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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2019

OR

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

For the transition period from _______ to _______

Commission file number: **001-37580**

Alphabet Inc.

(Exact name of registrant as specified in its charter)

Delaware	**61-1767919**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

1600 Ampitheatre Parkway
Mountain View, CA 94043
(Address of principal executive offices, including zip code)
(650) 253-000
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A Common Stock, $0.001 par value	**GOOGL**	**Nasdaq Stock Market LLC (Nasdaq Global Select Market)**
Class C Capital Stock, $0.001 par value	**GOOG**	**Nasdaq Stock Market LLC (Nasdaq Global Select Market)**

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

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

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

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

As of October 21, 2019, there were 299,628,223 shares of Alphabet's Class A common stock outstanding, 46,508,584 shares of Alphabet's Class B common stock outstanding, and 343,550,642 shares of Alphabet's Class C capital stock outstanding.

Alphabet Inc.
Form 10-Q
For the Quarterly Period Ended September 30, 2019

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Note About Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements include, among other things, statements regarding:

- the growth of our business and revenues and our expectations about the factors that influence our success and trends in our business;
- our plans to continue to invest in new businesses, products, services and technologies, systems, facilities, and infrastructure, to continue to hire aggressively and provide competitive compensation programs, as well as to continue to invest in acquisitions;
- seasonal fluctuations in internet usage and advertiser expenditures, underlying business trends such as traditional retail seasonality, and macroeconomic conditions, which are likely to cause fluctuations in our quarterly results;
- the potential for declines in our revenue growth rate and operating margin;
- our expectation that we will continue to take steps to improve the relevance of the ads we deliver and to reduce the number of accidental clicks;
- fluctuations in our revenue growth, as well as the change in paid clicks and cost-per-click on Google properties and the change in impressions and cost-per-impression on Google Network Members' properties, and various factors contributing to such fluctuations;
- our expectation that our foreign exchange risk management program will not fully offset our net exposure to fluctuations in foreign currency exchange rates;
- the expected variability of costs related to hedging activities under our foreign exchange risk management program;
- our expectation that our cost of revenues, research and development (R&D) expenses, sales and marketing expenses, and general and administrative expenses will increase in dollars and may increase as a percentage of revenues;
- our potential exposure in connection with pending investigations, proceedings, and other contingencies;
- our expectation that our monetization trends will fluctuate, which could affect our revenues and margins in the future;
- our expectation that our traffic acquisition costs (TAC) and the associated TAC rates will fluctuate in the future;
- our expectation that our results will be affected by our performance in international markets as users in developing economies increasingly come online;
- our expectation that the portion of our revenues that we derive from non-advertising revenues will continue to increase and may affect margins;
- our expectation that our other income (expense), net (OI&E), will fluctuate in the future, as it is largely driven by market dynamics;
- estimates of our future compensation expenses;
- fluctuations in our effective tax rate;
- the sufficiency of our sources of funding;
- fluctuations in our capital expenditures;
- our expectations related to the operating structure implemented pursuant to the Alphabet holding company reorganization;
- the sufficiency and timing of our proposed remedies in response to the European Commission's (EC) decisions;
- the expected timing and amount of Alphabet Inc.'s share repurchases;

as well as other statements regarding our future operations, financial condition and prospects, and business strategies. Forward-looking statements may appear throughout this report and other documents we file with the Securities and Exchange Commission (SEC), including without limitation, the following sections: Part I, Item 2, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in this Quarterly Report on Form 10-Q and Part I, Item 1A, "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, as amended and as may be updated in our subsequent Quarterly Reports on Form 10-Q. Forward-looking statements generally can be identified by words such as "anticipates," "believes," "estimates," "expects," "intends," "plans," "predicts," "projects," "will be," "will continue," "may," "could," "will likely result," and similar expressions. These forward-looking statements are based on current expectations and assumptions that are subject to risks and uncertainties, which could cause our actual results to differ materially from those reflected in the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in this Quarterly Report on Form 10-Q, and in particular, the risks discussed in Part I, Item 1A, "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, as amended, and those discussed in other documents we file with the SEC. We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements.

As used herein, "Alphabet," "the company," "we," "us," "our," and similar terms include Alphabet Inc. and its subsidiaries, unless the context indicates otherwise.

"Alphabet," "Google," and other trademarks of ours appearing in this report are our property. This report contains additional trade names and trademarks of other companies. We do not intend our use or display of other companies' trade names or trademarks to imply an endorsement or sponsorship of us by such companies, or any relationship with any of these companies.

PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

Alphabet Inc.
CONSOLIDATED BALANCE SHEETS
(in millions, except share amounts which are reflected in thousands, and par value per share amounts)

	As of December 31, 2018	As of September 30, 2019 (unaudited)
Assets		
Current assets:		
Cash and cash equivalents	$ 16,701	$ 16,032
Marketable securities	92,439	105,145
Total cash, cash equivalents, and marketable securities	109,140	121,177
Accounts receivable, net of allowance of $729 and $643	20,838	20,889
Income taxes receivable, net	355	192
Inventory	1,107	1,401
Other current assets	4,236	4,699
Total current assets	135,676	148,358
Non-marketable investments	13,859	12,488
Deferred income taxes	737	564
Property and equipment, net	59,719	69,252
Operating lease assets	0	10,341
Intangible assets, net	2,220	1,747
Goodwill	17,888	18,069
Other non-current assets	2,693	2,225
Total assets	$ 232,792	$ 263,044
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 4,378	$ 4,142
Accrued compensation and benefits	6,839	7,399
Accrued expenses and other current liabilities	16,958	21,038
Accrued revenue share	4,592	4,835
Deferred revenue	1,784	1,679
Income taxes payable, net	69	131
Total current liabilities	34,620	39,224
Long-term debt	4,012	4,082
Deferred revenue, non-current	396	364
Income taxes payable, non-current	11,327	11,355
Deferred income taxes	1,264	1,747
Operating lease liabilities	0	9,666
Other long-term liabilities	3,545	1,637
Total liabilities	55,164	68,075
Commitments and Contingencies (Note 10)		
Stockholders' equity:		
Convertible preferred stock, $0.001 par value per share, 100,000 shares authorized; no shares issued and outstanding	0	0
Class A and Class B common stock, and Class C capital stock and additional paid-in capital, $0.001 par value per share: 15,000,000 shares authorized (Class A 9,000,000, Class B 3,000,000, Class C 3,000,000); 695,556 (Class A 299,242, Class B 46,636, Class C 349,678) and 690,906 (Class A 299,624, Class B 46,508, Class C 344,774) shares issued and outstanding	45,049	49,040
Accumulated other comprehensive loss	(2,306)	(1,196)
Retained earnings	134,885	147,125
Total stockholders' equity	177,628	194,969
Total liabilities and stockholders' equity	$ 232,792	$ 263,044

See accompanying notes.

Alphabet Inc.
CONSOLIDATED STATEMENTS OF INCOME
(in millions, except per share amounts; unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Revenues	$ 33,740	$ 40,499	$ 97,543	$ 115,782
Costs and expenses:				
Cost of revenues	14,281	17,568	41,631	50,876
Research and development	5,232	6,554	15,385	18,796
Sales and marketing	3,849	4,609	11,233	12,726
General and administrative	1,753	2,591	4,920	6,722
European Commission fines	0	0	5,071	1,697
Total costs and expenses	25,115	31,322	78,240	90,817
Income from operations	8,625	9,177	19,303	24,965
Other income (expense), net	1,458	(549)	5,538	3,956
Income before income taxes	10,083	8,628	24,841	28,921
Provision for income taxes	891	1,560	3,053	5,249
Net income	$ 9,192	$ 7,068	$ 21,788	$ 23,672
Basic net income per share of Class A and B common stock and Class C capital stock	$ 13.21	$ 10.20	$ 31.34	$ 34.12
Diluted net income per share of Class A and B common stock and Class C capital stock	$ 13.06	$ 10.12	$ 30.95	$ 33.83

See accompanying notes.

Alphabet Inc.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(in millions; unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Net income	$ 9,192	$ 7,068	$ 21,788	$ 23,672
Other comprehensive income (loss):				
Change in foreign currency translation adjustment	19	(408)	(466)	(326)
Available-for-sale investments:				
Change in net unrealized gains (losses)	(120)	153	(476)	1,613
Less: reclassification adjustment for net (gains) losses included in net income	29	(39)	62	(107)
Net change (net of tax effect of $19, $32, $41, and $223)	(91)	114	(414)	1,506
Cash flow hedges:				
Change in net unrealized gains (losses)	(9)	264	92	209
Less: reclassification adjustment for net (gains) losses included in net income	(70)	(75)	202	(249)
Net change (net of tax effect of $23, $46, $74, and $23)	(79)	189	294	(40)
Other comprehensive income (loss)	(151)	(105)	(586)	1,140
Comprehensive income	$ 9,041	$ 6,963	$ 21,202	$ 24,812

See accompanying notes.

Alphabet Inc.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In millions, except share amounts which are reflected in thousands; unaudited)

	Three Months Ended September 30, 2018					
	Class A and Class B Common Stock, Class C Capital Stock and Additional Paid-In Capital					
	Shares	Amount	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Stockholders' Equity
Balance as of June 30, 2018	695,946	$ 42,243	$ (1,525)	$ 121,282	$ 162,000
Common and capital stock issued	1,853	21	0	0	21
Stock-based compensation expense	0	2,230	0	0	2,230
Tax withholding related to vesting of restricted stock units and other	0	(1,252)	0	0	(1,252)
Repurchases of capital stock	(1,842)	(131)	0	(2,069)	(2,200)
Net income	0	0	0	9,192	9,192
Other comprehensive income (loss)	0	0	(151)	0	(151)
Balance as of September 30, 2018	695,957	$ 43,111	$ (1,676)	$ 128,405	$ 169,840

	Nine Months Ended September 30, 2018				
	Class A and Class B Common Stock, Class C Capital Stock and Additional Paid-In Capital				
	Shares	Amount	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Stockholders' Equity
Balance as of December 31, 2017	694,783	$ 40,247	$ (992)	$ 113,247	$ 152,502
Cumulative effect of accounting change	0	0	(98)	(599)	(697)
Common and capital stock issued	6,906	136	0	0	136
Stock-based compensation expense	0	7,100	0	0	7,100
Tax withholding related to vesting of restricted stock units and other	0	(3,978)	0	0	(3,978)
Repurchases of capital stock	(5,732)	(394)	0	(6,031)	(6,425)
Net income	0	0	0	21,788	21,788
Other comprehensive income (loss)	0	0	(586)	0	(586)
Balance as of September 30, 2018	695,957	$ 43,111	$ (1,676)	$ 128,405	$ 169,840

See accompanying notes.

Alphabet Inc.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In millions, except share amounts which are reflected in thousands; unaudited)

	Three Months Ended September 30, 2019					
	Class A and Class B Common Stock, Class C Capital Stock and Additional Paid-In Capital		Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Stockholders' Equity
	Shares	Amount			
Balance as of June 30, 2019	694,050	$ 47,937	$ (1,091)	$ 145,346	$ 192,192
Common and capital stock issued	1,616	49	0	0	49
Stock-based compensation expense	0	2,645	0	0	2,645
Tax withholding related to vesting of restricted stock units and other	0	(1,184)	0	0	(1,184)
Repurchases of capital stock	(4,760)	(407)	0	(5,289)	(5,696)
Net income	0	0	0	7,068	7,068
Other comprehensive income (loss)	0	0	(105)	0	(105)
Balance as of September 30, 2019	690,906	$ 49,040	$ (1,196)	$ 147,125	$ 194,969

	Nine Months Ended September 30, 2019				
	Class A and Class B Common Stock, Class C Capital Stock and Additional Paid-In Capital		Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Stockholders' Equity
	Shares	Amount			
Balance as of December 31, 2018	695,556	$ 45,049	$ (2,306)	$ 134,885	$ 177,628
Cumulative effect of accounting change	0	0	(30)	(4)	(34)
Common and capital stock issued	5,931	122	0	0	122
Stock-based compensation expense	0	8,215	0	0	8,215
Tax withholding related to vesting of restricted stock units and other	0	(3,636)	0	0	(3,636)
Repurchases of capital stock	(10,581)	(870)	0	(11,428)	(12,298)
Sale of interest in consolidated entities	0	160	0	0	160
Net income	0	0	0	23,672	23,672
Other comprehensive income (loss)	0	0	1,140	0	1,140
Balance as of September 30, 2019	690,906	$ 49,040	$ (1,196)	$ 147,125	$ 194,969

See accompanying notes.

Alphabet Inc.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in millions; unaudited)

	Nine Months Ended September 30, 2018	Nine Months Ended September 30, 2019
Operating activities		
Net income	$ 21,788	$ 23,672
Adjustments:		
Depreciation and impairment of property and equipment	5,791	7,774
Amortization and impairment of intangible assets	664	594
Stock-based compensation expense	7,100	8,149
Deferred income taxes	723	381
Gain on debt and equity securities, net	(5,413)	(2,399)
Other	(82)	(119)
Changes in assets and liabilities, net of effects of acquisitions:		
Accounts receivable	718	25
Income taxes, net	(1,891)	210
Other assets	(1,240)	(787)
Accounts payable	293	(386)
Accrued expenses and other liabilities	6,457	2,927
Accrued revenue share	(196)	201
Deferred revenue	272	(149)
Net cash provided by operating activities	34,984	40,093
Investing activities		
Purchases of property and equipment	(18,058)	(17,496)
Purchases of marketable securities	(37,340)	(80,968)
Maturities and sales of marketable securities	34,926	74,783
Purchases of non-marketable investments	(1,118)	(1,499)
Maturities and sales of non-marketable investments	1,345	297
Acquisitions, net of cash acquired, and purchases of intangible assets	(1,452)	(373)
Other investing activities	69	468
Net cash used in investing activities	(21,628)	(24,788)
Financing activities		
Net payments related to stock-based award activities	(3,952)	(3,566)
Repurchases of capital stock	(6,425)	(12,298)
Proceeds from issuance of debt, net of costs	6,766	317
Repayments of debt	(6,822)	(538)
Proceeds from sale of interest in consolidated entities	0	202
Net cash used in financing activities	(10,433)	(15,883)
Effect of exchange rate changes on cash and cash equivalents	(195)	(91)
Net increase (decrease) in cash and cash equivalents	2,728	(669)
Cash and cash equivalents at beginning of period	10,715	16,701
Cash and cash equivalents at end of period	$ 13,443	$ 16,032

See accompanying notes.

