Item 8. Financial Statements and Supplementary Data

All financial statement schedules have been omitted, since the required information is not applicable or is not present in amounts sufficient to require submission of the schedule, or because the information required is included in the consolidated financial statements and accompanying notes.

Apple Inc.

CONSOLIDATED STATEMENTS OF OPERATIONS

(In millions, except number of shares which are reflected in thousands and per share amounts)

	Years ended		
	September 28, 2019	September 29, 2018	September 30, 2017
Net sales:			
Products	$ 213,883	$ 225,847	$ 196,534
Services	46,291	39,748	32,700
Total net sales	260,174	265,595	229,234
Cost of sales:			
Products	144,996	148,164	126,337
Services	16,786	15,592	14,711
Total cost of sales	161,782	163,756	141,048
Gross margin	98,392	101,839	88,186
Operating expenses:			
Research and development	16,217	14,236	11,581
Selling, general and administrative	18,245	16,705	15,261
Total operating expenses	34,462	30,941	26,842
Operating income	63,930	70,898	61,344
Other income/(expense), net	1,807	2,005	2,745
Income before provision for income taxes	65,737	72,903	64,089
Provision for income taxes	10,481	13,372	15,738
Net income	$ 55,256	$ 59,531	$ 48,351
Earnings per share:			
Basic	$ 11.97	$ 12.01	$ 9.27
Diluted	$ 11.89	$ 11.91	$ 9.21
Shares used in computing earnings per share:			
Basic	4,617,834	4,955,377	5,217,242
Diluted	4,648,913	5,000,109	5,251,692

See accompanying Notes to Consolidated Financial Statements.

Apple Inc.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In millions)

	Years ended		
	September 28, 2019	**September 29, 2018**	**September 30, 2017**
Net income	$ 55,256	$ 59,531	$ 48,351
Other comprehensive income/(loss):			
Change in foreign currency translation, net of tax	(408)	(525)	224
Change in unrealized gains/losses on derivative instruments, net of tax:			
Change in fair value of derivatives	(661)	523	1,315
Adjustment for net (gains)/losses realized and included in net income	23	382	(1,477)
Total change in unrealized gains/losses on derivative instruments	(638)	905	(162)
Change in unrealized gains/losses on marketable securities, net of tax:			
Change in fair value of marketable securities	3,802	(3,407)	(782)
Adjustment for net (gains)/losses realized and included in net income	25	1	(64)
Total change in unrealized gains/losses on marketable securities	3,827	(3,406)	(846)
Total other comprehensive income/(loss)	2,781	(3,026)	(784)
Total comprehensive income	$ 58,037	$ 56,505	$ 47,567

See accompanying Notes to Consolidated Financial Statements.

Apple Inc.

CONSOLIDATED BALANCE SHEETS
(In millions, except number of shares which are reflected in thousands and par value)

	September 28, 2019	September 29, 2018
ASSETS:		
Current assets:		
Cash and cash equivalents	$ 48,844	$ 25,913
Marketable securities	51,713	40,388
Accounts receivable, net	22,926	23,186
Inventories	4,106	3,956
Vendor non-trade receivables	22,878	25,809
Other current assets	12,352	12,087
Total current assets	162,819	131,339
Non-current assets:		
Marketable securities	105,341	170,799
Property, plant and equipment, net	37,378	41,304
Other non-current assets	32,978	22,283
Total non-current assets	175,697	234,386
Total assets	$ 338,516	$ 365,725
LIABILITIES AND SHAREHOLDERS' EQUITY:		
Current liabilities:		
Accounts payable	$ 46,236	$ 55,888
Other current liabilities	37,720	33,327
Deferred revenue	5,522	5,966
Commercial paper	5,980	11,964
Term debt	10,260	8,784
Total current liabilities	105,718	115,929
Non-current liabilities:		
Term debt	91,807	93,735
Other non-current liabilities	50,503	48,914
Total non-current liabilities	142,310	142,649
Total liabilities	248,028	258,578
Commitments and contingencies		
Shareholders' equity:		
Common stock and additional paid-in capital, $0.00001 par value: 12,600,000 shares authorized; 4,443,236 and 4,754,986 shares issued and outstanding, respectively	45,174	40,201
Retained earnings	45,898	70,400
Accumulated other comprehensive income/(loss)	(584)	(3,454)
Total shareholders' equity	90,488	107,147
Total liabilities and shareholders' equity	$ 338,516	$ 365,725

See accompanying Notes to Consolidated Financial Statements.

Apple Inc.

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
(In millions, except per share amounts)

	Years ended		
	September 28, 2019	**September 29, 2018**	**September 30, 2017**
Total shareholders' equity, beginning balances	$ 107,147	$ 134,047	$ 128,249
Common stock and additional paid-in capital:			
Beginning balances	40,201	35,867	31,251
Common stock issued	781	669	555
Common stock withheld related to net share settlement of equity awards	(2,002)	(1,778)	(1,468)
Share-based compensation	6,194	5,443	4,909
Tax benefit from equity awards, including transfer pricing adjustments	—	—	620
Ending balances	45,174	40,201	35,867
Retained earnings:			
Beginning balances	70,400	98,330	96,364
Net income	55,256	59,531	48,351
Dividends and dividend equivalents declared	(14,129)	(13,735)	(12,803)
Common stock withheld related to net share settlement of equity awards	(1,029)	(948)	(581)
Common stock repurchased	(67,101)	(73,056)	(33,001)
Cumulative effects of changes in accounting principles	2,501	278	—
Ending balances	45,898	70,400	98,330
Accumulated other comprehensive income/(loss):			
Beginning balances	(3,454)	(150)	634
Other comprehensive income/(loss)	2,781	(3,026)	(784)
Cumulative effects of changes in accounting principles	89	(278)	—
Ending balances	(584)	(3,454)	(150)
Total shareholders' equity, ending balances	$ 90,488	$ 107,147	$ 134,047
Dividends and dividend equivalents declared per share or RSU	$ 3.00	$ 2.72	$ 2.40

See accompanying Notes to Consolidated Financial Statements.

Apple Inc.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)

	Years ended		
	September 28, 2019	September 29, 2018	September 30, 2017
Cash, cash equivalents and restricted cash, beginning balances	$ 25,913	$ 20,289	$ 20,484
Operating activities:			
Net income	55,256	59,531	48,351
Adjustments to reconcile net income to cash generated by operating activities:			
Depreciation and amortization	12,547	10,903	10,157
Share-based compensation expense	6,068	5,340	4,840
Deferred income tax expense/(benefit)	(340)	(32,590)	5,966
Other	(652)	(444)	(166)
Changes in operating assets and liabilities:			
Accounts receivable, net	245	(5,322)	(2,093)
Inventories	(289)	828	(2,723)
Vendor non-trade receivables	2,931	(8,010)	(4,254)
Other current and non-current assets	873	(423)	(5,318)
Accounts payable	(1,923)	9,175	8,966
Deferred revenue	(625)	(3)	(593)
Other current and non-current liabilities	(4,700)	38,449	1,092
Cash generated by operating activities	69,391	77,434	64,225
Investing activities:			
Purchases of marketable securities	(39,630)	(71,356)	(159,486)
Proceeds from maturities of marketable securities	40,102	55,881	31,775
Proceeds from sales of marketable securities	56,988	47,838	94,564
Payments for acquisition of property, plant and equipment	(10,495)	(13,313)	(12,451)
Payments made in connection with business acquisitions, net	(624)	(721)	(329)
Purchases of non-marketable securities	(1,001)	(1,871)	(521)
Proceeds from non-marketable securities	1,634	353	126
Other	(1,078)	(745)	(124)
Cash generated by/(used in) investing activities	45,896	16,066	(46,446)
Financing activities:			
Proceeds from issuance of common stock	781	669	555
Payments for taxes related to net share settlement of equity awards	(2,817)	(2,527)	(1,874)
Payments for dividends and dividend equivalents	(14,119)	(13,712)	(12,769)
Repurchases of common stock	(66,897)	(72,738)	(32,900)
Proceeds from issuance of term debt, net	6,963	6,969	28,662
Repayments of term debt	(8,805)	(6,500)	(3,500)
Proceeds from/(Repayments of) commercial paper, net	(5,977)	(37)	3,852
Other	(105)	—	—
Cash used in financing activities	(90,976)	(87,876)	(17,974)
Increase/(Decrease) in cash, cash equivalents and restricted cash	24,311	5,624	(195)
Cash, cash equivalents and restricted cash, ending balances	$ 50,224	$ 25,913	$ 20,289
Supplemental cash flow disclosure:			
Cash paid for income taxes, net	$ 15,263	$ 10,417	$ 11,591
Cash paid for interest	$ 3,423	$ 3,022	$ 2,092

See accompanying Notes to Consolidated Financial Statements.

Note 1 – Summary of Significant Accounting Policies

Basis of Presentation and Preparation

The accompanying consolidated financial statements include the accounts of Apple Inc. and its wholly owned subsidiaries (collectively "Apple" or the "Company"). Intercompany accounts and transactions have been eliminated. In the opinion of the Company's management, the consolidated financial statements reflect all adjustments, which are normal and recurring in nature, necessary for fair financial statement presentation. The preparation of these consolidated financial statements and accompanying notes in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported. Actual results could differ materially from those estimates. Certain prior period amounts in the consolidated financial statements and accompanying notes have been reclassified to conform to the current period's presentation.

