income tax expense.

Tax Act Enacted in 2017

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Act. The Tax Act makes broad and complex changes to the U.S. tax code, including, but not limited to, (1) reducing the U.S. federal corporate income tax rate from 35 percent to 21 percent; (2) requiring companies to pay a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries; (3) generally eliminating U.S. federal corporate income taxes on dividends from foreign subsidiaries; (4) capitalizing specific R&D expenses which are amortized over five to 15 years; and (5) other changes to how foreign and domestic earnings are taxed.

Our accounting for the impact of the Tax Act was completed in the first quarter of fiscal 2019 in accordance with the Staff Accounting Bulletin No. 118 measurement period. As of September 28, 2018, we had recorded a provisional amount for the Tax Act of \$121.4 million. During the period ended December 28, 2018, we recorded a \$36.0 million reduction to our provisional Tax Act amount resulting primarily from completion of our evaluation of the income tax effects of indirect taxes related to the Deemed Repatriation Transition Tax ("Transition Tax") on our deferred tax assets. During the quarter ended March 29, 2019, the U.S. Department of the Treasury issued final regulations on the Transition Tax related to deemed paid foreign taxes eliminating a benefit we previously expected to realize. As a result, we recorded an additional \$19.0 million tax expense. During the quarter ended June 28, 2019, we recorded a \$2.3 million reduction related to the impact of the Tax Act. The final amount recorded for the Tax Act was \$102.1

million as of the period ended September 27, 2019, which reflects the \$121.4 million recorded as of September 28, 2018, reduced by \$36 million as of December 28, 2018, increased by \$19 million as of March 29, 2019, and reduced by \$2.3 million as of June 28, 2019. There may be additional tax effects of the Tax Act that may change the final recorded tax expense associated with the Tax Act upon finalization of the law, regulations, and additional guidance.

We have included the impact of new provisions effective in our fiscal 2019 in our effective tax rate. The Tax Act imposes a minimum tax on certain foreign earnings ("minimum foreign tax") in the year earned. Our accounting policy is to treat the minimum foreign tax as a current expense in the year incurred and we have not provided deferred taxes on temporary differences related to such minimum foreign tax.

The adoption of ASC 606 impacted the timing in which we record per-unit royalty-based revenue earned from our licensees' shipments. This change in accounting principle also impacted the recognition of deferred tax assets related to licensing revenue. As a result, we reduced our deferred tax assets by \$26.3 million at the beginning of our first quarter of fiscal 2019.

Income Tax Provision

The following two tables present the components of our income before provision for income taxes by geographic region and the portion of our provision for income taxes classified as current and deferred (in thousands):

	Fiscal Year Ended			
	September 27, 2019	September 28, 2018 (as adjusted)	September 29, 2017 (as adjusted)	
United States	\$ 60,500	\$ 27,819	\$ 3,996	
Foreign	221,807	168,555	251,149	
Total	<u>\$282,307</u>	<u>\$196,374</u>	<u>\$255,145</u>	
]	Fiscal Year Ende	d	
	September 27, 2019	September 28, 2018 (as adjusted)	September 29, 2017 (as adjusted)	
Current:				
Federal	\$ 14,144	\$ 40,624	\$ 30,718	
State	394	333	610	
Foreign	64,335	59,383	55,531	
Total current	78,873	100,340	86,859	
Federal	(55,793)	43,377	(35,824)	
State	1,007	17,484	(4,604)	
Foreign	2,715	(7,132)	1,608	
Total deferred	(52,071)	53,729	(38,820)	
Provision for income taxes	\$ 26,802	\$154,069	\$ 48,039	

Repatriation of Undistributed Foreign Earnings

As a result of the Tax Act, foreign accumulated earnings that were subject to the mandatory Transition Tax as of December 31, 2017, can be repatriated to the U.S. without incurring further U.S. federal tax. The Tax Act moves towards a modified territorial tax system through the provision of a 100% dividend received deduction for the foreign-source portions of dividends received from controlled foreign subsidiaries. As a result, we continue to evaluate the indefinite reinvestment assertions with regards to unremitted earnings for certain of our foreign subsidiaries. During the fiscal year, we repatriated \$300 million of foreign subsidiary earnings which were exempt from foreign withholding tax. As of September 27, 2019, the total undistributed earnings of our non-U.S. subsidiaries were approximately \$380 million. Historically, we have asserted our intention to indefinitely reinvest a portion of the undistributed earnings of certain foreign subsidiaries. However, we have reevaluated our historical assertion as a result of the Tax Act and

determined that we no longer consider a vast majority of these earnings to be indefinitely reinvested. The unrecognized deferred tax liability on the portion of the undistributed earnings considered indefinitely reinvested is not material.

Deferred Income Taxes

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, using enacted tax rates in effect for the year in which the differences are expected to reverse. A summary of the tax effects of the temporary differences were as follows (in thousands):

	Fiscal Year Ended	
	September 27, 2019	September 28, 2018 (as adjusted)
Deferred income tax assets:		
Investments	\$ 2,099	\$ 2,215
Inventories	4,041	4,070
Net operating loss	2,050	2,174
Accrued expenses	13,917	12,573
Stock-based compensation	17,189	15,601
Revenue recognition	4,410	7,161
Depreciation and amortization	19,988	16,078
Research and development credits	28,777	21,302
Foreign tax credits	10,777	9,345
Deemed repatriated earnings tax benefit	33,357	_
Other	4,705	3,334
Total gross deferred income tax assets	141,310	93,853
Less: valuation allowance	(24,884)	(16,256)
Total deferred income tax assets	116,426	77,597
Intangibles	(2,351)	(2,831)
Deferred income tax assets, net (non-current)	\$114,075	\$ 74,766

NOL and Tax Credit Carryforwards

At September 27, 2019, the NOL carried forward for California tax purposes was \$4.9 million and will expire in fiscal 2029 if unused. Additionally, we had total foreign NOL carryforwards of \$8.3 million as of September 27, 2019, an amount which is not subject to expiration. At September 27, 2019, we had foreign tax credit and federal R&D tax credit carryforwards of \$8.3 million and \$8.4 million, respectively, which will expire between fiscal 2029 and fiscal 2039. We had California R&D tax credits of \$30.3 million, which will be carried forward indefinitely, and foreign R&D tax credits of \$3.1 million, which will expire between fiscal 2020 and fiscal 2029.