Alphabet Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Note 1. Nature of Operations and Summary of Significant Accounting Policies

Nature of Operations

Google was incorporated in California in September 1998 and re-incorporated in the State of Delaware in August 2003. In 2015, we implemented a holding company reorganization, and as a result, Alphabet Inc. (Alphabet) became the successor issuer to Google.

We generate revenues primarily by delivering relevant, cost-effective online advertising.

Basis of Consolidation

The consolidated financial statements of Alphabet include the accounts of Alphabet and entities consolidated under the variable interest and voting models. Noncontrolling interests are not presented separately as the amounts are not material. All intercompany balances and transactions have been eliminated.

Unaudited Interim Financial Information

The Consolidated Balance Sheet as of September 30, 2019, the Consolidated Statements of Income for the three and nine months ended September 30, 2018 and 2019, the Consolidated Statements of Comprehensive Income for the three and nine months ended September 30, 2018 and 2019, the Consolidated Statements of Stockholders' Equity for the three and nine months ended September 30, 2018 and 2019 and the Consolidated Statements of Cash Flows for the nine months ended September 30, 2018 and 2019 are unaudited. These unaudited interim consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States (GAAP). In our opinion, the unaudited interim consolidated financial statements include all adjustments of a normal recurring nature necessary for the fair presentation of our financial position as of September 30, 2019, our results of operations for the three and nine months ended September 30, 2018 and 2019, and our cash flows for the nine months ended September 30, 2018 and 2019. The results of operations for the three and nine months ended September 30, 2019 are not necessarily indicative of the results to be expected for the year ending December 31, 2019.

These unaudited interim consolidated financial statements should be read in conjunction with the consolidated financial statements and the related notes included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, as amended, filed with the SEC.

Use of Estimates

Preparation of consolidated financial statements in conformity with GAAP requires us to make estimates and assumptions that affect the amounts reported and disclosed in the financial statements and the accompanying notes. Actual results could differ materially from these estimates. On an ongoing basis, we evaluate our estimates, including those related to bad debt allowance, sales allowances, fair values of financial instruments, intangible assets and goodwill, useful lives of intangible assets and property and equipment, income taxes, and contingent liabilities, among others. We base our estimates on assumptions, both historical and forward looking, that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities.

Recent Accounting Pronouncements

Recently issued accounting pronouncements not yet adopted

In June 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2016-13 (ASU 2016-13) "Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments", which requires the measurement and recognition of expected credit losses for financial assets held at amortized cost. ASU 2016-13 replaces the existing incurred loss impairment model with an expected loss model which requires the use of forward-looking information to calculate credit loss estimates. It also eliminates the concept of other-than-temporary impairment and requires credit losses related to available-for-sale debt securities to be recorded through an allowance for credit losses rather than as a reduction in the amortized cost basis of the securities. These changes will result in earlier recognition of credit losses. We will adopt ASU 2016-13 effective January 1, 2020 with the cumulative effect of adoption recorded as an adjustment to retained earnings. We are currently implementing new credit loss models and updating our processes and controls in preparation for the adoption of ASU 2016-13. The effect on our consolidated financial statements will largely depend on the composition and credit quality of our investment portfolio and the economic conditions and forecasts at the time of adoption. Based on the current composition of our investment portfolio, current market conditions, and historical credit loss activity, the impact on our consolidated financial statements and related disclosures is not expected to be material.

Recently adopted accounting pronouncements

In February 2016, the FASB issued Accounting Standards Update No. 2016-02 (Topic 842) "Leases." Topic 842 supersedes the lease requirements in Accounting Standards Codification Topic 840, "Leases." Under Topic 842, lessees are required to recognize assets and liabilities on the balance sheet for most leases and provide enhanced disclosures. Leases will continue to be classified as either finance or operating.

We adopted Topic 842 effective January 1, 2019. The most significant effects of Topic 842 were the recognition of $8.0 billion of operating lease assets and $8.4 billion of operating lease liabilities and the de-recognition of $1.5 billion of build-to-suit assets and liabilities upon adoption. We applied Topic 842 to all leases as of January 1, 2019 with comparative periods continuing to be reported under Topic 840. In the adoption of Topic 842, we carried forward the assessment from Topic 840 of whether our contracts contain or are leases, the classification of our leases, and remaining lease terms. Our accounting for finance leases remains substantially unchanged. The standard does not have a significant effect on our consolidated results of operations or cash flows. See Note 4 for further details.

Prior Period Reclassifications

Certain amounts in prior periods have been reclassified to conform with current period presentation. Performance fees have been reclassified for all periods from general and administrative expenses to other income (expense), net to align with the presentation of the investment gains and losses on which the performance fees are based. See Note 7 for further details.

Note 2. Revenues

Disaggregated Revenues

The following table presents our revenues disaggregated by revenue source (in millions, unaudited). Sales and usage-based taxes are excluded from revenues.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Google properties	$ 24,054	$ 28,647	$ 69,314	$ 81,664
Google Network Members' properties	4,900	5,269	14,369	15,573
Google advertising revenues	28,954	33,916	83,683	97,237
Google other revenues	4,640	6,428	13,419	18,058
Other Bets revenues	146	155	441	487
Total revenues(1)	$ 33,740	$ 40,499	$ 97,543	$ 115,782

(1) Revenues include hedging gains (losses) of $80 million and $119 million for the three months ended September 30, 2018 and 2019, respectively, and $(262) million and $364 million for the nine months ended September 30, 2018 and 2019, respectively, which do not represent revenues recognized from contracts with customers.

The following table presents our revenues disaggregated by geography, based on the addresses of our customers (in millions, unaudited):

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2018		2019		2018		2019	
United States	$ 15,523	46%	$ 18,711	46%	$ 44,600	46%	$ 53,106	46%
EMEA(1)	10,958	32	12,667	31	32,217	33	36,859	32
APAC(1)	5,424	16	6,828	17	15,318	15	19,491	17
Other Americas(1)	1,835	6	2,293	6	5,408	6	6,326	5
Total revenues(2)	$ 33,740	100%	$ 40,499	100%	$ 97,543	100%	$ 115,782	100%

(1) Regions represent Europe, the Middle East, and Africa (EMEA); Asia-Pacific (APAC); and Canada and Latin America (Other Americas).
(2) Revenues include hedging gains (losses) for the three and nine months ended September 30, 2018 and 2019.

Deferred Revenues

We record deferred revenues when cash payments are received or due in advance of our performance, including amounts which are refundable. The decrease in the deferred revenue balance for the nine months ended September 30, 2019 was primarily driven by the recognition of $1.5 billion of revenues that were included in the deferred revenue balance as of December 31, 2018, offset by cash payments received or due in advance of satisfying our performance obligations.

Note 3. Financial Instruments

Debt Securities

We classify our marketable debt securities within Level 2 in the fair value hierarchy because we use quoted market prices to the extent available or alternative pricing sources and models utilizing market observable inputs to determine fair value.

The following tables summarize our debt securities by significant investment categories as of December 31, 2018 and September 30, 2019 (in millions):

	As of December 31, 2018					
	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Cash and Cash Equivalents	Marketable Securities
Level 2:						
Time deposits[1]	$ 2,202	$ 0	$ 0	$ 2,202	$ 2,202	$ 0
Government bonds	53,634	71	(414)	53,291	3,717	49,574
Corporate debt securities	25,383	15	(316)	25,082	44	25,038
Mortgage-backed and asset-backed securities	16,918	11	(324)	16,605	0	16,605
Total	$ 98,137	$ 97	$ (1,054)	$ 97,180	$ 5,963	$ 91,217

	As of September 30, 2019					
	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Cash and Cash Equivalents	Marketable Securities
	(unaudited)					
Level 2:						
Time deposits[1]	$ 2,100	$ 0	$ 0	$ 2,100	$ 2,100	$ 0
Government bonds	55,054	471	(60)	55,465	250	55,215
Corporate debt securities	27,127	318	(8)	27,437	12	27,425
Mortgage-backed and asset-backed securities	17,295	118	(39)	17,374	0	17,374
Total	$ 101,576	$ 907	$ (107)	$ 102,376	$ 2,362	$ 100,014

(1) The majority of our time deposits are domestic deposits.

We determine realized gains or losses on the sale or extinguishment of debt securities on a specific identification method. We recognized gross realized gains of $5 million and $85 million for the three months ended September 30, 2018 and 2019, respectively, and $44 million and $250 million, for the nine months ended September 30, 2018 and 2019, respectively. We recognized gross realized losses of $34 million and $36 million for the three months ended September 30, 2018 and 2019, respectively, and $106 million and $105 million for the nine months ended September 30, 2018 and 2019, respectively. We reflect these gains and losses as a component of other income (expense), net, in the Consolidated Statements of Income.

The following table summarizes the estimated fair value of our investments in marketable debt securities with stated contractual maturity dates, accounted for as available-for-sale securities and classified by the contractual maturity date of the securities (in millions, unaudited):

	As of September 30, 2019
Due in 1 year	$ 18,782
Due in 1 year through 5 years	66,825
Due in 5 years through 10 years	3,868
Due after 10 years	10,539
Total	$ 100,014

The following tables present gross unrealized losses and fair values for those investments that were in an unrealized loss position as of December 31, 2018 and September 30, 2019, aggregated by investment category and the length of time that individual securities have been in a continuous loss position (in millions):

	As of December 31, 2018					
	Less than 12 Months		12 Months or Greater		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Government bonds	$ 12,019	$ (85)	$ 23,877	$ (329)	$ 35,896	$ (414)
Corporate debt securities	10,171	(107)	11,545	(209)	21,716	(316)
Mortgage-backed and asset-backed securities	5,534	(75)	8,519	(249)	14,053	(324)
Total	$ 27,724	$ (267)	$ 43,941	$ (787)	$ 71,665	$ (1,054)

	As of September 30, 2019					
	Less than 12 Months		12 Months or Greater		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
	(unaudited)					
Government bonds	$ 9,544	$ (27)	$ 9,896	$ (33)	$ 19,440	$ (60)
Corporate debt securities	2,145	(4)	3,321	(4)	5,466	(8)
Mortgage-backed and asset-backed securities	2,163	(6)	3,454	(33)	5,617	(39)
Total	$ 13,852	$ (37)	$ 16,671	$ (70)	$ 30,523	$ (107)

During the three and nine months ended September 30, 2018 and 2019, we did not recognize any significant other-than-temporary impairment losses. Losses on impairment are included as a component of other income (expense), net, in the Consolidated Statements of Income. See Note 7 for further details on other income (expense), net.

Equity Investments

The following discusses our marketable equity securities, non-marketable equity securities, gains and losses on marketable and non-marketable equity securities, as well as our equity securities accounted for under the equity method.

Marketable equity securities

Our marketable equity securities are publicly traded stocks or funds measured at fair value and classified within Level 1 and 2 in the fair value hierarchy because we use quoted prices for identical assets in active markets or inputs that are based upon quoted prices for similar instruments in active markets.

The following table summarizes marketable equity securities measured at fair value by significant investment categories as of December 31, 2018 and September 30, 2019 (in millions):

	As of December 31, 2018		As of September 30, 2019	
	Cash and Cash Equivalents	Marketable Securities	Cash and Cash Equivalents	Marketable Securities
			(unaudited)	
Level 1:				
Money market funds	$ 3,493	$ 0	$ 8,263	$ 0
Marketable equity securities[(1)]	0	994	0	4,886
	3,493	994	8,263	4,886
Level 2:				
Mutual funds	0	228	0	245
Total	$ 3,493	$ 1,222	$ 8,263	$ 5,131

(1) The balance as of September 30, 2019 includes investments that were reclassified from non-marketable equity securities following the initial public offering of the issuers (certain of which are subject to short-term lock-up restrictions).

The following table summarizes the total carrying value of our marketable equity securities held as of September 30, 2019, including cumulative net unrealized gain (loss) (in millions, unaudited):

Initial cost basis	$ 1,896
Cumulative unrealized gain (loss)	2,990
Total carrying value at the end of the period	$ 4,886

During the three months ended September 30, 2019, net unrealized losses of $1.6 billion were recognized in other income (expense), net, which reduced the cumulative net unrealized gain on marketable equity securities to $3.0 billion and carrying value of marketable equity securities to $4.9 billion as of September 30, 2019.

Non-marketable equity securities

Our non-marketable equity securities are investments in privately held companies without readily determinable market values. The carrying value of our non-marketable equity securities is adjusted to fair value for observable transactions for identical or similar investments of the same issuer or impairment (referred to as the measurement alternative). All gains and losses on non-marketable equity securities, realized and unrealized, are recognized in other income (expense), net. Non-marketable equity securities that have been remeasured are classified within Level 3 in the fair value hierarchy because we estimate the value based on valuation methods using the observable transaction price at the transaction date and other unobservable inputs including volatility, rights, and obligations of the securities we hold.

The following is a summary of unrealized gains and losses recorded in other income (expense), net, and included as adjustments to the carrying value of non-marketable equity securities (in millions, unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Unrealized gains	$ 1,075	$ 398	$ 4,151	$ 1,816
Unrealized losses (including impairment)	(41)	(232)	(138)	(370)
Total unrealized gain (loss) for non-marketable equity securities	$ 1,034	$ 166	$ 4,013	$ 1,446

The following table summarizes the total carrying value of our non-marketable equity securities held as of September 30, 2019, including cumulative unrealized gains and losses (in millions, unaudited):

Initial cost basis	$	8,126
Unrealized gains		3,152
Unrealized losses (including impairment)		(382)
Total carrying value at the end of the period	$	10,896

During the three months ended September 30, 2019, included in the $10.9 billion of non-marketable equity securities, $1.6 billion were measured at fair value primarily based on observable market transactions, resulting in a net unrealized gain of $166 million.