The Company's fiscal year is the 52- or 53-week period that ends on the last Saturday of September. The Company's fiscal years 2019 and 2018 spanned 52 weeks each, whereas fiscal year 2017 included 53 weeks. A 14th week was included in the first fiscal quarter of 2017, as is done every five or six years, to realign the Company's fiscal quarters with calendar quarters. Unless otherwise stated, references to particular years, quarters, months and periods refer to the Company's fiscal years ended in September and the associated quarters, months and periods of those fiscal years.

Recently Adopted Accounting Pronouncements

Revenue Recognition

In the first quarter of 2019, the Company adopted the Financial Accounting Standards Board's (the "FASB") Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* ("ASU 2014-09"), and additional ASUs issued to clarify the guidance in ASU 2014-09 (collectively the "new revenue standard"), which amends the existing accounting standards for revenue recognition. The Company adopted the new revenue standard utilizing the full retrospective transition method. The Company did not restate total net sales in the prior periods presented, as the adoption of the new revenue standard did not have a material impact on previously reported amounts.

Additionally, beginning in the first quarter of 2019, the Company classified the amortization of the deferred value of Maps, Siri and free iCloud services, which are bundled in the sales price of iPhone, Mac, iPad and certain other products, in Services net sales. Historically, the Company classified the amortization of these amounts in Products net sales consistent with its management reporting framework. As a result, Products and Services net sales for 2018 and 2017 were reclassified to conform to the 2019 presentation.

Financial Instruments

In the first quarter of 2019, the Company adopted FASB ASU No. 2016-01, *Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities* ("ASU 2016-01"), which updates certain aspects of the recognition, measurement, presentation and disclosure of financial instruments. The adoption of ASU 2016-01 did not have a material impact on the Company's consolidated financial statements.

Income Taxes

In the first quarter of 2019, the Company adopted FASB ASU No. 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory* ("ASU 2016-16"), which requires the recognition of the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. The Company adopted ASU 2016-16 utilizing the modified retrospective transition method. Upon adoption, the Company recorded $2.7 billion of net deferred tax assets, reduced other non-current assets by $128 million, and increased retained earnings by $2.6 billion on its Consolidated Balance Sheet. The Company will recognize incremental deferred income tax expense as these net deferred tax assets are utilized.

Restricted Cash

In the first quarter of 2019, the Company adopted FASB ASU No. 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash* ("ASU 2016-18"), which enhances and clarifies the guidance on the classification and presentation of restricted cash in the statement of cash flows and requires additional disclosures about restricted cash balances.

Advertising Costs

Advertising costs are expensed as incurred and included in selling, general and administrative expenses.

Share-Based Compensation

The Company generally measures share-based compensation based on the closing price of the Company's common stock on the date of grant, and recognizes expense on a straight-line basis for its estimate of equity awards that will ultimately vest. Further information regarding share-based compensation can be found in Note 9, "Benefit Plans."

Earnings Per Share

The following table shows the computation of basic and diluted earnings per share for 2019, 2018 and 2017 (net income in millions and shares in thousands):

	2019	2018	2017
Numerator:			
Net income	$ 55,256	$ 59,531	$ 48,351
Denominator:			
Weighted-average basic shares outstanding	4,617,834	4,955,377	5,217,242
Effect of dilutive securities	31,079	44,732	34,450
Weighted-average diluted shares	4,648,913	5,000,109	5,251,692
Basic earnings per share	$ 11.97	$ 12.01	$ 9.27
Diluted earnings per share	$ 11.89	$ 11.91	$ 9.21

The Company applies the treasury stock method to determine the dilutive effect of potentially dilutive securities. Potentially dilutive securities representing 15.5 million shares of common stock were excluded from the computation of diluted earnings per share for 2019 because their effect would have been antidilutive.

Cash Equivalents and Marketable Securities

All highly liquid investments with maturities of three months or less at the date of purchase are classified as cash equivalents.

The Company's investments in marketable debt securities have been classified and accounted for as available-for-sale. The Company classifies its marketable debt securities as either short-term or long-term based on each instrument's underlying contractual maturity date. Unrealized gains and losses on marketable debt securities classified as available-for-sale are recognized in other comprehensive income/(loss) ("OCI").

The Company's investments in marketable equity securities are classified based on the nature of the securities and their availability for use in current operations. The Company's marketable equity securities are measured at fair value with gains and losses recognized in other income/(expense), net ("OI&E").

The cost of securities sold is determined using the specific identification method.

Inventories

Inventories are measured using the first-in, first-out method.

Property, Plant and Equipment

Depreciation on property, plant and equipment is recognized on a straight-line basis over the estimated useful lives of the assets, which for buildings is the lesser of 30 years or the remaining life of the underlying building; between one and five years for machinery and equipment, including product tooling and manufacturing process equipment; and the shorter of lease term or useful life for leasehold improvements. Capitalized costs related to internal-use software are amortized on a straight-line basis over the estimated useful lives of the assets, which range from three to five years. Depreciation and amortization expense on property and equipment was $11.3 billion, $9.3 billion and $8.2 billion during 2019, 2018 and 2017, respectively.

Non-cash investing activities involving property, plant and equipment resulted in a net increase/(decrease) to accounts payable and other current liabilities of $(2.9) billion and $3.4 billion during 2019 and 2018, respectively.

Non-Marketable Securities

The Company has elected to apply the measurement alternative to equity securities without readily determinable fair values. As such, the Company’s non-marketable equity securities are measured at cost, less any impairment, and are adjusted for changes in fair value resulting from observable transactions for identical or similar investments of the same issuer. Gains and losses on non-marketable equity securities are recognized in OI&E.

Restricted Cash and Restricted Marketable Securities

The Company considers cash and marketable securities to be restricted when withdrawal or general use is legally restricted. The Company records restricted cash as other assets in the Consolidated Balance Sheets, and determines current or non-current classification based on the expected duration of the restriction. The Company records restricted marketable securities as current or non-current marketable securities in the Consolidated Balance Sheets based on the classification of the underlying securities.

Fair Value Measurements

The fair values of the Company’s money market funds and certain marketable equity securities are based on quoted prices in active markets for identical assets. The valuation techniques used to measure the fair value of the Company’s debt instruments and all other financial instruments, which generally have counterparties with high credit ratings, are based on quoted market prices or model-driven valuations using significant inputs derived from or corroborated by observable market data.

Note 2 – Revenue Recognition

Net sales consist of revenue from the sale of iPhone, Mac, iPad, Services and other products. The Company recognizes revenue at the amount to which it expects to be entitled when control of the products or services is transferred to its customers. Control is generally transferred when the Company has a present right to payment and title and the significant risks and rewards of ownership of products or services are transferred to its customers. For most of the Company’s Products net sales, control transfers when products are shipped. For the Company’s Services net sales, control transfers over time as services are delivered. Payment for Products and Services net sales is collected within a short period following transfer of control or commencement of delivery of services, as applicable.

The Company records reductions to Products net sales related to future product returns, price protection and other customer incentive programs based on the Company’s expectations and historical experience.

For arrangements with multiple performance obligations, which represent promises within an arrangement that are capable of being distinct, the Company allocates revenue to all distinct performance obligations based on their relative stand-alone selling prices (“SSPs”). When available, the Company uses observable prices to determine SSPs. When observable prices are not available, SSPs are established that reflect the Company’s best estimates of what the selling prices of the performance obligations would be if they were sold regularly on a stand-alone basis. The Company’s process for estimating SSPs without observable prices considers multiple factors that may vary depending upon the unique facts and circumstances related to each performance obligation including, where applicable, prices charged by the Company for similar offerings, market trends in the pricing for similar offerings, product-specific business objectives and the estimated cost to provide the performance obligation.

The Company has identified up to three performance obligations regularly included in arrangements involving the sale of iPhone, Mac, iPad and certain other products. The first performance obligation, which represents the substantial portion of the allocated sales price, is the hardware and bundled software delivered at the time of sale. The second performance obligation is the right to receive certain product-related bundled services, which include iCloud, Siri and Maps. The third performance obligation is the right to receive, on a when-and-if-available basis, future unspecified software upgrades relating to the software bundled with each device. The Company allocates revenue and any related discounts to these performance obligations based on their relative SSPs. Because the Company lacks observable prices for the undelivered performance obligations, the allocation of revenue is based on the Company’s estimated SSPs. Revenue allocated to the delivered hardware and bundled software is recognized when control has transferred to the customer, which generally occurs when the product is shipped. Revenue allocated to the product-related bundled services and unspecified software upgrade rights is deferred and recognized on a straight-line basis over the estimated period they are expected to be provided. Cost of sales related to delivered hardware and bundled software, including estimated warranty costs, are recognized at the time of sale. Costs incurred to provide product-related bundled services and unspecified software upgrade rights are recognized as cost of sales as incurred.

For certain long-term service arrangements, the Company has performance obligations for services it has not yet delivered. For these arrangements, the Company does not have a right to bill for the undelivered services. The Company has determined that any unbilled consideration relates entirely to the value of the undelivered services. Accordingly, the Company has not recognized revenue, and has elected not to disclose amounts, related to these undelivered services.

For the sale of third-party products where the Company obtains control of the product before transferring it to the customer, the Company recognizes revenue based on the gross amount billed to customers. The Company considers multiple factors when determining whether it obtains control of third-party products including, but not limited to, evaluating if it can establish the price of the product, retains inventory risk for tangible products or has the responsibility for ensuring acceptability of the product. For third-party applications sold through the App Store, Mac App Store, TV App Store and Watch App Store and certain digital content sold through the Company's other digital content stores, the Company does not obtain control of the product before transferring it to the customer. Therefore, the Company accounts for such sales on a net basis by recognizing in Services net sales only the commission it retains.

