Facebook Inc
Form 10-Q
April 25, 2019
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)
x QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended March 31, 2019
or
o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to
Commission File Number: 001-35551

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

Delaware	20-1665019
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

1601 Willow Road, Menlo Park, California 94025
(Address of principal executive offices and Zip Code)
(650) 543-4800
(Registrant's telephone number, including area code)

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 (Exchange Act) during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x 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 during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes x 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 definition of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	x	Accelerated filer	¨
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 x

Indicate the number of shares outstanding of each of the issuer's classes of Common Stock, as of the latest practicable date.

Class	Number of Shares Outstanding
Class A Common Stock $0.000006 par value	2,402,542,856 shares outstanding as of April 22, 2019
Class B Common Stock $0.000006 par value	451,945,880 shares outstanding as of April 22, 2019

FACEBOOK, INC.
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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. All statements contained in this Quarterly Report on Form 10-Q other than statements of historical fact, including statements regarding our future results of operations and financial position, our business strategy and plans, and our objectives for future operations, are forward-looking statements. The words "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "expect," and similar expressions are intended to identify forward-looking statements. We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in Part II, Item 1A, "Risk Factors" in this Quarterly Report on Form 10-Q. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the future events and trends discussed in this Quarterly Report on Form 10-Q may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

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.

Unless expressly indicated or the context requires otherwise, the terms "Facebook," "company," "we," "us," and "our" in this document refer to Facebook, Inc., a Delaware corporation, and, where appropriate, its wholly owned subsidiaries. The term "Facebook" may also refer to our products, regardless of the manner in which they are accessed. For references to accessing Facebook on the "web" or via a "website," such terms refer to accessing Facebook on personal computers. For references to accessing Facebook on "mobile," such term refers to accessing Facebook via a mobile application or via a mobile-optimized version of our website such as m.facebook.com, whether on a mobile phone or tablet.

LIMITATIONS OF KEY METRICS AND OTHER DATA

The numbers for our key metrics, which include our daily active users (DAUs), monthly active users (MAUs), and average revenue per user (ARPU), are calculated using internal company data based on the activity of user accounts. While these numbers are based on what we believe to be reasonable estimates of our user base for the applicable period of measurement, there are inherent challenges in measuring usage of our products across large online and mobile populations around the world. In addition, we are continually seeking to improve our estimates of our user base, and such estimates may change due to improvements or changes in our methodology.

We regularly evaluate these metrics to estimate the number of "duplicate" and "false" accounts among our MAUs. A duplicate account is one that a user maintains in addition to his or her principal account. We divide "false" accounts into two categories: (1) user-misclassified accounts, where users have created personal profiles for a business, organization, or non-human entity such as a pet (such entities are permitted on Facebook using a Page rather than a personal profile under our terms of service); and (2) undesirable accounts, which represent user profiles that we determine are intended to be used for purposes that violate our terms of service, such as spamming. The estimates of duplicate and false accounts are based on an internal review of a limited sample of accounts, and we apply significant judgment in making this determination. For example, to identify duplicate accounts we use data signals such as similar IP addresses or user names, and to identify false accounts we look for names that appear to be fake or other behavior that appears inauthentic to the reviewers. Our estimates may change as our methodologies evolve, including through the application of new data signals or technologies, which may allow us to identify previously undetected duplicate or false accounts and may improve our ability to evaluate a broader population of our users. Duplicate and false accounts are very difficult to measure at our scale, and it is possible that the actual number of duplicate and false accounts may vary significantly from our estimates.

In the fourth quarter of 2018, we estimated that duplicate accounts may have represented approximately 11% of our worldwide MAUs. We believe the percentage of duplicate accounts is meaningfully higher in developing markets such as the Philippines and Vietnam, as compared to more developed markets. In the fourth quarter of 2018, we estimated that false accounts may have represented approximately 5% of our worldwide MAUs. Our estimation of false accounts can vary as a result of episodic spikes in the creation of such accounts, which we have seen originate more frequently in specific countries such as Indonesia and Vietnam. From time to time, we may make product changes or take other actions to reduce the number of duplicate or false accounts among our users, which may also reduce our DAU and MAU estimates in a particular period.

Our data limitations may affect our understanding of certain details of our business. For example, while user-provided data indicates a decline in usage among younger users, this age data is unreliable because a disproportionate number of our younger users register with an inaccurate age. Accordingly, our understanding of usage by age group may not be complete.

In addition, our data regarding the geographic location of our users is estimated based on a number of factors, such as the user's IP address and self-disclosed location. These factors may not always accurately reflect the user's actual location. For example, a user may appear to be accessing Facebook from the location of the proxy server that the user connects to rather than from the user's actual location. The methodologies used to measure user metrics may also be susceptible to algorithm or other technical errors. Our estimates for revenue by user location and revenue by user device are also affected by these factors.

We regularly review our processes for calculating these metrics, and from time to time we may discover inaccuracies in our metrics or make adjustments to improve their accuracy, including adjustments that may result in the recalculation of our historical metrics. We believe that any such inaccuracies or adjustments are immaterial unless otherwise stated. We intend to disclose our estimates of the number of duplicate and false accounts among our MAUs on an annual basis. In addition, our DAU and MAU estimates will differ from estimates published by third parties due to differences in methodology.

The numbers of DAUs and MAUs discussed in this Quarterly Report on Form 10-Q, as well as ARPU, do not include Instagram, WhatsApp, or Oculus users unless they would otherwise qualify as such users, respectively, based on their other activities on Facebook. In addition, other user engagement metrics included herein do not include Instagram, WhatsApp, or Oculus unless otherwise specifically stated.

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PART I—FINANCIAL INFORMATION
Item 1. Financial Statements
FACEBOOK, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In millions, except for number of shares and par value)
(Unaudited)

	March 31, 2019	December 31, 2018
Assets		
Current assets:		
Cash and cash equivalents	$11,076	$ 10,019
Marketable securities	34,167	31,095
Accounts receivable, net of allowances of $216 and $229 as of March 31, 2019 and December 31, 2018, respectively	6,475	7,587
Prepaid expenses and other current assets	1,582	1,779
Total current assets	53,300	50,480
Property and equipment, net	27,345	24,683
Operating lease right-of-use assets, net	6,747	—
Intangible assets, net	1,150	1,294
Goodwill	18,333	18,301
Other assets	2,602	2,576
Total assets	$109,477	$ 97,334
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$604	$ 820
Partners payable	537	541
Operating lease liabilities, current	645	—
Accrued expenses and other current liabilities	7,980	5,509
Deferred revenue and deposits	142	147
Total current liabilities	9,908	7,017
Operating lease liabilities, non-current	6,565	—
Other liabilities	6,488	6,190
Total liabilities	22,961	13,207
Commitments and contingencies		
Stockholders' equity:		
Common stock, $0.000006 par value; 5,000 million Class A shares authorized, 2,404 million and 2,385 million shares issued and outstanding, as of March 31, 2019 and December 31, 2018, respectively; 4,141 million Class B shares authorized, 452 million and 469 million shares issued and outstanding, as of March 31, 2019 and December 31, 2018, respectively.	—	—
Additional paid-in capital	43,533	42,906
Accumulated other comprehensive loss	(781)	(760)
Retained earnings	43,764	41,981
Total stockholders' equity	86,516	84,127
Total liabilities and stockholders' equity	$109,477	$ 97,334

See Accompanying Notes to Condensed Consolidated Financial Statements.

FACEBOOK, INC.
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(In millions, except per share amounts)
(Unaudited)

	Three Months Ended March 31,	
	2019	2018
Revenue	$15,077	$11,966
Costs and expenses:		
Cost of revenue	2,816	1,927
Research and development	2,860	2,238
Marketing and sales	2,020	1,595
General and administrative	4,064	757
Total costs and expenses	11,760	6,517
Income from operations	3,317	5,449
Interest and other income, net	165	161
Income before provision for income taxes	3,482	5,610
Provision for income taxes	1,053	622
Net income	$2,429	$4,988
Less: Net income attributable to participating securities	—	1
Net income attributable to Class A and Class B common stockholders	$2,429	$4,987
Earnings per share attributable to Class A and Class B common stockholders:		
Basic	$0.85	$1.72
Diluted	$0.85	$1.69
Weighted average shares used to compute earnings per share attributable to Class A and Class B common stockholders:		
Basic	2,856	2,906
Diluted	2,869	2,945
Share-based compensation expense included in costs and expenses:		
Cost of revenue	$87	$56
Research and development	723	718
Marketing and sales	113	109
General and administrative	87	72
Total share-based compensation expense	$1,010	$955

See Accompanying Notes to Condensed Consolidated Financial Statements.

FACEBOOK, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In millions)
(Unaudited)

	Three Months Ended March 31,	
	2019	2018
Net income	$2,429	$4,988
Other comprehensive income (loss):		
Change in foreign currency translation adjustment, net of tax	(175)	94
Change in unrealized gain/loss on available-for-sale investments and other, net of tax	154	(161)
Comprehensive income	$2,408	$4,921

See Accompanying Notes to Condensed Consolidated Financial Statements.

FACEBOOK, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In millions)
(Unaudited)

	Three Months Ended March 31, 2019					Three Months Ended March 31, 2018				
	Class A and Class B Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Retained Earnings	Total Stockholders' Equity	Class A and Class B Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Retained Earnings	Total Stockholders' Equity
	Shares	Par Value					Shares	Par Value				
Balances at beginning of period	2,854	$ —	$42,906	$ (760)	$41,981	$84,127	2,906	$ —	$40,584	$ (227)	$33,990	$74,347
Impact of the adoption of new accounting pronouncement	—	—	—	—	—	—	—	—	—	—	141	141
Issuance of common stock	8	—	4	—	—	4	12	—	3	—	—	3
Shares withheld related to net share settlement	(3)	—	(387)	—	(125)	(512)	(5)	—	(408)	—	(424)	(832)
Share-based compensation, related to employee share-based awards	—	—	1,010	—	—	1,010	—	—	955	—	—	955
Share repurchases	(3)	—	—	—	(521)	(521)	(11)	—	—	—	(1,915)	(1,915)
Other comprehensive loss	—	—	—	(21)	—	(21)	—	—	—	(67)	—	(67)
Net income	—	—	—	—	2,429	2,429	—	—	—	—	4,988	4,988
Balances at end of period	2,856	$ —	$43,533	$ (781)	$43,764	$86,516	2,902	$ —	$41,134	$ (294)	$36,780	$77,620

See Accompanying Notes to Condensed Consolidated Financial Statements.

FACEBOOK, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)
(Unaudited)

	Three Months Ended March 31,	
	2019	2018
Cash flows from operating activities		
Net income	$2,429	$4,988
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	1,355	949
Share-based compensation	1,010	955
Deferred income taxes	183	(47)
Other	6	8
Changes in assets and liabilities:		
Accounts receivable	1,070	788
Prepaid expenses and other current assets	84	(365)
Other assets	41	22
Operating lease right-of-use assets, net	(1,190)	—
Accounts payable	(96)	1
Partners payable	(1)	2
Accrued expenses and other current liabilities	3,154	707
Deferred revenue and deposits	(4)	(5)
Operating lease liabilities, non-current	1,083	—
Other liabilities	184	(143)
Net cash provided by operating activities	9,308	7,860
Cash flows from investing activities		
Purchases of property and equipment, net	(3,837)	(2,812)
Purchases of marketable securities	(6,603)	(4,022)
Sales of marketable securities	1,512	4,330
Maturities of marketable securities	2,210	1,267
Other investing activities, net	(50)	(50)
Net cash used in investing activities	(6,768)	(1,287)
Cash flows from financing activities		
Taxes paid related to net share settlement of equity awards	(512)	(832)
Repurchases of Class A common stock	(613)	(1,774)
Principal payments on finance leases	(125)	—
Net change in overdraft in cash pooling entities	(177)	—
Other financing activities, net	4	3
Net cash used in financing activities	(1,423)	(2,603)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	(44)	36
Net increase in cash, cash equivalents, and restricted cash	1,073	4,006
Cash, cash equivalents, and restricted cash at beginning of the period	10,124	8,204
Cash, cash equivalents, and restricted cash at end of the period	$11,197	$12,210
Reconciliation of cash, cash equivalents, and restricted cash to the condensed consolidated balance sheets		
Cash and cash equivalents	$11,076	$12,082
Restricted cash, included in prepaid expenses and other current assets	10	14
Restricted cash, included in other assets	111	114

Total cash, cash equivalents, and restricted cash	$11,197	$12,210

See Accompanying Notes to Condensed Consolidated Financial Statements.

FACEBOOK, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)
(Unaudited)

	Three Months Ended March 31,	
	2019	2018
Supplemental cash flow data		
Cash paid during the period for:		
Interest	$2	$—
Income taxes, net	$682	$736
Non-cash investing activities:		
Net change in prepaids and liabilities related to property and equipment	$(314)	$429
Accrued property and equipment	$1,617	$1,291

See Accompanying Notes to Condensed Consolidated Financial Statements.

FACEBOOK, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Note 1. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States (GAAP) and applicable rules and regulations of the Securities and Exchange Commission regarding interim financial reporting. Certain information and note disclosures normally included in the financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. As such, the information included in this quarterly report on Form 10-Q should be read in conjunction with the consolidated financial statements and accompanying notes included in our Annual Report on Form 10-K for the year ended December 31, 2018.

The condensed consolidated balance sheet as of December 31, 2018 included herein was derived from the audited financial statements as of that date, but does not include all disclosures including notes required by GAAP.

The condensed consolidated financial statements include the accounts of Facebook, Inc. and its wholly owned subsidiaries. All intercompany balances and transactions have been eliminated.

The accompanying condensed consolidated financial statements reflect all normal recurring adjustments that are necessary to present fairly the results for the interim periods presented. Interim results are not necessarily indicative of the results for the full year ending December 31, 2019.

Use of Estimates

Conformity with GAAP requires the use of estimates and judgments that affect the reported amounts in the consolidated financial statements and accompanying notes. These estimates form the basis for judgments we make about the carrying values of our assets and liabilities, which are not readily apparent from other sources. We base our estimates and judgments on historical information and on various other assumptions that we believe are reasonable under the circumstances. GAAP requires us to make estimates and judgments in several areas, including, but not limited to, those related to income taxes, loss contingencies, fair value of acquired intangible assets and goodwill, collectability of accounts receivable, fair value of financial instruments, leases, useful lives of intangible assets and property and equipment, and revenue recognition. These estimates are based on management's knowledge about current events and expectations about actions we may undertake in the future. Actual results could differ materially from those estimates.

Recently Adopted Accounting Pronouncements

On January 1, 2019, we adopted Accounting Standards Update No. 2016-02, Leases (Topic 842) (ASU 2016-02), as amended, which supersedes the lease accounting guidance under Topic 840, and generally requires lessees to recognize operating and financing lease liabilities and corresponding right-of-use (ROU) assets on the balance sheet and to provide enhanced disclosures surrounding the amount, timing and uncertainty of cash flows arising from leasing arrangements. We adopted the new guidance using the modified retrospective transition approach by applying the new standard to all leases existing at the date of initial application and not restating comparative periods. The most significant impact was the recognition of ROU assets and lease liabilities for operating leases, while our accounting for finance leases remained substantially unchanged. For information regarding the impact of Topic 842 adoption, see Significant Accounting Policies - Leases and Note 7— Leases.