Gains and losses on marketable and non-marketable equity securities

Gains and losses for our marketable and non-marketable equity securities are summarized below (in millions, unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Net gain (loss) on equity securities sold during the period	$ 403	$ (63)	$ 1,352	$ 381
Unrealized gain (loss) on equity securities held as of the end of the period[1]	979	(1,465)	4,123	1,873
Total gain (loss) recognized in other income (expense), net	$ 1,382	$ (1,528)	$ 5,475	$ 2,254

(1) Includes net gains of $1,034 million and $166 million for the three months ended September 30, 2018 and 2019, respectively, and $4,013 million and $1,446 million for the nine months ended September 30, 2018 and 2019, respectively, related to non-marketable equity securities.

In the table above, net gain (loss) on equity securities sold during the period reflects the difference between the sale proceeds and the carrying value of the equity securities at the beginning of the period or the purchase date, if later. The cumulative net gain measured as the sale price less the initial purchase price for equity securities sold during the three and nine months ended September 30, 2019 was $312 million and $612 million, respectively.

Equity securities accounted for under the Equity Method

Equity securities accounted for under the equity method had a carrying value of approximately $1.3 billion and $1.2 billion as of December 31, 2018 and September 30, 2019, respectively. Our share of gains and losses including impairment are included as a component of other income (expense), net. See Note 7 for further details on other income (expense), net.

Derivative Financial Instruments

We classify our foreign currency and interest rate derivative contracts primarily within Level 2 in the fair value hierarchy as the valuation inputs are based on quoted prices and market observable data of similar instruments.

We recognize derivative instruments as either assets or liabilities in the Consolidated Balance Sheets at fair value. We record changes in the fair value (i.e., gains or losses) of the derivatives in the Consolidated Statements of Income as either other income (expense), net, or revenues, or in the Consolidated Balance Sheets in accumulated other comprehensive income (AOCI), as discussed below. Any components excluded from the assessment of hedge effectiveness are recognized in the same income statement line as the hedged item.

We enter into foreign currency contracts with financial institutions to reduce the risk that our cash flows, earnings, and investment in foreign subsidiaries will be adversely affected by foreign currency exchange rate fluctuations. We also use interest rate derivative contracts to hedge interest rate exposures on our fixed income securities and debt issuances. Our program is not used for trading or speculative purposes.

We enter into master netting arrangements, which reduce credit risk by permitting net settlement of transactions with the same counterparty. To further reduce credit risk, we enter into collateral security arrangements under which the counterparty is required to provide collateral when the net fair value of certain financial instruments fluctuates from contractually established thresholds. We can take possession of the collateral in the event of counterparty default. As of December 31, 2018 and September 30, 2019, we received cash collateral related to the derivative instruments under our collateral security arrangements of $327 million and $399 million, respectively, which was included in other current assets.

Cash Flow Hedges

We use foreign currency forwards and option contracts, including collars (an option strategy comprised of a combination of purchased and written options), designated as cash flow hedges to hedge certain forecasted revenue transactions denominated in currencies other than the U.S. dollar. The notional principal of these contracts was approximately $11.8 billion and $12.9 billion as of December 31, 2018 and September 30, 2019, respectively. These contracts have maturities of 24 months or less.

For forwards and option contracts, we exclude the change in the forward points and time value from our assessment of hedge effectiveness. The initial value of the excluded component is amortized on a straight-line basis over the life of the hedging instrument and recognized in revenues. The difference between fair value changes of the excluded component and the amount amortized to revenues is recorded in AOCI. We reflect the gains or losses of a cash flow hedge included in our assessment of hedge effectiveness as a component of AOCI and subsequently reclassify these gains and losses to revenues when the hedged transactions are recorded. If the hedged transactions become probable of not occurring, the corresponding amounts in AOCI are immediately reclassified to other income (expense), net.

As of September 30, 2019, the net accumulated gain on our foreign currency cash flow hedges before tax effect was $217 million, which is expected to be reclassified from AOCI into earnings within the next 12 months.

Fair Value Hedges

We use forward contracts designated as fair value hedges to hedge foreign currency risks for our investments denominated in currencies other than the U.S. dollar. We exclude changes in forward points for the forward contracts from the assessment of hedge effectiveness. We recognize changes in the excluded component in other income (expense), net. The notional principal of these contracts was $2.0 billion and $0.5 billion as of December 31, 2018 and September 30, 2019, respectively.

Gains and losses on these forward contracts are recognized in other income (expense), net, along with the offsetting gains and losses of the related hedged items.

Net Investment Hedges

We use forward contracts designated as net investment hedges to hedge the foreign currency risks related to our investment in foreign subsidiaries. We exclude changes in forward points for the forward contracts from the assessment of hedge effectiveness. We recognize changes in the excluded component in other income (expense), net. The notional principal of these contracts was $6.7 billion and $9.6 billion as of December 31, 2018 and September 30, 2019, respectively.

Gains and losses on these forward contracts are recognized in AOCI as part of the foreign currency translation adjustment.

Other Derivatives

Other derivatives not designated as hedging instruments consist of foreign currency forward contracts that we use to hedge intercompany transactions and other monetary assets or liabilities denominated in currencies other than the local currency of a subsidiary. We recognize gains and losses on these contracts, as well as the related costs in other income (expense), net, along with the foreign currency gains and losses on monetary assets and liabilities. The notional principal of the outstanding foreign exchange contracts was $20.1 billion and $27.3 billion as of December 31, 2018 and September 30, 2019, respectively.

The fair values of our outstanding derivative instruments were as follows (in millions):

	Balance Sheet Location	As of December 31, 2018 Fair Value of Derivatives Designated as Hedging Instruments	Fair Value of Derivatives Not Designated as Hedging Instruments	Total Fair Value
Derivative Assets:				
Level 2:				
Foreign exchange contracts	Other current and non-current assets	$ 459	$ 54	$ 513
Total		$ 459	$ 54	$ 513
Derivative Liabilities:				
Level 2:				
Foreign exchange contracts	Accrued expenses and other liabilities, current and non-current	$ 5	$ 228	$ 233
Total		$ 5	$ 228	$ 233

	Balance Sheet Location	As of September 30, 2019 Fair Value of Derivatives Designated as Hedging Instruments	Fair Value of Derivatives Not Designated as Hedging Instruments	Total Fair Value
			(unaudited)	
Derivative Assets:				
Level 2:				
Foreign exchange contracts	Other current and non-current assets	$ 564	$ 7	$ 571
Total		$ 564	$ 7	$ 571
Derivative Liabilities:				
Level 2:				
Foreign exchange contracts	Accrued expenses and other liabilities, current and non-current	$ 15	$ 317	$ 332
Total		$ 15	$ 317	$ 332

The gains (losses) on derivatives in cash flow hedging and net investment hedging relationships recognized in other comprehensive income (OCI) are summarized below (in millions, unaudited):

	Gains (Losses) Recognized in OCI on Derivatives Before Tax Effect			
	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Derivatives in Cash Flow Hedging Relationship:				
Foreign exchange contracts				
Amount included in the assessment of effectiveness	$ (7)	$ 325	$ 117	$ 277
Amount excluded from the assessment of effectiveness	(11)	6	(10)	(13)
Derivatives in Net Investment Hedging Relationship:				
Foreign exchange contracts				
Amount included in the assessment of effectiveness	(46)	328	(46)	309
Total	$ (64)	$ 659	$ 61	$ 573

The effect of derivative instruments on income is summarized below (in millions, unaudited):

	Gains (Losses) Recognized in Income			
	Three Months Ended September 30,			
	2018		2019	
	Revenues	Other income (expense), net	Revenues	Other income (expense), net
Total amounts presented in the Consolidated Statements of Income in which the effects of cash flow and fair value hedges are recorded	$ 33,740	$ 1,458	$ 40,499	$ (549)
Gains (Losses) on Derivatives in Cash Flow Hedging Relationship:				
Foreign exchange contracts				
Amount of gains (losses) reclassified from AOCI to income	$ 84	$ 0	$ 93	$ 0
Amount excluded from the assessment of effectiveness recognized in earnings based on an amortization approach	(4)	0	26	0
Gains (Losses) on Derivatives in Fair Value Hedging Relationship:				
Foreign exchange contracts				
Hedged items	0	16	0	(35)
Derivatives designated as hedging instruments	0	(16)	0	35
Amount excluded from the assessment of effectiveness	0	7	0	4
Gains (Losses) on Derivatives in Net Investment Hedging Relationship:				
Foreign exchange contracts				
Amount excluded from the assessment of effectiveness	0	24	0	62
Gains (Losses) on Derivatives Not Designated as Hedging Instruments:				
Foreign exchange contracts				
Derivatives not designated as hedging instruments	0	144	0	(233)
Total gains (losses)	$ 80	$ 175	$ 119	$ (167)

	Gains (Losses) Recognized in Income			
	Nine Months Ended September 30,			
	2018		2019	
	Revenues	Other income (expense), net	Revenues	Other income (expense), net
Total amounts presented in the Consolidated Statements of Income in which the effects of cash flow and fair value hedges are recorded	$ 97,543	$ 5,538	$ 115,782	$ 3,956
Gains (Losses) on Derivatives in Cash Flow Hedging Relationship:				
Foreign exchange contracts				
Amount of gains (losses) reclassified from AOCI to income	$ (264)	$ 0	$ 306	$ 0
Amount excluded from the assessment of effectiveness recognized in earnings based on an amortization approach	2	0	58	0
Gains (Losses) on Derivatives in Fair Value Hedging Relationship:				
Foreign exchange contracts				
Hedged items	0	(29)	0	(26)
Derivatives designated as hedging instruments	0	29	0	26
Amount excluded from the assessment of effectiveness	0	28	0	24
Gains (Losses) on Derivatives in Net Investment Hedging Relationship:				
Foreign exchange contracts				
Amount excluded from the assessment of effectiveness	0	24	0	173
Gains (Losses) on Derivatives Not Designated as Hedging Instruments:				
Foreign exchange contracts				
Derivatives not designated as hedging instruments	0	244	0	(387)
Total gains (losses)	$ (262)	$ 296	$ 364	$ (190)

Offsetting of Derivatives

We present our forwards and purchased options at gross fair values in the Consolidated Balance Sheets. For foreign currency collars, we present at net fair values where both purchased and written options are with the same counterparty. Our master netting and other similar arrangements allow net settlements under certain conditions. As of December 31, 2018 and September 30, 2019, information related to these offsetting arrangements were as follows (in millions):

Offsetting of Assets

	As of December 31, 2018						
				Gross Amounts Not Offset in the Consolidated Balance Sheets, but Have Legal Rights to Offset			
	Gross Amounts of Recognized Assets	Gross Amounts Offset in the Consolidated Balance Sheets	Net Presented in the Consolidated Balance Sheets	Financial Instruments	Cash Collateral Received	Non-Cash Collateral Received	Net Assets Exposed
Derivatives	$ 569	$ (56)	$ 513	$ (90) (1)	$ (307)	$ (14)	$ 102

	As of September 30, 2019						
				Gross Amounts Not Offset in the Consolidated Balance Sheets, but Have Legal Rights to Offset			
	Gross Amounts of Recognized Assets	Gross Amounts Offset in the Consolidated Balance Sheets	Net Presented in the Consolidated Balance Sheets	Financial Instruments	Cash Collateral Received	Non-Cash Collateral Received	Net Assets Exposed
				(unaudited)			
Derivatives	$ 589	$ (18)	$ 571	$ (173) (1)	$ (331)	$ (39)	$ 28

(1) The balances as of December 31, 2018 and September 30, 2019 were related to derivative liabilities which are allowed to be net settled against derivative assets in accordance with our master netting agreements.

Offsetting of Liabilities

	As of December 31, 2018						
				Gross Amounts Not Offset in the Consolidated Balance Sheets, but Have Legal Rights to Offset			
	Gross Amounts of Recognized Liabilities	Gross Amounts Offset in the Consolidated Balance Sheets	Net Presented in the Consolidated Balance Sheets	Financial Instruments	Cash Collateral Pledged	Non-Cash Collateral Pledged	Net Liabilities
Derivatives	$ 289	$ (56)	$ 233	$ (90) (2)	$ 0	$ 0	$ 143

	As of September 30, 2019						
				Gross Amounts Not Offset in the Consolidated Balance Sheets, but Have Legal Rights to Offset			
	Gross Amounts of Recognized Liabilities	Gross Amounts Offset in the Consolidated Balance Sheets	Net Presented in the Consolidated Balance Sheets	Financial Instruments	Cash Collateral Pledged	Non-Cash Collateral Pledged	Net Liabilities
				(unaudited)			
Derivatives	$ 350	$ (18)	$ 332	$ (173) (2)	$ 0	$ 0	$ 159

(2) The balances as of December 31, 2018 and September 30, 2019 were related to derivative assets which are allowed to be net settled against derivative liabilities in accordance with our master netting agreements.

Note 4. Leases

We have entered into operating and finance lease agreements primarily for data centers, land and offices throughout the world with lease periods expiring between 2019 and 2063.

We determine if an arrangement is a lease at inception. Operating lease assets and liabilities are included on our Consolidated Balance Sheet beginning January 1, 2019. The current portion of our operating lease liabilities is included in accrued expenses and other current liabilities and the long term portion is included in operating lease liabilities. Finance lease assets are included in property and equipment, net. Finance lease liabilities are included in accrued expenses and other current liabilities or long-term debt.

Operating lease assets and liabilities are recognized at the present value of the future lease payments at the lease commencement date. The interest rate used to determine the present value of the future lease payments is our incremental borrowing rate, because the interest rate implicit in most of our leases is not readily determinable. Our incremental borrowing rate is estimated to approximate the interest rate on a collateralized basis with similar terms and payments, and in economic environments where the leased asset is located. Operating lease assets also include any prepaid lease payments and lease incentives. Our lease terms include periods under options to extend or terminate the lease when it is reasonably certain that we will exercise that option. We generally use the base, non-cancelable, lease term when determining the lease assets and liabilities. Operating lease expense is recognized on a straight-line basis over the lease term.

Our lease agreements generally contain lease and non-lease components. Non-lease components primarily include payments for maintenance and utilities. We combine fixed payments for non-lease components with our lease payments and account for them together as a single lease component which increases the amount of our lease assets and liabilities.

Payments under our lease arrangements are primarily fixed, however, certain lease agreements contain variable payments, which are expensed as incurred and not included in the operating lease assets and liabilities. These amounts include payments affected by the Consumer Price Index, payments contingent on wind or solar production for power purchase arrangements, and payments for maintenance and utilities.