Valuation Allowance

As of September 27, 2019, a \$21.2 million valuation allowance was recorded against California deferred tax assets. In fiscal 2019, a \$3.7 million valuation allowance was established for foreign deferred tax assets for which ultimate realization of its future benefits is uncertain.

Effective Tax Rate

Each period, the combination of multiple different factors can impact our effective tax rate. These factors include both recurring items such as tax rates and the relative amount of income earned in foreign jurisdictions, as well as discrete items that may occur in, but are not necessarily consistent between periods. The benefit associated with the foreign rate differential shown below is net of the impact of uncertain tax positions affecting the amount of income subject to foreign taxation. A reconciliation of the federal statutory tax rate to our effective tax rate on income from continuing operations was as follows:

	Fiscal Year Ended			
	September 27, 2019	September 28, 2018 (as adjusted)	September 29, 2017 (as adjusted)	
Federal statutory rate	21.0%	24.6%	35.0%	
State income taxes, net of federal effect	0.2	0.7	0.7	
Stock-based compensation expense rate	(2.8)	(5.2)	1.4	
Research and development tax credits	(3.0)	(4.5)	(3.7)	
Tax exempt interest	_	(0.1)	(0.1)	
U.S. manufacturing tax incentives	_	(0.2)	(0.8)	
Foreign rate differential	(2.6)	(5.2)	(22.9)	
Audit settlements	_	_	(0.6)	
Tax Act	(7.7)	53.3	—	
Change in Valuation Allowance	1.5	8.3	_	
Other	2.9	6.8	9.8	
Effective tax rate	9.5%	78.5%	18.8%	

Our effective tax rate was 9.5% in fiscal 2019, compared with our federal statutory rate of 21.0%, and with our effective tax rate in fiscal 2018 of 78.5%. The decrease in our effective tax rate reflects the impact from the Tax Act, most notably the remeasurement of net deferred tax assets and the Transition Tax on the accumulated earnings of our foreign subsidiaries, and the establishment of a valuation allowance against California tax credits in fiscal 2018. In addition, our federal statutory tax rate decreased from a blended rate of 24.6% in fiscal 2018 to 21% in fiscal 2019.

Our effective tax rate was 18.8% in fiscal 2017 and was 78.5% in fiscal 2018. The effective tax rate in fiscal 2018 compared to fiscal 2017 reflects a detriment from the impact from the Tax Act, most notably the remeasurement of net deferred tax assets and the Transition Tax on the accumulated earnings of our foreign subsidiaries, and the establishment of a valuation allowance against California tax credits in fiscal 2018, offset by a reduction in federal statutory tax rate and increase in excess benefit related to stock-based awards.

Uncertain Tax Positions

As of September 27, 2019, the total amount of gross unrecognized tax benefits was \$108.5 million, of which \$72.8 million, if recognized, would reduce our effective tax rate. Our liability for unrecognized tax benefits is classified within other non-current liabilities in our consolidated balance sheets. Over the next twelve months, we estimate that this amount could be reduced by \$57.8 million as a result of the expiration of certain statute of limitations. Aggregate changes in the balance of gross unrecognized tax benefits, excluding interest and penalties, were as follows (in thousands):

	Fiscal Year Ended		
	September 27, 2019	September 28, 2018	September 29, 2017
Beginning Balance	\$102,009	\$ 98,665	\$75,168
Gross increases—tax positions taken during prior years	115	_	308
Gross decreases—tax positions taken during prior years	_	(2,209)	_
Gross increases—tax positions taken during current year		9,580	26,724
Gross decreases—settlements with tax authorities during current year	_	(130)	(1,101)
Lapse of statute of limitations	(407)	(3,897)	(2,434)
Ending Balance	\$108,539	\$102,009	\$98,665

Classification of Interest and Penalties

We include interest and penalties related to gross unrecognized tax benefits within our provision for income taxes. To the extent accrued interest and penalties do not ultimately become payable, amounts accrued are reduced in the period that such determination is made and are reflected as a reduction of the overall income tax provision. In fiscal year 2019, our current tax provision was increased by interest expense of \$3.5 million, while in fiscal year 2018, our current tax provision was increased by interest expense of \$3.0 million. Accrued interest and penalties are included within the related tax liability line item in our consolidated balance sheets. Our accrued interest and penalties on unrecognized tax benefits as of September 27, 2019 and September 28, 2018 were as follows (in thousands):

	Fiscal Year Ended	
	September 27, 2019	September 28, 2018
Accrued interest	\$10,315	\$6,778
Accrued penalties	44	42
Total	\$10,359	\$6,820

We continue to monitor the progress of ongoing income tax controversies and the impact, if any, of the expected tolling of the statute of limitations in various taxing jurisdictions. We file income tax returns in the U.S. federal jurisdiction and in many state and foreign jurisdictions. The material income tax jurisdictions are the United States federal, California, New York, and the Netherlands.