Significant Accounting Policies - Leases

On January 1, 2019, we adopted Topic 842 using the modified retrospective transition approach by applying the new standard to all leases existing at the date of initial application. Results and disclosure requirements for reporting periods beginning after January 1, 2019 are presented under Topic 842, while prior period amounts have not been adjusted and continue to be reported in accordance with our historical accounting under Topic 840.

We elected the package of practical expedients permitted under the transition guidance, which allowed us to carryforward our historical lease classification, our assessment on whether a contract was or contains a lease, and our

initial direct costs for any leases that existed prior to January 1, 2019. We also elected to combine our lease and non-lease components and to keep leases with an initial term of 12 months or less off the balance sheet and recognize the associated lease payments in the consolidated statements of income on a straight-line basis over the lease term. Additionally, for certain equipment leases, we apply a portfolio approach to effectively account for the operating lease ROU assets and liabilities.

Upon adoption, we recognized total ROU assets of $6.63 billion, with corresponding liabilities of $6.35 billion on the condensed consolidated balance sheets. This included $761 million of pre-existing finance lease ROU assets previously reported in the network equipment within property and equipment, net. The ROU assets include adjustments for prepayments and accrued lease payments. The adoption did not impact our beginning retained earnings, or our prior year condensed consolidated statements of income and statements of cash flows.

Under Topic 842, we determine if an arrangement is a lease at inception. ROU assets and liabilities are recognized at commencement date based on the present value of remaining lease payments over the lease term. For this purpose, we consider only payments that are fixed and determinable at the time of commencement. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. Our incremental borrowing rate is a hypothetical rate based on our understanding of what our credit rating would be. The ROU asset also includes any lease payments made prior to commencement and is recorded net of any lease incentives received. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise such options.

Operating leases are included in operating lease right-of-use assets, operating lease liabilities, current and operating lease liabilities, non-current on our condensed consolidated balance sheets. Finance leases are included in property and equipment, net, accrued expenses and other current liabilities, and other liabilities on our condensed consolidated balance sheets.

Note 2. Revenue

Revenue disaggregated by revenue source for the three months ended March 31, 2019 and 2018, consists of the following (in millions):

	Three Months Ended March 31,	
	2019	2018
Advertising	$14,912	$11,795
Payments and other fees	165	171
Total revenue	$15,077	$11,966

Revenue disaggregated by geography, based on the billing address of our customer, consists of the following (in millions):

	Three Months Ended March 31,	
	2019	2018
Revenue:		
US & Canada[1]	$6,777	$5,442
Europe[2]	3,624	3,027
Asia-Pacific	3,337	2,475
Rest of World[2]	1,339	1,022
Total revenue	$15,077	$11,966

(1) United States revenue was $6.36 billion and $5.09 billion for the three months ended March 31, 2019 and 2018, respectively.

(2) Europe includes Russia and Turkey, and Rest of World includes Africa, Latin America, and the Middle East.

Deferred revenue and deposits consists of the following (in millions):

	March 31, 2019	December 31, 2018
Deferred revenue	$ 111	$ 117
Deposits	31	30
Total deferred revenue and deposits	$ 142	$ 147

Note 3. Earnings per Share

We compute earnings per share (EPS) of Class A and Class B common stock using the two-class method required for participating securities. We consider restricted stock awards to be participating securities because holders of such shares have non-forfeitable dividend rights in the event of our declaration of a dividend for common shares. Undistributed earnings allocated to participating securities are subtracted from net income in determining net income attributable to common stockholders. Basic EPS is computed by dividing net income attributable to common stockholders by the weighted-average number of shares of our Class A and Class B common stock outstanding, adjusted for outstanding shares that are subject to repurchase.

For the calculation of diluted EPS, net income attributable to common stockholders for basic EPS is adjusted by the effect of dilutive securities, including awards under our equity compensation plans. In 2018, the calculation of diluted EPS also included the effect of inducement awards under separate non-plan restricted stock unit (RSU) award agreements.

In addition, the computation of the diluted EPS of Class A common stock assumes the conversion of our Class B common stock to Class A common stock, while the diluted EPS of Class B common stock does not assume the conversion of those shares to Class A common stock. Diluted EPS attributable to common stockholders is computed by dividing the resulting net income attributable to common stockholders by the weighted-average number of fully diluted common shares outstanding.

RSUs with anti-dilutive effect were excluded from the EPS calculation and they were not material for the three months ended March 31, 2019 and 2018, respectively.

Basic and diluted EPS are the same for each class of common stock because they are entitled to the same liquidation and dividend rights.

The numerators and denominators of the basic and diluted EPS computations for our common stock are calculated as follows (in millions, except per share amounts):

	Three Months Ended March 31,			
	2019		2018	
	Class A	Class B	Class A	Class B
Basic EPS:				
Numerator				
Net income	$2,038	$391	$4,123	$865
Less: Net income attributable to participating securities	—	—	1	—
Net income attributable to common stockholders	$2,038	$391	$4,122	$865
Denominator				
Weighted average shares outstanding	2,396	460	2,402	504
Basic EPS	$0.85	$0.85	$1.72	$1.72
Diluted EPS:				
Numerator				
Net income attributable to common stockholders	$2,038	$391	$4,122	$865
Reallocation of net income attributable to participating securities	—	—	1	—
Reallocation of net income as a result of conversion of Class B to Class A common stock	391	—	865	—
Reallocation of net income to Class B common stock	—	—	—	(5)
Net income attributable to common stockholders for diluted EPS	$2,429	$391	$4,988	$860
Denominator				
Number of shares used for basic EPS computation	2,396	460	2,402	504
Conversion of Class B to Class A common stock	460	—	504	—
Weighted average effect of dilutive securities:				
Employee stock options	1	1	3	3
RSUs	12	1	36	1
Number of shares used for diluted EPS computation	2,869	462	2,945	508
Diluted EPS	$0.85	$0.85	$1.69	$1.69

Note 4. Cash and Cash Equivalents, and Marketable Securities

The following table sets forth the cash and cash equivalents, and marketable securities (in millions):

	March 31, 2019	December 31, 2018
Cash and cash equivalents:		
Cash	$ 3,459	$ 2,713
Money market funds	6,969	6,792
U.S. government securities	239	90
U.S. government agency securities	54	54
Certificate of deposits and time deposits	355	369
Corporate debt securities	—	1
Total cash and cash equivalents	11,076	10,019
Marketable securities:		
U.S. government securities	16,794	13,836
U.S. government agency securities	8,039	8,333
Corporate debt securities	9,334	8,926
Total marketable securities	34,167	31,095
Total cash and cash equivalents, and marketable securities	$ 45,243	$ 41,114

The gross unrealized losses on our marketable securities were $208 million and $357 million as of March 31, 2019 and December 31, 2018, respectively. The gross unrealized gains for both periods were not significant. In addition, gross unrealized losses that had been in a continuous loss position for 12 months or longer were $204 million and $332 million as of March 31, 2019 and December 31, 2018, respectively. As of March 31, 2019, we considered the decreases in market value on our marketable securities to be temporary in nature and did not consider any of our investments to be other-than-temporarily impaired.

The following table classifies our marketable securities by contractual maturities (in millions):

	March 31, 2019
Due in one year	$ 12,476
Due after one year to five years	21,691
Total	$ 34,167

Note 5. Fair Value Measurement

The following table summarizes our assets measured at fair value and the classification by level of input within the fair value hierarchy (in millions):

Description	March 31, 2019	Fair Value Measurement at Reporting Date Using Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents:				
Money market funds	$ 6,969	$6,969	$ —	$ —
U.S. government securities	239	239	—	—
U.S. government agency securities	54	54	—	—
Certificate of deposits and time deposits	355	—	355	—
Marketable securities:				
U.S. government securities	16,794	16,794	—	—
U.S. government agency securities	8,039	8,039	—	—
Corporate debt securities	9,334	—	9,334	—
Total cash equivalents and marketable securities	$ 41,784	$32,095	$ 9,689	$ —

Description	December 31, 2018	Fair Value Measurement at Reporting Date Using Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents:				
Money market funds	$ 6,792	$6,792	$ —	$ —
U.S. government securities	90	90	—	—
U.S. government agency securities	54	54	—	—
Certificate of deposits and time deposits	369	—	369	—
Corporate debt securities	1	—	1	—
Marketable securities:				
U.S. government securities	13,836	13,836	—	—
U.S. government agency securities	8,333	8,333	—	—
Corporate debt securities	8,926	—	8,926	—
Total cash equivalents and marketable securities	$ 38,401	$29,105	$ 9,296	$ —

We classify our cash equivalents and marketable securities within Level 1 or Level 2 because we use quoted market prices or alternative pricing sources and models utilizing market observable inputs to determine their fair value.

Note 6. Property and Equipment

Property and equipment consists of the following (in millions):

	March 31, 2019	December 31, 2018
Land	$949	$ 899
Buildings	8,090	7,401
Leasehold improvements	2,019	1,841
Network equipment	12,964	13,017
Computer software, office equipment and other	1,326	1,187
Finance lease right-of-use assets	1,145	—
Construction in progress	8,509	7,228
Total	35,002	31,573
Less: Accumulated depreciation	(7,657)	(6,890)
Property and equipment, net	$27,345	$ 24,683

Construction in progress includes costs mostly related to construction of data centers, network equipment infrastructure to support our data centers around the world, and office buildings. No interest was capitalized for all periods presented.

Note 7. Leases

We have entered into various non-cancelable operating lease agreements for certain of our offices, data center, land, colocations and certain network equipment. Our leases have original lease periods expiring between 2019 and 2093. Many leases include one or more options to renew. We do not assume renewals in our determination of the lease term unless the renewals are deemed to be reasonably assured at lease commencement. Our lease agreements do not contain any material residual value guarantees or material restrictive covenants.

The components of lease costs, lease term and discount rate are as follows (in millions):

	Three Months Ended March 31, 2019
Finance lease cost	
Amortization of right-of-use assets	$ 42
Interest	2
Operating lease cost	246
Variable lease cost and other, net	49
Total lease cost	$ 339
Weighted Average Remaining Lease Term	
Operating leases	13.1 years
Finance leases	15.1 years
Weighted Average Discount Rate	
Operating leases	3.6 %
Finance leases	3.2 %

The following is a schedule, by years, of maturities of lease liabilities as of March 31, 2019 (in millions):

	Operating Leases	Finance Leases
The remainder of 2019	$ 611	$ 53
2020	944	35
2021	868	26
2022	811	24
2023	776	24
Thereafter	5,602	266
Total undiscounted cash flows	9,612	428
Less imputed interest	(2,402)	(88)
Present value of lease liabilities	$ 7,210	$ 340

As of March 31, 2019, we have additional operating and finance leases for facilities and network equipment that have not yet commenced with lease obligations of $5.77 billion and $429 million, respectively. These operating and finance leases will commence between 2019 and 2022 with lease terms of greater than one year to 25 years. This table does not include lease payments that were not fixed at commencement or modification.

Supplemental cash flow information related to leases are as follows (in millions):

	Three Months Ended March 31, 2019
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from operating leases	$ 188
Operating cash flows from finance leases	$ 2
Financing cash flows from finance leases	$ 125
Lease liabilities arising from obtaining right-of-use assets:	
Operating leases	$ 1,383
Finance leases	$ 35

Note 8. Goodwill and Intangible Assets

During the three months ended March 31, 2019, we completed business acquisitions that were not material to our condensed consolidated financial statements, either individually or in the aggregate. Accordingly, pro forma historical results of operations related to these business acquisitions during the three months ended March 31, 2019 have not been presented. We have included the financial results of these business acquisitions in our condensed consolidated financial statements from their respective dates of acquisition.

The changes in the carrying amount of goodwill for the three months ended March 31, 2019 are as follows (in millions):

Balance as of December 31, 2018	$18,301
Goodwill acquired	30
Effect of currency translation adjustment	2
Balance as of March 31, 2019	$18,333

Intangible assets consist of the following (in millions):

		March 31, 2019			December 31, 2018		
	Weighted-Average Remaining Useful Lives (in years)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Acquired users	2.5	$2,056	$ (1,332)	$ 724	$2,056	$ (1,260)	$ 796
Acquired technology	1.3	1,014	(909)	105	1,002	(871)	131
Acquired patents	5.0	805	(580)	225	805	(565)	240
Trade names	1.3	629	(545)	84	629	(517)	112
Other	2.6	162	(150)	12	162	(147)	15
Total intangible assets	2.8	$4,666	$ (3,516)	$ 1,150	$4,654	$ (3,360)	$ 1,294

Amortization expense of intangible assets was $156 million and $169 million for the three months ended March 31, 2019 and 2018, respectively.

As of March 31, 2019, expected amortization expense for the unamortized acquired intangible assets for the next five years and thereafter is as follows (in millions):

The remainder of 2019	$400
2020	382
2021	277
2022	33
2023	26
Thereafter	32
Total	$1,150

Note 9. Long-term Debt

In May 2016, we entered into a $2.0 billion senior unsecured revolving credit facility, and any amounts outstanding under this facility will be due and payable on May 20, 2021. As of March 31, 2019, no amounts had been drawn down, and we were in compliance with the covenants under this facility.

Note 10. Commitments and Contingencies

Guarantee

In 2018, we established a multi-currency notional cash pool for certain of our entities with a third-party bank provider. Actual cash balances are not physically converted and are not commingled between participating legal entities. As part of the notional cash pool agreement, the bank extends overdraft credit to our participating entities as needed, provided that the overall notionally pooled balance of all accounts in the pool at the end of each day is at least zero. In the unlikely event of a default by our collective entities participating in the pool, any overdraft balances incurred would be guaranteed by Facebook, Inc.

Other contractual commitments

We also have $4.84 billion of non-cancelable contractual commitments as of March 31, 2019, the majority of which is related to network infrastructure and our data center operations. These commitments are primarily due within five years.

Legal Matters

Beginning on March 20, 2018, multiple putative class actions and derivative actions were filed in state and federal courts in the United States and elsewhere against us and certain of our directors and officers alleging violations of securities laws, breach of fiduciary duties, and other causes of action in connection with our platform and user data practices as well as the misuse of certain data by a developer that shared such data with third parties in violation of our terms and policies, and seeking unspecified damages and injunctive relief. Beginning on July 27, 2018, two putative class actions were filed in federal court in the United States against us and certain of our directors and officers alleging violations of securities laws in connection with the disclosure of our earnings results for the second quarter of 2018 and seeking unspecified damages. These two actions subsequently were transferred and consolidated in the U.S. District Court for the Northern District of California with the putative securities class action described above relating to our platform and user data practices. We believe these lawsuits are without merit, and we are vigorously defending them. In addition, our platform and user data practices, as well as the events surrounding the misuse of certain data by a developer became the subject of U.S. Federal Trade Commission (FTC), Securities and Exchange Commission, state attorneys general, and other government inquiries in the United States, Europe, and other jurisdictions.

Beginning on September 28, 2018, multiple putative class actions were filed in state and federal courts in the United States and elsewhere against us alleging violations of consumer protection laws and other causes of action in connection with a third-party cyber-attack that exploited a vulnerability in Facebook’s code to steal user access tokens and access certain profile information from user accounts on Facebook, and seeking unspecified damages and injunctive relief. We believe these lawsuits are without merit, and we are vigorously defending them. In addition, the events surrounding this cyber-attack became the subject of Irish Data Protection Commission and other government inquiries.

In addition, from time to time, we are subject to litigation and other proceedings involving law enforcement and other regulatory agencies, including in particular in Brazil and Europe, in order to ascertain the precise scope of our legal obligations to comply with the requests of those agencies, including our obligation to disclose user information in particular circumstances. A number of such instances have resulted in the assessment of fines and penalties against us. We believe we have multiple legal grounds to satisfy these requests or prevail against associated fines and penalties, and we intend to vigorously defend such fines and penalties.