Components of operating lease expense were as follows (in millions, unaudited):

	Three Months Ended September 30, 2019	Nine Months Ended September 30, 2019
Operating lease cost	$ 477	$ 1,302
Variable lease cost	134	392
Total operating lease cost	$ 611	$ 1,694

Supplemental cash flow information related to operating leases was as follows (in millions, unaudited):

	Three Months Ended September 30, 2019	Nine Months Ended September 30, 2019
Cash payments for operating leases	$ 442	$ 1,212
New operating lease assets obtained in exchange for operating lease liabilities	$ 1,045	$ 3,498

As of September 30, 2019, our operating leases had a weighted average remaining lease term of 10 years and a weighted average discount rate of 2.8%. Future lease payments under operating leases as of September 30, 2019 were as follows (in millions, unaudited):

	Operating Leases
Remainder of 2019	$ 323
2020	1,751
2021	1,701
2022	1,544
2023	1,387
Thereafter	6,557
Total future lease payments	13,263
Less imputed interest	(2,472)
Total lease liability balance	$ 10,791

As of September 30, 2019, we have entered into leases that have not yet commenced with future lease payments of $7.7 billion, excluding purchase options, that are not yet recorded on our Consolidated Balance Sheets. These leases will commence between 2019 and 2026 with non-cancelable lease terms of 1 to 25 years.

Note 5. Variable Interest Entities (VIEs)

Consolidated VIEs

We consolidate VIEs in which we hold a variable interest and are the primary beneficiary. We are the primary beneficiary because we have the power to direct activities that most significantly affect their economic performance and have the obligation to absorb the majority of their losses or benefits. The results of operations and financial position of these VIEs are included in our consolidated financial statements.

For certain consolidated VIEs, their assets are not available to us and their creditors do not have recourse to us. As of December 31, 2018 and September 30, 2019, assets that can only be used to settle obligations of these VIEs were $2.4 billion and $1.9 billion, respectively, and the liabilities for which creditors only have recourse to the VIEs were $909 million and $704 million, respectively.

Calico

Calico is a life science company with a mission to harness advanced technologies to increase our understanding of the biology that controls lifespan.

In September 2014, AbbVie Inc. (AbbVie) and Calico entered into a research and development collaboration agreement intended to help both companies discover, develop, and bring to market new therapies for patients with age-related diseases, including neurodegeneration and cancer. In the second quarter of 2018, AbbVie and Calico amended the collaboration agreement resulting in an increase in total commitments. As of September 30, 2019, AbbVie has contributed $750 million to fund the collaboration pursuant to the agreement and is committed to an additional $500 million which will be paid by the fourth quarter of 2019. As of September 30, 2019, Calico has contributed $500 million and has committed up to an additional $750 million.

Calico has used its scientific expertise to establish a world-class research and development facility, with a focus on drug discovery and early drug development; and AbbVie provides scientific and clinical development support and its commercial expertise to bring new discoveries to market. Both companies share costs and profits for projects covered under this agreement equally. AbbVie's contribution has been recorded as a liability on Calico's financial statements, which is reduced and reflected as a reduction to research and development expense as eligible research and development costs are incurred by Calico.

As of September 30, 2019, we have contributed $480 million to Calico in exchange for Calico convertible preferred units and are committed to fund up to an additional $750 million on an as-needed basis and subject to certain conditions.

Verily

Verily is a life science company with a mission to make the world's health data useful so that people enjoy healthier lives. In December 2018, Verily received $900 million in cash from a $1.0 billion investment round. The remaining $100 million was received in the first quarter of 2019. As of September 30, 2019, Verily has received an aggregate amount of $1.8 billion from sales of equity securities to external investors. These transactions were accounted for as equity transactions and no gain or loss was recognized.

Unconsolidated VIEs

Certain renewable energy investments included in our non-marketable equity investments accounted for under the equity method are VIEs. These entities' activities involve power generation using renewable sources. We have determined that the governance structures of these entities do not allow us to direct the activities that would significantly affect their economic performance such as setting operating budgets. Therefore, we do not consolidate these VIEs in our consolidated financial statements. The carrying value and maximum exposure of these VIEs were $705 million and $614 million as of December 31, 2018 and September 30, 2019, respectively. The maximum exposure is based on current investments to date. We have determined the single source of our exposure to these VIEs is our capital investment in them.

Other unconsolidated VIEs were not material as of December 31, 2018 and September 30, 2019.

Note 6. Debt

Short-Term Debt

We have a debt financing program of up to $5.0 billion through the issuance of commercial paper. Net proceeds from this program are used for general corporate purposes. We had no commercial paper outstanding as of December 31, 2018 and September 30, 2019.

Long-Term Debt

Google issued $3.0 billion of senior unsecured notes in three tranches (collectively, 2011 Notes) in May 2011, due in 2014, 2016, and 2021, as well as $1.0 billion of senior unsecured notes (2014 Notes) in February 2014 due in 2024.

In April 2016, we completed an exchange offer with eligible holders of Google’s 2011 Notes due 2021 and 2014 Notes due 2024 (collectively, the Google Notes). An aggregate principal amount of approximately $1.7 billion of the Google Notes was exchanged for approximately $1.7 billion of Alphabet notes with identical interest rate and maturity.

Because the exchange was between a parent and the subsidiary company and for substantially identical notes, the change was treated as a debt modification for accounting purposes with no gain or loss recognized.

In August 2016, Alphabet issued $2.0 billion of senior unsecured notes (2016 Notes) due 2026. The net proceeds from the issuance of the 2016 Notes were used for general corporate purposes, including the repayment of outstanding commercial paper. The Alphabet notes due in 2021, 2024, and 2026 rank equally with each other and are structurally subordinate to the outstanding Google Notes.

The total outstanding long-term debt is summarized below (in millions):

	As of December 31, 2018	As of September 30, 2019
		(unaudited)
3.625% Notes due on May 19, 2021	$ 1,000	$ 1,000
3.375% Notes due on February 25, 2024	1,000	1,000
1.998% Notes due on August 15, 2026	2,000	2,000
Unamortized discount for the Notes above	(50)	(44)
Subtotal[(1)]	3,950	3,956
Finance lease obligation	62	126
Total long-term debt	$ 4,012	$ 4,082

(1) Includes the outstanding (and unexchanged) Google Notes issued in 2011 and 2014 and the Alphabet notes exchanged in 2016.

The effective interest yields based on proceeds received from the outstanding notes due in 2021, 2024, and 2026 were 3.734%, 3.377%, and 2.231%, respectively, with interest payable semi-annually. We may redeem these notes at any time in whole or in part at specified redemption prices. The total estimated fair value of all outstanding notes was approximately $3.9 billion and $4.1 billion as of December 31, 2018 and September 30, 2019, respectively. The fair value was determined based on observable market prices of identical instruments in less active markets and is categorized accordingly as Level 2 in the fair value hierarchy.

Credit Facility

As of September 30, 2019, we have $4.0 billion of revolving credit facilities which expire in July 2023. The interest rate for the credit facilities is determined based on a formula using certain market rates. No amounts were outstanding under the credit facilities as of December 31, 2018 and September 30, 2019.

Note 7. Supplemental Financial Statement Information

Property and Equipment, Net

Property and equipment, net, consisted of the following (in millions):

	As of December 31, 2018	As of September 30, 2019
		(unaudited)
Land and buildings	$ 30,179	$ 34,960
Information technology assets	30,119	34,738
Construction in progress	16,838	21,716
Leasehold improvements	5,310	5,846
Furniture and fixtures	61	145
Property and equipment, gross	82,507	97,405
Less: accumulated depreciation	(22,788)	(28,153)
Property and equipment, net	$ 59,719	$ 69,252

As of December 31, 2018 and September 30, 2019, information technology assets under finance lease with a cost basis of $648 million and $1,116 million, respectively, were included in property and equipment.

Accrued expenses and other current liabilities

Accrued expenses and other current liabilities consisted of the following (in millions):

	As of December 31, 2018	As of September 30, 2019
		(unaudited)
European Commission fines[1]	$ 7,754	$ 9,191
Accrued customer liabilities	1,810	1,825
Other accrued expenses and current liabilities	7,394	10,022
Accrued expenses and other current liabilities	$ 16,958	$ 21,038

(1) Includes the effects of foreign exchange and interest. See Note 10 for further details.

Accumulated Other Comprehensive Income (Loss)

The components of AOCI, net of tax, were as follows (in millions, unaudited):

	Foreign Currency Translation Adjustments	Unrealized Gains (Losses) on Available-for-Sale Investments	Unrealized Gains (Losses) on Cash Flow Hedges	Total
Balance as of December 31, 2017	$ (1,103)	$ 233	$ (122)	$ (992)
Cumulative effect of accounting change	0	(98)	0	(98)
Other comprehensive income (loss) before reclassifications	(466)	(476)	102	(840)
Amounts excluded from the assessment of hedge effectiveness recorded in AOCI	0	0	(10)	(10)
Amounts reclassified from AOCI	0	62	202	264
Other comprehensive income (loss)	(466)	(414)	294	(586)
Balance as of September 30, 2018	$ (1,569)	$ (279)	$ 172	$ (1,676)

	Foreign Currency Translation Adjustments	Unrealized Gains (Losses) on Available-for-Sale Investments	Unrealized Gains (Losses) on Cash Flow Hedges	Total
Balance as of December 31, 2018	$ (1,884)	$ (688)	$ 266	$ (2,306)
Cumulative effect of accounting change	0	0	(30)	(30)
Other comprehensive income (loss) before reclassifications	(326)	1,613	222	1,509
Amounts excluded from the assessment of hedge effectiveness recorded in AOCI	0	0	(13)	(13)
Amounts reclassified from AOCI	0	(107)	(249)	(356)
Other comprehensive income (loss)	(326)	1,506	(40)	1,140
Balance as of September 30, 2019	$ (2,210)	$ 818	$ 196	$ (1,196)

The effects on net income of amounts reclassified from AOCI were as follows (in millions, unaudited):

		Gains (Losses) Reclassified from AOCI to the Consolidated Statements of Income			
		Three Months Ended September 30,		Nine Months Ended September 30,	
AOCI Components	Location	2018	2019	2018	2019
Unrealized gains (losses) on available-for-sale investments					
	Other income (expense), net	$ (29)	$ 49	$ (62)	$ 145
	Benefit (provision) for income taxes	0	(10)	0	(38)
	Net of tax	(29)	39	$ (62)	$ 107
Unrealized gains (losses) on cash flow hedges					
Foreign exchange contracts	Revenue	84	93	$ (264)	$ 306
Interest rate contracts	Other income (expense), net	1	1	3	4
	Benefit (provision) for income taxes	(15)	(19)	59	(61)
	Net of tax	70	75	$ (202)	$ 249
Total amount reclassified, net of tax		$ 41	$ 114	$ (264)	$ 356

Other Income (Expense), Net

The components of other income (expense), net, were as follows (in millions, unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Interest income	$ 481	$ 631	$ 1,336	$ 1,806
Interest expense(1)	(28)	(23)	(85)	(83)
Foreign currency exchange gain (loss), net	(55)	41	(112)	63
Gain (loss) on debt securities, net	(29)	49	(62)	145
Gain (loss) on equity securities, net	1,382	(1,528)	5,475	2,254
Performance fees(2)	(315)	227	(1,185)	(333)
Loss and impairment from equity method investments, net	(27)	(14)	(139)	(70)
Other	49	68	310	174
Other income (expense), net	$ 1,458	$ (549)	$ 5,538	$ 3,956

(1) Interest expense is net of interest capitalized of $23 million and $46 million for the three months ended September 30, 2018 and 2019, respectively and $62 million and $113 million for the nine months ended September 30, 2018 and 2019, respectively.

(2) Performance fees were reclassified for prior periods from general and administrative expenses to other income (expense), net to conform with current period presentation. For further information on the performance fees, see Note 13.

Note 8. Acquisitions

During the nine months ended September 30, 2019, we completed acquisitions and purchases of intangible assets for total consideration of approximately $340 million, net of cash acquired. In aggregate, $203 million was attributed to goodwill, $141 million was attributed to intangible assets, and $4 million was attributed to net liabilities assumed. These acquisitions generally enhance the breadth and depth of our offerings and expand our expertise in engineering and other functional areas.

Pro forma results of operations for these acquisitions have not been presented because they are not material to the consolidated results of operations, either individually or in the aggregate.

For all intangible assets acquired and purchased during the nine months ended September 30, 2019, patents and developed technology have a weighted-average useful life of 3.9 years, and trade names and other have a weighted-average useful life of 5.3 years.

Pending Acquisition of Looker

In June 2019, we entered into an agreement to acquire Looker, a unified platform for business intelligence, data applications and embedded analytics, for $2.6 billion in cash, which includes post combination compensation arrangements. The acquisition of Looker is expected to be completed later this year, subject to customary closing conditions, including the receipt of regulatory approvals. Upon the close of the acquisition, Looker will join Google Cloud.

Note 9. Goodwill and Other Intangible Assets

Goodwill

Changes in the carrying amount of goodwill for the nine months ended September 30, 2019 were as follows (in millions, unaudited):

	Google	Other Bets	Total Consolidated
Balance as of December 31, 2018	$ 17,521	$ 367	$ 17,888
Acquisitions	203	0	203
Transfers	9	(9)	0
Foreign currency translation and other adjustments	(22)	0	(22)
Balance as of September 30, 2019	$ 17,711	$ 358	$ 18,069

Other Intangible Assets

Information regarding purchased intangible assets were as follows (in millions):

	As of December 31, 2018		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Patents and developed technology	$ 5,125	$ 3,394	$ 1,731
Customer relationships	349	308	41
Trade names and other	703	255	448
Total	$ 6,177	$ 3,957	$ 2,220

	As of September 30, 2019		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
		(unaudited)	
Patents and developed technology	$ 4,826	$ 3,455	$ 1,371
Customer relationships	90	73	17
Trade names and other	683	324	359
Total	$ 5,599	$ 3,852	$ 1,747

Amortization expense relating to purchased intangible assets was $218 million and $188 million for the three months ended September 30, 2018 and 2019, respectively, and $663 million and $594 million for the nine months ended September 30, 2018 and 2019, respectively.