We are currently under audit by the State of New York for fiscal years 2014 and 2015 and Spain for fiscal years 2012 through 2015. In the U.S. federal jurisdiction, other major states, and major foreign jurisdictions, the fiscal years subsequent to 2014, 2014, and 2012, respectively, remain open and could be subject to examination by the taxing authorities.

Management does not believe that the outcome of any ongoing examination will have a material impact on our consolidated financial statements. We believe that an adequate provision has been made for any adjustments that may result from tax examinations. However, the outcome of tax audits cannot be predicted with certainty. If resolution of any tax issues addressed in our current audits are inconsistent with management's expectations, we may be required to adjust our tax provision for income taxes in the period such resolution occurs.

12. Restructuring

Restructuring charges/(credits) recorded in our statements of operations represent costs associated with separate individual restructuring plans implemented in various fiscal periods. Costs arising from these actions, including fluctuations in related balances between fiscal periods, are based on the nature of activities under the various plans.

Fiscal 2019 Restructuring Events. In fiscal 2019, we recorded charges as a result of our early exit of a leased facility. In addition, we recorded charges associated with a strategic reorganization of our marketing function that resulted in severance and other related benefits provided to the affected employees.

As a result of these events, we recorded a total of \$36.6 million in restructuring costs in fiscal 2019 and they are reflected as such in the accompanying consolidated statement of operations. The table presented below summarizes changes in restructuring accruals under these plans (in thousands):

Severance	Leased facility exit costs	Fixed assets write-off	Other associated costs	Total
\$ —	\$ —	\$ —	\$ 124	\$ 124
3,134	18,261	15,216	(53)	36,558
(3,006)	(4,577)	_	(130)	(7,713)
	2,039	(15,216)	59	(13,118)
\$ 128	\$15,723	<u>\$</u>	<u>\$ —</u>	\$ 15,851
	\$ — 3,134 (3,006) —	Severance exit costs \$ — \$ — 3,134 18,261 (3,006) (4,577) — 2,039	Severance exit costs write-off \$ — \$ — 3,134 18,261 15,216 (3,006) (4,577) — — 2,039 (15,216)	Severance exit costs write-off costs \$ — \$ — \$ 124 3,134 18,261 15,216 (53) (3,006) (4,577) — (130) — 2,039 (15,216) 59

Fiscal 2017 Restructuring Plan. In September 2017, we implemented a plan to reduce certain activities in order to reallocate those resources towards higher priority investment areas. As a result, we recorded \$12.9 million in restructuring costs during fiscal 2017, representing severance and other related benefits offered to approximately 80 employees that were affected by this action. The table presented below summarizes changes in restructuring accruals under this plan (in thousands):

	associated costs
Restructuring charges	
Cash payments	
Non-cash and other adjustments	
Balance at September 29, 2017	\$ 12,688
Restructuring charges	
Cash payments	
Non-cash and other adjustments	(582)
Balance at September 28, 2018	\$ 124

13. Commitments & Contingencies

In the ordinary course of business, we enter into contractual agreements with third parties that include non-cancelable payment obligations, for which we are liable in future periods. These arrangements can include terms binding us to minimum payments and/or penalties if we terminate the agreement for any reason other than an event of default as described by the agreement. The following table presents a summary of our contractual obligations and commitments as of September 27, 2019 (in thousands):

	Payments Due By Fiscal Period						
	Fiscal 2020	Fiscal 2021	Fiscal 2022	Fiscal 2023	Fiscal 2024	Thereafter	Total
Naming rights	\$ 7,909	\$ 8,008	\$ 8,108	\$ 8,209	\$ 8,312	\$70,344	\$110,890
Operating leases	17,231	9,329	7,191	6,218	4,499	12,355	56,823
Purchase obligations	37,675	4,241	1,803		_	_	43,719
Donation commitments	4,243	141	141	141	141	1,059	5,866
Total	\$67,058	\$21,719	\$17,243	\$14,568	\$12,952	\$83,758	\$217,298

Naming Rights. We are party to an agreement for naming rights and related benefits with respect to the Dolby Theatre in Hollywood, California, the location of the Academy Awards[®]. The term of the agreement is 20 years, over which we will make payments on a semi-annual basis until fiscal 2032. Our payment obligations are conditioned in part on the Academy Awards being held and broadcast from the Dolby Theatre.

Operating Leases. Operating lease payments represent our commitments for future minimum rent made under non-cancelable leases for office space, including those payable to our principal stockholder and portions attributable to the controlling interests in our wholly owned subsidiaries. The following table summarizes information about our total rental expenses under operating leases, including the portion of this total rent expense which is payable to our principal stockholder (in thousands):

	Fiscal Year Ended		
	September 27, 2019	September 28, 2018	September 29, 2017
Total rent expense	\$20,589	\$17,161	\$15,091

Purchase Obligations. Purchase obligations primarily consist of our commitments made under agreements to purchase goods and services related to Dolby Cinema and for purposes that include IT and telecommunications, marketing and professional services, and manufacturing and other R&D activities.

Donation Commitments. Our donation commitments relate to non-cancelable obligations to the Museum of the Academy of Motion Picture Arts and Sciences in Los Angeles, California, and the Smithsonian Institution in Washington, DC. Our commitment to the Museum of the Academy of Motion Picture Arts and Sciences is for 15 years from its expected opening date in fiscal 2020, and the Smithsonian Institution is for the next 5 years. Both donation commitments consist of the installation of imaging and audio products in its theaters and providing maintenance services in exchange for various marketing, branding, and publicity benefits.