The Company has elected to record revenue net of taxes collected from customers that are remitted to governmental authorities, with the collected taxes recorded within other current liabilities until remitted to the relevant government authority.

Deferred Revenue

As of September 28, 2019 and September 29, 2018, the Company had total deferred revenue of $8.1 billion and $8.8 billion, respectively. As of September 28, 2019, the Company expects 68% of total deferred revenue to be realized in less than a year, 25% within one-to-two years, 6% within two-to-three years and 1% in greater than three years.

Disaggregated Revenue

Net sales disaggregated by significant products and services for 2019, 2018 and 2017 were as follows (in millions):

	2019	2018	2017
iPhone (1)	$ 142,381	$ 164,888	$ 139,337
Mac (1)	25,740	25,198	25,569
iPad (1)	21,280	18,380	18,802
Wearables, Home and Accessories (1)(2)	24,482	17,381	12,826
Services (3)	46,291	39,748	32,700
Total net sales (4)	$ 260,174	$ 265,595	$ 229,234

(1) Products net sales include amortization of the deferred value of unspecified software upgrade rights, which are bundled in the sales price of the respective product.

(2) Wearables, Home and Accessories net sales include sales of AirPods, Apple TV, Apple Watch, Beats products, HomePod, iPod touch and Apple-branded and third-party accessories.

(3) Services net sales include sales from the Company's digital content stores and streaming services, AppleCare, licensing and other services. Services net sales also include amortization of the deferred value of Maps, Siri and free iCloud services, which are bundled in the sales price of certain products.

(4) Includes $5.9 billion of revenue recognized in 2019 that was included in deferred revenue as of September 29, 2018, $5.8 billion of revenue recognized in 2018 that was included in deferred revenue as of September 30, 2017, and $6.3 billion of revenue recognized in 2017 that was included in deferred revenue as of September 24, 2016.

The Company's proportion of net sales by disaggregated revenue source was generally consistent for each reportable segment in Note 11, "Segment Information and Geographic Data" for 2019, 2018 and 2017.

Note 3 – Financial Instruments

Cash, Cash Equivalents and Marketable Securities

The following tables show the Company's cash and marketable securities by significant investment category as of September 28, 2019 and September 29, 2018 (in millions):

	2019						
	Adjusted Cost	Unrealized Gains	Unrealized Losses	Fair Value	Cash and Cash Equivalents	Short-Term Marketable Securities	Long-Term Marketable Securities
Cash	$ 12,204	$ —	$ —	$ 12,204	$ 12,204	$ —	$ —
Level 1 (1):							
Money market funds	15,897	—	—	15,897	15,897	—	—
Subtotal	15,897	—	—	15,897	15,897	—	—
Level 2 (2):							
U.S. Treasury securities	30,293	33	(62)	30,264	6,165	9,817	14,282
U.S. agency securities	9,767	1	(3)	9,765	6,489	2,249	1,027
Non-U.S. government securities	19,821	337	(50)	20,108	749	3,168	16,191
Certificates of deposit and time deposits	4,041	—	—	4,041	2,024	1,922	95
Commercial paper	12,433	—	—	12,433	5,193	7,240	—
Corporate debt securities	85,383	756	(92)	86,047	123	26,127	59,797
Municipal securities	958	8	(1)	965	—	68	897
Mortgage- and asset-backed securities	14,180	67	(73)	14,174	—	1,122	13,052
Subtotal	176,876	1,202	(281)	177,797	20,743	51,713	105,341
Total (3)	$ 204,977	$ 1,202	$ (281)	$ 205,898	$ 48,844	$ 51,713	$ 105,341

	2018						
	Adjusted Cost	Unrealized Gains	Unrealized Losses	Fair Value	Cash and Cash Equivalents	Short-Term Marketable Securities	Long-Term Marketable Securities
Cash	$ 11,575	$ —	$ —	$ 11,575	$ 11,575	$ —	$ —
Level 1 (1):							
Money market funds	8,083	—	—	8,083	8,083	—	—
Mutual funds	799	—	(116)	683	—	683	—
Subtotal	8,882	—	(116)	8,766	8,083	683	—
Level 2 (2):							
U.S. Treasury securities	47,296	—	(1,202)	46,094	1,613	7,606	36,875
U.S. agency securities	4,127	—	(48)	4,079	1,732	360	1,987
Non-U.S. government securities	21,601	49	(250)	21,400	—	3,355	18,045
Certificates of deposit and time deposits	3,074	—	—	3,074	1,247	1,330	497
Commercial paper	2,573	—	—	2,573	1,663	910	—
Corporate debt securities	123,001	152	(2,038)	121,115	—	25,162	95,953
Municipal securities	946	—	(12)	934	—	178	756
Mortgage- and asset-backed securities	18,105	8	(623)	17,490	—	804	16,686
Subtotal	220,723	209	(4,173)	216,759	6,255	39,705	170,799
Total (3)	$ 241,180	$ 209	$ (4,289)	$ 237,100	$ 25,913	$ 40,388	$ 170,799

(1) Level 1 fair value estimates are based on quoted prices in active markets for identical assets or liabilities.

(2) Level 2 fair value estimates are based on observable inputs other than quoted prices in active markets for identical assets and liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

(3) As of September 28, 2019 and September 29, 2018, total cash, cash equivalents and marketable securities included $18.9 billion and $20.3 billion, respectively, that was restricted from general use, related to the State Aid Decision (refer to Note 5, "Income Taxes") and other agreements.

The Company may sell certain of its marketable debt securities prior to their stated maturities for reasons including, but not limited to, managing liquidity, credit risk, duration and asset allocation. The maturities of the Company's long-term marketable debt securities generally range from one to five years.

The following tables show information about the Company's marketable securities that had been in a continuous unrealized loss position for less than 12 months and for 12 months or greater as of September 28, 2019 and September 29, 2018 (in millions):

	2019		
	Continuous Unrealized Losses		
	Less than 12 Months	12 Months or Greater	Total
Fair value of marketable debt securities	$ 28,151	$ 28,167	$ 56,318
Unrealized losses	$ (138)	$ (143)	$ (281)

	2018		
	Continuous Unrealized Losses		
	Less than 12 Months	12 Months or Greater	Total
Fair value of marketable securities	$ 126,238	$ 60,599	$ 186,837
Unrealized losses	$ (2,400)	$ (1,889)	$ (4,289)

The Company typically invests in highly rated securities, with the primary objective of minimizing the potential risk of principal loss. The Company's investment policy generally requires securities to be investment grade and limits the amount of credit exposure to any one issuer. Fair values were determined for each individual security in the investment portfolio. When evaluating a marketable debt security for other-than-temporary impairment, the Company reviews factors such as the duration and extent to which the fair value of the security is less than its cost, the financial condition of the issuer and any changes thereto, and the Company's intent to sell, or whether it will more likely than not be required to sell, the security before recovery of its amortized cost basis. As of September 28, 2019, the Company does not consider any of its marketable debt securities to be other-than-temporarily impaired.

Non-Marketable Securities

The Company holds non-marketable equity securities of certain privately held companies without readily determinable fair values. As of September 28, 2019, the Company's non-marketable equity securities had a carrying value of $2.9 billion.

Restricted Cash

A reconciliation of the Company's cash and cash equivalents in the Consolidated Balance Sheet to cash, cash equivalents and restricted cash in the Consolidated Statement of Cash Flows as of September 28, 2019 is as follows (in millions):

	2019
Cash and cash equivalents	$ 48,844
Restricted cash included in other current assets	23
Restricted cash included in other non-current assets	1,357
Cash, cash equivalents and restricted cash	$ 50,224

The Company's restricted cash primarily consisted of cash required to be on deposit under a contractual agreement with a bank to support the Company's iPhone Upgrade Program.

Derivative Financial Instruments

The Company may use derivatives to partially offset its business exposure to foreign currency and interest rate risk on expected future cash flows, net investments in certain foreign subsidiaries, and certain existing assets and liabilities. However, the Company may choose not to hedge certain exposures for a variety of reasons including, but not limited to, accounting considerations or the prohibitive economic cost of hedging particular exposures. There can be no assurance the hedges will offset more than a portion of the financial impact resulting from movements in foreign currency exchange or interest rates.

To protect gross margins from fluctuations in foreign currency exchange rates, certain of the Company's subsidiaries whose functional currency is the U.S. dollar may hedge a portion of forecasted foreign currency revenue, and subsidiaries whose functional currency is not the U.S. dollar may hedge a portion of forecasted inventory purchases not denominated in the subsidiaries' functional currencies. The Company may enter into forward contracts, option contracts or other instruments to manage this risk and may designate these instruments as cash flow hedges. The Company generally hedges portions of its forecasted foreign currency exposure associated with revenue and inventory purchases, typically for up to 12 months.

To protect the net investment in a foreign operation from fluctuations in foreign currency exchange rates, the Company may enter into foreign currency forward and option contracts to offset a portion of the changes in the carrying amounts of these investments due to fluctuations in foreign currency exchange rates. In addition, the Company may use non-derivative financial instruments, such as its foreign currency–denominated debt, as hedges of its net investments in certain foreign subsidiaries. In both of these cases, the Company designates these instruments as net investment hedges.

To protect the Company's foreign currency–denominated term debt or marketable securities from fluctuations in foreign currency exchange rates, the Company may enter into forward contracts, cross-currency swaps or other instruments. These instruments may offset a portion of the foreign currency remeasurement gains or losses, or changes in fair value. The Company may designate these instruments as either cash flow or fair value hedges. As of September 28, 2019, the Company's hedged term debt– and marketable securities–related foreign currency transactions are expected to be recognized within 23 years.