As of September 30, 2019, expected amortization expense relating to purchased intangible assets for each of the next five years and thereafter is as follows (in millions, unaudited):

Remainder of 2019	$ 185
2020	647
2021	565
2022	227
2023	15
Thereafter	108
Total	$ 1,747

Note 10. Contingencies

Legal Matters

Antitrust Investigations

On November 30, 2010, the EC's Directorate General for Competition opened an investigation into various antitrust-related complaints against us.

On April 15, 2015, the EC issued a Statement of Objections (SO) regarding the display and ranking of shopping search results and ads, to which we responded on August 27, 2015. On July 14, 2016, the EC issued a Supplementary SO regarding shopping search results and ads. On June 27, 2017, the EC announced its decision that certain actions taken by Google regarding its display and ranking of shopping search results and ads infringed European competition law. The EC decision imposed a €2.4 billion ($2.7 billion as of June 27, 2017) fine. On September 11, 2017, we appealed the EC decision and on September 27, 2017, we implemented product changes to bring shopping ads into compliance with the EC's decision. We recognized a charge of $2.7 billion for the fine in the second quarter of 2017. While under appeal, the fine is included in accrued expenses and other current liabilities on our Consolidated Balance Sheets as we provided bank guarantees in lieu of a cash payment for the fine.

On April 20, 2016, the EC issued an SO regarding certain Android distribution practices. We responded to the SO and the EC's informational requests. On July 18, 2018, the EC announced its decision that certain provisions in Google's Android-related distribution agreements infringed European competition law. The EC decision imposed a €4.3 billion ($5.1 billion as of June 30, 2018) fine and directed the termination of the conduct at issue. On October 9, 2018, we appealed the EC decision. On October 29, 2018, we implemented changes to certain of our Android distribution practices. We recognized a charge of $5.1 billion for the fine in the second quarter of 2018. While under appeal, the fine is included in accrued expenses and other current liabilities on our Consolidated Balance Sheets as we provided bank guarantees in lieu of a cash payment for the fine.

On July 14, 2016, the EC issued an SO regarding the syndication of AdSense for Search (AFS). We responded to the SO and to the EC's informational requests. On March 20, 2019, the EC announced its decision that certain contractual provisions in agreements that Google had with AFS partners infringed European competition law. The EC decision imposed a fine of €1.5 billion ($1.7 billion as of March 20, 2019) and directed actions related to AFS agreements, which we implemented prior to the decision. On June 4, 2019, we appealed the EC decision. We recognized a charge of $1.7 billion for the fine in the first quarter of 2019. While under appeal, the fine is included in accrued expenses and other current liabilities on our Consolidated Balance Sheets as we provided bank guarantees in lieu of a cash payment for the fine.

The Comision Nacional de Defensa de la Competencia in Argentina, the Competition Commission of India (CCI), Brazil's Administrative Council for Economic Defense (CADE), the Korean Fair Trade Commission, and the French Competition Authority have also opened investigations into certain of our business practices. In November 2016, we responded to the CCI Director General's report with interim findings of competition law infringements regarding search and ads. On February 8, 2018, the CCI issued its final decision, including a fine of approximately $21 million, finding no violation of competition law infringement on most of the issues it investigated, but finding violations, including in the display of the "flights unit" in search results, and a contractual provision in certain direct search intermediation agreements. We have appealed the CCI decision. The fine was accrued for in 2018.

In August 2019, we began receiving civil investigative demands from the U.S. Department of Justice (DOJ) requesting information and documents relating to our prior antitrust investigations in the United States and elsewhere and certain of our business practices. The House Judiciary Committee and attorneys general from 51 States and Territories have also opened antitrust investigations into certain of our business practices. We continue to cooperate with the DOJ, Federal and State regulators in the United States, and other regulators around the world.

Patent and Intellectual Property Claims

We have had patent, copyright, trade secret, and trademark infringement lawsuits filed against us claiming that certain of our products, services, and technologies infringe the intellectual property rights of others. Adverse results in these lawsuits may include awards of substantial monetary damages, costly royalty or licensing agreements, or orders preventing us from offering certain features, functionalities, products, or services, and may also cause us to change our business practices, and require development of non-infringing products or technologies, which could result in a loss of revenues for us and otherwise harm our business. In addition, the U.S. International Trade Commission (ITC) has increasingly become an important forum to litigate intellectual property disputes because an ultimate loss for a company or its suppliers in an ITC action could result in a prohibition on importing infringing products into the U.S. Because the U.S. is an important market, a prohibition on importation could have an adverse effect on us, including preventing us from importing many important products into the U.S. or necessitating workarounds that may limit certain features of our products.

Furthermore, many of our agreements with our customers and partners require us to indemnify them for certain intellectual property infringement claims against them, which would increase our costs as a result of defending such claims, and may require that we pay significant damages if there were an adverse ruling in any such claims. Our customers and partners may discontinue the use of our products, services, and technologies, as a result of injunctions or otherwise, which could result in loss of revenues and adversely affect our business.

In 2010, Oracle America, Inc. (Oracle) brought a copyright lawsuit against Google in the Northern District of California, alleging that Google's Android operating system infringes Oracle's copyrights related to certain Java application programming interfaces. After trial, final judgment was entered by the district court in favor of Google on June 8, 2016, and the court decided post-trial motions in favor of Google. Oracle appealed and on March 27, 2018, the appeals court reversed and remanded the case for a trial on damages. On May 29, 2018, we filed a petition for an en banc rehearing at the Federal Circuit, and on August 28, 2018, the Federal Circuit denied the petition. On January 24, 2019, we filed a petition to the Supreme Court of the United States to review this case. On April 29, 2019, the Supreme Court requested the views of the Solicitor General regarding our petition. On September 27, 2019, the Solicitor General recommended denying our petition, and we provided our response on October 16, 2019. We expect the Supreme Court to decide whether to review this case in early November 2019. If the Supreme Court declines to review the case, the case will be remanded to the district court for further determination of the remaining issues in the case, including damages, if any. We believe this lawsuit is without merit and are defending ourselves vigorously. Given the nature of this case, we are unable to estimate the reasonably possible loss or range of loss, if any, arising from this matter.

Other

We are also regularly subject to claims, suits, regulatory and government investigations, and other proceedings involving competition, intellectual property, privacy, tax and related compliance, labor and employment, commercial disputes, content generated by our users, goods and services offered by advertisers or publishers using our platforms, personal injury, consumer protection, and other matters. Such claims, suits, regulatory and government investigations, and other proceedings could result in fines, civil or criminal penalties, or other adverse consequences.

Certain of these outstanding matters include speculative, substantial or indeterminate monetary amounts. We record a liability when we believe that it is probable that a loss has been incurred and the amount can be reasonably estimated. If we determine that a loss is reasonably possible and the loss or range of loss can be estimated, we disclose the reasonably possible loss. We evaluate developments in our legal matters that could affect the amount of liability that has been previously accrued, and the matters and related reasonably possible losses disclosed, and make adjustments as appropriate. Significant judgment is required to determine both likelihood of there being and the estimated amount of a loss related to such matters.

With respect to our outstanding matters, based on our current knowledge, we believe that the amount or range of reasonably possible loss will not, either individually or in aggregate, have a material adverse effect on our business, consolidated financial position, results of operations, or cash flows. However, the outcome of such matters is inherently unpredictable and subject to significant uncertainties.

We expense legal fees in the period in which they are incurred.

Non-Income Taxes

We are under audit by various domestic and foreign tax authorities with regards to non-income tax matters. The subject matter of non-income tax audits primarily arises from disputes on the tax treatment and tax rate applied to the sale of our products and services in these jurisdictions and the tax treatment of certain employee benefits. We accrue non-income taxes that may result from examinations by, or any negotiated agreements with, these tax authorities when a loss is probable and reasonably estimable. If we determine that a loss is reasonably possible and the loss or range of loss can be estimated, we disclose the reasonably possible loss. We believe these matters are without merit and we are defending ourselves vigorously. Due to the inherent complexity and uncertainty of these matters and judicial process in certain jurisdictions, the final outcome may be materially different from our expectations.

Note 11. Stockholders' Equity

Share Repurchases

In January 2018, the board of directors of Alphabet authorized the company to repurchase up to $8.6 billion of its Class C capital stock, which was completed during the first quarter of 2019. In January 2019, the board of directors of Alphabet authorized the company to repurchase up to an additional $12.5 billion of its Class C capital stock. In July

2019, the board of directors of Alphabet authorized the company to repurchase up to an additional $25.0 billion of its Class C capital stock. The repurchases are being executed from time to time, subject to general business and market conditions and other investment opportunities, through open market purchases or privately negotiated transactions, including through Rule 10b5-1 plans. The repurchase program does not have an expiration date.

During the nine months ended September 30, 2019, we repurchased and subsequently retired 10.6 million shares of Alphabet Class C capital stock for an aggregate amount of $12.3 billion.

Note 12. Net Income Per Share

The following table sets forth the computation of basic and diluted net income per share of Class A and Class B common stock and Class C capital stock (in millions, except share amounts which are reflected in thousands, and per share amounts, unaudited):

	Three Months Ended September 30,					
	2018			2019		
	Class A	Class B	Class C	Class A	Class B	Class C
Basic net income per share:						
Numerator						
Allocation of undistributed earnings	$ 3,946	$ 620	$ 4,626	$ 3,059	$ 475	$ 3,534
Denominator						
Number of shares used in per share computation	298,614	46,885	350,135	299,835	46,515	346,391
Basic net income per share	$ 13.21	$ 13.21	$ 13.21	$ 10.20	$ 10.20	$ 10.20
Diluted net income per share:						
Numerator						
Allocation of undistributed earnings for basic computation	$ 3,946	$ 620	$ 4,626	$ 3,059	$ 475	$ 3,534
Reallocation of undistributed earnings as a result of conversion of Class B to Class A shares	620	0	0	475	0	0
Reallocation of undistributed earnings	(46)	(8)	46	(24)	(4)	24
Allocation of undistributed earnings	$ 4,520	$ 612	$ 4,672	$ 3,510	$ 471	$ 3,558
Denominator						
Number of shares used in basic computation	298,614	46,885	350,135	299,835	46,515	346,391
Weighted-average effect of dilutive securities						
Add:						
Conversion of Class B to Class A common shares outstanding	46,885	0	0	46,515	0	0
Restricted stock units and other contingently issuable shares	603	0	7,622	381	0	5,077
Number of shares used in per share computation	346,102	46,885	357,757	346,731	46,515	351,468
Diluted net income per share	$ 13.06	$ 13.06	$ 13.06	$ 10.12	$ 10.12	$ 10.12

	Nine Months Ended September 30,					
	2018			2019		
	Class A	Class B	Class C	Class A	Class B	Class C
Basic net income per share:						
Numerator						
Allocation of undistributed earnings	$ 9,355	$ 1,471	$ 10,962	$ 10,218	$ 1,588	$ 11,866
Denominator						
Number of shares used in per share computation	298,445	46,921	349,741	299,493	46,549	347,818
Basic net income per share	$ 31.34	$ 31.34	$ 31.34	$ 34.12	$ 34.12	$ 34.12
Diluted net income per share:						
Numerator						
Allocation of undistributed earnings for basic computation	$ 9,355	$ 1,471	$ 10,962	$ 10,218	$ 1,588	$ 11,866
Reallocation of undistributed earnings as a result of conversion of Class B to Class A shares	1,471	0	0	1,588	0	0
Reallocation of undistributed earnings	(116)	(19)	116	(83)	(13)	83
Allocation of undistributed earnings	$ 10,710	$ 1,452	$ 11,078	$ 11,723	$ 1,575	$ 11,949
Denominator						
Number of shares used in basic computation	298,445	46,921	349,741	299,493	46,549	347,818
Weighted-average effect of dilutive securities						
Add:						
Conversion of Class B to Class A common shares outstanding	46,921	0	0	46,549	0	0
Restricted stock units and other contingently issuable shares	738	0	8,235	448	0	5,369
Number of shares used in per share computation	346,104	46,921	357,976	346,490	46,549	353,187
Diluted net income per share	$ 30.95	$ 30.95	$ 30.95	$ 33.83	$ 33.83	$ 33.83

For the periods presented above, the net income per share amounts are the same for Class A and Class B common stock and Class C capital stock because the holders of each class are entitled to equal per share dividends or distributions in liquidation in accordance with the Amended and Restated Certificate of Incorporation of Alphabet Inc.

Note 13. Compensation Plans

Stock-Based Compensation

For the three months ended September 30, 2018 and 2019, total stock-based compensation (SBC) expense was $2.3 billion and $2.8 billion, respectively, including amounts associated with awards we expect to settle in Alphabet stock of $2.2 billion and $2.6 billion, respectively. For the nine months ended September 30, 2018 and 2019, total SBC expense was $7.3 billion and $8.6 billion, respectively, including amounts associated with awards we expect to settle in Alphabet stock of $7.1 billion and $8.2 billion, respectively.

Stock-Based Award Activities

The following table summarizes the activities for our unvested restricted stock units (RSUs) for the nine months ended September 30, 2019 (unaudited):

	Unvested Restricted Stock Units	
	Number of Shares	Weighted-Average Grant-Date Fair Value
Unvested as of December 31, 2018	18,467,678	$ 936.96
Granted	12,636,282	$ 1,071.78
Vested	(8,578,070)	$ 901.75
Forfeited/canceled	(1,220,117)	$ 985.10
Unvested as of September 30, 2019	21,305,773	$ 1,028.35

As of September 30, 2019, there was $20.4 billion of unrecognized compensation cost related to unvested employee RSUs. This amount is expected to be recognized over a weighted-average period of 2.6 years.

Performance Fees

We have compensation arrangements with payouts based on realized investment returns. We recognize compensation expense based on the estimated payouts, which may result in expense recognized before investment returns are realized. Performance fees, which are primarily related to gains on equity securities (for further information on gains on equity securities, see Note 3), are accrued and recorded as a component of other income (expense), net. For further information on the performance fees, see Note 7.

Note 14. Income Taxes

Our effective tax rate for the three months ended September 30, 2018 and 2019 was 8.8% and 18.1%, respectively. The increase in effective tax rate is primarily due to an increase in unrecognized tax benefits in 2019 as compared to 2018 and the benefits of the U.S. Tax Cuts and Jobs Act ("Tax Act") recognized in 2018.