Indemnification Clauses. On a limited basis, our contractual agreements will contain a clause under which we agree to provide indemnification to the counterparty, most commonly to licensees in connection with licensing arrangements that include our IP. We have also entered into indemnification agreements with our officers, directors, and certain employees, and our certificate of incorporation and bylaws contain similar indemnification obligations. Additionally, and although not a contractual requirement, we have at times elected to defend our licensees from third party IP infringement claims. Since the terms and conditions of our contractual indemnification clauses do not explicitly specify our obligations, we are unable to reasonably estimate the maximum potential exposure for which we could be liable. Furthermore, we have not historically made any payments in connection with any such obligation and believe there to be a remote likelihood that any potential exposure in future periods would be of a material amount. As a result, no amounts have been accrued in our consolidated financial statements with respect to the contingent aspect of these indemnities.

14. Operating Segments & Geographic Information

Operating Segments

Operating segments are defined as components of an enterprise for which separate financial information is available, and which are evaluated regularly by the chief operating decision maker, or decision-making group, in deciding how to allocate resources and assess performance. Our CODM is our Chief Executive Officer. Reporting segments are operating segments exceeding specified revenue, profit or loss, or asset thresholds for which separate disclosure of information is necessary.

We operate as a single reporting segment. This reflects the fact that our CODM continues to evaluate our financial information and resources, and continues to assess the performance of these resources, on a consolidated basis. All required financial segment information is therefore included in our consolidated financial statements.

Geographic Information

The methods to determine revenue by geographic region for each of the three categories included within total revenue in our consolidated statements of operations are described within the table presented below.

Revenue Category	Basis For Determining Geographic Location
Licensing	Region in which our licensees' headquarters are located
Products	Destination to which our products are shipped
Services	Location in which the relevant services are performed

The following tables present selected information regarding total revenue by geographic location (amounts presented in thousands).

Revenue Composition—United States & International

	Fiscal Year Ended		
Location	September 27, 2019		September 29, 2017 (as adjusted)
United States	\$ 449,203	\$ 353,235	\$ 377,553
International	792,417	701,365	702,624
Total revenue	\$1,241,620	\$1,054,600	\$1,080,177

Revenue Concentration—Significant Individual Geographic Regions

	Fiscal Year Ended		
Location	September 27, 2019	September 28, 2018 (as adjusted)	September 29, 2017 (as adjusted)
United States	36%	33%	35%
South Korea	12%	17%	13%
China	20%	15%	20%
Japan	11%	13%	12%
Europe	12%	12%	10%
Taiwan	4%	3%	4%
Other	5%	7%	6%
Total	100%	100%	100%

Long-lived tangible assets, net of accumulated depreciation, by geographic region were as follows (in thousands):

Location	September 27, 2019	September 28, 2018
United States	\$460,370	\$453,336
International	77,062	60,846
Total long-lived tangible assets, net of accumulated depreciation	\$537,432	\$514,182

15. Legal Matters

We are involved in various legal proceedings that occasionally arise in the normal course of business. These can include claims of alleged infringement of IP rights, commercial, employment, and other matters. In our opinion, resolution of these proceedings is not expected to have a material adverse impact on our operating results or financial condition. Given the unpredictable nature of legal proceedings, it is possible that an unfavorable resolution of one or more such proceedings could materially affect our future operating results or financial condition in a particular period, including as a result of required changes to our licensing terms, monetary penalties, and other potential consequences. However, based on the information known by us as of the date of this filing and the rules and regulations applicable to the preparation of our consolidated financial statements, any such amounts are either immaterial, or it is not possible to provide an estimate of any such potential losses.

16. Related Parties

We maintain contractual agreements relating to certain entities affiliated with the Dolby family, who is considered a related party as our principal stockholder. These jointly-owned entities were established for the purpose of acquiring and leasing commercial property in the U.S. and U.K. primarily for our operational use. Although the entities affiliated with the Dolby family are the limited member or LP in each of these entities, they have a controlling interest based on holding majority economic ownership. We are the managing member or general partner in each of these affiliated entities, and with the exception of isolated instances where portions of these facilities are leased to third parties, we occupy the majority of the space. Therefore, we have consolidated the entities' assets and liabilities and results of operations in our consolidated financial statements. The share of earnings and net assets of the entities attributable to the limited member or LP, as the case may be, is reflected as controlling interest in our consolidated financial statements.

Our interests in these consolidated affiliated entities and the location of the property leased to Dolby Laboratories as of September 27, 2019 were as follows:

Entity Name	Minority Ownership Interest	Location Of Properties
Dolby Properties Brisbane, LLC	49.0%	Brisbane, California
Dolby Properties Burbank, LLC	49.0%	Burbank, California
Dolby Properties, LP	10.0%	Wootton Bassett, England

We lease from our principal stockholder a commercial office building located at 100 Potrero Avenue in San Francisco, California under a term that expires on October 31, 2024. In fiscal 2019, we ceased occupancy of the facility, and do not intend to re-occupy the locations. As a result of our ceased occupancy, we incurred \$33.5 million in restructuring charges recorded as operating expenses in our consolidated statement of operations. Related party rent expense included in operating expenses in our consolidated statements of operations were as follows (in thousands):

	Fiscal Year Ended		
	September 27, 2019	September 28, 2018	September 29, 2017
Related party rent expense and restructuring charges included in			
operating expenses	\$16,360	\$3,483	\$3,142

Distributions. Distributions made by the jointly-owned real estate entities to our principal stockholder were as follows (in thousands):

]	Fiscal Year Ende	1
	September 27, 2019	September 28, 2018	September 29, 2017
Distributions to principal stockholder	\$(1,015)	\$(1,022)	\$(2,094)

17. Retirement Plans

We maintain a tax-qualified Section 401(k) retirement plan for employees in the United States and similar plans in foreign jurisdictions. Under the plan, employees are eligible to receive matching contributions and profit-sharing contributions.