The Company may also enter into non-designated foreign currency contracts to offset a portion of the foreign currency exchange gains and losses generated by the remeasurement of certain assets and liabilities denominated in non-functional currencies.

To protect the Company's foreign currency–denominated term debt or marketable securities from fluctuations in interest rates, the Company may enter into interest rate swaps, options or other instruments. These instruments may offset a portion of the changes in interest income or expense, or changes in fair value. The Company designates these instruments as either cash flow or fair value hedges. As of September 28, 2019, the Company's hedged interest rate transactions are expected to be recognized within 8 years.

Cash Flow Hedges

The effective portions of cash flow hedges are recorded in accumulated other comprehensive income/(loss) ("AOCI") until the hedged item is recognized in earnings. Deferred gains and losses associated with cash flow hedges of foreign currency revenue are recognized as a component of net sales in the same period as the related revenue is recognized, and deferred gains and losses related to cash flow hedges of inventory purchases are recognized as a component of cost of sales in the same period as the related costs are recognized. Deferred gains and losses associated with cash flow hedges of interest income or expense are recognized in OI&E in the same period as the related income or expense is recognized. For options designated as cash flow hedges, changes in the time value are excluded from the assessment of hedge effectiveness. The ineffective portions and amounts excluded from the effectiveness testing of cash flow hedges are recognized in OI&E.

Derivative instruments designated as cash flow hedges must be de-designated as hedges when it is probable the forecasted hedged transaction will not occur in the initially identified time period or within a subsequent two-month time period. Deferred gains and losses in AOCI associated with such derivative instruments are reclassified into OI&E in the period of de-designation. Any subsequent changes in fair value of such derivative instruments are reflected in OI&E unless they are re-designated as hedges of other transactions.

Net Investment Hedges

The effective portions of net investment hedges are recorded in OCI as a part of the cumulative translation adjustment. The ineffective portions and amounts excluded from the effectiveness testing of net investment hedges are recognized in OI&E. For foreign exchange forward contracts designated as net investment hedges, the Company excludes changes in fair value relating to changes in the forward carry component from its assessment of hedge effectiveness. Accordingly, any gains or losses related to this forward carry component are recognized in earnings in the current period.

Fair Value Hedges

Gains and losses related to changes in fair value hedges are recognized in earnings along with a corresponding loss or gain related to the change in value of the underlying hedged item in the same line in the Consolidated Statements of Operations. For foreign exchange forward contracts designated as fair value hedges, the Company excludes changes in fair value relating to changes in the forward carry component from its assessment of hedge effectiveness. The amount excluded from the effectiveness testing of fair value hedges was a gain of $777 million for 2019, and was recognized in OI&E.

Non-Designated Derivatives

Derivatives that are not designated as hedging instruments are adjusted to fair value through earnings in the financial statement line item to which the derivative relates.

The Company records all derivatives in the Consolidated Balance Sheets at fair value. The Company's accounting treatment for these derivative instruments is based on its hedge designation. The following tables show the Company's derivative instruments at gross fair value as of September 28, 2019 and September 29, 2018 (in millions):

	2019		
	Fair Value of Derivatives Designated as Hedge Instruments	**Fair Value of Derivatives Not Designated as Hedge Instruments**	**Total Fair Value**
Derivative assets (1):			
Foreign exchange contracts	$ 1,798	$ 323	$ 2,121
Interest rate contracts	$ 685	$ —	$ 685
Derivative liabilities (2):			
Foreign exchange contracts	$ 1,341	$ 160	$ 1,501
Interest rate contracts	$ 105	$ —	$ 105

	2018		
	Fair Value of Derivatives Designated as Hedge Instruments	**Fair Value of Derivatives Not Designated as Hedge Instruments**	**Total Fair Value**
Derivative assets (1):			
Foreign exchange contracts	$ 1,015	$ 259	$ 1,274
Derivative liabilities (2):			
Foreign exchange contracts	$ 543	$ 137	$ 680
Interest rate contracts	$ 1,456	$ —	$ 1,456

(1) The fair value of derivative assets is measured using Level 2 fair value inputs and is recorded as other current assets and other non-current assets in the Consolidated Balance Sheets.

(2) The fair value of derivative liabilities is measured using Level 2 fair value inputs and is recorded as other current liabilities and other non-current liabilities in the Consolidated Balance Sheets.

The Company classifies cash flows related to derivative financial instruments as operating activities in its Consolidated Statements of Cash Flows.

The following table shows the pre-tax gains and losses of the Company's derivative and non-derivative instruments designated as cash flow, net investment and fair value hedges in OCI and the Consolidated Statements of Operations for 2019, 2018 and 2017 (in millions):

	2019	2018	2017
Gains/(Losses) recognized in OCI – effective portion:			
Cash flow hedges:			
Foreign exchange contracts	$ (959)	$ 682	$ 1,797
Interest rate contracts	—	1	7
Total	$ (959)	$ 683	$ 1,804
Net investment hedges:			
Foreign currency debt	$ (58)	$ 4	$ 67
Gains/(Losses) reclassified from AOCI into net income – effective portion:			
Cash flow hedges:			
Foreign exchange contracts	$ (116)	$ (482)	$ 1,958
Interest rate contracts	(7)	1	(2)
Total	$ (123)	$ (481)	$ 1,956
Gains/(Losses) on derivative instruments:			
Fair value hedges:			
Foreign exchange contracts	$ 1,020	$ (168)	$ —
Interest rate contracts	2,068	(1,363)	(810)
Total	$ 3,088	$ (1,531)	$ (810)
Gains/(Losses) related to hedged items:			
Fair value hedges:			
Marketable securities	$ (1,018)	$ 167	$ —
Fixed-rate debt	(2,068)	1,363	810
Total	$ (3,086)	$ 1,530	$ 810

The following table shows the notional amounts of the Company's outstanding derivative instruments and credit risk amounts associated with outstanding or unsettled derivative instruments as of September 28, 2019 and September 29, 2018 (in millions):

	2019		2018	
	Notional Amount	Credit Risk Amount	Notional Amount	Credit Risk Amount
Instruments designated as accounting hedges:				
Foreign exchange contracts	$ 61,795	$ 1,798	$ 65,368	$ 1,015
Interest rate contracts	$ 31,250	$ 685	$ 33,250	$ —
Instruments not designated as accounting hedges:				
Foreign exchange contracts	$ 76,868	$ 323	$ 63,062	$ 259

The notional amounts for outstanding derivative instruments provide one measure of the transaction volume outstanding and do not represent the amount of the Company's exposure to credit or market loss. The credit risk amounts represent the Company's gross exposure to potential accounting loss on derivative instruments that are outstanding or unsettled if all counterparties failed to perform according to the terms of the contract, based on then-current currency or interest rates at each respective date. The Company's exposure to credit loss and market risk will vary over time as currency and interest rates change. Although the table above reflects the notional and credit risk amounts of the Company's derivative instruments, it does not reflect the gains or losses associated with the exposures and transactions that the instruments are intended to hedge. The amounts ultimately realized upon settlement of these financial instruments, together with the gains and losses on the underlying exposures, will depend on actual market conditions during the remaining life of the instruments.

The Company generally enters into master netting arrangements, which are designed to reduce credit risk by permitting net settlement of transactions with the same counterparty. To further limit credit risk, the Company generally enters into collateral security arrangements that provide for collateral to be received or posted when the net fair value of certain financial instruments fluctuates from contractually established thresholds. The Company presents its derivative assets and derivative liabilities at their gross fair values in its Consolidated Balance Sheets. As of September 28, 2019, the net cash collateral received by the Company related to derivative instruments under its collateral security arrangements was $1.6 billion, which was recorded as other current liabilities in the Consolidated Balance Sheet. As of September 29, 2018, the net cash collateral posted by the Company related to derivative instruments under its collateral security arrangements was $1.0 billion, which was recorded as other current assets in the Consolidated Balance Sheet.

Under master netting arrangements with the respective counterparties to the Company's derivative contracts, the Company is allowed to net settle transactions with a single net amount payable by one party to the other. As of September 28, 2019 and September 29, 2018, the potential effects of these rights of set-off associated with the Company's derivative contracts, including the effects of collateral, would be a reduction to both derivative assets and derivative liabilities of $2.7 billion and $2.1 billion, respectively, resulting in a net derivative liability of $407 million and a net derivative asset of $138 million, respectively.

Accounts Receivable

Trade Receivables

The Company has considerable trade receivables outstanding with its third-party cellular network carriers, wholesalers, retailers, resellers, small and mid-sized businesses and education, enterprise and government customers. The Company generally does not require collateral from its customers; however, the Company will require collateral or third-party credit support in certain instances to limit credit risk. In addition, when possible, the Company attempts to limit credit risk on trade receivables with credit insurance for certain customers or by requiring third-party financing, loans or leases to support credit exposure. These credit-financing arrangements are directly between the third-party financing company and the end customer. As such, the Company generally does not assume any recourse or credit risk sharing related to any of these arrangements.

As of September 28, 2019, the Company had no customers that individually represented 10% or more of total trade receivables. As of September 29, 2018, the Company had one customer that represented 10% or more of total trade receivables, which accounted for 10%. The Company's cellular network carriers accounted for 51% and 59% of total trade receivables as of September 28, 2019 and September 29, 2018, respectively.

Vendor Non-Trade Receivables

The Company has non-trade receivables from certain of its manufacturing vendors resulting from the sale of components to these vendors who manufacture sub-assemblies or assemble final products for the Company. The Company purchases these components directly from suppliers. As of September 28, 2019, the Company had two vendors that individually represented 10% or more of total vendor non-trade receivables, which accounted for 59% and 14%. As of September 29, 2018, the Company had two vendors that individually represented 10% or more of total vendor non-trade receivables, which accounted for 62% and 12%.