Our effective tax rate for the three months ended September 30, 2019 was lower than the U.S. federal statutory rate, primarily due to foreign earnings taxed at lower rates and the U.S. Research and Development Tax Credit, partially offset by changes in unrecognized tax benefits.

Our effective tax rate for the three months ended September 30, 2018 was lower than the U.S. federal statutory rate primarily due to foreign earnings taxed at lower rates, effects of the Tax Act, the U.S. Research and Development Tax Credit and changes in unrecognized tax benefits.

We are subject to income taxes in the U.S. and foreign jurisdictions. Significant judgment is required in evaluating our uncertain tax positions and determining our provision for income taxes. Our total gross unrecognized tax benefits were $4.7 billion and $4.9 billion as of December 31, 2018 and September 30, 2019, respectively. Our total unrecognized tax benefits that, if recognized, would affect our effective tax rate is $2.9 billion as of both December 31, 2018 and September 30, 2019. It is reasonably possible that certain U.S. and non-U.S. tax matters may be resolved in the next 12 months, which may decrease our unrecognized tax benefits (either by payment, release or a combination of both) up to $2.6 billion in the next 12 months.

On July 27, 2015, the United States Tax Court, in an opinion in Altera Corp. v. Commissioner, invalidated the portion of the Treasury regulations issued under IRC Section 482 requiring related-party participants in a cost sharing agreement to share stock-based compensation costs. The U.S. Tax Court issued the final decision on December 28, 2015. As a result of that decision, we recorded a tax benefit related to the anticipated reimbursement of cost share payment for previously shared stock-based compensation costs.

On June 7, 2019, the United States Court of Appeals for the Ninth Circuit overturned the 2015 Tax Court decision in Altera Corp. v. Commissioner, and upheld the portion of the Treasury regulations issued under IRC Section 482 requiring related-party participants in a cost sharing arrangement to share stock-based compensation costs. As a result of the Ninth Circuit court decision, our cumulative net tax benefit of $418 million related to previously shared stock-based compensation costs was reversed in the three months ended June 30, 2019.

For information regarding non-income taxes, see Note 10.

Note 15. Information about Segments and Geographic Areas

We operate our business in multiple operating segments. Google is our only reportable segment. None of our other segments meet the quantitative thresholds to qualify as reportable segments; therefore, the other operating segments are combined and disclosed as Other Bets.

Our reported segments are:

- Google – Google includes our main products such as ads, Android, Chrome, hardware, Google Cloud, Google Maps, Google Play, Search, and YouTube. Our technical infrastructure is also included in Google. Google generates revenues primarily from advertising; sales of apps, in-app purchases, digital content products, and hardware; and licensing and service fees, including fees received for Google Cloud offerings.
- Other Bets – Other Bets is a combination of multiple operating segments that are not individually material. Other Bets includes Access, Calico, CapitalG, GV, Verily, Waymo, and X, among others. Revenues from the Other Bets are derived primarily through the sales of internet and TV services through Access as well as licensing and R&D services through Verily.

Revenues, cost of revenues, and operating expenses are generally directly attributed to our segments. Inter-segment revenues are not presented separately, as these amounts are immaterial. Our Chief Operating Decision Maker does not evaluate operating segments using asset information.

Information about segments during the periods presented were as follows (in millions, unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Revenues:				
Google	$ 33,594	$ 40,344	$ 97,102	$ 115,295
Other Bets	146	155	441	487
Total revenues	$ 33,740	$ 40,499	$ 97,543	$ 115,782

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Operating income (loss):				
Google	$ 9,490	$ 10,865	$ 26,817	$ 30,578
Other Bets	(727)	(941)	(2,030)	(2,798)
Reconciling items(1)	(138)	(747)	(5,484)	(2,815)
Total income from operations	$ 8,625	$ 9,177	$ 19,303	$ 24,965

(1) Reconciling items are primarily comprised of the EC fines for the nine months ended September 30, 2018 and 2019, a charge from a legal settlement for the three and nine months ended September 30, 2019, and corporate administrative costs and other miscellaneous items that are not allocated to individual segments for all periods presented. Performance fees previously included in reconciling items were reclassified for prior periods from general and administrative expenses to other income (expense), net to conform with current period presentation. For further information on the reclassification, see Note 1.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Capital expenditures:				
Google	$ 5,643	$ 7,228	$ 18,611	$ 18,658
Other Bets	55	71	120	195
Reconciling items(2)	(416)	(567)	(673)	(1,357)
Total capital expenditures as presented on the Consolidated Statements of Cash Flows	$ 5,282	$ 6,732	$ 18,058	$ 17,496

(2) Reconciling items are related to timing differences of payments as segment capital expenditures are on accrual basis while total capital expenditures shown on the Consolidated Statements of Cash Flow are on cash basis and other miscellaneous differences.

Stock-based compensation and depreciation, amortization, and impairment are included in segment operating income (loss) as shown below (in millions, unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Stock-based compensation:				
Google	$ 2,071	$ 2,470	$ 6,663	$ 7,682
Other Bets	125	117	364	365
Reconciling items(3)	34	34	73	103
Total stock-based compensation(4)	$ 2,230	$ 2,621	$ 7,100	$ 8,150
Depreciation, amortization, and impairment:				
Google	$ 2,277	$ 2,837	$ 6,209	$ 8,122
Other Bets	78	83	246	246
Total depreciation, amortization, and impairment	$ 2,355	$ 2,920	$ 6,455	$ 8,368

(3) Reconciling items represent corporate administrative costs that are not allocated to individual segments.
(4) For purposes of segment reporting, SBC represents awards that we expect to settle in Alphabet stock.

The following table presents our long-lived assets by geographic area (in millions):

	As of December 31, 2018	As of September 30, 2019
		(unaudited)
Long-lived assets:		
United States	$ 74,882	$ 87,599
International	22,234	27,087
Total long-lived assets	$ 97,116	$ 114,686

For revenues by geography, see Note 2.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Please read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and related notes included under Part I, Item 1 of this Quarterly Report on Form 10-Q.

Executive Overview of Results

Below are our key financial results for the three months ended September 30, 2019 (consolidated unless otherwise noted):

- Revenues of $40.5 billion and revenue growth of 20% year over year, constant currency revenue growth of 22% year over year.
- Google segment revenues of $40.3 billion with revenue growth of 20% year over year and Other Bets revenues of $155 million with revenue growth of 6% year over year.
- Revenues from the United States, EMEA, APAC, and Other Americas were $18.7 billion, $12.7 billion, $6.8 billion, and $2.3 billion, respectively.
- Cost of revenues was $17.6 billion, consisting of TAC of $7.5 billion and other cost of revenues of $10.1 billion. TAC as a percentage of advertising revenues was 22%.
- Operating expenses (excluding cost of revenues) were $13.8 billion.
- Income from operations was $9.2 billion.
- Other income (expense), net, was a loss of $549 million.
- Effective tax rate was 18%.
- Net income was $7.1 billion with diluted net income per share of $10.12.
- Operating cash flow was $15.5 billion.
- Capital expenditures were $6.7 billion.
- Number of employees was 114,096 as of September 30, 2019. The majority of new hires during the quarter were engineers and product managers. By product area, the largest headcount additions were in Google Cloud and Search.

Information about Segments

We operate our business in multiple operating segments. Google is our only reportable segment. None of our other segments meet the quantitative thresholds to qualify as reportable segments; therefore, the other operating segments are combined and disclosed as Other Bets.

Our reported segments are:

- Google – Google includes our main products such as ads, Android, Chrome, hardware, Google Cloud, Google Maps, Google Play, Search, and YouTube. Our technical infrastructure is also included in Google. Google generates revenues primarily from advertising; sales of apps, in-app purchases, digital content products, and hardware; and licensing and service fees, including fees received for Google Cloud offerings.
- Other Bets – Other Bets is a combination of multiple operating segments that are not individually material. Other Bets includes Access, Calico, CapitalG, GV, Verily, Waymo, and X, among others. Revenues from the Other Bets are derived primarily through the sales of internet and TV services through Access as well as licensing and R&D services through Verily.

Please refer to Note 15 of the Notes to Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q for further information.

Revenues

The following table presents our revenues, by segment and revenue source (in millions, unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Google segment				
Google properties revenues	$ 24,054	$ 28,647	$ 69,314	$ 81,664
Google Network Members' properties revenues	4,900	5,269	14,369	15,573
Google advertising revenues	28,954	33,916	83,683	97,237
Google other revenues	4,640	6,428	13,419	18,058
Google segment revenues	33,594	40,344	97,102	115,295
Other Bets				
Other Bets revenues	146	155	441	487
Revenues	$ 33,740	$ 40,499	$ 97,543	$ 115,782

Google segment

The following table presents our Google segment revenues (in millions, unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Google segment revenues	$ 33,594	$ 40,344	$ 97,102	$ 115,295
Google segment revenues as a percentage of total revenues	99.6%	99.6%	99.5%	99.6%

Use of Monetization Metrics

Paid clicks for our Google properties represent engagement by users and include clicks on advertisements by end-users related to searches on Google.com, clicks related to advertisements on other owned and operated properties including Gmail, Google Maps, and Google Play; and viewed YouTube engagement ads. Impressions for our Google Network Members' properties include impressions displayed to users served on Google Network Members' properties participating primarily in AdMob, AdSense for Content, AdSense for Search, and Google Ad Manager.

Cost-per-click is defined as click-driven revenues divided by our total number of paid clicks and represents the average amount we charge advertisers for each engagement by users.

Cost-per-impression is defined as impression-based and click-based revenues divided by our total number of impressions and represents the average amount we charge advertisers for each impression displayed to users.

As our business evolves, we periodically review, refine and update our methodologies for monitoring, gathering, and counting the number of paid clicks on our Google properties and the number of impressions on Google Network Members’ properties and for identifying the revenues generated by click activity on our Google properties and the revenues generated by impression activity on Google Network Members’ properties.

Our advertising revenue growth, as well as the change in paid clicks and cost-per-click on Google properties and the change in impressions and cost-per-impression on Google Network Members' properties and the correlation between these items, have been affected and may continue to be affected by various factors, including:

- advertiser competition for keywords;
- changes in advertising quality, formats or delivery;
- changes in device mix;
- changes in foreign currency exchange rates;
- fees advertisers are willing to pay based on how they manage their advertising costs;
- general economic conditions;
- growth rates of revenues within Google properties;

- seasonality; and
- traffic growth in emerging markets compared to more mature markets and across various advertising verticals and channels.

Our advertising revenue growth rate has been affected over time as a result of a number of factors, including challenges in maintaining our growth rate as revenues increase to higher levels, changes in our product mix, changes in advertising quality or formats and delivery, increasing competition, query growth rates, our investments in new business strategies, shifts in the geographic mix of our revenues, and the evolution of the online advertising market. We also expect that our advertising revenue growth rate will continue to be affected by evolving user preferences, the acceptance by users of our products and services as they are delivered on diverse devices and modalities, our ability to create a seamless experience for both users and advertisers, and movements in foreign currency exchange rates.

Google properties

The following table presents our Google properties revenues (in millions, unaudited), and changes in our paid clicks and cost-per-click (expressed as a percentage):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Google properties revenues	$ 24,054	$ 28,647	$ 69,314	$ 81,664
Google properties revenues as a percentage of Google segment revenues	71.6%	71.0 %	71.4%	70.8 %
Paid clicks change		18 %		28 %
Cost-per-click change		(2)%		(11)%

Google properties revenues consist primarily of advertising revenues that are generated on:

- Google search properties which includes revenues from traffic generated by search distribution partners who use Google.com as their default search in browsers, toolbars, etc.; and
- Other Google owned and operated properties like Gmail, Google Maps, Google Play, and YouTube.

Our Google properties revenues increased $4,593 million and $12,350 million from the three and nine months ended September 30, 2018 to the three and nine months ended September 30, 2019, respectively. The growth was primarily driven by increases in mobile search resulting from ongoing growth in user adoption and usage, as well as continued growth in advertiser activity. We also experienced growth in YouTube driven primarily by video advertising, as well as growth in desktop search due to improvements in ad formats and delivery. The growth was partially offset by the general strengthening of the U.S. dollar compared to certain foreign currencies.

The number of paid clicks through our advertising programs on Google properties increased from the three and nine months ended September 30, 2018 to the three and nine months ended September 30, 2019 due to growth in views of YouTube engagement ads; increase in clicks due to an increase in mobile search queries and improvements we have made in ad formats and delivery; as well as continued global expansion of our products, advertisers and user base. The positive effect on our revenues from an increase in paid clicks was partially offset by a decrease in the cost-per-click paid by our advertisers. The decrease in cost-per-click was affected by changes in device mix, geographic mix, ongoing product changes, product mix, property mix, and fluctuations of the U.S. dollar compared to certain foreign currencies.

Google Network Members' properties

The following table presents our Google Network Members' properties revenues (in millions, unaudited) and changes in our impressions and cost-per-impression (expressed as a percentage):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Google Network Members' properties revenues	$ 4,900	$ 5,269	$ 14,369	$ 15,573
Google Network Members' properties revenues as a percentage of Google segment revenues	14.6%	13.1 %	14.8%	13.5 %
Impressions change		12 %		9 %
Cost-per-impression change		(3)%		(1)%

Google Network Members' properties revenues consist primarily of advertising revenues generated from advertisements served on Google Network Members' properties participating in:

- AdMob;
- AdSense (such as AdSense for Content, AdSense for Search, etc.); and
- Google Ad Manager.

Our Google Network Members' properties revenues increased $369 million and $1,204 million from the three and nine months ended September 30, 2018 to the three and nine months ended September 30, 2019, respectively. The growth was primarily driven by strength in both programmatic advertising buying and AdMob, partially offset by the general strengthening of the U.S. dollar compared to certain foreign currencies.

Impressions increased from the three and nine months ended September 30, 2018 to the three and nine months ended September 30, 2019 primarily due to growth in programmatic advertising buying. The cost-per-impression was relatively unchanged due to a combination of factors including ongoing product and policy changes and improvements we have made in ad formats and delivery, changes in device mix, geographic mix, product mix, property mix, and fluctuations of the U.S. dollar compared to certain foreign currencies.