We also maintain a SERP, a non-qualified, employer-funded retirement plan for certain senior executives employed in the United States. The plan was adopted in October 2004 prior to our IPO and was terminated in fiscal 2005. We have not made any contributions to the SERP since fiscal 2006. The purpose of the plan was to provide these executives with the opportunity to receive retirement income benefits in addition to the benefits generally available to all employees. The benefits provided to participants were based on defined contributions that we made to the plan and the gains and losses on the investment of those contributions. At September 27, 2019, the balance in the SERP account represents amounts contributed prior to the plan's termination, with the underlying plan investments consisting primarily of mutual fund investments. SERP assets are included within prepaid expenses and other current assets and within other non-current assets, while SERP liabilities are included within accrued liabilities and within other non-current liabilities in our consolidated balance sheets.

Retirement plan expenses, which are included in cost of products, cost of services, R&D, S&M, and G&A expense in our consolidated statements of operations, were as follows (in thousands):

	1	riscal Year Ended	1
	September 27, 2019	September 28, 2018	September 29, 2017
Retirement plan expenses	\$23,375	\$23,439	\$22,035

18. Selected Quarterly Financial Data

The following table presents selected unaudited quarterly financial information from fiscal 2019 and 2018 (in thousands, except per share amounts):

		Fiscal Y	ear 2019		Fisca	al Year 201	18 (as adjus	sted)
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Revenue:								
Licensing	\$260,279	\$310,308	\$271,897	\$264,796	\$270,172	\$272,135	\$183,771	\$214,699
Products and services	42,097	27,950	30,262	34,031	29,355	27,587	31,009	25,872
Total revenue	302,376	338,258	302,159	298,827	299,527	299,722	214,780	240,571
Cost of revenue	38,629	36,575	39,690	45,960	30,893	31,027	34,383	31,259
Gross margin	263,747	301,683	262,469	252,867	268,634	268,695	180,397	209,312
Income/(loss) before taxes and controlling								
interest	74,254	110,002	41,800	56,251	96,547	87,782	(5,808)	17,853
Net income/(loss) attributable to Dolby								
Laboratories	\$ 98,219	\$ 73,440	\$ 39,574	\$ 43,918	\$(53,302)	\$ 65,216	\$ 3,116	\$ 26,716
Earnings per share:								
Basic	\$ 0.96	\$ 0.72	\$ 0.39	\$ 0.44	\$ (0.52)	\$ 0.63	\$ 0.03	\$ 0.26
Diluted	\$ 0.93	\$ 0.70	\$ 0.38	\$ 0.43	\$ (0.52)	\$ 0.61	\$ 0.03	\$ 0.25
Weighted-average shares outstanding:								
Basic	102,677	102,141	101,218	100,481	102,552	103,771	103,836	103,349
Diluted	106,130	104,587	103,717	102,945	102,552	107,001	106,950	106,794

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURES

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended ("Exchange Act"), that are designed to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in Securities and Exchange Commission rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), as appropriate, to allow for timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognized that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any disclosure controls and procedures also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Subject to the limitations noted above, our management, with the participation of our CEO and CFO, has evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the fiscal year covered by this Annual Report on Form 10-K. Based on that evaluation, the CEO and CFO have concluded that, as of such date, our disclosure controls and procedures were effective to meet the objective for which they were designed and operate at the reasonable assurance level.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company as defined in Rule 13a-15(f) or 15d-15(f) of the Exchange Act. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, and includes those policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

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

Our management assessed the effectiveness of the Company's internal control over financial reporting as of September 27, 2019 using the criteria established in *Internal Control—Integrated Framework (2013)* issued by the COSO. Based on this assessment and those criteria, management concluded that our internal control over financial reporting was effective as of September 27, 2019. Our internal control over financial reporting has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report, which appears in Part II, Item 8 of this Form 10-K.

Changes in Internal Control Over Financial Reporting

We adopted ASC 606, "Revenue from Contracts with Customers" beginning September 29, 2018. As a result of this adoption, we implemented new processes and internal controls related to the estimation of licensing revenues. There were no other changes in our internal control over financial reporting during the fiscal year ended September 27, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

	ITEM 9R	OTHER	INFORMA	TION
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None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this item concerning our directors, compliance with Section 16 of the Securities Exchange Act of 1934, as amended ("Exchange Act"), our code of business conduct and ethics, our Compensation Committee, Nominating and Governance Committee and Audit Committee is incorporated by reference from the information set forth in the sections under the headings "Election of Directors," "Delinquent Section 16(a) Reports" and "Corporate Governance Matters" in our Definitive Proxy Statement to be filed with the Securities and Exchange Commission in connection with the Annual Meeting of Stockholders to be held in 2020 ("2020 Proxy Statement").

Executive Officers of the Registrant

Our executive officers serve at the discretion of the Board of Directors. The names of our executive officers and their ages, titles, and biographies as of October 25, 2019 are set forth below:

Executive Officers	Age	Position(s)
Kevin Yeaman	53	President and Chief Executive Officer
Lewis Chew	56	Executive Vice President and Chief Financial Officer
Andy Sherman	52	Executive Vice President, General Counsel and Corporate Secretary
Giles Baker	43	Senior Vice President, Consumer Entertainment
Steven Forshay	65	Senior Vice President, Advanced Technology Group
Todd Pendleton	47	Senior Vice President, and Chief Marketing Officer

Kevin Yeaman joined us as Chief Financial Officer and Vice President in October 2005, was appointed Senior Vice President in November 2006 and Executive Vice President in July 2007. He became our President and CEO in March 2009 and has been a member of our Board since he assumed the role of CEO. Prior to joining us, he worked for seven years at E.piphany, Inc., a publicly traded enterprise software company, most recently as Chief Financial Officer from August 1999 to October 2005. Previously, Mr. Yeaman also served as Worldwide Vice President of Field Finance Operations for Informix Software, Inc., a provider of relational database software, from February 1998 to August 1998. From September 1988 to February 1998, Mr. Yeaman served in Silicon Valley and London in various positions at KPMG LLP, an accounting firm, serving most recently as a senior manager. Mr. Yeaman is a member of the Academy of Motion Picture Arts and Sciences. He also sits on the Board of Trustees of the Academy Museum Foundation. He holds a B.S. degree in commerce from Santa Clara University.