Note 4 – Consolidated Financial Statement Details

The following tables show the Company's consolidated financial statement details as of September 28, 2019 and September 29, 2018 (in millions):

Property, Plant and Equipment, Net

	2019	2018
Land and buildings	$ 17,085	$ 16,216
Machinery, equipment and internal-use software	69,797	65,982
Leasehold improvements	9,075	8,205
Gross property, plant and equipment	95,957	90,403
Accumulated depreciation and amortization	(58,579)	(49,099)
Total property, plant and equipment, net	$ 37,378	$ 41,304

Other Non-Current Liabilities

	2019	2018
Long-term taxes payable	$ 29,545	$ 33,589
Other non-current liabilities	20,958	15,325
Total other non-current liabilities	$ 50,503	$ 48,914

Other Income/(Expense), Net

The following table shows the detail of OI&E for 2019, 2018 and 2017 (in millions):

	2019	2018	2017
Interest and dividend income	$ 4,961	$ 5,686	$ 5,201
Interest expense	(3,576)	(3,240)	(2,323)
Other income/(expense), net	422	(441)	(133)
Total other income/(expense), net	$ 1,807	$ 2,005	$ 2,745

Note 5 – Income Taxes

U.S. Tax Cuts and Jobs Act

On December 22, 2017, the U.S. enacted the Tax Cuts and Jobs Act (the “Act”), which significantly changed U.S. tax law. The Act lowered the Company’s U.S. statutory federal income tax rate from 35% to 21% effective January 1, 2018, while also imposing a deemed repatriation tax on previously deferred foreign income. The Act also created a new minimum tax on certain foreign earnings, for which the Company has elected to record certain deferred tax assets and liabilities. The Company completed its accounting for the income tax effects of the Act during 2019, in accordance with the U.S. Securities and Exchange Commission Staff Accounting Bulletin No. 118.

Provision for Income Taxes and Effective Tax Rate

The provision for income taxes for 2019, 2018 and 2017, consisted of the following (in millions):

	2019	2018	2017
Federal:			
Current	$ 6,384	$ 41,425	$ 7,842
Deferred	(2,939)	(33,819)	5,980
Total	3,445	7,606	13,822
State:			
Current	475	551	259
Deferred	(67)	48	2
Total	408	599	261
Foreign:			
Current	3,962	3,986	1,671
Deferred	2,666	1,181	(16)
Total	6,628	5,167	1,655
Provision for income taxes	$ 10,481	$ 13,372	$ 15,738

The foreign provision for income taxes is based on foreign pre-tax earnings of $44.3 billion, $48.0 billion and $44.7 billion in 2019, 2018 and 2017, respectively.

A reconciliation of the provision for income taxes, with the amount computed by applying the statutory federal income tax rate (21% in 2019; 24.5% in 2018; 35% in 2017) to income before provision for income taxes for 2019, 2018 and 2017, is as follows (dollars in millions):

	2019	2018	2017
Computed expected tax	$ 13,805	$ 17,890	$ 22,431
State taxes, net of federal effect	423	271	185
Impacts of the Act	—	1,515	—
Earnings of foreign subsidiaries	(2,625)	(5,606)	(6,135)
Research and development credit, net	(548)	(560)	(678)
Excess tax benefits from equity awards	(639)	(675)	—
Other	65	537	(65)
Provision for income taxes	$ 10,481	$ 13,372	$ 15,738
Effective tax rate	15.9%	18.3%	24.6%

The Company's income taxes payable have been reduced by the tax benefits from employee stock plan awards. For restricted stock units ("RSUs"), the Company receives an income tax benefit upon the award's vesting equal to the tax effect of the underlying stock's fair market value. Prior to 2018, the Company reflected net excess tax benefits from equity awards as increases to additional paid-in capital, which amounted to $620 million in 2017.

Deferred Tax Assets and Liabilities

As of September 28, 2019 and September 29, 2018, the significant components of the Company's deferred tax assets and liabilities were (in millions):

	2019	2018
Deferred tax assets:		
Amortization and depreciation	$ 11,433	$ 137
Accrued liabilities and other reserves	5,389	3,151
Deferred revenue	1,372	1,141
Share-based compensation	749	513
Unrealized losses	—	871
Other	697	797
Total deferred tax assets, net	19,640	6,610
Deferred tax liabilities:		
Minimum tax on foreign earnings	10,809	—
Earnings of foreign subsidiaries	330	275
Other	456	501
Total deferred tax liabilities	11,595	776
Net deferred tax assets/(liabilities)	$ 8,045	$ 5,834

Deferred tax assets and liabilities reflect the effects of tax credits and the future income tax effects of temporary differences between the consolidated financial statement carrying amounts of existing assets and liabilities and their respective tax bases, and are measured using enacted tax rates that apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.

Uncertain Tax Positions

As of September 28, 2019, the total amount of gross unrecognized tax benefits was $15.6 billion, of which $8.6 billion, if recognized, would impact the Company's effective tax rate. As of September 29, 2018, the total amount of gross unrecognized tax benefits was $9.7 billion, of which $7.4 billion, if recognized, would have impacted the Company's effective tax rate.

The aggregate change in the balance of gross unrecognized tax benefits, which excludes interest and penalties, for 2019, 2018 and 2017, is as follows (in millions):

	2019	2018	2017
Beginning balances	$ 9,694	$ 8,407	$ 7,724
Increases related to tax positions taken during a prior year	5,845	2,431	333
Decreases related to tax positions taken during a prior year	(686)	(2,212)	(952)
Increases related to tax positions taken during the current year	1,697	1,824	1,880
Decreases related to settlements with taxing authorities	(852)	(756)	(539)
Decreases related to expiration of the statute of limitations	(79)	—	(39)
Ending balances	$ 15,619	$ 9,694	$ 8,407

The Company is subject to taxation and files income tax returns in the U.S. federal jurisdiction and many state and foreign jurisdictions. The U.S. Internal Revenue Service (the "IRS") concluded its review of the years 2013 through 2015 in 2018, and all years before 2016 are closed. Tax years after 2014 remain open in certain major foreign jurisdictions and are subject to examination by the taxing authorities. The Company believes 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 any issues addressed in the Company's tax audits are resolved in a manner inconsistent with its expectations, the Company could be required to adjust its provision for income taxes in the period such resolution occurs. Although the timing of resolution and/or closure of audits is not certain, the Company believes it is reasonably possible that its gross unrecognized tax benefits could decrease in the next 12 months by as much as $2.0 billion.

Interest and Penalties

The Company includes interest and penalties related to income tax matters within the provision for income taxes. As of September 28, 2019 and September 29, 2018, the total amount of gross interest and penalties accrued was $1.3 billion and $1.4 billion, respectively. The Company recognized interest and penalty expense in 2019, 2018 and 2017 of $73 million, $489 million and $238 million, respectively.

European Commission State Aid Decision

On August 30, 2016, the European Commission announced its decision that Ireland granted state aid to the Company by providing tax opinions in 1991 and 2007 concerning the tax allocation of profits of the Irish branches of two subsidiaries of the Company (the "State Aid Decision"). The State Aid Decision ordered Ireland to calculate and recover additional taxes from the Company for the period June 2003 through December 2014. The recovery amount was calculated to be €13.1 billion, plus interest of €1.2 billion. During the fourth quarter of 2019, the Irish Minister for Finance approved the Company's request to reduce the recovery amount by €190 million due to taxes paid to other countries, resulting in an adjusted recovery amount of €12.9 billion as of September 28, 2019. Irish legislative changes, effective as of January 2015, eliminated the application of the tax opinions from that date forward. The Company believes the State Aid Decision to be without merit and appealed to the General Court of the Court of Justice of the European Union. Ireland has also appealed the State Aid Decision. The Company believes that any incremental Irish corporate income taxes potentially due related to the State Aid Decision would be creditable against U.S. taxes, subject to any foreign tax credit limitations in the Act. As of September 28, 2019, the entire adjusted recovery amount plus interest was funded into escrow, where it will remain restricted from general use pending the conclusion of all appeals. Refer to the Cash, Cash Equivalents and Marketable Securities section of Note 3, "Financial Instruments" for more information.