The aforementioned inquiry of the FTC has progressed to a point that, in the first quarter of 2019, we reasonably estimated a probable loss and recorded an accrual of $3.0 billion which is included in accrued expenses and other current liabilities on our condensed consolidated balance sheet. We estimate that the range of loss in this matter is $3.0 billion to $5.0 billion. The matter remains unresolved, and there can be no assurance as to the timing or the terms of any final outcome.

In addition to the FTC matter, although we believe that it is reasonably possible that we may incur a substantial loss in some of the other cases, actions, or inquiries described above, we are currently unable to estimate the amount of such losses or a range of possible losses.

We are also party to various other legal proceedings, claims, and regulatory, tax or government inquiries and investigations that arise in the ordinary course of business. With respect to these matters, we evaluate the developments on a regular basis and accrue a liability when we believe a loss is probable and the amount can be

reasonably estimated. We believe that the amount or any estimable range of reasonably possible or probable loss will not, either individually or in the aggregate, have a material adverse effect on our business and consolidated financial statements. However, the outcome of these matters is inherently uncertain. Therefore, if one or more of these matters were resolved against us for amounts in excess of management's expectations, our results of operations and financial condition, including in a particular reporting period in which any such outcome becomes probable and estimable, could be materially adversely affected.

For information regarding income tax contingencies, see Note 12 — Income Taxes.

Note 11. Stockholders' Equity

Share Repurchase Program

Our board of directors has authorized a share repurchase program that commenced in 2017 and does not have an expiration date. In December 2018, our board of directors authorized an additional $9.0 billion of repurchases under this program. During the three months ended March 31, 2019, we repurchased and subsequently retired approximately 3.1 million shares of our Class A common stock for an aggregate amount of approximately $521 million. As of March 31, 2019, approximately $8.5 billion remained available and authorized for repurchases.

The timing and actual number of shares repurchased under the share repurchase program depend on a variety of factors, including price, general business and market conditions, and other investment opportunities, and shares may be repurchased through open market purchases or privately negotiated transactions, including through the use of trading plans intended to qualify under Rule 10b5-1 under the Securities Exchange Act of 1934, as amended.

Share-based Compensation Plans

We maintain two share-based employee compensation plans: the 2012 Equity Incentive Plan, which was amended in each of June 2016 and February 2018 (Amended 2012 Plan), and the 2005 Stock Plan (collectively, Stock Plans). Our Amended 2012 Plan serves as the successor to our 2005 Stock Plan and provides for the issuance of incentive and nonstatutory stock options, restricted stock awards, stock appreciation rights, RSUs, performance shares, and stock bonuses to qualified employees, directors and consultants. Outstanding awards under the 2005 Stock Plan continue to be subject to the terms and conditions of the 2005 Stock Plan. Shares that are withheld in connection with the net settlement of RSUs or forfeited under our Stock Plans are added to the reserves of the Amended 2012 Plan. We account for forfeitures as they occur.

Effective January 1, 2019, there were 143 million shares of our Class A common stock reserved for future issuance under our Amended 2012 Plan. The number of shares reserved for issuance under our Amended 2012 Plan increases automatically on January 1 of each of the calendar years during the term of the Amended 2012 Plan, which will continue through April 2026 unless terminated earlier by our board of directors or a committee thereof, by a number of shares of Class A common stock equal to the lesser of (i) 2.5% of the total issued and outstanding shares of our Class A common stock as of the immediately preceding December 31st or (ii) a number of shares determined by our board of directors.

The following table summarizes the activities for our unvested RSUs for the three months ended March 31, 2019:

	Unvested RSUs	
	Number of Shares	Weighted Average Grant Date Fair Value
	(in thousands)	
Unvested at December 31, 2018	67,298	$ 144.77
Granted	36,626	$ 164.68
Vested	(7,985)	$ 128.18
Forfeited	(1,973)	$ 142.67
Unvested at March 31, 2019	93,966	$ 153.98

The fair value as of the respective vesting dates of RSUs that vested during the three months ended March 31, 2019 and 2018 was $1.31 billion and $1.95 billion, respectively.

As of March 31, 2019, there was $13.70 billion of unrecognized share-based compensation expense related to RSUs. This unrecognized compensation expense is expected to be recognized over a weighted-average period of approximately three years based on vesting under the award service conditions.

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Note 12. Income Taxes

Our tax provision for interim periods is determined using an estimated annual effective tax rate, adjusted for discrete items arising in that quarter. In each quarter, we update the estimated annual effective tax rate and make a year-to-date adjustment to the provision. The estimated annual effective tax rate is subject to significant volatility due to several factors, including our ability to accurately predict the proportion of our income (loss) before provision for income taxes in multiple jurisdictions, the effects of acquisitions, and the integration of those acquisitions.

Our 2019 effective tax rate differs from the U.S. statutory rate of 21% primarily due to a portion of our income before provision for income taxes being earned in jurisdictions subject to tax rates lower than 21%, the $3.0 billion legal accrual recorded in the first quarter of 2019 related to the ongoing FTC matter which is not expected to be tax-deductible, and the recognition of excess tax benefits from share-based compensation.

Our gross unrecognized tax benefits were $4.89 billion and $4.68 billion on March 31, 2019 and December 31, 2018, respectively. If the gross unrecognized tax benefits as of March 31, 2019 were realized in a subsequent period, this would result in a tax benefit of $2.94 billion within our provision of income taxes at such time. The amount of interest and penalties accrued as of March 31, 2019 and December 31, 2018 was $391 million and $340 million, respectively. We expect to continue to accrue unrecognized tax benefits for certain recurring tax positions.

On July 27, 2015, the United States Tax Court (Tax Court) issued an opinion in Altera Corp. v. Commissioner (Tax Court Opinion), which concluded that related parties in a cost sharing arrangement are not required to share expenses related to share-based compensation. The Tax Court Opinion was appealed by the Commissioner to the Ninth Circuit Court of Appeals (Ninth Circuit). On July 24, 2018, the Ninth Circuit issued an opinion (Ninth Circuit Opinion) that reversed the Tax Court Opinion. The Ninth Circuit Opinion was subsequently withdrawn and the case is in the process of being reheard. Since the Ninth Circuit Opinion was withdrawn, we continue to treat our share-based compensation expense in accordance with the Tax Court Opinion. We also continue to monitor developments in this case and any impact the final opinion could have on our consolidated financial statements.

We are subject to taxation in the United States and various other state and foreign jurisdictions. The material jurisdictions in which we are subject to potential examination include the United States and Ireland. We are under examination by the Internal Revenue Service (IRS) for our 2014 through 2016 tax years and by the Ireland tax authorities for our 2012 through 2015 tax years. Our 2017 and subsequent tax years remain open to examination by the IRS. Our 2016 and subsequent tax years remain open to examination in Ireland.

In July 2016, we received a Statutory Notice of Deficiency (Notice) from the IRS related to transfer pricing with our foreign subsidiaries in conjunction with the examination of the 2010 tax year. While the Notice applies only to the 2010 tax year, the IRS states that it will also apply its position for tax years subsequent to 2010, which, if the IRS prevails in its position, could result in an additional federal tax liability of an estimated, aggregate amount of up to approximately $5.0 billion in excess of the amounts in our originally filed U.S. return, plus interest and any penalties asserted. We do not agree with the position of the IRS and have filed a petition in the Tax Court challenging the Notice. In March 2018, we received a second Notice from the IRS in conjunction with the examination of our 2011 through 2013 tax years. The IRS applied its position from the 2010 tax year to each of these years and also proposed new adjustments related to other transfer pricing with our foreign subsidiaries and certain tax credits that we claimed. If the IRS prevails in its position for these new adjustments, this could result in an additional federal tax liability of up to approximately $680 million in excess of the amounts in our originally filed U.S. return, plus interest and any penalties asserted. We do not agree with the positions of the IRS in the second Notice and have filed a petition in the Tax Court challenging the second Notice. We have previously accrued an estimated unrecognized tax benefit consistent with the guidance in ASC 740 that is lower than the potential additional federal tax liability from the positions taken by the IRS in the two Notices. In addition, if the IRS prevails in its positions related to transfer pricing with our foreign subsidiaries, the additional tax that we would owe would be partially offset by a reduction in the tax that we owe under the mandatory transition tax on accumulated foreign earnings from the 2017 Tax Cuts and Jobs Act (Tax Act). As of March 31, 2019, we have not resolved these matters and proceedings continue in the Tax Court. We believe that adequate amounts have been reserved in accordance with ASC 740 for any adjustments to the provision for income taxes or other tax items that may ultimately result from these examinations. The timing of the

resolution, settlement, and closure of any audits is highly uncertain, and it is reasonably possible that the balance of gross unrecognized tax benefits could significantly change in the next 12 months. Given the number of years remaining that are subject to examination, we are unable to estimate the full range of possible adjustments to the balance of gross unrecognized tax benefits. If the taxing authorities prevail in the assessment of additional tax due, the assessed tax, interest, and penalties, if any, could have a material adverse impact on our financial position, results of operations, and cash flows.

Note 13. Geographical Information

The following table sets forth our long-lived assets by geographic area, which consist of property and equipment, net and operating lease right-of-use assets, net (in millions):

	March 31, 2019	December 31, 2018
Long-lived assets:		
United States	$ 26,474	$ 18,950
Rest of the world[(1)]	7,618	5,733
Total long-lived assets	$ 34,092	$ 24,683

(1) No individual country, other than disclosed above, exceeded 10% of our total long-lived assets for any period presented.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion of our financial condition and results of operations in conjunction with our condensed consolidated financial statements and the related notes included elsewhere in this Quarterly Report on Form 10-Q and with our audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the Securities and Exchange Commission. In addition to our historical condensed consolidated financial information, the following discussion contains forward-looking statements that reflect our plans, estimates, and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this Quarterly Report on Form 10-Q, particularly in Part II, Item 1A, "Risk Factors." For a discussion of limitations in the measurement of certain of our user metrics, see the section entitled "Limitations of Key Metrics and Other Data" in this Quarterly Report on Form 10-Q.

Certain revenue information in the section entitled "—Three Months Ended March 31, 2019 and 2018—Revenue—Foreign Exchange Impact on Revenue" is presented on a constant currency basis. This information is a non-GAAP financial measure. To calculate revenue on a constant currency basis, we translated revenue for the three months ended March 31, 2019 using the prior year's monthly exchange rates for our settlement or billing currencies other than the U.S. dollar. This non-GAAP financial measure is not intended to be considered in isolation or as a substitute for, or superior to, financial information prepared and presented in accordance with GAAP. This measure may be different from non-GAAP financial measures used by other companies, limiting its usefulness for comparison purposes. Moreover, presentation of revenue on a constant currency basis is provided for year-over-year comparison purposes, and investors should be cautioned that the effect of changing foreign currency exchange rates has an actual effect on our operating results. We believe this non-GAAP financial measure provides investors with useful supplemental information about the financial performance of our business, enables comparison of financial results between periods where certain items may vary independent of business performance, and allows for greater transparency with respect to key metrics used by management in operating our business.

Executive Overview of First Quarter Results

Our key user metrics and financial results for the first quarter of 2019 are as follows:

User growth:

- Daily active users (DAUs) were 1.56 billion on average for March 2019, an increase of 8% year-over-year.
- Monthly active users (MAUs) were 2.38 billion as of March 31, 2019, an increase of 8% year-over-year.

Financial results:

- Revenue was $15.08 billion, up 26% year-over-year, and ad revenue was $14.91 billion, up 26% year-over-year.
- Total costs and expenses were $11.76 billion.
- Income from operations was $3.32 billion.
- Net income was $2.43 billion with diluted earnings per share of $0.85.
- Capital expenditures, including principal payments on finance leases, were $3.96 billion.
- Effective tax rate was 30%.
- Cash and cash equivalents and marketable securities were $45.24 billion as of March 31, 2019.
- Headcount was 37,773 as of March 31, 2019, an increase of 36% year-over-year.

In the first quarter of 2019, we reasonably estimated a probable loss and recorded an accrual of $3.0 billion in connection with the inquiry of the U.S. Federal Trade Commission (FTC) into our platform and user data practices, which accrual is included in accrued expenses and other current liabilities on our condensed consolidated balance sheet. We estimate that the range of loss in this matter is $3.0 billion to $5.0 billion. The matter remains unresolved, and there can be no assurance as to the timing or the terms of any final outcome.

In the first quarter of 2019, we also continued to focus on our main revenue growth priorities: (i) helping marketers use our products to connect with consumers where they are and (ii) making our ads more relevant and effective.

We continued to invest, based on our roadmap, in: (i) our most developed ecosystems, Facebook and Instagram, (ii) driving growth and building ecosystems around our products that already have significant user bases, such as Messenger and WhatsApp, as well as continuing to grow features like Stories, and (iii) long-term technology initiatives, such as connectivity, artificial intelligence, and augmented and virtual reality, that we believe will further our mission to give people the power to build community and bring the world closer together. We intend to continue

to invest based on this roadmap and we anticipate that additional investments in the following areas will continue to drive significant year-over-year expense growth in 2019: (i) expanding our data center capacity, network infrastructure, and office facilities as well as scaling our headcount to support our growth, and (ii) investments in safety and security, marketing, video content, and our long-term technology initiatives. Expense growth exceeded revenue growth in the first quarter of 2019, which we anticipate will continue in the remainder of 2019.

Trends in Our User Metrics

The numbers for our key metrics, our DAUs, MAUs, and average revenue per user (ARPU), do not include Instagram, WhatsApp, or Oculus users unless they would otherwise qualify as such users, respectively, based on their other activities on Facebook. In addition, other user engagement metrics do not include Instagram, WhatsApp, or Oculus unless otherwise specifically stated.

Trends in the number of users affect our revenue and financial results by influencing the number of ads we are able to show, the value of our ads to marketers, the volume of Payments transactions, as well as our expenses and capital expenditures. Substantially all of our daily and monthly active users (as defined below) access Facebook on mobile devices.

- Daily Active Users (DAUs). We define a daily active user as a registered Facebook user who logged in and visited Facebook through our website or a mobile device, or used our Messenger application (and is also a registered Facebook user), on a given day. We view DAUs, and DAUs as a percentage of MAUs, as measures of user engagement on Facebook.

Note: For purposes of reporting DAUs, MAUs, and ARPU by geographic region, Europe includes all users in Russia and Turkey and Rest of World includes all users in Africa, Latin America, and the Middle East.

Worldwide DAUs increased 8% to 1.56 billion on average during March 2019 from 1.45 billion during March 2018. Users in India, Indonesia, and the Philippines represented key sources of growth in DAUs during March 2019, relative to the same period in 2018.

- Monthly Active Users (MAUs). We define a monthly active user as a registered Facebook user who logged in and visited Facebook through our website or a mobile device, or used our Messenger application (and is also a registered Facebook user), in the last 30 days as of the date of measurement. MAUs are a measure of the size of our global active user community on Facebook.

As of March 31, 2019, we had 2.38 billion MAUs, an increase of 8% from March 31, 2018. Users in India, Indonesia, and the Philippines represented key sources of growth in the first quarter of 2019, relative to the same period in 2018.