Lewis Chew joined us as Executive Vice President and Chief Financial Officer in June 2012. Mr. Chew leads the worldwide finance organization and is responsible for the financial and infrastructure support for our business, which includes all finance functions, information technology, real estate and facilities, manufacturing, supply chain, and investor relations. Mr. Chew comes to us with decades of financial and strategic business management experience. Mr. Chew is the former Senior Vice President of Finance and Chief Financial Officer of National Semiconductor Corporation, a manufacturer of electronic components, where he was responsible for all finance functions as well as information systems and investor relations. Prior to joining National Semiconductor, Mr. Chew was a partner at KPMG LLP, an accounting firm, serving numerous technology and financial institution clients. Mr. Chew holds a B.S. degree in accounting from Santa Clara University.

Andy Sherman joined us as Executive Vice President, General Counsel and Corporate Secretary in January 2011. Mr. Sherman oversees Dolby's patent licensing businesses and government relations, and Dolby's worldwide legal affairs, including all corporate, regulatory, IP, litigation, and licensing activities. Prior to joining us, from June 2008 to January 2011, Mr. Sherman served as Senior Vice President and General Counsel at CBS Interactive, an online content network, where he led the legal group advising CBS's online entertainment, mobile, technology, sports, news, games, lifestyle, and international business units. Mr. Sherman joined CBS Interactive following CBS's acquisition of CNET Networks, an online content network, where from June 2007 to June 2008 he was Senior Vice President, General Counsel and Secretary. Before CNET, Mr. Sherman served as Vice President, Legal at Sybase, an enterprise software and services company, from November 2006 to May

2007, following Sybase's acquisition of Mobile 365, where he was Vice President, General Counsel and Secretary. Prior to joining Mobile 365, he held senior legal positions with global responsibility at a variety of public technology companies including PeopleSoft and E.piphany. Earlier in his career, Mr. Sherman worked in private practice with Gray Cary Ware & Freidenrich (now DLA Piper), focusing on the representation of emerging technology companies. Mr. Sherman holds a J.D. from the University of the Pacific, as well as a B.S. degree in business administration from the University of Southern California.

Giles Baker joined us in March 2010 and has served since in a variety of positions, including Vice President, Broadcast Business Group; Senior Vice President, Broadcast Business Group; and since October 2016, Senior Vice President, Consumer Entertainment. Mr. Baker focuses on Dolby's business in the consumer entertainment industry, leading a global team that builds complete industry solutions—from content production to distribution and playback—to bring immersive entertainment experiences to consumer devices, including TVs, game consoles, PCs, digital media adapters, mobile phones, and tablets. Before joining Dolby, Mr. Baker spent nearly 10 years in business leadership roles at Adobe Systems, where he was responsible for professional video software. Previously, he was responsible for the professional DVD authoring business at Sonic Solutions. Mr, Baker holds an undergraduate degree in music and sound recording from the University of Surrey in the United Kingdom and an MBA degree from the Wharton School.

Steven Forshay joined us in July 1982 and has served since in a variety of positions advancing our technologies, including Senior Vice President, Research; Senior Vice President of Research for Image and Sound; Senior Vice President, Sound Technology R&D; and since January 2015, Senior Vice President, Advanced Technology Group. Mr. Forshay is a member of the Audio Engineering Society, the Institute of Electrical and Electronics Engineers, and the Society of Motion Picture and Television Engineers. Mr. Forshay holds a B.S.E.E. degree in electrical engineering from the New Jersey Institute of Technology and a M.B.A. from Saint Mary's College of California.

Todd Pendleton joined us in July 2018 as Senior Vice President and Chief Marketing Officer. He leads Dolby's marketing efforts and is responsible for promoting the brand globally to consumers and through its partners. Prior to Dolby, from June 2011 to June 2018, Mr. Pendleton served as Chief Marketing Officer of Samsung Telecommunications America, where he among other things led the relaunch of the Samsung Galaxy. Prior to Samsung Telecommunications America, Mr. Pendleton was with Nike for over 15 years, where he held country, regional, and global leadership roles working across North America, Europe, and Asia. Mr. Pendleton earned his B.A. degree in Political Science and International Business from Northeastern University in Boston, Massachusetts.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item concerning executive compensation is incorporated by reference from the information in the 2020 Proxy Statement under the headings "Compensation Discussion and Analysis," "Report of the Compensation Committee of the Board of Directors," "Executive Compensation Tables and Related Matters," "Compensation of Directors", and "Corporate Governance Matters-Compensation Committee Interlocks and Insider Participation."

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item concerning securities authorized for issuance under equity compensation plans and security ownership of certain beneficial owners and management is incorporated by reference from the information in the 2020 Proxy Statement under the headings "Executive Compensation Tables and Related Matters—Equity Compensation Plan Information" and "Security Ownership of Certain Beneficial Owners and Management."