Google other revenues

The following table presents our Google other revenues (in millions, unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Google other revenues	$ 4,640	$ 6,428	$ 13,419	$ 18,058
Google other revenues as a percentage of Google segment revenues	13.8%	15.9%	13.8%	15.7%

Google other revenues consist primarily of revenues from:

- Apps, in-app purchases, and digital content in the Google Play store;
- Google Cloud offerings;
- Hardware; and
- YouTube subscriptions.

Our Google other revenues increased $1,788 million and $4,639 million from the three and nine months ended September 30, 2018 to the three and nine months ended September 30, 2019, respectively. The growth was primarily driven by revenues from Google Cloud offerings as well as revenues from Google Play, largely relating to in-app purchases (revenues which we recognize net of payout to developers).

Over time, our growth rate for Google other revenues may be affected by the seasonality associated with new product and service launches and market dynamics.

Other Bets

The following table presents our Other Bets revenues (in millions, unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Other Bets revenues	$ 146	$ 155	$ 441	$ 487
Other Bets revenues as a percentage of total revenues	0.4%	0.4%	0.5%	0.4%

Other Bets revenues consist primarily of revenues and sales from internet and TV services as well as licensing and R&D services.

Our Other Bets revenues were relatively flat from the three months ended September 30, 2018 to three months ended September 30, 2019.

Our Other Bets revenue increased $46 million from the nine months ended September 30, 2018 to the nine months ended September 30, 2019 primarily driven by revenues from Verily licensing and R&D services and sales of Access internet and TV services.

Revenues by Geography

The following table presents our revenues by geography as a percentage of revenues, determined based on the addresses of our customers (unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
United States	46%	46%	46%	46%
EMEA	32%	31%	33%	32%
APAC	16%	17%	15%	17%
Other Americas	6%	6%	6%	5%

For further details on revenues by geography, see Note 2 of the Notes to Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Use of Constant Currency Revenues and Constant Currency Revenue Growth

The effect of currency exchange rates on our business is an important factor in understanding period to period comparisons. Our international revenues are favorably affected as the U.S. dollar weakens relative to other foreign currencies, and unfavorably affected as the U.S. dollar strengthens relative to other foreign currencies. Our international revenues are also favorably affected by net hedging gains and unfavorably affected by net hedging losses.

We use non-GAAP constant currency revenues and constant currency revenue growth for financial and operational decision-making and as a means to evaluate period-to-period comparisons. We believe the presentation of results on a constant currency basis in addition to GAAP results helps improve the ability to understand our performance because they exclude the effects of foreign currency volatility that are not indicative of our core operating results.

Constant currency information compares results between periods as if exchange rates had remained constant period over period. We define constant currency revenues as total revenues excluding the effect of foreign exchange rate movements and hedging activities, and use it to determine the constant currency revenue growth on a year-on-year basis. Constant currency revenues are calculated by translating current period revenues using prior period exchange rates, as well as excluding any hedging effects realized in the current period.

Constant currency revenue growth (expressed as a percentage) is calculated by determining the increase in current period revenues over prior period revenues where current period foreign currency revenues are translated using prior period exchange rates and hedging effects are excluded from revenues of both periods.

These results should be considered in addition to, not as a substitute for, results reported in accordance with GAAP. Results on a constant currency basis, as we present them, may not be comparable to similarly titled measures used by other companies and are not a measure of performance presented in accordance with GAAP.

The following table presents the foreign exchange effect on our international revenues and total revenues (in millions, unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
EMEA revenues	$ 10,958	$ 12,667	$ 32,217	$ 36,859
Exclude foreign exchange effect on current period revenues using prior year rates	123	456	(1,692)	2,034
Exclude hedging effect recognized in current period	(49)	(102)	271	(313)
EMEA constant currency revenues	$ 11,032	$ 13,021	$ 30,796	$ 38,580
Prior period EMEA revenues, excluding hedging effect	$ 9,258	$ 10,909	$ 25,748	$ 32,488
EMEA revenue growth	20%	16%	25%	14%
EMEA constant currency revenue growth	19%	19%	20%	19%
APAC revenues	$ 5,424	$ 6,828	$ 15,318	$ 19,491
Exclude foreign exchange effect on current period revenues using prior year rates	94	17	(195)	433
Exclude hedging effect recognized in current period	(23)	(14)	(8)	(45)
APAC constant currency revenues	$ 5,495	$ 6,831	$ 15,115	$ 19,879
Prior period APAC revenues, excluding hedging effect	$ 4,217	$ 5,401	$ 11,496	$ 15,310
APAC revenue growth	29%	26%	33%	27%
APAC constant currency revenue growth	30%	26%	31%	30%
Other Americas revenues	$ 1,835	$ 2,293	$ 5,408	$ 6,326
Exclude foreign exchange effect on current period revenues using prior year rates	168	66	193	442
Exclude hedging effect recognized in current period	(8)	(3)	(1)	(6)
Other Americas constant currency revenues	$ 1,995	$ 2,356	$ 5,600	$ 6,762
Prior period Other Americas revenues, excluding hedging effect	$ 1,558	$ 1,827	$ 4,238	$ 5,407
Other Americas revenue growth	19%	25%	28%	17%
Other Americas constant currency revenue growth	28%	29%	32%	25%
United States revenues	$ 15,523	$ 18,711	$ 44,600	$ 53,106
United States revenue growth	20%	21%	20%	19%
Total revenues	$ 33,740	$ 40,499	$ 97,543	$ 115,782
Total constant currency revenues	$ 34,045	$ 40,919	$ 96,111	$ 118,327
Prior period revenues, excluding hedging effect	$ 27,963	$ 33,660	$ 78,503	$ 97,805
Total revenue growth	21%	20%	24%	19%
Total constant currency revenue growth	22%	22%	22%	21%

Our EMEA revenues for the three and nine months ended September 30, 2019 were unfavorably affected by foreign currency exchange rates, offset by hedging benefits, primarily due to the U.S. dollar strengthening relative to the Euro and British pound.

Our revenues from APAC for the three months ended September 30, 2019 were slightly affected by foreign currency exchange rates, offset by hedging benefits. Our revenues from APAC for the nine months ended September 30, 2019 were unfavorably affected by foreign currency exchange rates, offset by hedging benefits, primarily due to the U.S. dollar strengthening relative to the Australian dollar, South Korean won and Indian rupee.

Our revenues from Other Americas for the three months ended September 30, 2019 were unfavorably affected by foreign currency exchange rates, offset by hedging benefits, primarily due to the U.S. dollar strengthening relative to the Argentine peso and Canadian dollar. Our revenues from Other Americas for the nine months ended September 30, 2019 were unfavorably affected by foreign currency exchange rates, offset by hedging benefits, primarily due to the U.S. dollar strengthening relative to the Argentine peso and Brazilian real.

Costs and Expenses

Cost of Revenues

Cost of revenues consists of TAC which are paid to Google Network Members primarily for ads displayed on their properties and amounts paid to our distribution partners who make available our search access points and services. Our distribution partners include browser providers, mobile carriers, original equipment manufacturers, and software developers.

The cost of revenues related to revenues generated from ads placed on Google Network Members' properties are significantly higher than the cost of revenues related to revenues generated from ads placed on Google properties because most of the advertiser revenues from ads served on Google Network Members' properties are paid as TAC to our Google Network Members.

Additionally, other cost of revenues (which is the cost of revenues excluding TAC) includes the following:

- Content acquisition costs primarily related to payments to content providers from whom we license video and other content for distribution on YouTube advertising and subscription services and Google Play (we pay fees to these content providers based on revenues generated or a flat fee);
- Expenses associated with our data centers and other operations (including bandwidth, compensation expenses (including SBC), depreciation, energy, and other equipment costs); and
- Inventory related costs for hardware we sell.

The following tables present our cost of revenues, including TAC (in millions, unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
TAC	$ 6,582	$ 7,490	$ 19,290	$ 21,588
Other cost of revenues	7,699	10,078	22,341	29,288
Total cost of revenues	$ 14,281	$ 17,568	$ 41,631	$ 50,876
Total cost of revenues as a percentage of revenues	42.3%	43.4%	42.7%	43.9%

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
TAC to distribution partners	$ 3,155	$ 3,856	$ 9,066	$ 10,856
TAC to distribution partners as a percentage of Google properties revenues(1) (Google properties TAC rate)	13.1%	13.5%	13.1%	13.3%
TAC to Google Network Members	$ 3,427	$ 3,634	$ 10,224	$ 10,732
TAC to Google Network Members as a percentage of Google Network Members' properties revenues(1) (Network Members TAC rate)	69.9%	69.0%	71.2%	68.9%
TAC	$ 6,582	$ 7,490	$ 19,290	$ 21,588
TAC as a percentage of advertising revenues(1) (Aggregate TAC rate)	22.7%	22.1%	23.1%	22.2%

(1) Revenues include hedging gains (losses) which affect TAC rates.

Cost of revenues increased $3,287 million from the three months ended September 30, 2018 to the three months ended September 30, 2019. The increase was due to increases in other cost of revenues and TAC of $2,379 million and $908 million, respectively. Cost of revenues increased $9,245 million from the nine months ended September 30, 2018 to the nine months ended September 30, 2019. The increase was due to increases in other cost of revenues and TAC of $6,947 million and $2,298 million, respectively.

The increase in other cost of revenues from the three and nine months ended September 30, 2018 to the three and nine months ended September 30, 2019 was due to an increase in data center and other operations costs and an increase in content acquisition costs primarily related to YouTube.

The increase in total TAC from the three and nine months ended September 30, 2018 to the three and nine months ended September 30, 2019 was primarily due to increases in TAC paid to distribution partners and TAC to Google Network Members. The decrease in the aggregate TAC rate was a result of the favorable revenue mix shift from Google Network Members' properties to Google properties.

The increase in TAC to distribution partners from the three and nine months ended September 30, 2018 to the three and nine months ended September 30, 2019 was primarily due to an increase in Google properties revenues. The Google properties TAC rate increased due to the ongoing shift to mobile, which carries higher TAC because more mobile searches are channeled through paid access points, partially offset by an increase in YouTube advertising revenues where the associated content acquisition costs are included in other cost of revenues.

The increase in TAC to Google Network Members from the three and nine months ended September 30, 2018 to the three and nine months ended September 30, 2019 was a result of an increase in Google Network Members' properties revenues offset by a decrease in the associated TAC rate primarily due to changes in product mix.

Over time, cost of revenues as a percentage of total revenues may be affected by a number of factors, including the following:

- Google Network Members TAC rates, which are affected by a combination of factors such as geographic mix, product mix, revenue share terms, and fluctuations of the U.S. dollar compared to certain foreign currencies;
- Google properties TAC rates, which are affected by changes in device mix between mobile, desktop, and tablet, partner mix, partner agreement terms such as revenue share arrangements, and the percentage of queries channeled through paid access points;
- Relative revenue growth rates of Google properties and Google Network Members' properties;
- Costs associated with our data centers and other operations to support ads, Google Cloud, Search and YouTube and other products;
- Content acquisition costs, which are affected by the relative growth rates in our YouTube advertising and subscription businesses;
- Costs related to hardware sales; and
- Increased proportion of non-advertising revenues, which generally have higher costs of revenues, relative to our advertising revenues.

Research and Development

The following table presents our R&D expenses (in millions, unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Research and development expenses	$ 5,232	$ 6,554	$ 15,385	$ 18,796
Research and development expenses as a percentage of revenues	15.5%	16.2%	15.8%	16.2%

R&D expenses consist primarily of:

- Compensation expenses (including SBC) and facilities-related costs for engineering and technical employees responsible for R&D of our existing and new products and services;
- Depreciation expenses;
- Equipment-related expenses; and
- Professional services fees primarily related to consulting and outsourcing services.

R&D expenses increased $1,322 million from the three months ended September 30, 2018 to the three months ended September 30, 2019. The increase was primarily due to an increase in compensation expenses (including SBC) and facilities-related costs of $1,017 million, largely resulting from a 21% increase in headcount.

R&D expenses increased $3,411 million from the nine months ended September 30, 2018 to the nine months ended September 30, 2019. The increase was primarily due to an increase in compensation expenses (including SBC) and facilities-related costs of $2,515 million, largely resulting from a 24% increase in headcount.

Over time, R&D expenses as a percentage of revenues may be affected by a number of factors including continued investment in ads, Android, Chrome, Google Cloud, Google Play, hardware, machine learning, and Search.

Sales and Marketing

The following table presents our sales and marketing expenses (in millions, unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Sales and marketing expenses	$ 3,849	$ 4,609	$ 11,233	$ 12,726
Sales and marketing expenses as a percentage of revenues	11.4%	11.4%	11.5%	11.0%

Sales and marketing expenses consist primarily of:

- Advertising and promotional expenditures related to our products and services; and
- Compensation expenses (including SBC) and facilities-related costs for employees engaged in sales and marketing, sales support, and certain customer service functions.

Sales and marketing expenses increased $760 million from the three months ended September 30, 2018 to the three months ended September 30, 2019. The increase was primarily due to an increase in compensation expenses (including SBC) and facilities-related costs of $432 million, largely resulting from a 13% increase in headcount. In addition, there was an increase in advertising and promotional expenses of $179 million, largely resulting from increases in marketing and promotion-related expenses for Google Search and hardware.

Sales and marketing expenses increased $1,493 million from the nine months ended September 30, 2018 to the nine months ended September 30, 2019. The increase was primarily due to an increase in compensation expenses (including SBC) and facilities-related costs of $976 million, largely resulting from a 16% increase in headcount. In addition, there was an increase in advertising and promotional expenses of $275 million, largely resulting from increases in marketing and promotion-related expenses for Google Search.

Over time, sales and marketing expenses as a percentage of revenues may be affected by a number of factors including the seasonality associated with new product and service launches.

General and Administrative

The following table presents our general and administrative expenses (in millions, unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
General and administrative expenses	$ 1,753	$ 2,591	$ 4,920	$ 6,722
General and administrative expenses as a percentage of revenues	5.2%	6.4%	5.0%	5.8%

General and administrative expenses consist primarily of:

- Compensation expenses (including SBC) and facilities-related costs for employees in our facilities, finance, human resources, information technology, and legal organizations;
- Depreciation;
- Equipment-related expenses; and
- Professional services fees primarily related to audit, information technology consulting, outside legal, and outsourcing services.