Trends in Our Monetization by User Geography

We calculate our revenue by user geography based on our estimate of the geography in which ad impressions are delivered, virtual and digital goods are purchased, or consumer hardware devices are shipped. We define ARPU as our total revenue in a given geography during a given quarter, divided by the average of the number of MAUs in the geography at the beginning and end of the quarter. While ARPU includes all sources of revenue, the number of MAUs used in this calculation only includes users of Facebook and Messenger as described in the definition of MAU above. Revenue from users who are not also Facebook or Messenger MAUs was not material. The geography of our users affects our revenue and financial results because we currently monetize users in different geographies at different average rates. Our revenue and ARPU in regions such as United States & Canada and Europe are relatively higher primarily due to the size and maturity of those online and mobile advertising markets. For example, ARPU in the first quarter of 2019 in the United States & Canada region was more than ten times higher than in the Asia-Pacific region.

Note: Our revenue by user geography in the charts above is geographically apportioned based on our estimation of the geographic location of our users when they perform a revenue-generating activity. This allocation differs from our revenue disaggregated by geography disclosure in our condensed consolidated financial statements where revenue is geographically apportioned based on the location of the customer.

During the first quarter of 2019, worldwide ARPU was $6.42, an increase of 16% from the first quarter of 2018. Over this period, ARPU increased by 28% in United States & Canada, 18% in Europe, and 13% in both Asia-Pacific and Rest of World. In addition, user growth was more rapid in geographies with relatively lower ARPU, such as Asia-Pacific and Rest of World. We expect that user growth in the future will be primarily concentrated in those regions where ARPU is relatively lower, such that worldwide ARPU may continue to increase at a slower rate relative to ARPU in any geographic region, or potentially decrease even if ARPU increases in each geographic region.

Components of Results of Operations

Revenue

Advertising. We generate substantially all of our revenue from advertising. Our advertising revenue is generated by displaying ad products on Facebook, Instagram, Messenger, and third-party affiliated websites or mobile applications. Marketers pay for ad products either directly or through their relationships with advertising agencies or resellers, based on the number of impressions delivered or the number of actions, such as clicks, taken by users.

We recognize revenue from the display of impression-based ads in the contracted period in which the impressions are delivered. Impressions are considered delivered when an ad is displayed to a user. We recognize revenue from the delivery of action-based ads in the period in which a user takes the action the marketer contracted for. The number of ads we show is subject to methodological changes as we continue to evolve our ads business and the structure of our ads products. We calculate price per ad as total ad revenue divided by the number of ads delivered, representing the effective price paid per impression by a marketer regardless of their desired objective such as impression or action. For advertising revenue arrangements where we are not the principal, we recognize revenue on a net basis.

Payments and other fees. Payments revenue is comprised of the net fee we receive from developers using our Payments infrastructure. Our other fees revenue consists primarily of revenue from the delivery of consumer hardware devices, as well as revenue from various other sources.

Cost of Revenue and Operating Expenses

Cost of revenue. Our cost of revenue consists primarily of expenses associated with the delivery and distribution of our products. These include expenses related to the operation of our data centers, such as facility and server equipment depreciation, salaries, benefits, and share-based compensation for employees on our operations teams, and energy and bandwidth costs. Cost of revenue also includes costs associated with partner arrangements, including traffic acquisition and content acquisition costs, credit card and other transaction fees related to processing customer transactions, and cost of consumer hardware device inventory sold.

Research and development. Research and development expenses consist primarily of share-based compensation, salaries, and benefits, and facilities-related costs for employees on our engineering and technical teams who are responsible for building new products as well as improving existing products. We expense all of our research and development costs as they are incurred.

Marketing and sales. Our marketing and sales expenses consist of salaries, share-based compensation, and benefits for our employees engaged in sales, sales support, marketing, business development, and customer service functions. Our marketing and sales expenses also include marketing and promotional expenditures and professional services such as content reviewers.

General and administrative. General and administrative expenses consist of legal-related costs; salaries, benefits, and share-based compensation for certain of our executives as well as our legal, finance, human resources, corporate communications and policy, and other administrative employees; and professional services.

Results of Operations

The following tables set forth our condensed consolidated statements of income data:

	Three Months Ended March 31,	
	2019	2018
	(in millions)	
Revenue	$15,077	$11,966
Costs and expenses:		
Cost of revenue	2,816	1,927
Research and development	2,860	2,238
Marketing and sales	2,020	1,595
General and administrative	4,064	757
Total costs and expenses	11,760	6,517
Income from operations	3,317	5,449
Interest and other income, net	165	161
Income before provision for income taxes	3,482	5,610
Provision for income taxes	1,053	622
Net income	$2,429	$4,988

Share-based compensation expense included in costs and expenses:

	Three Months Ended March 31,	
	2019	2018
	(in millions)	
Cost of revenue	$87	$56
Research and development	723	718
Marketing and sales	113	109
General and administrative	87	72
Total share-based compensation expense	$1,010	$955

The following tables set forth our condensed consolidated statements of income data (as a percentage of revenue):

	Three Months Ended March 31,	
	2019	2018
Revenue	100%	100%
Costs and expenses:		
Cost of revenue	19	16
Research and development	19	19
Marketing and sales	13	13
General and administrative	27	6
Total costs and expenses	78	54
Income from operations	22	46
Interest and other income, net	1	1
Income before provision for income taxes	23	47
Provision for income taxes	7	5
Net income	16 %	42 %

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Share-based compensation expense included in costs and expenses (as a percentage of revenue):

	Three Months Ended March 31,	
	2019	2018
Cost of revenue	1%	—%
Research and development	5	6
Marketing and sales	1	1
General and administrative	1	1
Total share-based compensation expense	7%	8 %

Three Months Ended March 31, 2019 and 2018

Revenue

	Three Months Ended March 31,		
	2019	2018	% change
	(in millions, except for percentages)		
Advertising	$14,912	$11,795	26 %
Payments and other fees	165	171	(4)%
Total revenue	$15,077	$11,966	26 %

Revenue in the first quarter of 2019 increased $3.11 billion, or 26%, compared to the same period in 2018. The increase was due to an increase in advertising revenue.

The most important factor driving advertising revenue growth was an increase in revenue from ads on mobile devices. For the first quarter of 2019, we estimate that mobile advertising revenue represented approximately 93% of total advertising revenue, as compared with approximately 91% in the same period in 2018. The increase in advertising revenue for the first quarter of 2019 was due to an increase in the number of ads delivered, partially offset by a slight decrease in the average price per ad.

During the first quarter of 2019, the number of ads delivered increased by 32%, as compared with approximately 8% in the same period in 2018. The increase in the ads delivered was driven by an increase in users and their engagement, and an increase in the number and frequency of ads displayed across our products. The average price per ad decreased by 4% in the first quarter of 2019, as compared with an increase of approximately 39% in the same period in 2018. The decrease in average price per ad reflects an increasing proportion of the number of ads delivered as Stories ads and in geographies that monetize at lower rates. We anticipate that future advertising revenue growth will be determined by a combination of price and the number of ads delivered.

Foreign Exchange Impact on Revenue

The general strengthening of the U.S. dollar relative to certain foreign currencies in the first quarter of 2019 compared to the same period in 2018 had an unfavorable impact on revenue. If we had translated revenue for the first quarter ended March 31, 2019 using the prior year's monthly exchange rates for our settlement or billing currencies other than the U.S. dollar, our total revenue and advertising revenue would have been $15.58 billion and $15.42 billion, respectively. Using these constant rates, both revenue and advertising revenue would each have been $503 million higher than actual revenue and advertising revenue, respectively, for the first quarter of 2019.

Cost of revenue

	Three Months Ended March 31,		
	2019	2018	% change

	(in millions, except for percentages)			
Cost of revenue	$2,816	$1,927	46	%
Percentage of revenue	19	% 16	%	

Cost of revenue in the first quarter of 2019 increased $889 million, or 46%, compared to the same period in 2018. The increase was mostly due to an increase in operational expenses related to our data centers and technical infrastructure and higher costs associated with partnership agreements, including content and traffic acquisition costs.

Research and development

	Three Months Ended March 31,		
	2019	2018	% change
	(in millions, except for percentages)		
Research and development	$2,860	$2,238	28 %
Percentage of revenue	19 %	19 %	

Research and development expenses in the first quarter of 2019 increased $622 million, or 28%, compared to the same period in 2018. The increase was primarily due to increases in payroll and benefits expense and facilities-related costs as a result of a 36% growth in employee headcount from March 31, 2018 to March 31, 2019 in engineering and other technical functions.

Marketing and sales

	Three Months Ended March 31,		
	2019	2018	% change
	(in millions, except for percentages)		
Marketing and sales	$2,020	$1,595	27 %
Percentage of revenue	13 %	13 %	

Marketing and sales expenses in the first quarter of 2019 increased $425 million, or 27%, compared to the same period in 2018. The increase was mostly driven by community operations and payroll and benefits expenses. Our payroll and benefits expenses increased as a result of a 32% increase in employee headcount from March 31, 2018 to March 31, 2019 in our marketing and sales functions.

General and administrative

	Three Months Ended March 31,		
	2019	2018	% change
	(in millions, except for percentages)		
Legal accrual related to FTC inquiry	$3,000	$—	NM
Other general and administrative	1,064	757	41 %
General and administrative	$4,064	$757	NM
Percentage of revenue	27 %	6 %	

General and administrative expenses in the first quarter of 2019 increased $3.31 billion compared to the same period in 2018. The increase was mostly due to a $3.0 billion legal accrual related to the ongoing FTC matter recorded in the first quarter of 2019. In addition, payroll and benefits expenses increased as a result of a 33% increase in employee headcount from March 31, 2018 to March 31, 2019 in general and administrative functions.

Interest and other income (expense), net

	Three Months Ended March 31,		
	2019	2018	% change
	(in millions, except for percentages)		

Interest income, net	$198	$145	37	%
Other income (expense), net	(33)	16	NM	
Interest and other income, net	$165	$161	2	%

Interest and other income, net in the first quarter of 2019 increased $4 million compared to the same period in 2018. The increase was due to an increase in interest income driven by higher interest rates, partially offset by a foreign exchange loss in 2019 as compared to a foreign exchange gain in 2018 as a result of the periodic re-measurement of our foreign currency balances.

Provision for income taxes

	Three Months Ended March 31,		
	2019	2018	% change
	(in millions, except for percentages)		
Provision for income taxes	$1,053	$622	69 %
Effective tax rate	30 %	11 %	

Our provision for income taxes in the first quarter of 2019 increased $431 million, or 69%, compared to the same period in 2018, a majority of which is due to a decrease in excess tax benefits from share-based compensation and an increase in income prior to the effect of the $3.0 billion legal accrual related to the ongoing FTC matter that is not expected to be tax-deductible.

Our effective tax rates in the first quarter of 2019 increased compared to same period in 2018, mostly due to the legal accrual related to the ongoing FTC matter that is not expected to be tax-deductible and a decrease in excess tax benefits from share-based compensation.

Effective Tax Rate Items. Our effective tax rate in the future will depend upon the proportion of our income before provision for income taxes earned in the United States and in jurisdictions with a tax rate lower than the U.S. statutory rate, as well as a number of other factors, including excess tax benefits from share-based compensation, tax effects of integrating intellectual property from acquisitions, settlement of tax contingency items, tax effects of changes in our business, and the impact of changes in tax law.

The proportion of our income before provision for income taxes earned in jurisdictions with a tax rate lower than the U.S. statutory rate will depend upon the proportion of revenue and costs associated with the respective jurisdictions.

The accounting for share-based compensation will increase or decrease our effective tax rate based upon the difference between our share-based compensation expense and the deductions taken on our tax return which depends upon the stock price at the time of employee award vesting. If our stock price remains constant to the April 22, 2019 price, we expect our effective tax rate for the remaining quarters of the year to be in the mid-teens.

Integrating intellectual property from acquisitions into our business generally involves intercompany transactions that have the impact of increasing our provision for income taxes. Consequently, our provision for income taxes and our effective tax rate may initially increase in the period of an acquisition and integration. The magnitude of this impact will depend upon the specific type, size, and taxing jurisdictions of the intellectual property as well as the relative contribution to income in subsequent periods.

On July 27, 2015, the United States Tax Court (Tax Court) issued an opinion in Altera Corp. v. Commissioner (Tax Court Opinion), which concluded that related parties in a cost sharing arrangement are not required to share expenses related to share-based compensation. The Tax Court Opinion was appealed by the Commissioner to the Ninth Circuit Court of Appeals (Ninth Circuit). On July 24, 2018, the Ninth Circuit issued an opinion (Ninth Circuit Opinion) that reversed the Tax Court Opinion. The Ninth Circuit Opinion was subsequently withdrawn and the case is in the process of being reheard. Since the Ninth Circuit Opinion was withdrawn, we continue to treat our share-based compensation expense in accordance with the Tax Court Opinion. We also continue to monitor developments in this case and any impact the final opinion could have on our consolidated financial statements. Had the Ninth Circuit not withdrawn its opinion, our effective tax rate for 2019 would have been higher.

Unrecognized Tax Benefits. As of March 31, 2019, we had net unrecognized tax benefits of $3.23 billion which were accrued as other liabilities. These unrecognized tax benefits were predominantly accrued for uncertainties related to transfer pricing with our foreign subsidiaries, which includes licensing of intellectual property, providing services and other transactions, as well as for uncertainties with our research tax credits. The ultimate settlement of the liabilities will depend upon resolution of tax audits, litigation, or events that would otherwise change the assessment of such items. Based upon the status of litigation described below, the current status of tax audits in various jurisdictions, and excluding the effects of the Altera Corp. v. Commissioner case that we are monitoring, we do not anticipate a significant impact to such amounts within the next 12 months.

In July 2016, we received a Statutory Notice of Deficiency (Notice) from the IRS related to transfer pricing with our foreign subsidiaries in conjunction with the examination of the 2010 tax year. While the Notice applies only to the 2010 tax year, the IRS states that it will also apply its position for tax years subsequent to 2010, which, if the IRS prevails in its position, could result in an additional federal tax liability of an estimated, aggregate amount of up to approximately $5.0 billion in excess of the amounts in our originally filed U.S. return, plus interest and any penalties asserted. We do not agree with the position of the IRS and have filed a petition in the Tax Court challenging the Notice. In March 2018, we received a second Notice from the IRS in conjunction with the examination of our 2011 through 2013 tax years. The IRS applied its position from the 2010 tax year to each of these years and also proposed new adjustments related to other transfer pricing with our foreign subsidiaries and certain tax credits that we claimed. If the IRS prevails in its position for these new adjustments, this could result in an additional federal tax liability of up to approximately $680 million in excess of the amounts in our originally filed U.S. return, plus interest and any penalties asserted. We do not agree with the positions of the IRS in the second Notice and have filed a petition in the Tax Court challenging the second Notice. We have previously accrued an estimated unrecognized tax benefit consistent with the guidance in ASC 740 that is lower than the potential additional federal tax liability from the positions taken by the IRS in the two Notices. In addition, if the IRS prevails in its positions, related to transfer pricing with our foreign subsidiaries, the additional tax that we would owe would be partially offset by a reduction in the tax that we owe under the mandatory transition tax on accumulated foreign earnings from the 2017 Tax Cuts and Jobs Act (Tax Act). As of March 31, 2019, we have not resolved these matters, and proceedings continue in Tax Court.

We believe that adequate amounts have been reserved in accordance with ASC 740 for any adjustments to the provision for income taxes or other tax items that may ultimately result from these examinations. The timing of the resolution, settlement, and closure of any audits is highly uncertain, and it is reasonably possible that the balance of gross unrecognized tax benefits could significantly change in the next 12 months. Given the number of years remaining that are subject to examination in various jurisdictions, we are unable to estimate the full range of possible adjustments to the balance of gross unrecognized tax benefits. If the taxing authorities prevail in the assessment of additional tax due, the assessed tax, interest, and penalties, if any, could have a material adverse effect on our financial position, results of operations, and cash flows.