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item concerning transactions with related persons and director independence is incorporated by reference from the information in the 2020 Proxy Statement under the headings "Certain Relationships and Related Transactions" and "Corporate Governance Matters."

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item is incorporated by reference from the information in the 2020 Proxy Statement under the heading "Ratification of Independent Registered Public Accounting Firm."

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

- 1. Financial Statements: See "Index to Consolidated Financial Statements" in Part II, Item 8 of this Annual Report on Form 10-K.
- 2. Financial Statement Schedules: Financial statement schedules have been omitted as the information required is inapplicable or the information is presented in the consolidated financial statements and related notes
- 3. Exhibits: The exhibits listed in the accompanying index to exhibits are filed or incorporated by reference as part of this Annual Report on Form 10-K.

INDEX TO EXHIBITS

Exhibit		Incorporated by Reference Herein		
Number	Description	Form	Date	
2.1*	Asset Contribution Agreement dated November 19, 2004, by and between the Registrant, Dolby Laboratories Licensing Corporation, Ray Dolby individually, Ray Dolby as Trustee for the Ray Dolby Trust under the Dolby Family Trust instrument dated May 7, 1999, and Ray and Dagmar Dolby Investments L.P.	Registration Statement on Form S-1 (No. 333-120614), Amendment No. 1	December 30, 2004	
3.1	Amended and Restated Certificate of Incorporation	Registration Statement on Form S-1 (No. 333-120614), Amendment No. 2	January 19, 2005	
3.2	Form of Amended and Restated Bylaws	Quarterly Report on Form 10-Q	April 30, 2009	
4.1	Form of Registrant's Class A Common Stock Certificate	Registration Statement on Form S-1 (No. 333-120614), Amendment No. 1	December 30, 2004	
4.2	Form of Registrant's Class B Common Stock Certificate	Registration Statement on Form 8-A	January 25, 2006	
4.3+	Description of Capital Stock			
10.1*	Form of Indemnification Agreement entered into between the Registrant and its Directors & Officers	Registration Statement on Form S-1 (No. 333-120614)	November 19, 2004	
10.2*	2000 Stock Incentive Plan, as amended and restated	Quarterly Report on Form 10-Q	February 6, 2013	
10.3*	2005 Stock Plan, as amended and restated on February 7, 2017 ("2005 Stock Plan")	Current Report on Form 8-K	February 9, 2017	
10.4*	Employee Stock Purchase Plan ("ESPP"), as amended and restated on September 19, 2017	Annual Report on Form 10-K	November 16, 2017	
10.5*	Forms of Stock Option Agreements under the 2000 Stock Incentive Plan	Registration Statement on Form S-1 (No. 333-120614)	November 19, 2004	
10.6*	Form of Global Stock Option Agreement under the 2005 Stock Plan	Quarterly Report on Form 10-Q	February 2, 2017	
10.7*	Form of Executive Global Stock Option Agreement under the 2005 Stock Plan	Quarterly Report on Form 10-Q	February 2, 2017	
10.8*	Form of Global Restricted Stock Unit Agreement under the 2005 Stock Plan	Quarterly Report on Form 10-Q	February 2, 2017	

Exhibit		Incorporated by Reference Herein	
Number	Description	Form	Date
10.9*	Form of Executive Global Restricted Stock Unit Agreement under the 2005 Stock Plan	Quarterly Report on Form 10-Q	February 2, 2017
10.10*	Form of Subscription Agreement under the ESPP—U.S. Employees	Annual Report on Form 10-K	November 19, 2009
10.11*	Form of Subscription Agreement under the ESPP—Non-U.S. Employees	Quarterly Report on Form 10-Q	August 8, 2012
10.12*	Form of Executive Performance- Based Stock Option Agreement	Current Report on Form 8-K	December 11, 2015
10.13*	2019 Dolby Executive Annual Incentive Plan	Current Report on Form 8-K	November 16, 2018
10.14*	Employment Agreement dated February 24, 2009, by and between Dolby Laboratories, Inc. & Kevin Yeaman	Quarterly Report on Form 10-Q	April 30, 2009
10.15*	Amendment, dated as of December 19, 2012, to Employment Agreement dated as of February 24, 2009, by and between Dolby Laboratories, Inc. and Kevin Yeaman	Quarterly Report on Form 10-Q	February 6, 2013
10.16*	Offer Letter by and between Andy Sherman & Dolby Laboratories, Inc.	Quarterly Report on Form 10-Q	May 10, 2011
10.17*	Offer Letter dated March 22, 2012 by and between Lewis Chew and Dolby Laboratories, Inc.	Quarterly Report on Form 10-Q	May 8, 2012
10.18*	Lease for 100 Potrero Avenue, San Francisco, California	Quarterly Report on Form 10-Q	February 8, 2006
10.19*	First Amendment to Lease for 100 Potrero Avenue, San Francisco, California	Quarterly Report on Form 10-Q	May 4, 2006
10.20*	Second Amendment to 100 Potrero Avenue, San Francisco, California Lease Agreement dated May 6, 2014 by and among Dolby Laboratories, Inc. and the Dolby Family Trust & affiliated Trusts	Quarterly Report on Form 10-Q	July 30, 2014
10.21*	Lease for 130 Potrero Avenue, San Francisco, California	Quarterly Report on Form 10-Q	February 8, 2006
10.22*	First Amendment to 130 Potrero Avenue, San Francisco, California Lease Agreement dated May 6, 2014 by and among Dolby Laboratories, Inc. and the Dolby Family Trust & affiliated Trusts	Quarterly Report on Form 10-Q	July 30, 2014