Note 6 – Debt

Commercial Paper

The Company issues unsecured short-term promissory notes ("Commercial Paper") pursuant to a commercial paper program. The Company uses net proceeds from the commercial paper program for general corporate purposes, including dividends and share repurchases. As of September 28, 2019 and September 29, 2018, the Company had $6.0 billion and $12.0 billion of Commercial Paper outstanding, respectively, with maturities generally less than nine months. The weighted-average interest rate of the Company's Commercial Paper was 2.24% and 2.18% as of September 28, 2019 and September 29, 2018, respectively. The following table provides a summary of cash flows associated with the issuance and maturities of Commercial Paper for 2019, 2018 and 2017 (in millions):

	2019	2018	2017
Maturities 90 days or less:			
Proceeds from/(Repayments of) commercial paper, net	$ (3,248)	$ 1,044	$ (1,782)
Maturities greater than 90 days:			
Proceeds from commercial paper	13,874	14,555	17,932
Repayments of commercial paper	(16,603)	(15,636)	(12,298)
Proceeds from/(Repayments of) commercial paper, net	(2,729)	(1,081)	5,634
Total proceeds from/(repayments of) commercial paper, net	$ (5,977)	$ (37)	$ 3,852

Term Debt

As of September 28, 2019, the Company had outstanding floating- and fixed-rate notes with varying maturities for an aggregate principal amount of $101.7 billion (collectively the "Notes"). The Notes are senior unsecured obligations and interest is payable in arrears. The following table provides a summary of the Company's term debt as of September 28, 2019 and September 29, 2018:

	Maturities (calendar year)	2019 Amount (in millions)	2019 Effective Interest Rate	2018 Amount (in millions)	2018 Effective Interest Rate
2013–2018 debt issuances:					
Floating-rate notes	2020 – 2022	$ 4,250	2.25% – 3.28%	$ 7,107	1.87% – 3.44%
Fixed-rate 0.350% – 4.650% notes	2019 – 2047	90,429	0.28% – 4.78%	97,086	0.28% – 4.78%
2019 debt issuance:					
Fixed-rate 1.700% – 2.950% notes	2022 – 2049	7,000	1.71% – 2.99%	—	—%
Total term debt		101,679		104,193	
Unamortized premium/(discount) and issuance costs, net		(224)		(218)	
Hedge accounting fair value adjustments		612		(1,456)	
Less: Current portion of term debt		(10,260)		(8,784)	
Total non-current portion of term debt		$ 91,807		$ 93,735	

To manage interest rate risk on certain of its U.S. dollar–denominated fixed- or floating-rate notes, the Company has entered into interest rate swaps to effectively convert the fixed interest rates to floating interest rates or the floating interest rates to fixed interest rates on a portion of these notes. Additionally, to manage foreign currency risk on certain of its foreign currency–denominated notes, the Company has entered into foreign currency swaps to effectively convert these notes to U.S. dollar–denominated notes.

A portion of the Company's Japanese yen–denominated notes is designated as a hedge of the foreign currency exposure of the Company's net investment in a foreign operation. As of September 28, 2019 and September 29, 2018, the carrying value of the debt designated as a net investment hedge was $1.0 billion and $811 million, respectively. For further discussion regarding the Company's use of derivative instruments, refer to the Derivative Financial Instruments section of Note 3, "Financial Instruments."

The effective interest rates for the Notes include the interest on the Notes, amortization of the discount or premium and, if applicable, adjustments related to hedging. The Company recognized $3.2 billion, $3.0 billion and $2.2 billion of interest cost on its term debt for 2019, 2018 and 2017, respectively.

The future principal payments for the Company's Notes as of September 28, 2019 are as follows (in millions):

2020	$ 10,270
2021	8,750
2022	9,528
2023	9,290
2024	10,039
Thereafter	53,802
Total term debt	$ 101,679

As of September 28, 2019 and September 29, 2018, the fair value of the Company's Notes, based on Level 2 inputs, was $107.5 billion and $103.2 billion, respectively.

Note 7 – Shareholders' Equity

Share Repurchase Program

On April 30, 2019, the Company announced the Board of Directors increased the current share repurchase program authorization from $100 billion to $175 billion of the Company's common stock, of which $96.1 billion had been utilized as of September 28, 2019. During 2019, the Company repurchased 345.2 million shares of its common stock for $67.1 billion, including 62.0 million shares delivered under a $12.0 billion accelerated share repurchase arrangement dated February 2019, which settled in August 2019. The Company's share repurchase program does not obligate it to acquire any specific number of shares. Under this program, shares may be repurchased in privately negotiated and/or open market transactions, including under plans complying with Rule 10b5-1 under the Securities Exchange Act of 1934, as amended (the "Exchange Act").

Shares of Common Stock

The following table shows the changes in shares of common stock for 2019, 2018 and 2017 (in thousands):

	2019	2018	2017
Common stock outstanding, beginning balances	4,754,986	5,126,201	5,336,166
Common stock repurchased	(345,205)	(405,549)	(246,496)
Common stock issued, net of shares withheld for employee taxes	33,455	34,334	36,531
Common stock outstanding, ending balances	4,443,236	4,754,986	5,126,201

Note 8 – Comprehensive Income

The Company's OCI consists of foreign currency translation adjustments from those subsidiaries not using the U.S. dollar as their functional currency, net deferred gains and losses on certain derivative instruments accounted for as cash flow hedges and unrealized gains and losses on marketable debt securities classified as available-for-sale.

The following table shows the pre-tax amounts reclassified from AOCI into the Consolidated Statements of Operations, and the associated financial statement line item, for 2019 and 2018 (in millions):

Comprehensive Income Components	Financial Statement Line Item	2019	2018
Unrealized (gains)/losses on derivative instruments:			
Foreign exchange contracts	Total net sales	$ (206)	$ 214
	Total cost of sales	(482)	(70)
	Other income/(expense), net	784	344
Interest rate contracts	Other income/(expense), net	7	(2)
		103	486
Unrealized (gains)/losses on marketable securities	Other income/(expense), net	31	(20)
Total amounts reclassified from AOCI		$ 134	$ 466

The following table shows the changes in AOCI by component for 2019 and 2018 (in millions):

	Cumulative Foreign Currency Translation	Unrealized Gains/Losses on Derivative Instruments	Unrealized Gains/Losses on Marketable Securities	Total
Balances as of September 30, 2017	$ (354)	$ (124)	$ 328	$ (150)
Other comprehensive income/(loss) before reclassifications	(524)	672	(4,563)	(4,415)
Amounts reclassified from AOCI	—	486	(20)	466
Tax effect	(1)	(253)	1,177	923
Other comprehensive income/(loss)	(525)	905	(3,406)	(3,026)
Cumulative effect of change in accounting principle	(176)	29	(131)	(278)
Balances as of September 29, 2018	(1,055)	810	(3,209)	(3,454)
Other comprehensive income/(loss) before reclassifications	(421)	(949)	4,854	3,484
Amounts reclassified from AOCI	—	103	31	134
Tax effect	13	208	(1,058)	(837)
Other comprehensive income/(loss)	(408)	(638)	3,827	2,781
Cumulative effect of change in accounting principle (1)	—	—	89	89
Balances as of September 28, 2019	$ (1,463)	$ 172	$ 707	$ (584)

(1) Refer to Note 1, "Summary of Significant Accounting Policies" for more information on the Company's adoption of ASU 2016-01 in 2019.

Note 9 – Benefit Plans

2014 Employee Stock Plan

In the second quarter of 2014, shareholders approved the 2014 Employee Stock Plan (the "2014 Plan") and terminated the Company's authority to grant new awards under the 2003 Employee Stock Plan (the "2003 Plan"). The 2014 Plan provides for broad-based equity grants to employees, including executive officers, and permits the granting of RSUs, stock grants, performance-based awards, stock options and stock appreciation rights, as well as cash bonus awards. RSUs granted under the 2014 Plan generally vest over four years, based on continued employment, and are settled upon vesting in shares of the Company's common stock on a one-for-one basis. RSUs granted under the 2014 Plan reduce the number of shares available for grant under the plan by a factor of two times the number of RSUs granted. RSUs canceled and shares withheld to satisfy tax withholding obligations increase the number of shares available for grant under the 2014 Plan utilizing a factor of two times the number of RSUs canceled or shares withheld. Currently, all RSUs granted under the 2014 Plan have dividend equivalent rights ("DERs"), which entitle holders of RSUs to the same dividend value per share as holders of common stock. DERs are subject to the same vesting and other terms and conditions as the corresponding unvested RSUs. DERs are accumulated and paid when the underlying shares vest. Upon approval of the 2014 Plan, the Company reserved 385 million shares plus the number of shares remaining that were reserved but not issued under the 2003 Plan. Shares subject to outstanding awards under the 2003 Plan that expire, are canceled or otherwise terminate, or are withheld to satisfy tax withholding obligations for RSUs, will also be available for awards under the 2014 Plan. As of September 28, 2019, approximately 246.4 million shares were reserved for future issuance under the 2014 Plan.

Apple Inc. Non-Employee Director Stock Plan

The Apple Inc. Non-Employee Director Stock Plan (the "Director Plan") is a shareholder-approved plan that (i) permits the Company to grant awards of RSUs or stock options to the Company's non-employee directors, (ii) provides for automatic initial grants of RSUs upon a non-employee director joining the Board of Directors and automatic annual grants of RSUs at each annual meeting of shareholders, and (iii) permits the Board of Directors to prospectively change the value and relative mixture of stock options and RSUs for the initial and annual award grants and the methodology for determining the number of shares of the Company's common stock subject to these grants, in each case within the limits set forth in the Director Plan and without further shareholder approval. RSUs granted under the Director Plan reduce the number of shares available for grant under the plan by a factor of two times the number of RSUs granted. The Director Plan expires on November 12, 2027. All RSUs granted under the Director Plan are entitled to DERs. DERs are subject to the same vesting and other terms and conditions as the corresponding unvested RSUs. DERs are accumulated and paid when the underlying shares vest. As of September 28, 2019, approximately 1.1 million shares were reserved for future issuance under the Director Plan.

Rule 10b5-1 Trading Plans

During the three months ended September 28, 2019, Section 16 officers Timothy D. Cook, Chris Kondo, Luca Maestri, Deirdre O'Brien and Jeffrey Williams had equity trading plans in place in accordance with Rule 10b5-1(c)(1) under the Exchange Act. An equity trading plan is a written document that pre-establishes the amounts, prices and dates (or formula for determining the amounts, prices and dates) of future purchases or sales of the Company's stock, including shares acquired under the Company's employee and director equity plans.