Liquidity and Capital Resources

Our principal sources of liquidity are our cash and cash equivalents, marketable securities, and cash generated from operations. Cash and cash equivalents, and marketable securities consist mostly of cash on deposit with banks, investments in money market funds, and investments in U.S. government securities, U.S. government agency securities, and corporate debt securities. Cash and cash equivalents, and marketable securities were $45.24 billion as of March 31, 2019, an increase of $4.13 billion from December 31, 2018, mostly due to $9.31 billion of cash generated from operations, offset by $3.96 billion for capital expenditures, including principal payments on finance leases, $613 million for repurchases of our Class A common stock, $512 million of taxes paid related to net share settlement of equity awards, and a $177 million decrease in overdraft in cash pooling entities.

Cash paid for income taxes was $682 million for the first quarter of 2019. As of March 31, 2019, our federal net operating loss carryforward was $8.07 billion, and we anticipate that none of this amount will be utilized to offset our federal taxable income in 2019. As of March 31, 2019, we had $292 million of federal tax credit carryforward, of which none will be available to offset our federal tax liabilities in 2019. In addition, we are monitoring the Altera Corp. v. Commissioner case as it applies to our facts and circumstances as it could increase our cash paid for income taxes.

In May 2016, we entered into a $2.0 billion senior unsecured revolving credit facility, and any amounts outstanding under the facility will be due and payable on May 20, 2021. As of March 31, 2019, no amounts had been drawn down and we were in compliance with the covenants under this credit facility.

Our board of directors has authorized a share repurchase program that commenced in 2017 and does not have an expiration date. In December 2018, our board of directors authorized an additional $9.0 billion of repurchases under this program. During the three months ended March 31, 2019, we repurchased and subsequently retired approximately 3.1 million shares of our Class A common stock for an aggregate amount of $521 million. As of March 31, 2019, approximately $8.5 billion remained available and authorized for repurchases.

In the first quarter of 2019, we paid $512 million of taxes related to the net share settlement of equity awards.

As of March 31, 2019, $13.95 billion of the $45.24 billion in cash and cash equivalents and marketable securities was held by our foreign subsidiaries. The Tax Act imposed a mandatory transition tax on accumulated foreign earnings and eliminated U.S. taxes on foreign subsidiary distributions. As a result, earnings in foreign jurisdictions are available for distribution to the U.S. without incremental U.S. taxes.

We currently anticipate that our available funds, credit facility, and cash flow from operations will be sufficient to meet our operational cash needs for the foreseeable future.

Cash Provided by Operating Activities

Cash flow from operating activities during the first quarter of 2019 primarily consisted of income prior to the effect of the $3.0 billion legal accrual related to the ongoing FTC matter, adjusted for certain non-cash items, such as total depreciation and amortization of $1.36 billion and share-based compensation expense of $1.01 billion. The majority of the increase in cash flow from operating activities during the first quarter of 2019, compared to the same period in 2018, was due to an increase in income prior to the effect of the $3.0 billion legal accrual related to the ongoing FTC matter, adjusted for certain non-cash items, such as depreciation and amortization and deferred income tax.

Cash Used in Investing Activities

Cash used in investing activities for the first quarter of 2019 mostly resulted from $3.84 billion of net purchases of property and equipment as we continued to invest in data centers, servers, office buildings, and network infrastructure, and $2.88 billion of net purchases of marketable securities. The increase in cash used in investing activities during the first quarter of 2019, compared to the same period in 2018, was mostly due to increases in the net purchases of marketable securities and property and equipment.

We anticipate making capital expenditures in 2019 of approximately $17 billion to $19 billion.

Cash Used in Financing Activities

Cash used in financing activities during the first quarter of 2019 mostly consisted of $613 million for repurchases of our Class A common stock, $512 million of taxes paid related to net share settlement of equity awards, and a $177 million decrease in overdraft in cash pooling entities. The decrease in cash used in financing activities during the first quarter of 2019, compared to the same period in 2018, was mostly due to a decrease in repurchases of our Class A common stock.

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Off-Balance Sheet Arrangements

We did not have any off-balance sheet arrangements as of March 31, 2019.

Contractual Obligations

Our principal commitments consist mostly of obligations under operating leases, which include among others, certain of our offices, data centers, land, and colocation leases, as well as contractual commitments related to network infrastructure and data center operations. The following table summarizes our commitments to settle contractual obligations in cash as of March 31, 2019 (in millions):

		Payment Due by Period			
	Total	The remainder of 2019	2020-2021	2022-2023	Thereafter
Operating lease obligations, including imputed interest[1]	$15,402	$623	$ 2,228	$ 2,238	$ 10,313
Finance lease obligations, including imputed interest[1]	862	199	151	75	437
Transition tax payable	1,587	—	—	324	1,263
Other contractual commitments[2]	4,835	2,609	1,095	179	952
Total contractual obligations	$22,686	$3,431	$ 3,474	$ 2,816	$ 12,965

(1) Includes variable lease payments that were fixed subsequent to lease commencement or modification.

(2) Other contractual commitments primarily relate to network infrastructure and our data center operations.

As part of the normal course of the business, we may enter into multi-year agreements to purchase certain network components that do not specify a fixed or minimum price commitment or to purchase renewable energy that do not specify a fixed or minimum volume commitment. These agreements are generally entered into in order to secure either volume or price. Using projected market prices or expected volume consumption, the total estimated spend is approximately $5.06 billion. The ultimate spend under these agreements may vary and will be based on prevailing market prices or actual volume purchased.

In addition, our other liabilities also include $3.23 billion related to net uncertain tax positions as of March 31, 2019. Due to uncertainties in the timing of the completion of tax audits, the timing of the resolution of these positions is uncertain and we are unable to make a reasonably reliable estimate of the timing of payments in individual years beyond 12 months. As a result, this amount is not included in the above contractual obligations table.

Contingencies

We are involved in legal proceedings, claims, and regulatory, tax or government inquiries and investigations. We record a provision for a liability when we believe that it is both probable that a liability has been incurred, and that 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 possible loss in the accompanying notes to the consolidated financial statements. Significant judgment is required to determine both probability and the estimated amount of loss. Such matters are inherently unpredictable and subject to significant uncertainties, some of which are beyond our control. Should any of these estimates and assumptions change or prove to be incorrect, it could have a material impact on our results of operations, financial position, and cash flows.

See Note 10 — Commitments and Contingencies and Note 12 — Income Taxes in the notes to the condensed consolidated financial statements included in Part I, Item 1, and "Legal Proceedings" contained in Part II, Item 1 of this Quarterly Report on Form 10-Q for additional information regarding contingencies.

Critical Accounting Policies and Estimates

Our condensed consolidated financial statements are prepared in accordance with GAAP. The preparation of these condensed consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses, and related disclosures. These estimates form the basis for judgments we make about the carrying values of our assets and liabilities, which are not readily apparent from other sources. We base our estimates and judgments on historical experience and on various other assumptions that we believe are reasonable under the circumstances. On an ongoing basis, we evaluate our estimates and assumptions. Our actual results may differ from these estimates under different assumptions or conditions.

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An accounting policy is deemed to be critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made, if different estimates reasonably could have been used, or if changes in the estimate that are reasonably possible could materially impact the financial statements. We believe that the assumptions and estimates associated with income taxes, loss contingencies, and business combinations and valuation of goodwill and other acquired intangible assets have the greatest potential impact on our condensed consolidated financial statements. Therefore, we consider these to be our critical accounting policies and estimates.

There have been no material changes to our critical accounting policies and estimates as compared to the critical accounting policies and estimates described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018.

On January 1, 2019, we adopted Accounting Standards Update No. 2016-02, Leases (Topic 842) (ASU 2016-02), as amended, which supersedes the lease accounting guidance under Topic 840, and generally requires lessees to recognize operating and financing lease liabilities and corresponding right-of-use (ROU) assets on the balance sheet and to provide enhanced disclosures surrounding the amount, timing and uncertainty of cash flows arising from leasing arrangements. We adopted the new guidance using the modified retrospective transition approach by applying the new standard to all leases existing at the date of initial application and not restating comparative periods. The most significant impact was the recognition of ROU assets and lease liabilities for operating leases, while our accounting for finance leases remained substantially unchanged. See Note 1 — Summary of Significant Accounting Policies and Note 7 — Leases in the notes to the condensed consolidated financial statements included in Part I, Item 1, of this Quarterly Report on Form 10-Q for additional information regarding the adoption.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risks, including changes to foreign currency exchange rates, interest rates, and inflation.

Foreign Currency Exchange Risk

We have foreign currency risks related to our revenue and operating expenses denominated in currencies other than the U.S. dollar, primarily the Euro. In general, we are a net receiver of currencies other than the U.S. dollar. Accordingly, changes in exchange rates, and in particular a strengthening of the U.S. dollar, have in the past, and may in the future, negatively affect our revenue and other operating results as expressed in U.S. dollars.

We have experienced and will continue to experience fluctuations in our net income as a result of transaction gains or losses related to revaluing certain current asset and current liability balances that are denominated in currencies other than the functional currency of the entities in which they are recorded. At this time, we have not entered into, but in the future we may enter into, derivatives or other financial instruments in an attempt to hedge our foreign currency exchange risk. It is difficult to predict the effect hedging activities would have on our results of operations. Foreign currency losses and gains recognized in the three months ended March 31, 2019 and 2018 were not material.

Interest Rate Sensitivity

Our exposure to changes in interest rates relates primarily to interest earned and market value on our cash and cash equivalents, and marketable securities.

Our cash and cash equivalents and marketable securities consist of cash, certificates of deposit, time deposits, money market funds, U.S. government securities, U.S. government agency securities, and corporate debt securities. Our investment policy and strategy are focused on preservation of capital and supporting our liquidity requirements. Changes in U.S. interest rates affect the interest earned on our cash and cash equivalents and marketable securities, and the market value of those securities. A hypothetical 100 basis point increase in interest rates would have resulted in a decrease of $484 million and $468 million in the market value of our available-for-sale debt securities as of March 31, 2019 and December 31, 2018, respectively. Any realized gains or losses resulting from such interest rate changes would only occur if we sold the investments prior to maturity.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our chief executive officer (CEO) and chief financial officer (CFO), has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a- 15(e) and 15d- 15(e) under the Securities Exchange Act of 1934, as amended (Exchange Act)), as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on such evaluation, our CEO and CFO have concluded that as of March 31, 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 rules and forms of the Securities and Exchange Commission (SEC), and that such information is accumulated and communicated to our management, including our CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control

There were no changes in our internal control over financial reporting identified in management's evaluation pursuant to Rules 13a-15(d) or 15d-15(d) of the Exchange Act during the period covered by this Quarterly Report on Form 10-Q that 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 and internal control over financial reporting, 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 and internal control over financial reporting must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings

Beginning on March 20, 2018, multiple putative class actions and derivative actions were filed in state and federal courts in the United States and elsewhere against us and certain of our directors and officers alleging violations of securities laws, breach of fiduciary duties, and other causes of action in connection with our platform and user data practices as well as the misuse of certain data by a developer that shared such data with third parties in violation of our terms and policies, and seeking unspecified damages and injunctive relief. Beginning on July 27, 2018, two putative class actions were filed in federal court in the United States against us and certain of our directors and officers alleging violations of securities laws in connection with the disclosure of our earnings results for the second quarter of 2018 and seeking unspecified damages. These two actions subsequently were transferred and consolidated in the U.S. District Court for the Northern District of California with the putative securities class action described above relating to our platform and user data practices. We believe these lawsuits are without merit, and we are vigorously defending them. In addition, our platform and user data practices, as well as the events surrounding the misuse of certain data by a developer, became the subject of U.S. Federal Trade Commission, Securities and Exchange Commission, state attorneys general, and other government inquiries in the United States, Europe, and other jurisdictions. Any such inquiries could subject us to substantial fines and costs, require us to change our business practices, divert resources and the attention of management from our business, or adversely affect our business.

Beginning on September 28, 2018, multiple putative class actions were filed in state and federal courts in the United States and elsewhere against us alleging violations of consumer protection laws and other causes of action in connection with a third-party cyber-attack that exploited a vulnerability in Facebook's code to steal user access tokens and access certain profile information from user accounts on Facebook, and seeking unspecified damages and injunctive relief. We believe these lawsuits are without merit, and we are vigorously defending them. In addition, the events surrounding this cyber-attack became the subject of Irish Data Protection Commission and other government inquiries. Any such inquiries could subject us to substantial fines and costs, require us to change our business practices, divert resources and the attention of management from our business, or adversely affect our business.

In addition, from time to time, we are subject to litigation and other proceedings involving law enforcement and other regulatory agencies, including in particular in Brazil and Europe, in order to ascertain the precise scope of our legal obligations to comply with the requests of those agencies, including our obligation to disclose user information in particular circumstances. A number of such instances have resulted in the assessment of fines and penalties against us. We believe we have multiple legal grounds to satisfy these requests or prevail against associated fines and penalties, and we intend to vigorously defend such fines and penalties.

We are also party to various other legal proceedings, claims, and regulatory, tax or government inquiries and investigations that arise in the ordinary course of business, and we may in the future be subject to additional legal proceedings and disputes.

Item 1A. Risk Factors

Certain factors may have a material adverse effect on our business, financial condition, and results of operations. You should consider carefully the risks and uncertainties described below, in addition to other information contained in this Quarterly Report on Form 10-Q, including our condensed consolidated financial statements and related notes. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that adversely affect our business. If any of the following risks actually occurs, our business, financial condition, results of operations, and future prospects could be materially and adversely affected. In that event, the trading price of our Class A common stock could decline, and you could lose part or all of your investment.

Risks Related to Our Business and Industry

If we fail to retain existing users or add new users, or if our users decrease their level of engagement with our products, our revenue, financial results, and business may be significantly harmed.