Exhibit		Incorporated by Referen	ce Herein
Number	Description	Form	Date
10.23*	Lease for 140 Potrero Avenue, San Francisco, California	Quarterly Report on Form 10-Q	February 8, 2006
10.24*	First Amendment to 140 Potrero Avenue, San Francisco, California Lease Agreement dated May 6, 2014 by and among Dolby Laboratories, Inc. and the Dolby Family Trust & affiliated Trusts	Quarterly Report on Form 10-Q	July 30, 2014
10.25*	Waiver and Extension Relating to Potrero Avenue Leases dated as of September 29, 2013, by and among Dolby Laboratories, Inc. and the Dolby Family Trust & affiliated Trusts	Annual Report on Form 10-K	November 15, 2013
10.26*	Agreement of Sale and Purchase by and between DWF III 1275 Market, LLC and Dolby Laboratories, Inc. dated June 8, 2012	Quarterly Report on Form 10-Q	August 8, 2012
10.27*	Offer Letter dated June 26, 2018 by and between Todd Pendleton and Dolby Laboratories, Inc.	Quarterly Report on Form 10-Q	August 1, 2018
21.1+	List of significant subsidiaries of the Registrant		
23.1+	Consent of KPMG LLP, Independent Registered Public Accounting Firm		
24.1	Power of Attorney (incorporated by reference from the signature page of this Annual Report on Form 10-K)		
31.1+	Certification of Chief Executive Officer pursuant to Exchange Act Rule 13a-14(a)/15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act		
31.2+	Certification of Chief Financial Officer pursuant to Exchange Act Rule 13a-14(a)/15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act		
32.1‡	Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act		

Exhibit		Incorporated by Reference Herein	
Number	Description	Form	Date
101.INS‡	XBRL Instance Document		
101.SCH‡	XBRL Taxonomy Extension Schema Document		
101.CAL‡	XBRL Taxonomy Extension Calculation Linkbase Document		
101.DEF‡	XBRL Extension Definition		
101.LAB‡	XBRL Taxonomy Extension Label Linkbase Document		
101.PRE‡	XBRL Taxonomy Extension Presentation Linkbase Document		

⁺ Filed herewith.

^{*} Denotes a management contract or compensatory plan or arrangement. ‡ Furnished herewith.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: November 22, 2019

DOLBY LABORATORIES, INC.

By: /s/ Lewis Chew

Lewis Chew
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Kevin J. Yeaman and Lewis Chew, and each of them, his or her attorney-in-fact, each with the power of substitution, for him or her in any and all capacities, to sign any amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his or her substitutes, may do or cause to be done by virtue of hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

SIGNATURE	TITLE	DATE
/s/ PETER GOTCHER Peter Gotcher	Chairman of the Board of Directors	November 22, 2019
/s/ KEVIN J. YEAMAN Kevin J. Yeaman	President, Chief Executive Officer and Director (Principal Executive Officer)	November 22, 2019
/s/ Lewis Chew Lewis Chew	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	November 22, 2019
/S/ RYAN NICHOLSON Ryan Nicholson	Vice President, Corporate Controller (Principal Accounting Officer)	November 22, 2019
/s/ MICHELINE CHAU Micheline Chau	Director	November 22, 2019
/s/ DAVID DOLBY David Dolby	Director	November 22, 2019
/s/ N. W. JASPER, JR. N. W. Jasper, Jr.	Director	November 22, 2019
/s/ SIMON SEGARS Simon Segars	Director	November 22, 2019
/S/ ROGER SIBONI Roger Siboni	Director	November 22, 2019
/s/ Anjali Sud	Director	November 22, 2019
/s/ Avadis Tevanian, Jr. Avadis Tevanian, Jr.	Director	November 22, 2019

Dolby Laboratories (NYSE:DLB) is based in San Francisco with offices in over 20 countries around the globe. Dolby transforms the science of sight and sound into spectacular experiences. Through innovative research and engineering, we create breakthrough experiences for billions of people worldwide through a collaborative ecosystem spanning artists, businesses, and consumers. The experiences people have - in Dolby Vision®, Dolby Atmos®, Dolby Cinema®, Dolby Voice®, and Dolby Audio™ - revolutionize entertainment and communications at the cinema, on the go, in the home, and at work.

For more information, please visit: www.dolby.com.

Executive Officers and Directors

Kevin Yeaman President, Chief Executive Officer, and Director

Lewis Chew Executive Vice President and Chief Financial Officer

Andy Sherman Executive Vice President, General Counsel, and Corporate Secretary

Giles Baker Senior Vice President, Consumer Entertainment

Steven Forshay Senior Vice President, Advanced Technology Group

Todd Pendleton Senior Vice President and Chief Marketing Officer

Outside Directors

Peter Gotcher Chairman of the Board of Directors Micheline Chau David Dolby N.W. (Bill) Jasper, Jr. Simon Segars Roger Siboni Anjali Sud Avadis Tevanian, Jr.

Investor Relations

Dolby Laboratories, Inc. 1275 Market Street San Francisco, CA 94103-1410 http://investor.dolby.com investor@dolby.com

Transfer Agent and Registrar

Computershare Trust Company, N.A. P.O. Box 505000 Louisville, KY 40233-5000 800-587-3984 www.computershare.com/investor

Legal Counsel

Wilson Sonsini Goodrich & Rosati, Professional Corporation Palo Alto, CA

Public Accounting

KPMG LLP San Francisco, CA

Class A Common Stock

Listed on the New York Stock Exchange under stock symbol DLB

A copy of Dolby's Annual Report on Form 10-K may be ordered, viewed, or downloaded at http://investor.dolby.com.



Investor Relations Dolby Laboratories, Inc. dolby.com

1275 Market Street San Francisco, CA 94103-1410 USA T 415-558-0200 F 415-645-4000