Employee Stock Purchase Plan

The Employee Stock Purchase Plan (the "Purchase Plan") is a shareholder-approved plan under which substantially all employees may purchase the Company's common stock through payroll deductions at a price equal to 85% of the lower of the fair market values of the stock as of the beginning or the end of six-month offering periods. An employee's payroll deductions under the Purchase Plan are limited to 10% of the employee's compensation and employees may not purchase more than $25,000 of stock during any calendar year. As of September 28, 2019, approximately 31.1 million shares were reserved for future issuance under the Purchase Plan.

401(k) Plan

The Company's 401(k) Plan is a deferred salary arrangement under Section 401(k) of the Internal Revenue Code. Under the 401(k) Plan, participating U.S. employees may defer a portion of their pre-tax earnings, up to the IRS annual contribution limit ($19,000 for calendar year 2019). The Company matches 50% to 100% of each employee's contributions, depending on length of service, up to a maximum of 6% of the employee's eligible earnings.

Restricted Stock Units

A summary of the Company's RSU activity and related information for 2019, 2018 and 2017, is as follows:

	Number of RSUs (in thousands)	Weighted-Average Grant Date Fair Value Per RSU	Aggregate Fair Value (in millions)
Balance as of September 24, 2016	99,089	$ 97.54	
RSUs granted	50,112	$ 121.65	
RSUs vested	(45,735)	$ 95.48	
RSUs canceled	(5,895)	$ 106.87	
Balance as of September 30, 2017	97,571	$ 110.33	
RSUs granted	45,351	$ 162.86	
RSUs vested	(44,718)	$ 111.24	
RSUs canceled	(6,049)	$ 127.82	
Balance as of September 29, 2018	92,155	$ 134.60	
RSUs granted	36,852	$ 215.95	
RSUs vested	(42,088)	$ 135.21	
RSUs canceled	(5,402)	$ 162.85	
Balance as of September 28, 2019	81,517	$ 169.18	$ 17,838

The fair value as of the respective vesting dates of RSUs was $8.6 billion, $7.6 billion and $6.1 billion for 2019, 2018 and 2017, respectively. The majority of RSUs that vested in 2019, 2018 and 2017 were net share settled such that the Company withheld shares with a value equivalent to the employees' obligation for the applicable income and other employment taxes, and remitted the cash to the appropriate taxing authorities. The total shares withheld were approximately 14.8 million, 16.0 million and 15.4 million for 2019, 2018 and 2017, respectively, and were based on the value of the RSUs on their respective vesting dates as determined by the Company's closing stock price. Total payments for the employees' tax obligations to taxing authorities were $3.0 billion, $2.7 billion and $2.0 billion in 2019, 2018 and 2017, respectively. These net share settlements had the effect of share repurchases by the Company as they reduced the number of shares that would have otherwise been issued as a result of the vesting and did not represent an expense to the Company.

Share-Based Compensation

The following table shows share-based compensation expense and the related income tax benefit included in the Consolidated Statements of Operations for 2019, 2018 and 2017 (in millions):

	2019	2018	2017
Share-based compensation expense	$ 6,068	$ 5,340	$ 4,840
Income tax benefit related to share-based compensation expense	$ (1,967)	$ (1,893)	$ (1,632)

As of September 28, 2019, the total unrecognized compensation cost related to outstanding RSUs and stock options was $10.5 billion, which the Company expects to recognize over a weighted-average period of 2.5 years.

Note 10 – Commitments and Contingencies

Accrued Warranty and Guarantees

The following table shows changes in the Company's accrued warranties and related costs for 2019, 2018 and 2017 (in millions):

	2019	2018	2017
Beginning accrued warranty and related costs	$ 3,692	$ 3,834	$ 3,702
Cost of warranty claims	(3,857)	(4,115)	(4,322)
Accruals for product warranty	3,735	3,973	4,454
Ending accrued warranty and related costs	$ 3,570	$ 3,692	$ 3,834

The Company offers an iPhone Upgrade Program, which is available to customers who purchase a qualifying iPhone in the U.S., the U.K. and mainland China. The iPhone Upgrade Program provides customers the right to trade in that iPhone for a specified amount when purchasing a new iPhone, provided certain conditions are met. The Company accounts for the trade-in right as a guarantee liability and recognizes arrangement revenue net of the fair value of such right, with subsequent changes to the guarantee liability recognized within net sales.

Concentrations in the Available Sources of Supply of Materials and Product

Although most components essential to the Company's business are generally available from multiple sources, certain components are currently obtained from single or limited sources. The Company also competes for various components with other participants in the markets for smartphones, personal computers, tablets and other electronic devices. Therefore, many components used by the Company, including those that are available from multiple sources, are at times subject to industry-wide shortage and significant commodity pricing fluctuations.

The Company uses some custom components that are not commonly used by its competitors, and new products introduced by the Company often utilize custom components available from only one source. When a component or product uses new technologies, initial capacity constraints may exist until the suppliers' yields have matured or their manufacturing capacities have increased. The continued availability of these components at acceptable prices, or at all, may be affected if suppliers decide to concentrate on the production of common components instead of components customized to meet the Company's requirements.

The Company has entered into agreements for the supply of many components; however, there can be no guarantee that the Company will be able to extend or renew these agreements on similar terms, or at all.

Substantially all of the Company's hardware products are manufactured by outsourcing partners that are located primarily in Asia, with some Mac computers manufactured in the U.S. and Ireland.

Other Off–Balance Sheet Commitments

Operating Leases

The Company leases various equipment and facilities, including retail space, under noncancelable operating lease arrangements. The Company does not currently utilize any other off–balance sheet financing arrangements. As of September 28, 2019, the Company's total future minimum lease payments under noncancelable operating leases were $10.8 billion. The Company's retail store and other facility leases typically have original terms not exceeding 10 years and generally contain multi-year renewal options.

Rent expense under all operating leases, including both cancelable and noncancelable leases, was $1.3 billion, $1.2 billion and $1.1 billion in 2019, 2018 and 2017, respectively. Future minimum lease payments under noncancelable operating leases having initial or remaining terms in excess of one year as of September 28, 2019, are as follows (in millions):

2020	$	1,306
2021		1,276
2022		1,137
2023		912
2024		834
Thereafter		5,373
Total	$	10,838

Unconditional Purchase Obligations

The Company has entered into certain off–balance sheet commitments that require the future purchase of goods or services ("unconditional purchase obligations"). The Company's unconditional purchase obligations primarily consist of payments for supplier arrangements, Internet and telecommunication services, intellectual property licenses and content creation. Future payments under noncancelable unconditional purchase obligations having a remaining term in excess of one year as of September 28, 2019, are as follows (in millions):

2020	$	2,476
2021		2,386
2022		1,859
2023		1,162
2024		218
Thereafter		110
Total	$	8,211

Contingencies

The Company is subject to various legal proceedings and claims that have arisen in the ordinary course of business and that have not been fully resolved. The outcome of litigation is inherently uncertain. If one or more legal matters were resolved against the Company in a reporting period for amounts above management's expectations, the Company's financial condition and operating results for that reporting period could be materially adversely affected. In the opinion of management, there was not at least a reasonable possibility the Company may have incurred a material loss, or a material loss greater than a recorded accrual, concerning loss contingencies for asserted legal and other claims, except for the following matters:

VirnetX

VirnetX, Inc. ("VirnetX") filed two lawsuits in the U.S. District Court for the Eastern District of Texas (the "Eastern Texas District Court") against the Company alleging that certain Company products infringe four patents (the "VirnetX Patents") relating to network communications technology ("VirnetX I" and "VirnetX II"). On September 30, 2016, a jury returned a verdict in VirnetX I against the Company and awarded damages of $302 million, which later increased to $440 million in post-trial proceedings. The Company appealed the VirnetX I verdict to the U.S. Court of Appeals for the Federal Circuit (the "Federal Circuit"). On April 11, 2018, a jury returned a verdict in VirnetX II against the Company and awarded damages of $503 million. VirnetX II is currently on appeal. The Company has challenged the validity of the VirnetX Patents at the U.S. Patent and Trademark Office (the "PTO"). In response, the PTO has declared the VirnetX Patents invalid. VirnetX appealed the invalidity decision of the PTO to the Federal Circuit. The Federal Circuit consolidated the Company's appeal of the Eastern Texas District Court VirnetX I verdict and VirnetX's appeals from the PTO invalidity proceedings. On January 15, 2019, the Federal Circuit affirmed the VirnetX I verdict, which the Company intends to further appeal. On July 8, 2019, the Federal Circuit remanded one of VirnetX's two appeals of the PTO's invalidity decisions back to the PTO for further proceedings. On August 1, 2019, the Federal Circuit affirmed-in-part, vacated-in-part, and remanded back to the PTO portions of VirnetX's second appeal. The Company has accrued its best estimate for the ultimate resolution of these matters.

Qualcomm

On January 20, 2017, the Company filed a lawsuit against Qualcomm Incorporated and affiliated parties ("Qualcomm") in the U.S. District Court for the Southern District of California seeking, among other things, to enjoin Qualcomm from requiring the Company to pay royalties at the rate demanded by Qualcomm. No Qualcomm-related royalty payments had been remitted by the Company to its contract manufacturers since the beginning of the second quarter of 2017. Following the Company's lawsuit, Qualcomm filed patent infringement suits against the Company and its affiliates in the U.S. and various international jurisdictions, some of which sought to enjoin the sale of certain of the Company's products in particular countries.