The size of our user base and our users' level of engagement are critical to our success. Our financial performance has been and will continue to be significantly determined by our success in adding, retaining, and engaging active users of our products, particularly for Facebook and Instagram. We anticipate that our active user growth rate will generally decline over time as the size of our active user base increases, and it is possible that the size of our active user base may fluctuate or decline in one or more markets, particularly in markets where we have achieved higher penetration rates. For example, in the fourth quarter of 2017, we experienced a slight decline on a quarter-over-quarter basis in the number of daily active users on Facebook in the United States & Canada region. If people do not perceive our products to be useful, reliable, and trustworthy, we may not be able to attract or retain users or otherwise maintain or increase the frequency and duration of their engagement. A number of other social networking companies that achieved early popularity have since seen their active user bases or levels of engagement decline, in some cases precipitously. There is no guarantee that we will not experience a similar erosion of our active user base or engagement levels. Our user engagement patterns have changed over time, and user engagement can be difficult to measure, particularly as we introduce new and different products and services. Any number of factors could potentially negatively affect user retention, growth, and engagement, including if:

- users increasingly engage with other competitive products or services;
- we fail to introduce new features, products or services that users find engaging or if we introduce new products or services, or make changes to existing products and services, that are not favorably received;
- users feel that their experience is diminished as a result of the decisions we make with respect to the frequency, prominence, format, size, and quality of ads that we display;
- users have difficulty installing, updating, or otherwise accessing our products on mobile devices as a result of actions by us or third parties that we rely on to distribute our products and deliver our services;
- user behavior on any of our products changes, including decreases in the quality and frequency of content shared on our products and services;
- we are unable to continue to develop products for mobile devices that users find engaging, that work with a variety of mobile operating systems and networks, and that achieve a high level of market acceptance;
- there are decreases in user sentiment due to questions about the quality or usefulness of our products or our user data practices, or concerns related to privacy and sharing, safety, security, well-being, or other factors;
- we are unable to manage and prioritize information to ensure users are presented with content that is appropriate, interesting, useful, and relevant to them;
- we are unable to obtain or attract engaging third-party content;
- we are unable to successfully maintain or grow usage of and engagement with mobile and web applications that integrate with Facebook and our other products;
- users adopt new technologies where our products may be displaced in favor of other products or services, or may not be featured or otherwise available;
- there are changes mandated by legislation, regulatory authorities, or litigation that adversely affect our products or users;

- there is decreased engagement with our products, or failure to accept our terms of service, as part of changes that we implemented in connection with the General Data Protection Regulation (GDPR) in Europe, other similar changes that we implemented in the United States and around the world, or other changes we have implemented or may implement in the future in connection with other regulations, regulatory actions or otherwise;
- technical or other problems prevent us from delivering our products in a rapid and reliable manner or otherwise affect the user experience, such as security breaches or failure to prevent or limit spam or similar content;
- we adopt terms, policies, or procedures related to areas such as sharing, content, user data, or advertising that are perceived negatively by our users or the general public;
- we elect to focus our product decisions on longer-term initiatives that do not prioritize near-term user growth and engagement;
- we make changes in how we promote different products and services across our family of apps;
- initiatives designed to attract and retain users and engagement are unsuccessful or discontinued, whether as a result of actions by us, third parties, or otherwise;
- third-party initiatives that may enable greater use of our products, including low-cost or discounted data plans, are discontinued;
- there is decreased engagement with our products as a result of taxes imposed on the use of social media or other mobile applications in certain countries, or other actions by governments that may affect the accessibility of our products in their countries;
- we fail to provide adequate customer service to users, marketers, developers, or other partners;
- we, developers whose products are integrated with our products, or other partners and companies in our industry are the subject of adverse media reports or other negative publicity, including as a result of our or their user data practices; or
- our current or future products, such as our development tools and application programming interfaces that enable developers to build, grow, and monetize mobile and web applications, reduce user activity on our products by making it easier for our users to interact and share on third-party mobile and web applications.

If we are unable to maintain or increase our user base and user engagement, our revenue and financial results may be adversely affected. Any decrease in user retention, growth, or engagement could render our products less attractive to users, marketers, and developers, which is likely to have a material and adverse impact on our revenue, business, financial condition, and results of operations. If our active user growth rate continues to slow, we will become increasingly dependent on our ability to maintain or increase levels of user engagement and monetization in order to drive revenue growth.

We generate substantially all of our revenue from advertising. The loss of marketers, or reduction in spending by marketers, could seriously harm our business.

Substantially all of our revenue is currently generated from third parties advertising on Facebook and Instagram. As is common in the industry, our marketers do not have long-term advertising commitments with us. Many of our marketers spend only a relatively small portion of their overall advertising budget with us. Marketers will not continue to do business with us, or they will reduce the budgets they are willing to commit to us, if we do not deliver ads in an effective manner, or if they do not believe that their investment in advertising with us will generate a competitive return relative to other alternatives. We have recently implemented, and we will continue to implement, changes to our user data practices. Some of these changes will reduce marketers' ability to effectively target their ads, which has to some extent adversely affected, and will continue to adversely affect, our advertising business. If we are unable to provide marketers with a suitable return on investment, the pricing of our ads may not increase, or may decline, in which case our revenue and financial results may be harmed.

Our advertising revenue could also be adversely affected by a number of other factors, including:

- decreases in user engagement, including time spent on our products;
- our inability to continue to increase user access to and engagement with our products;
- product changes or inventory management decisions we may make that change the size, format, frequency, or relative prominence of ads displayed on our products or of other unpaid content shared by marketers on our products;

- our inability to maintain or increase marketer demand, the pricing of our ads, or both;
- our inability to maintain or increase the quantity or quality of ads shown to users, including as a result of technical infrastructure constraints;
- user behavior or product changes that may reduce traffic to features or products that we successfully monetize, including as a result of our efforts to promote the Stories format or increased usage of our messaging products;
- reductions of advertising by marketers due to our efforts to implement advertising policies that protect the security and integrity of our platform;
- changes to third-party policies that limit our ability to deliver or target advertising;
- the availability, accuracy, utility, and security of analytics and measurement solutions offered by us or third parties that demonstrate the value of our ads to marketers, or our ability to further improve such tools;
- loss of advertising market share to our competitors, including if prices to purchase our ads increase or if competitors offer lower priced, more integrated or otherwise more effective products;
- adverse government actions or legal developments relating to advertising, including legislative and regulatory developments and developments in litigation;
- decisions by marketers to reduce their advertising as a result of adverse media reports or other negative publicity involving us, our user data practices, our advertising metrics or tools, content on our products, developers with mobile and web applications that are integrated with our products, or other companies in our industry;
- reductions of advertising by marketers due to objectionable content published on our products by third parties, questions about our user data practices, concerns about brand safety or potential legal liability, or uncertainty regarding their own legal and compliance obligations;
- the effectiveness of our ad targeting or degree to which users opt out of certain types of ad targeting, including as a result of product changes and controls that we implemented in connection with the GDPR or other similar changes that we implemented in the United States and around the world (for example, we have seen an increasing number of users opt out of certain types of ad targeting in Europe following adoption of the GDPR), or other product changes or controls we have implemented or may implement in the future, whether in connection with other regulations, regulatory actions or otherwise, that impact our ability to target ads;
- the degree to which users cease or reduce the number of times they engage with our ads;
- changes in the way advertising on mobile devices or on personal computers is measured or priced;
- changes in the composition of our marketer base or our inability to maintain or grow our marketer base; and
- the impact of macroeconomic conditions, whether in the advertising industry in general, or among specific types of marketers or within particular geographies.

The occurrence of any of these or other factors could result in a reduction in demand for our ads, which may reduce the prices we receive for our ads, or cause marketers to stop advertising with us altogether, either of which would negatively affect our revenue and financial results.

Our user growth, engagement, and monetization on mobile devices depend upon effective operation with mobile operating systems, networks, technologies, products, and standards that we do not control.

The substantial majority of our revenue is generated from advertising on mobile devices. There is no guarantee that popular mobile devices will continue to feature Facebook or our other products, or that mobile device users will continue to use our products rather than competing products. We are dependent on the interoperability of Facebook and our other products with popular mobile operating systems, networks, technologies, products, and standards that we do not control, such as the Android and iOS operating systems and mobile browsers. Any changes, bugs, or technical issues in such systems, or changes in our relationships with mobile operating system partners, handset manufacturers, browser developers, or mobile carriers, or in their terms of service or policies that degrade our products' functionality, reduce or eliminate our ability to update or distribute our products, give preferential treatment to competitive products, limit our ability to deliver, target, or measure the effectiveness of ads, or charge fees related to the distribution of our products or our delivery of ads could adversely affect the usage of Facebook or our other products and monetization on mobile devices. For example, Apple recently released an update to its Safari browser that limits the use of third-

party cookies, which reduces our ability to provide the most relevant ads to our users and impacts monetization. Additionally, in order to deliver high quality mobile products, it is important that our products work well with a range of mobile technologies, products, systems, networks, and standards that we do not control, and that we have good relationships with handset manufacturers, mobile carriers and browser developers. We may not be successful in maintaining or developing relationships with key participants in the mobile ecosystem or in developing products that operate effectively with these technologies, products, systems, networks, or standards. In the event that it is more difficult for our users to access and use Facebook or our other products on their mobile devices, or if our users choose not to access or use Facebook or our other products on their mobile devices or use mobile products that do not offer access to Facebook or our other products, our user growth and user engagement could be harmed. From time to time, we may also take actions regarding the distribution of our products or the operation of our business based on what we believe to be in our long-term best interests. Such actions may adversely affect our users and our relationships with the operators of mobile operating systems, handset manufacturers, mobile carriers, browser developers, or other business partners, and there is no assurance that these actions will result in the anticipated long-term benefits. In the event that our users are adversely affected by these actions or if our relationships with such third parties deteriorate, our user growth, engagement, and monetization could be adversely affected and our business could be harmed.

Our business is highly competitive. Competition presents an ongoing threat to the success of our business.

We compete with companies that sell advertising, as well as with companies that provide social, media, and communication products and services that are designed to engage users on mobile devices and online. We face significant competition in every aspect of our business, including from companies that facilitate communication and the sharing of content and information, companies that enable marketers to display advertising, companies that distribute video and other forms of media content, and companies that provide development platforms for applications developers. We compete with companies that offer products across broad platforms that replicate capabilities we provide. For example, among other areas, we compete with Apple in messaging, Google and YouTube in advertising and video, Tencent in messaging and social media, and Amazon in advertising. We also compete with companies that provide regional social networks and messaging products, many of which have strong positions in particular countries. Some of our competitors may be domiciled in different countries and subject to political, legal, and regulatory regimes that enable them to compete more effectively than us. In addition, we face competition from traditional, online, and mobile businesses that provide media for marketers to reach their audiences and/or develop tools and systems for managing and optimizing advertising campaigns. We also compete with companies that develop and deliver consumer hardware and virtual reality products and services.

Some of our current and potential competitors may have greater resources or stronger competitive positions in certain product segments, geographic regions, or user demographics than we do. These factors may allow our competitors to respond more effectively than us to new or emerging technologies and changes in market conditions. We believe that some users, particularly younger users, are aware of and actively engaging with other products and services similar to, or as a substitute for, our products and services, and we believe that some users have reduced their use of and engagement with our products and services in favor of these other products and services. In the event that users increasingly engage with other products and services, we may experience a decline in use and engagement in key user demographics or more broadly, in which case our business would likely be harmed.

Our competitors may develop products, features, or services that are similar to ours or that achieve greater acceptance, may undertake more far-reaching and successful product development efforts or marketing campaigns, or may adopt more aggressive pricing policies. In addition, developers whose mobile and web applications are integrated with Facebook or our other products may use information shared by our users through our products in order to develop products or features that compete with us. Some competitors may gain a competitive advantage against us in areas where we operate, including: by making acquisitions; by limiting our ability to deliver, target, or measure the effectiveness of ads; by imposing fees or other charges related to our delivery of ads; by making access to our products more difficult or impossible; by making it more difficult to communicate with our users; or by integrating competing platforms, applications, or features into products they control such as mobile device operating systems, search engines, browsers, or e-commerce platforms. For example, each of Apple and Google have integrated competitive products with iOS and Android, respectively. As a result, our competitors may acquire and engage users or generate advertising or other revenue at the expense of our own efforts, which may negatively affect our business

and financial results. In addition, from time to time, we may take actions in response to competitive threats, but we cannot assure you that these actions will be successful or that they will not negatively affect our business and financial results.

We believe that our ability to compete effectively depends upon many factors both within and beyond our control, including:

- the popularity, usefulness, ease of use, performance, and reliability of our products compared to our competitors' products;
- the size and composition of our user base;
- the engagement of users with our products and competing products;

- the timing and market acceptance of products, including developments and enhancements to our or our competitors' products;
- our safety and security efforts and our ability to protect user data and to provide users with control over their data;
- our ability to distribute our products to new and existing users;
- our ability to monetize our products;
- the frequency, size, format, quality, and relative prominence of the ads displayed by us or our competitors;
- customer service and support efforts;
- marketing and selling efforts, including our ability to measure the effectiveness of our ads and to provide marketers with a compelling return on their investments;
- our ability to establish and maintain developers' interest in building mobile and web applications that integrate with Facebook and our other products;
- our ability to establish and maintain publisher interest in integrating their content with Facebook and our other products;
- changes mandated by legislation, regulatory authorities, or litigation, some of which may have a disproportionate effect on us;
- acquisitions or consolidation within our industry, which may result in more formidable competitors;
- our ability to attract, retain, and motivate talented employees, particularly software engineers, designers, and product managers;
- our ability to cost-effectively manage and grow our operations; and
- our reputation and brand strength relative to those of our competitors.

If we are not able to compete effectively, our user base and level of user engagement may decrease, we may become less attractive to developers and marketers, and our revenue and results of operations may be materially and adversely affected.

Actions by governments that restrict access to Facebook or our other products in their countries, or that otherwise impair our ability to sell advertising in their countries, could substantially harm our business and financial results.

Governments from time to time seek to censor content available on Facebook or our other products in their country, restrict access to our products from their country entirely, or impose other restrictions that may affect the accessibility of our products in their country for an extended period of time or indefinitely. For example, user access to Facebook and certain of our other products has been or is currently restricted in whole or in part in China, Iran, and North Korea. In addition, government authorities in other countries may seek to restrict user access to our products if they consider us to be in violation of their laws or a threat to public safety or for other reasons, and certain of our products have been restricted by governments in other countries from time to time. It is possible that government authorities could take action that impairs our ability to sell advertising, including in countries where access to our consumer-facing products may be blocked or restricted. For example, we generate meaningful revenue from a limited number of resellers representing advertisers based in China. In the event that content shown on Facebook or our other products is subject to censorship, access to our products is restricted, in whole or in part, in one or more countries, or other restrictions are imposed on our products, or our competitors are able to successfully penetrate new geographic markets or capture a greater share of existing geographic markets that we cannot access or where we face other restrictions, our ability to retain or increase our user base, user engagement, or the level of advertising by marketers may be adversely affected, we may not be able to maintain or grow our revenue as anticipated, and our financial results could be adversely affected.

Our new products and changes to existing products could fail to attract or retain users or generate revenue and profits.

Our ability to retain, increase, and engage our user base and to increase our revenue depends heavily on our ability to continue to evolve our existing products and to create successful new products, both independently and in conjunction with developers or other third parties. We may introduce significant changes to our existing products or acquire or introduce new and unproven products, including using technologies with which we have little or no prior development or operating experience. For example, we do not have significant experience with consumer hardware products or virtual or augmented reality technology, which may adversely affect our ability to successfully develop and market these products and technologies, and we will incur

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increased costs in connection with the development and marketing of such products and technologies. In addition, the introduction of new products, or changes to existing products, may result in new or enhanced governmental or regulatory scrutiny or other complications that could adversely affect our business and financial results. We have also invested, and expect to continue to invest, significant resources in growing our WhatsApp and Messenger products to support increasing usage of such products. We have historically monetized messaging in only a very limited fashion, and we may not be successful in our efforts to generate meaningful revenue from messaging over the long term. If these or other new or enhanced products fail to engage users, marketers, or developers, or if our business plans are unsuccessful, we may fail to attract or retain users or to generate sufficient revenue, operating margin, or other value to justify our investments, and our business may be adversely affected.

We make product and investment decisions that may not prioritize short-term financial results and may not produce the long-term benefits that we expect.