General and administrative expenses increased $838 million from the three months ended September 30, 2018 to the three months ended September 30, 2019. The increase was primarily due to a $554 million charge from a legal settlement. In addition, there was an increase of $170 million in non-income tax-related items.

General and administrative expenses increased $1,802 million from the nine months ended September 30, 2018 to the nine months ended September 30, 2019. The increase was primarily due to an increase in legal-related expenses of $986 million, including a charge of $554 million from a legal settlement in the third quarter of 2019 and the effect of a legal settlement gain recorded in the first quarter of 2018. In addition, there was an increase in compensation expenses (including SBC) and facilities-related costs of $477 million, largely resulting from a 19% increase in headcount.

Over time, general and administrative expenses as a percentage of revenues may be affected by discrete items.

European Commission Fines

In July 2018, the EC announced its decision that certain provisions in Google's Android-related distribution agreements infringed European competition law. The EC decision imposed a €4.3 billion ($5.1 billion as of June 30, 2018) fine, which was accrued in the second quarter of 2018.

In March 2019, the EC announced its decision that certain contractual provisions in agreements that Google had with AdSense for Search partners infringed European competition law. The EC decision imposed a €1.5 billion ($1.7 billion as of March 20, 2019) fine, which was accrued in the first quarter of 2019.

Please refer to Note 10 of the Notes to Consolidated Financial Statements included in Part 1, Item 1 of this Quarterly Report on Form 10-Q for further information.

Other Income (Expense), Net

The following table presents other income (expense), net (in millions, unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Other income (expense), net	$ 1,458	$ (549)	$ 5,538	$ 3,956
Other income (expense), net, as a percentage of revenues	4.3%	(1.4)%	5.7%	3.4%

Other income (expense), net, was a loss of $549 million for the three months ended September 30, 2019 and a gain of $1,458 million for the three months ended September 30, 2018. The change was primarily due to unrealized losses on equity securities offset by a decrease in accrued performance fees in 2019, as compared to unrealized gains on equity securities offset by an increase in accrued performance fees in 2018.

Other income (expense), net, was a gain of $3,956 million for the nine months ended September 30, 2019 and a gain of $5,538 million for the nine months ended September 30, 2018. The change was primarily driven by decreases in unrealized gains on equity securities, offset by a decrease in accrued performance fees.

Over time, other income (expense), net, as a percentage of revenues may be affected by market dynamics and other factors. Equity values generally change daily for marketable equity securities and upon the occurrence of observable price changes or upon impairment of non-marketable equity securities. In addition, volatility in the global economic climate and financial markets could result in a significant change in the value of our equity securities. Fluctuations in the value of these investments could contribute to the volatility of OI&E in future periods. For additional information about equity investments, please see Note 3 of the Notes to Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Provision for Income Taxes

The following table presents our provision for income taxes (in millions, except for effective tax rate; unaudited):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2019	2018	2019
Provision for income taxes	$ 891	$ 1,560	$ 3,053	$ 5,249
Effective tax rate	8.8%	18.1%	12.3%	18.1%

Our effective tax rate increased 9.3% from the three months ended September 30, 2018 to the three months ended September 30, 2019. The increase is primarily due to an increase in unrecognized tax benefits in 2019 as compared to 2018 and the benefits of the Tax Act recognized in 2018.

Our effective tax rate increased 5.8% from the nine months ended September 30, 2018 to the nine months ended September 30, 2019. The increase is primarily due to the release of our deferred tax asset valuation allowance related to the gains on equity securities in 2018, the benefits of the Tax Act recognized in 2018, and the reversal of the Altera tax benefit as a result of the U.S. Court of Appeals decision in 2019.

For additional information about the Altera case, please see Note 14 of the Notes to Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Our future effective tax rate may be affected by the geographic mix of earnings in countries with different statutory rates, changes in the valuation of our deferred tax assets or liabilities, or changes in tax laws, regulations, or accounting principles, as well as certain discrete items.

Capital Resources and Liquidity

As of September 30, 2019, we had $121.2 billion in cash, cash equivalents, and marketable securities. Cash equivalents and marketable securities are comprised of time deposits, money market funds, highly liquid government bonds, corporate debt securities, mortgage-backed and asset-backed securities and marketable equity securities (certain of which are subject to short-term lock-up restrictions).

As of September 30, 2019, we had long-term taxes payable of $7.0 billion related to a one-time transition tax payable incurred as a result of the Tax Act. As permitted by the Tax Act, we will pay the transition tax in annual interest-free installments through 2025.

During the years ended December 31, 2017 and 2018, the EC announced decisions that certain actions taken by Google infringed European competition law and imposed fines of €2.4 billion ($2.7 billion as of June 27, 2017) and €4.3 billion ($5.1 billion as of June 30, 2018), respectively. In March 2019, the EC announced its decision that certain contractual provisions in agreements that Google had with AdSense for Search partners infringed European competition law. The EC decision imposed a €1.5 billion ($1.7 billion as of March 20, 2019) fine, which was accrued in the first quarter of 2019. While under appeal, EC fines are included in accrued expenses and other current liabilities on our Consolidated Balance Sheets as we provided bank guarantees in lieu of a cash payment for the respective fines.

In June 2019, we entered into an agreement to acquire Looker, a unified platform for business intelligence, data applications and embedded analytics, for $2.6 billion in cash, which includes post combination compensation arrangements. The acquisition of Looker is expected to be completed later this year, subject to customary closing conditions, including the receipt of regulatory approvals. Upon the close of the acquisition, Looker will join Google Cloud.

Our principal sources of liquidity are our cash, cash equivalents, and marketable securities, as well as the cash flow that we generate from our operations. We have a short-term debt financing program of up to $5.0 billion through the issuance of commercial paper. Net proceeds from this program are used for general corporate purposes. As of September 30, 2019, we had no commercial paper outstanding. As of September 30, 2019, we have $4.0 billion of revolving credit facilities expiring in July 2023 with no amounts outstanding. The interest rate for the credit facilities is determined based on a formula using certain market rates. We believe that our sources of funding will be sufficient to satisfy our currently anticipated cash requirements including capital expenditures, working capital requirements, potential acquisitions, and other liquidity requirements through at least the next 12 months.

As of September 30, 2019, we have senior unsecured notes outstanding due in 2021, 2024, and 2026 with a total carrying value of $4.0 billion.

In January 2018, the board of directors of Alphabet authorized the company to repurchase up to $8.6 billion of its Class C capital stock, which was completed during the first quarter of 2019. In January 2019, the board of directors of Alphabet authorized the company to repurchase up to an additional $12.5 billion of its Class C capital stock. In July 2019, the board of directors of Alphabet authorized the company to repurchase up to an additional $25.0 billion of its Class C capital stock. As of September 30, 2019, $26.9 billion remains available for repurchase. The repurchases are being executed from time to time, subject to general business and market conditions and other investment opportunities, through open market purchases or privately negotiated transactions, including through Rule 10b5-1 plans. The repurchase program does not have an expiration date. During the nine months ended September 30, 2019, we repurchased and subsequently retired 10.6 million shares of Alphabet Class C capital stock for an aggregate amount of $12.3 billion.

The following table presents our cash flows (in millions, unaudited):

	Nine Months Ended September 30,	
	2018	2019
Net cash provided by operating activities	$ 34,984	$ 40,093
Net cash used in investing activities	$ (21,628)	$ (24,788)
Net cash used in financing activities	$ (10,433)	$ (15,883)

Cash Provided by Operating Activities

Our largest source of cash provided by our operations are advertising revenues generated by Google properties and Google Network Members' properties. Additionally, we generate cash through sales of apps, in-app purchases, digital content products, and hardware; and licensing and service fees including fees received for Google Cloud offerings.

Our primary uses of cash from our operating activities include payments to our Google Network Members and distribution partners, and payments for content acquisition costs. In addition, uses of cash from operating activities include compensation and related costs, hardware inventory costs, other general corporate expenditures, and income taxes.

Net cash provided by operating activities increased from the nine months ended September 30, 2018 to the nine months ended September 30, 2019 primarily due to increases in cash received from advertising revenues and Google other revenues offset by increases in cash paid for cost of revenues and operating expenses.

Cash Used in Investing Activities

Cash provided by or used in investing activities primarily consists of purchases of property and equipment, which primarily includes our investments in land and buildings for offices and data centers, as well as, servers to provide capacity for the growth of our businesses; purchases, maturities, and sales of marketable and non-marketable securities; and payments for acquisitions.

Net cash used in investing activities increased from the nine months ended September 30, 2018 to the nine months ended September 30, 2019 primarily due to a net increase in purchases of securities, partially offset by decreases in payments for acquisitions and purchases of property and equipment. The decrease in purchases of property and equipment was driven by a decrease in purchases of servers, partially offset by increases in data center construction as well as purchases of land and buildings for offices.

Cash Used in Financing Activities

Cash provided by or used in financing activities consists primarily of net proceeds or payments related to stock-based award activities, repurchases of capital stock, net proceeds or payments from issuance or repayments of debt, and proceeds from sale of interest in consolidated entities.

Net cash used in financing activities increased from the nine months ended September 30, 2018 to the nine months ended September 30, 2019 primarily due to an increase in cash payments for repurchases of capital stock, partially offset by a decrease in net payments related to stock-based award activities and an increase in proceeds from sale of interest in consolidated entities.

Critical Accounting Policies and Estimates

See Part II, Item 7, "Critical Accounting Policies and Estimates" in our Annual Report on Form 10-K for the year ended December 31, 2018, as amended. There have been no material changes to our critical accounting policies and estimates since our Annual Report on Form 10-K for the year ended December 31, 2018, as amended.

Available Information

Our website is located at www.abc.xyz, and our investor relations website is located at www.abc.xyz/investor. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and our Proxy Statements, and any amendments to these reports, are available through our investor relations website, free of charge, after we file them with the SEC. We also provide a link to the section of the SEC's website at www.sec.gov that has all of the reports that we file or furnish with the SEC.

We webcast via our investor relations website our earnings calls and certain events we participate in or host with members of the investment community. Our investor relations website also provides notifications of news or announcements regarding our financial performance and other items of interest to our investors, including SEC filings, investor events, press and earnings releases, and blogs. We also share Google news and product updates on Google's Keyword blog at https://www.blog.google/, which may be of interest or material to our investors. Further, corporate governance information, including our certificate of incorporation, bylaws, governance guidelines, board committee charters, and code of conduct, is also available on our investor relations website under the heading "Other." The content of our websites are not incorporated by reference into this Quarterly Report on Form 10-Q or in any other report or document we file with the SEC, and any references to our websites are intended to be inactive textual references only.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to financial market risks, including changes in foreign currency exchange rates, interest rates and equity investment risks. Our exposure to market risk has not changed materially since December 31, 2018. For quantitative and qualitative disclosures about market risk, refer to Part II, Item 7A, Quantitative and Qualitative Disclosures About Market Risk, in our Annual Report on Form 10-K for the year ended December 31, 2018, as amended.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 under the Exchange Act, as of the end of the period covered by this Quarterly Report on Form 10-Q.

Based on this evaluation, our chief executive officer and chief financial officer concluded that, as of September 30, 2019, our disclosure controls and procedures are designed at a reasonable assurance level and are effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the quarter ended September 30, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

For a description of our material pending legal proceedings, see Note 10 "Contingencies - Legal Matters" of the Notes to Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q, which is incorporated herein by reference.

ITEM 1A. RISK FACTORS

Our operations and financial results are subject to various risks and uncertainties, including those described in Part I, Item 1A, "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2018, as amended, which could adversely affect our business, financial condition, results of operations, cash flows, and the trading price of our common and capital stock. There have been no material changes to our risk factors since our Annual Report on Form 10-K for the year ended December 31, 2018, as amended.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Issuer Purchases of Equity Securities

The following table presents information with respect to Alphabet's repurchases of Class C capital stock during the quarter ended September 30, 2019.

Period	Total Number of Shares Purchased (in thousands) [(1)]	Average Price Paid per Share [(2)]	Total Number of Shares Purchased as Part of Publicly Announced Programs (in thousands) [(1)]	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Program (in millions)
July 1 - 31	942	$ 1,147.43	942	$ 31,507
August 1 - 31	1,068	$ 1,181.77	1,068	$ 30,245
September 1 - 30	2,750	$ 1,219.54	2,750	$ 26,891
Total	4,760		4,760	

(1) In January 2018, the board of directors of Alphabet authorized the company to repurchase up to $8.6 billion of its Class C capital stock, which was completed during the first quarter of 2019. In January 2019, the board of directors of Alphabet authorized the company to repurchase an additional $12.5 billion of its Class C capital stock. In July 2019, the board of directors of Alphabet authorized the company to repurchase up to an additional $25.0 billion of its Class C capital stock. The repurchases are being executed from time to time, subject to general business and market conditions and other investment opportunities, through open market purchases or privately negotiated transactions, including through Rule 10b5-1 plans. The repurchase program does not have an expiration date. See Note 11 in Part I, Item 1 of this Quarterly Report on Form 10-Q for additional information related to share repurchases.

(2) Average price paid per share includes costs associated with the repurchases.

ITEM 6. EXHIBITS

Exhibit Number		Description	Incorporated by reference herein	
			Form	Date
31.01	*	Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002		
31.02	*	Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002		
32.01	‡	Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002		
101.INS	*	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.		
101.SCH	*	Inline XBRL Taxonomy Extension Schema Document		
101.CAL	*	Inline XBRL Taxonomy Extension Calculation Linkbase Document		
101.DEF	*	Inline XBRL Taxonomy Extension Definition Linkbase Document		
101.LAB	*	Inline XBRL Taxonomy Extension Label Linkbase Document		
101.PRE	*	Inline XBRL Taxonomy Extension Presentation Linkbase Document		
104		Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)		

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* Filed herewith.

‡ Furnished herewith.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

	ALPHABET INC.
October 28, 2019	By: /s/ RUTH M. PORAT
	Ruth M. Porat
	Senior Vice President and Chief Financial Officer
	ALPHABET INC.
October 28, 2019	By: /s/ AMIE THUENER O'TOOLE
	Amie Thuener O'Toole
	Vice President and Chief Accounting Officer