On April 16, 2019, the Company and Qualcomm reached a settlement agreement to dismiss all litigation between the two companies worldwide. The companies also reached a multi-year license agreement and a multi-year supply agreement. Under the terms of the settlement agreement, Apple made a payment to Qualcomm to, among other things, resolve disputes over the withheld royalty payments.

iOS Performance Management Cases

Various civil litigation matters have been filed in state and federal courts in the U.S. and in various international jurisdictions alleging violation of consumer protection laws, fraud, computer intrusion and other causes of action related to the Company's performance management feature used in its iPhone operating systems, introduced to certain iPhones in iOS updates 10.2.1 and 11.2. The claims seek monetary damages and other non-monetary relief. On April 5, 2018, several U.S. federal actions were consolidated through a Multidistrict Litigation process into a single action in the U.S. District Court for the Northern District of California. In addition to civil litigation, the Company is also responding to governmental investigations and requests for information relating to the performance management feature. The Company believes that its iPhones were not defective, that the performance management feature introduced with iOS updates 10.2.1 and 11.2 was intended to, and did, improve customers' user experience, and that the Company did not make any misleading statements or fail to disclose any material information. The Company has accrued its best estimate for the ultimate resolution of these matters.

French Competition Authority

In June 2019, the French Competition Authority ("FCA") issued a report alleging that aspects of the Company's sales and distribution practices in France violate French competition law. The Company vigorously disagrees with the allegations, and a hearing of arguments was held before the FCA on October 15, 2019. The Company is awaiting the decision of the FCA, which may include a fine.

Note 11 – Segment Information and Geographic Data

The Company reports segment information based on the "management" approach. The management approach designates the internal reporting used by management for making decisions and assessing performance as the source of the Company's reportable segments.

The Company manages its business primarily on a geographic basis. The Company's reportable segments consist of the Americas, Europe, Greater China, Japan and Rest of Asia Pacific. Americas includes both North and South America. Europe includes European countries, as well as India, the Middle East and Africa. Greater China includes China, Hong Kong and Taiwan. Rest of Asia Pacific includes Australia and those Asian countries not included in the Company's other reportable segments. Although the reportable segments provide similar hardware and software products and similar services, each one is managed separately to better align with the location of the Company's customers and distribution partners and the unique market dynamics of each geographic region. The accounting policies of the various segments are the same as those described in Note 1, "Summary of Significant Accounting Policies."

The Company evaluates the performance of its reportable segments based on net sales and operating income. Net sales for geographic segments are generally based on the location of customers and sales through the Company's retail stores located in those geographic locations. Operating income for each segment includes net sales to third parties, related cost of sales and operating expenses directly attributable to the segment. Advertising expenses are generally included in the geographic segment in which the expenditures are incurred. Operating income for each segment excludes other income and expense and certain expenses managed outside the reportable segments. Costs excluded from segment operating income include various corporate expenses such as research and development, corporate marketing expenses, certain share-based compensation expenses, income taxes, various nonrecurring charges and other separately managed general and administrative costs. The Company does not include intercompany transfers between segments for management reporting purposes.

The following table shows information by reportable segment for 2019, 2018 and 2017 (in millions):

	2019	2018	2017
Americas:			
Net sales	$ 116,914	$ 112,093	$ 96,600
Operating income	$ 35,099	$ 34,864	$ 30,684
Europe:			
Net sales	$ 60,288	$ 62,420	$ 54,938
Operating income	$ 19,195	$ 19,955	$ 16,514
Greater China:			
Net sales	$ 43,678	$ 51,942	$ 44,764
Operating income	$ 16,232	$ 19,742	$ 17,032
Japan:			
Net sales	$ 21,506	$ 21,733	$ 17,733
Operating income	$ 9,369	$ 9,500	$ 8,097
Rest of Asia Pacific:			
Net sales	$ 17,788	$ 17,407	$ 15,199
Operating income	$ 6,055	$ 6,181	$ 5,304

A reconciliation of the Company’s segment operating income to the Consolidated Statements of Operations for 2019, 2018 and 2017 is as follows (in millions):

	2019	2018	2017
Segment operating income	$ 85,950	$ 90,242	$ 77,631
Research and development expense	(16,217)	(14,236)	(11,581)
Other corporate expenses, net	(5,803)	(5,108)	(4,706)
Total operating income	$ 63,930	$ 70,898	$ 61,344

The U.S. and China were the only countries that accounted for more than 10% of the Company’s net sales in 2019, 2018 and 2017. There was no single customer that accounted for more than 10% of net sales in 2019, 2018 and 2017. Net sales for 2019, 2018 and 2017 and long-lived assets as of September 28, 2019 and September 29, 2018 were as follows (in millions):

	2019	2018	2017
Net sales:			
U.S.	$ 102,266	$ 98,061	$ 84,339
China (1)	43,678	51,942	44,764
Other countries	114,230	115,592	100,131
Total net sales	$ 260,174	$ 265,595	$ 229,234

	2019	2018
Long-lived assets:		
U.S.	$ 24,711	$ 23,963
China (1)	9,064	13,268
Other countries	3,603	4,073
Total long-lived assets	$ 37,378	$ 41,304

(1) China includes Hong Kong and Taiwan. Long-lived assets located in China consist primarily of product tooling and manufacturing process equipment and assets related to retail stores and related infrastructure.

Note 12 – Selected Quarterly Financial Information (Unaudited)

The following tables show a summary of the Company's quarterly financial information for each of the four quarters of 2019 and 2018 (in millions, except per share amounts):

	Fourth Quarter	Third Quarter	Second Quarter	First Quarter
2019:				
Total net sales	$ 64,040	$ 53,809	$ 58,015	$ 84,310
Gross margin	$ 24,313	$ 20,227	$ 21,821	$ 32,031
Net income	$ 13,686	$ 10,044	$ 11,561	$ 19,965
Earnings per share (1):				
Basic	$ 3.05	$ 2.20	$ 2.47	$ 4.22
Diluted	$ 3.03	$ 2.18	$ 2.46	$ 4.18

	Fourth Quarter	Third Quarter	Second Quarter	First Quarter
2018:				
Total net sales	$ 62,900	$ 53,265	$ 61,137	$ 88,293
Gross margin	$ 24,084	$ 20,421	$ 23,422	$ 33,912
Net income	$ 14,125	$ 11,519	$ 13,822	$ 20,065
Earnings per share (1):				
Basic	$ 2.94	$ 2.36	$ 2.75	$ 3.92
Diluted	$ 2.91	$ 2.34	$ 2.73	$ 3.89

(1) Basic and diluted earnings per share are computed independently for each of the quarters presented. Therefore, the sum of quarterly basic and diluted per share information may not equal annual basic and diluted earnings per share.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Apple Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Apple Inc. as of September 28, 2019 and September 29, 2018, the related consolidated statements of operations, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended September 28, 2019, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of Apple Inc. at September 28, 2019 and September 29, 2018, and the results of its operations and its cash flows for each of the three years in the period ended September 28, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (the "PCAOB"), Apple Inc.'s internal control over financial reporting as of September 28, 2019, based on criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated October 30, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of Apple Inc.'s management. Our responsibility is to express an opinion on Apple Inc.'s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to Apple Inc. in accordance with the U.S. federal securities laws and the applicable rules and regulations of the U.S. Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the 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 financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the 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 account or disclosure to which it relates.

	European Commission State Aid Matter Uncertain Tax Position
Description of the Matter	As discussed in Note 5 of the financial statements, the European Commission ("EC") has announced its decision that Ireland granted state aid to Apple Inc. by providing tax opinions in 1991 and 2007 concerning the tax allocation of profits of the Irish branches of two subsidiaries of Apple Inc. The decision ordered Ireland to calculate and recover additional taxes from Apple Inc. for the period from June 2003 through December 2014. The adjusted amount indicated by the EC to be recovered is up to €12.9 billion, plus interest. Auditing management's evaluation of the uncertain tax position stemming from the effects of the EC decision is complex and highly judgmental due to the inherent uncertainty in predicting the ultimate resolution of the matter.

How We Addressed the Matter in Our Audit	We tested controls over the risk of material misstatement relating to the evaluation of the EC state aid matter, including management’s evaluation of the advice of legal counsel, the assessment as to whether Apple Inc.’s position is more likely than not to be sustained and the development of the related disclosure. To evaluate Apple Inc.’s assessment of whether sustainment of its position is a more likely than not outcome, including underlying assumptions, our audit procedures included, among others, reading the EC August 2016 ruling and available correspondence between Apple Inc. and the EC, and the EC and Ireland. We also requested and received internal and external legal counsel confirmation letters, discussed the allegations with internal and external legal counsel and Apple Inc. tax personnel and obtained a representation letter from Apple Inc. We involved our EC and tax subject matter resources in considering the applicable tax laws, the pending appeal, the current status of legal precedent relevant to that appeal and the proceedings at the court hearing in September 2019. In addition, we evaluated Apple Inc.’s disclosure included in Note 5 in relation to this matter.

/s/ Ernst & Young LLP

We have served as Apple Inc.’s auditor since 2009.

San Jose, California
October 30, 2019

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Apple Inc.

Opinion on Internal Control Over Financial Reporting

We have audited Apple Inc.'s internal control over financial reporting as of September 28, 2019, based on criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the "COSO criteria"). In our opinion, Apple Inc. maintained, in all material respects, effective internal control over financial reporting as of September 28, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (the "PCAOB"), the consolidated balance sheets of Apple Inc. as of September 28, 2019 and September 29, 2018, the related consolidated statements of operations, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended September 28, 2019, and the related notes and our report dated October 30, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

Apple Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on Apple Inc.'s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to Apple Inc. in accordance with the U.S. federal securities laws and the applicable rules and regulations of the U.S. Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. 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 U.S. generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

/s/ Ernst & Young LLP

San Jose, California
October 30, 2019