We frequently make product and investment decisions that may not prioritize short-term financial results if we believe that the decisions are consistent with our mission and benefit the aggregate user experience and will thereby improve our financial performance over the long term. For example, we have recently implemented, and we will continue to implement, changes to our user data practices. Some of these changes will reduce marketers' ability to effectively target their ads, which has to some extent adversely affected, and will continue to adversely affect, our advertising business. Similarly, from time to time we update our News Feed ranking algorithm to optimize the user experience, and these changes have had, and may in the future have, the effect of reducing time spent and some measures of user engagement with Facebook, which could adversely affect our financial results. From time to time, we may also change the size, frequency, or relative prominence of ads in order to improve ad quality and overall user experience. In addition, we have made, and we expect to continue to make, other changes to our products which may adversely affect the distribution of content of publishers, marketers, and developers, and could reduce their incentive to invest in their efforts on Facebook. We also may introduce new features or other changes to existing products, or introduce new stand-alone products, that attract users away from properties, formats, or use cases where we have more proven means of monetization. For example, we plan to continue to promote the Stories format, which is becoming increasingly popular for sharing content across our products, but our advertising efforts with this format are still under development and we do not currently monetize Stories at the same rate as News Feed. In addition, as we focus on growing users and engagement across our family of apps, from time to time these efforts have reduced, and may in the future reduce, engagement with one or more products and services in favor of other products or services that we monetize less successfully or that are not growing as quickly. These decisions may adversely affect our business and results of operations and may not produce the long-term benefits that we expect.

If we are not able to maintain and enhance our brands, our ability to expand our base of users, marketers, and developers may be impaired, and our business and financial results may be harmed.

We believe that our brands have significantly contributed to the success of our business. We also believe that maintaining and enhancing our brands is critical to expanding our base of users, marketers, and developers. Many of our new users are referred by existing users. Maintaining and enhancing our brands will depend largely on our ability to continue to provide useful, reliable, trustworthy, and innovative products, which we may not do successfully. We may introduce new products or terms of service or policies that users do not like, which may negatively affect our brands. Additionally, the actions of our developers or advertisers may affect our brands if users do not have a positive experience using third-party mobile and web applications integrated with our products or interacting with parties that advertise through our products. We will also continue to experience media, legislative, or regulatory scrutiny of our actions or decisions regarding user privacy, content, advertising, and other issues, including actions or decisions in connection with elections, which may adversely affect our reputation and brands. For example, in March 2018, we announced developments regarding the misuse of certain data by a developer that shared such data with third parties in violation of our terms and policies. We also may fail to respond expeditiously or appropriately to the sharing of objectionable content on our services or objectionable practices by advertisers or developers, or to otherwise address user concerns, which has occurred in the past and which could erode confidence in our brands. Our brands may also be negatively affected by the actions of users that are deemed to be hostile or inappropriate to other users, by the actions of users acting under false or inauthentic identities, by the use of our products or services to disseminate information that is deemed to be misleading (or intended to manipulate opinions), by perceived or actual efforts by

governments to obtain access to user information for security-related purposes or to censor certain content on our platform, or by the use of our products or services for illicit, objectionable, or illegal ends. Maintaining and enhancing our brands will require us to make substantial investments and these investments may not be successful. Certain of our past actions, such as the foregoing matter regarding developer misuse of data, have eroded confidence in our brands, and if we fail to successfully promote and maintain our brands or if we incur excessive expenses in this effort, our business and financial results may be adversely affected.

Security breaches and improper access to or disclosure of our data or user data, or other hacking and phishing attacks on our systems, could harm our reputation and adversely affect our business.

Our industry is prone to cyber-attacks by third parties seeking unauthorized access to our data or users' data or to disrupt

our ability to provide service. Any failure to prevent or mitigate security breaches and improper access to or disclosure of our data or user data, including personal information, content, or payment information from users, or information from marketers, could result in the loss or misuse of such data, which could harm our business and reputation and diminish our competitive position. In addition, computer malware, viruses, social engineering (predominantly spear phishing attacks), and general hacking have become more prevalent in our industry, have occurred on our systems in the past, and will occur on our systems in the future. We also regularly encounter attempts to create false or undesirable user accounts, purchase ads, or take other actions on our platform for purposes such as spamming, spreading misinformation, or other objectionable ends. As a result of our prominence, the size of our user base, the types and volume of personal data on our systems, and the evolving nature of our products and services, we believe that we are a particularly attractive target for such breaches and attacks. Our efforts to address undesirable activity on our platform may also increase the risk of retaliatory attacks. Such attacks may cause interruptions to the services we provide, degrade the user experience, cause users or marketers to lose confidence and trust in our products, impair our internal systems, or result in financial harm to us. Our efforts to protect our company data or the information we receive may also be unsuccessful due to software bugs or other technical malfunctions; employee, contractor, or vendor error or malfeasance; government surveillance; or other threats that evolve. In addition, third parties may attempt to fraudulently induce employees or users to disclose information in order to gain access to our data or our users' data. Cyber-attacks continue to evolve in sophistication and volume, and inherently may be difficult to detect for long periods of time. Although we have developed systems and processes that are designed to protect our data and user data, to prevent data loss, to disable undesirable accounts and activities on our platform, and to prevent or detect security breaches, we cannot assure you that such measures will provide absolute security, and we may incur significant costs in protecting against or remediating cyber-attacks.

In addition, some of our developers or other partners, such as those that help us measure the effectiveness of ads, may receive or store information provided by us or by our users through mobile or web applications integrated with Facebook. We provide limited information to such third parties based on the scope of services provided to us. However, if these third parties or developers fail to adopt or adhere to adequate data security practices, or in the event of a breach of their networks, our data or our users' data may be improperly accessed, used, or disclosed.

Affected users or government authorities could initiate legal or regulatory actions against us in connection with any actual or perceived security breaches or improper disclosure of data, which could cause us to incur significant expense and liability or result in orders or consent decrees forcing us to modify our business practices. Such incidents or our efforts to remediate such incidents may also result in a decline in our active user base or engagement levels. Any of these events could have a material and adverse effect on our business, reputation, or financial results.

For example, in September 2018, we announced our discovery of a third-party cyber-attack that exploited a vulnerability in Facebook’s code to steal user access tokens, which were then used to access certain profile information from approximately 29 million user accounts on Facebook. While we took steps to remediate the attack, including fixing the vulnerability, resetting user access tokens and notifying affected users, we may discover and announce additional developments, which could further erode confidence in our brand. In addition, the events surrounding this cyber-attack became the subject of Irish Data Protection Commission and other government inquiries. Any such inquiries could subject us to substantial fines and costs, require us to change our business practices, divert resources and the attention of management from our business, or adversely affect our business.

We anticipate that our ongoing investments in safety, security, and content review will identify additional instances of misuse of user data or other undesirable activity by third parties on our platform.

In addition to our efforts to mitigate cybersecurity risks, we are making significant investments in safety, security, and content review efforts to combat misuse of our services and user data by third parties, including investigations and audits of platform applications that previously accessed information of a large number of users of our services. As a result of these efforts we have discovered and announced, and anticipate that we will continue to discover and announce, additional incidents of misuse of user data or other undesirable activity by third parties. We may not discover all such incidents or activity, whether as a result of our data limitations, including our lack of visibility over our encrypted services, the scale of activity on our platform, or other factors, and we may be notified of such incidents or activity via the media or other third parties. Such incidents and activities may include the use of user data in a manner inconsistent with our terms, contracts or policies, the existence of false or undesirable user accounts, election

interference, improper ad purchases, activities that threaten people's safety on- or offline, or instances of spamming, scraping, or spreading misinformation. The discovery of the foregoing may negatively affect user trust and engagement, harm our reputation and brands, require us to change our business practices in a manner adverse to our business, and adversely affect our business and financial results. Any such discoveries may also subject us to additional litigation and regulatory inquiries, which could subject us to monetary penalties and damages, divert management's time and attention, and lead to enhanced regulatory oversight.

Unfavorable media coverage could negatively affect our business.

We receive a high degree of media coverage around the world. Unfavorable publicity regarding, for example, our privacy practices, terms of service, product changes, product quality, litigation or regulatory activity, government surveillance, the actions of our advertisers, the actions of our developers whose products are integrated with our products, the use of our products or services for illicit, objectionable, or illegal ends, the substance or enforcement of our community standards, the actions of our users, the quality and integrity of content shared on our platform, or the actions of other companies that provide similar services to ours, has in the past, and could in the future, adversely affect our reputation. For example, beginning in March 2018, we were the subject of intense media coverage involving the misuse of certain data by a developer that shared such data with third parties in violation of our terms and policies, and we have continued to receive negative publicity. Such negative publicity could have an adverse effect on the size, engagement, and loyalty of our user base and result in decreased revenue, which could adversely affect our business and financial results.

Our financial results will fluctuate from quarter to quarter and are difficult to predict.

Our quarterly financial results have fluctuated in the past and will fluctuate in the future. Additionally, we have a limited operating history with the current scale of our business, which makes it difficult to forecast our future results. As a result, you should not rely upon our past quarterly financial results as indicators of future performance. You should take into account the risks and uncertainties frequently encountered by companies in rapidly evolving markets. Our financial results in any given quarter can be influenced by numerous factors, many of which we are unable to predict or are outside of our control, including:

- our ability to maintain and grow our user base and user engagement;
- our ability to attract and retain marketers in a particular period;
- fluctuations in spending by our marketers due to seasonality, such as historically strong spending in the fourth quarter of each year, episodic regional or global events, or other factors;
- the frequency, prominence, size, format, and quality of ads shown to users;
- the success of technologies designed to block the display of ads;
- the pricing of our ads and other products;
- the diversification and growth of revenue sources beyond advertising on Facebook and Instagram;
- our ability to generate revenue from Payments, or the sale of our consumer hardware products or other products we may introduce in the future;
- changes to existing products or services or the development and introduction of new products or services by us or our competitors;
- user behavior or product changes that may reduce traffic to features or products that we successfully monetize;
- increases in marketing, sales, and other operating expenses that we will incur to grow and expand our operations and to remain competitive, including costs related to our data centers and technical infrastructure;
- costs related to our safety, security, and content review efforts;
- costs and expenses related to the development and delivery of our consumer hardware products;
- our ability to maintain gross margins and operating margins;
- costs related to acquisitions, including costs associated with amortization and additional investments to develop the acquired technologies;
- charges associated with impairment of any assets on our balance sheet;
- our ability to obtain equipment, components, and labor for our data centers and other technical infrastructure in a timely and cost-effective manner;
- system failures or outages or government blocking, which could prevent us from serving ads for any period of time;
- breaches of security or privacy, and the costs associated with any such breaches and remediation;

- changes in the manner in which we distribute our products or inaccessibility of our products due to third-party actions;
- fees paid to third parties for content or the distribution of our products;
- share-based compensation expense, including acquisition-related expense;
- adverse litigation judgments, settlements, or other litigation-related costs;
- changes in the legislative or regulatory environment, including with respect to privacy and data protection, or actions by governments or regulators, including fines, orders, or consent decrees;
- the overall tax rate for our business, which may be affected by the mix of income we earn in the U.S. and in jurisdictions with comparatively lower tax rates, the effects of share-based compensation, the effects of integrating intellectual property from acquisitions, and the effects of changes in our business;
- the impact of changes in tax laws or judicial or regulatory interpretations of tax laws, which are recorded in the period such laws are enacted or interpretations are issued, and may significantly affect the effective tax rate of that period;
- tax obligations that may arise from resolutions of tax examinations, including the examination we are currently under by the Internal Revenue Service (IRS), that materially differ from the amounts we have anticipated;
- fluctuations in currency exchange rates and changes in the proportion of our revenue and expenses denominated in foreign currencies;
- fluctuations in the market values of our portfolio investments and in interest rates;
- changes in U.S. generally accepted accounting principles; and
- changes in global business or macroeconomic conditions.

We expect our rates of growth to decline in the future.

We expect that our user growth rate will generally decline over time as the size of our active user base increases, and it is possible that the size of our active user base may fluctuate or decline in one or more markets, particularly as we achieve greater market penetration. We expect our revenue growth rate will continue to decline over time as our revenue increases to higher levels. As our growth rates decline, investors' perceptions of our business may be adversely affected and the trading price of our Class A common stock could decline.

Our costs are continuing to grow, which could reduce our operating margin and profitability. If our investments are not successful, our business and financial performance could be harmed.

Operating our business is costly, and we expect our expenses to continue to increase in the future as we broaden our user base, as users increase the amount and types of content they consume and the data they share with us, for example with respect to video, as we develop and implement new products, as we market new and existing products and promote our brands, as we continue to expand our technical infrastructure, as we continue to invest in new and unproven technologies, and as we continue to hire additional employees and contractors to support our expanding operations, including our efforts to focus on safety, security, and content review. We will continue to invest in our messaging, video content, and global connectivity efforts, as well as other initiatives that may not have clear paths to monetization. In addition, we will incur increased costs in connection with the development and marketing of our consumer hardware and virtual and augmented reality products and technologies. Any such investments may not be successful, and any such increases in our costs may reduce our operating margin and profitability. In addition, if our investments are not successful, our ability to grow revenue will be harmed, which could adversely affect our business and financial performance.

Given our levels of share-based compensation, our tax rate may vary significantly depending on our stock price.

The tax effects of the accounting for share-based compensation may significantly impact our effective tax rate from period to period. In periods in which our stock price is higher than the grant price of the share-based compensation vesting in that period, we will recognize excess tax benefits that will decrease our effective tax rate. For example, in the first quarter of 2019, excess tax benefits recognized from share-based compensation decreased our provision for income taxes by $75 million and our effective tax rate by one percentage point as compared to the tax rate without such benefits. In future periods in which our stock price is lower than the grant price of the share-based compensation vesting in that period, our effective tax rate may increase. The amount and value of share-based compensation issued relative to our earnings in a particular period will also affect the magnitude of the impact of share-based compensation on our effective tax rate. These tax effects are dependent on our stock price, which we do

not control, and a decline in our stock price could significantly increase our effective tax rate and adversely affect our financial results.

Our business is subject to complex and evolving U.S. and foreign laws and regulations regarding privacy, data protection, content, competition, consumer protection, and other matters. Many of these laws and regulations are subject to change and uncertain interpretation, and could result in claims, changes to our business practices, monetary penalties, increased cost of operations, or declines in user growth or engagement, or otherwise harm our business.

We are subject to a variety of laws and regulations in the United States and abroad that involve matters central to our business, including privacy, data protection and personal information, rights of publicity, content, intellectual property, advertising, marketing, distribution, data security, data retention and deletion, electronic contracts and other communications, competition, protection of minors, consumer protection, telecommunications, product liability, taxation, economic or other trade prohibitions or sanctions, securities law compliance, and online payment services. The introduction of new products, expansion of our activities in certain jurisdictions, or other actions that we may take may subject us to additional laws, regulations, or other government scrutiny. In addition, foreign data protection, privacy, content, competition, and other laws and regulations can impose different obligations or be more restrictive than those in the United States.

These U.S. federal and state and foreign laws and regulations, which in some cases can be enforced by private parties in addition to government entities, are constantly evolving and can be subject to significant change. As a result, the application, interpretation, and enforcement of these laws and regulations are often uncertain, particularly in the new and rapidly evolving industry in which we operate, and may be interpreted and applied inconsistently from country to country and inconsistently with our current policies and practices. For example, regulatory or legislative actions affecting the manner in which we display content to our users or obtain consent to various practices could adversely affect user growth and engagement. Such actions could affect the manner in which we provide our services or adversely affect our financial results.

We are also subject to laws and regulations that dictate whether, how, and under what circumstances we can transfer, process and/or receive certain data that is critical to our operations, including data shared between countries or regions in which we operate and data shared among our products and services. For example, in 2016, the European Union and United States agreed to an alternative transfer framework for data transferred from the European Union to the United States, called the Privacy Shield, but this new framework is subject to an annual review that could result in changes to our obligations and also is subject to challenge by regulators and private parties. In addition, the other bases upon which Facebook relies to legitimize the transfer of such data, such as Standard Contractual Clauses (SCCs), have been subjected to regulatory and judicial scrutiny. For example, the Irish Data Protection Commissioner has challenged the legal grounds for transfers of user data to Facebook, Inc., and the Irish High Court has referred this challenge to the Court of Justice of the European Union for decision. We have also been managing investigations and lawsuits in Europe, India, and other jurisdictions regarding the August 2016 update to WhatsApp’s terms of service and privacy policy and its sharing of certain data with other Facebook products and services, including a lawsuit currently pending before the Supreme Court of India. If one or more of the legal bases for transferring data from Europe to the United States is invalidated, if we are unable to transfer data between and among countries and regions in which we operate, or if we are restricted from sharing data among our products and services, it could affect the manner in which we provide our services or our ability to target ads, which could adversely affect our financial results.

Proposed or new legislation and regulations could also significantly affect our business. For example, the European General Data Protection Regulation (GDPR) took effect in May 2018 and applies to all of our products and services used by people in Europe. The GDPR includes operational requirements for companies that receive or process personal data of residents of the European Union that are different from those previously in place in the European Union. As a result, we implemented measures to change our service for minors under the age of 16 for certain countries in Europe that maintain the minimum age of 16 under the GDPR. We also obtain consent and/or offer new controls to existing and new users in Europe before processing data for certain aspects of our service. In addition, the GDPR requires submission of breach notifications to our designated European privacy regulator, the Irish Data Protection Commission, and includes significant penalties for non-compliance with the notification obligation as well as other requirements of the regulation. The California Consumer Privacy Act, or AB 375, was also recently passed and creates new data privacy rights for users, effective in 2020. Similarly, there are a number of legislative proposals

in the European Union, the United States, at both the federal and state level, as well as other jurisdictions that could impose new obligations in areas affecting our business. We expect that our efforts to comply with the GDPR and other regulatory and legislative requirements will require substantial investments, including investments in compliance processes and technical infrastructure. In addition, some countries are considering or have passed legislation implementing data protection requirements or requiring local storage and processing of data or similar requirements that could increase the cost and complexity of delivering our services.

These laws and regulations, as well as any associated inquiries or investigations or any other government actions, may be costly to comply with and may delay or impede the development of new products, result in negative publicity, increase our operating costs, require significant management time and attention, and subject us to remedies that may harm our business, including fines

or demands or orders that we modify or cease existing business practices.

We have been subject to regulatory and other government investigations, enforcement actions, and settlements, and we expect to continue to be subject to such proceedings and other inquiries in the future, which could cause us to incur substantial costs or require us to change our business practices in a manner materially adverse to our business.

From time to time, we receive formal and informal inquiries from government authorities and regulators regarding our compliance with laws and regulations, many of which are evolving and subject to interpretation. We are and expect to continue to be the subject of investigations, inquiries, data requests, actions, and audits in the United States, Europe, and around the world, particularly in the areas of privacy, data protection, law enforcement, consumer protection, and competition, as we continue to grow and expand our operations. In addition, we are currently, and may in the future be, subject to regulatory orders or consent decrees. For example, data protection and consumer protection authorities in the European Union have initiated actions, investigations, or administrative orders seeking to restrict the ways in which we collect and use information, or impose sanctions, and other authorities may do the same. In addition, beginning in March 2018, we became subject to U.S. Federal Trade Commission (FTC), Securities and Exchange Commission, state attorneys general, and other government inquiries in the United States, Europe, and other jurisdictions in connection with our platform and user data practices as well as the misuse of certain data by a developer that shared such data with third parties in violation of our terms and policies. In the first quarter of 2019, we reasonably estimated a probable loss and recorded an accrual of $3.0 billion in connection with the inquiry of the FTC. We estimate that the range of loss in such matter is $3.0 billion to $5.0 billion. The matter remains unresolved, and there can be no assurance as to the timing or the terms of any final outcome. Beginning in September 2018, we also became subject to Irish Data Protection Commission and other government inquiries in connection with a third-party cyber-attack that exploited a vulnerability in Facebook's code to steal user access tokens and access certain profile information from user accounts on Facebook. Orders issued by, or inquiries or enforcement actions initiated by, government or regulatory authorities could cause us to incur substantial costs, expose us to unanticipated civil and criminal liability or penalties (including substantial monetary fines), or require us to change our business practices in a manner materially adverse to our business.

If we are unable to protect our intellectual property, the value of our brands and other intangible assets may be diminished, and our business may be adversely affected.

We rely and expect to continue to rely on a combination of confidentiality, assignment, and license agreements with our employees, consultants, and third parties with whom we have relationships, as well as trademark, copyright, patent, trade secret, and domain name protection laws, to protect our proprietary rights. In the United States and internationally, we have filed various applications for protection of certain aspects of our intellectual property, and we currently hold a significant number of registered trademarks and issued patents in multiple jurisdictions and have acquired patents and patent applications from third parties. Third parties may knowingly or unknowingly infringe our proprietary rights, third parties may challenge proprietary rights held by us, and pending and future trademark and patent applications may not be approved. In addition, effective intellectual property protection may not be available in every country in which we operate or intend to operate our business. In any or all of these cases, we may be required to expend significant time and expense in order to prevent infringement or to enforce our rights. Although we have generally taken measures to protect our proprietary rights, there can be no assurance that others will not offer products or concepts that are substantially similar to ours and compete with our business. In addition, we regularly contribute software source code under open source licenses and have made other technology we developed available under other open licenses, and we include open source software in our products. For example, we have contributed certain specifications and designs related to our data center equipment to the Open Compute Project Foundation, a non-profit entity that shares and develops such information with the technology community, under the Open Web Foundation License. As a result of our open source contributions and the use of open source in our products, we may license or be required to license or disclose code and/or innovations that turn out to be material to our business and may also be exposed to increased litigation risk. If the protection of our proprietary rights is inadequate to prevent unauthorized use or appropriation by third parties, the value of our brands and other intangible assets may be diminished and competitors may be able to more effectively mimic our products, services, and methods of operations. Any of these events could have an adverse effect on our business and financial results.

We are currently, and expect to be in the future, party to patent lawsuits and other intellectual property rights claims that are expensive and time consuming and, if resolved adversely, could have a significant impact on our business, financial condition, or results of operations.

Companies in the Internet, technology, and media industries own large numbers of patents, copyrights, trademarks, and trade secrets, and frequently enter into litigation based on allegations of infringement, misappropriation, or other violations of intellectual property or other rights. In addition, various "non-practicing entities" that own patents and other intellectual property rights often attempt to aggressively assert their rights in order to extract value from technology companies. Furthermore, from time to time we may introduce or acquire new products, including in areas where we historically have not competed, which could increase our exposure to patent and other intellectual property claims from competitors and non-practicing entities.

From time to time, we receive notice from patent holders and other parties alleging that certain of our products and services, or user content, infringe their intellectual property rights. We presently are involved in a number of intellectual property lawsuits, and as we face increasing competition and gain an increasingly high profile, we expect the number of patent and other intellectual property claims against us to grow. Defending patent and other intellectual property litigation is costly and can impose a significant burden on management and employees, and there can be no assurances that favorable final outcomes will be obtained in all cases. In addition, plaintiffs may seek, and we may become subject to, preliminary or provisional rulings in the course of any such litigation, including potential preliminary injunctions requiring us to cease some or all of our operations. We may decide to settle such lawsuits and disputes on terms that are unfavorable to us. Similarly, if any litigation to which we are a party is resolved adversely, we may be subject to an unfavorable judgment that may not be reversed upon appeal. The terms of such a settlement or judgment may require us to cease some or all of our operations or pay substantial amounts to the other party. In addition, we may have to seek a license to continue practices found to be in violation of a third party's rights, which may not be available on reasonable terms, or at all, and may significantly increase our operating costs and expenses. As a result, we may also be required to develop alternative non-infringing technology or practices or discontinue the practices. The development of alternative non-infringing technology or practices could require significant effort and expense or may not be feasible. Our business, financial condition, and results of operations could be adversely affected as a result of an unfavorable resolution of the disputes and litigation referred to above.

We are involved in numerous class action lawsuits and other litigation matters that are expensive and time consuming, and, if resolved adversely, could harm our business, financial condition, or results of operations.

In addition to intellectual property claims, we are also involved in numerous other lawsuits, including putative class action lawsuits, many of which claim statutory damages and/or seek significant changes to our business operations, and we anticipate that we will continue to be a target for numerous lawsuits in the future. Because of the scale of our user base, the plaintiffs in class action cases filed against us typically claim enormous monetary damages even if the alleged per-user harm is small or non-existent. In addition, we may be subject to additional class action lawsuits based on employment claims, product performance or other claims related to the use of consumer hardware and software, as well as virtual reality technology and products, which are new and unproven. For example, we are currently the subject of multiple putative class action suits in connection with our platform and user data practices and the misuse of certain data by a developer that shared such data with third parties in violation of our terms and policies, the disclosure of our earnings results for the second quarter of 2018, and a third-party cyber-attack that exploited a vulnerability in Facebook’s code to steal user access tokens and access certain profile information from user accounts on Facebook. We believe these lawsuits are without merit and are vigorously defending them. Any negative outcome from any such lawsuits could result in payments of substantial monetary damages or fines, or undesirable changes to our products or business practices, and accordingly our business, financial condition, or results of operations could be materially and adversely affected. Although the results of such lawsuits and claims cannot be predicted with certainty, we do not believe that the final outcome of those matters relating to our products that we currently face will have a material adverse effect on our business, financial condition, or results of operations.

There can be no assurances that a favorable final outcome will be obtained in all our cases, and defending any lawsuit is costly and can impose a significant burden on management and employees. Any litigation to which we are a party may result in an onerous or unfavorable judgment that may not be reversed upon appeal or in payments of substantial monetary damages or fines, or we may decide to settle lawsuits on similarly unfavorable terms, which could adversely affect our business, financial conditions, or results of operations.

We may incur liability as a result of information retrieved from or transmitted over the Internet or published using our products or as a result of claims related to our products, and legislation regulating content on our platform may require us to change our products or business practices.

We have faced, currently face, and will continue to face claims relating to information that is published or made available on our products. In particular, the nature of our business exposes us to claims related to defamation, dissemination of misinformation or news hoaxes, discrimination, intellectual property rights, rights of publicity and privacy, personal injury torts, or laws regulating hate speech or other types of content. This risk is enhanced in certain jurisdictions outside the United States where our protection from liability for third-party actions may be unclear or where we may be less protected under local laws than we are in the United States. For example, the European Union

recently passed a directive expanding online platform liability for copyright infringement, which member states are expected to implement by 2021. In addition, there have been various Congressional efforts to restrict the scope of the protections available to online platforms under Section 230 of the Communications Decency Act, and our current protections from liability for third-party content in the United States could decrease or change. We could incur significant costs investigating and defending such claims and, if we are found liable, significant damages. We could also face fines or orders restricting or blocking our services in particular geographies as a result of content hosted on our services. For example, legislation in Germany may result in the imposition of significant fines for failure to comply with certain content removal and disclosure obligations, and other countries, including Australia and the United Kingdom, are considering or have implemented similar

legislation imposing penalties for failure to remove content. Any such legislation also may require us to change our products or business practices, or impact our operations or our ability to provide services in certain geographies. If any of these events occur, our business and financial results could be adversely affected.

Our CEO has control over key decision making as a result of his control of a majority of the voting power of our outstanding capital stock.

Mark Zuckerberg, our founder, Chairman, and CEO, is able to exercise voting rights with respect to a majority of the voting power of our outstanding capital stock and therefore has the ability to control the outcome of matters submitted to our stockholders for approval, including the election of directors and any merger, consolidation, or sale of all or substantially all of our assets. This concentrated control could delay, defer, or prevent a change of control, merger, consolidation, or sale of all or substantially all of our assets that our other stockholders support, or conversely this concentrated control could result in the consummation of such a transaction that our other stockholders do not support. This concentrated control could also discourage a potential investor from acquiring our Class A common stock, which has limited voting power relative to the Class B common stock, and might harm the trading price of our Class A common stock. In addition, Mr. Zuckerberg has the ability to control the management and major strategic investments of our company as a result of his position as our CEO and his ability to control the election or replacement of our directors. In the event of his death, the shares of our capital stock that Mr. Zuckerberg owns will be transferred to the persons or entities that he has designated. As a board member and officer, Mr. Zuckerberg owes a fiduciary duty to our stockholders and must act in good faith in a manner he reasonably believes to be in the best interests of our stockholders. As a stockholder, even a controlling stockholder, Mr. Zuckerberg is entitled to vote his shares, and shares over which he has voting control as governed by a voting agreement, in his own interests, which may not always be in the interests of our stockholders generally.

We plan to continue to make acquisitions, which could harm our financial condition or results of operations and may adversely affect the price of our common stock.

As part of our business strategy, we have made and intend to continue to make acquisitions to add specialized employees and complementary companies, products, or technologies. We may not be able to find suitable acquisition candidates, and we may not be able to complete acquisitions on favorable terms, if at all. In some cases, the costs of such acquisitions may be substantial, and there is no assurance that we will receive a favorable return on investment for our acquisitions.

We may pay substantial amounts of cash or incur debt to pay for acquisitions, which could adversely affect our liquidity. The incurrence of indebtedness would also result in increased fixed obligations and increased interest expense, and could also include covenants or other restrictions that would impede our ability to manage our operations. We may also issue equity securities to pay for acquisitions and we regularly grant RSUs to retain the employees of acquired companies, which could increase our expenses, adversely affect our financial results, and result in dilution to our stockholders. In addition, any acquisitions we announce could be viewed negatively by users, marketers, developers, or investors, which may adversely affect our business or the price of our Class A common stock.

We may also discover liabilities or deficiencies associated with the companies or assets we acquire that were not identified in advance, which may result in significant unanticipated costs. The effectiveness of our due diligence review and our ability to evaluate the results of such due diligence are dependent upon the accuracy and completeness of statements and disclosures made or actions taken by the companies we acquire or their representatives, as well as the limited amount of time in which acquisitions are executed. In addition, we may fail to accurately forecast the financial impact of an acquisition transaction, including tax and accounting charges. Acquisitions may also result in our recording of significant additional expenses to our results of operations and recording of substantial finite-lived intangible assets on our balance sheet upon closing. Any of these factors may adversely affect our financial condition or results of operations.

We may not be able to successfully integrate our acquisitions, and we may incur significant costs to integrate and support the companies we acquire.

The integration of acquisitions requires significant time and resources, and we may not manage these processes successfully. Our ability to successfully integrate complex acquisitions is unproven, particularly with respect to companies that have significant operations or that develop products where we do not have prior experience. For

example, the technology and products we acquired from Oculus were relatively new to Facebook at the time of the acquisition, and we did not have significant experience with, or structure in place to support, such technology and products prior to the acquisition. We continue to make substantial investments of resources to support our acquisitions, which will result in significant ongoing operating expenses and may divert resources and management attention from other areas of our business. We cannot assure you that these investments will be successful. If we fail to successfully integrate the companies we acquire, we may not realize the benefits expected from the transaction and our business may be harmed.

If our goodwill or finite-lived intangible assets become impaired, we may be required to record a significant charge to earnings.

We review our finite-lived intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable, such as a decline in stock price and market capitalization. We test goodwill for impairment at least annually. If such goodwill or finite-lived intangible assets are deemed to be impaired, an impairment loss equal to the amount by which the carrying amount exceeds the fair value of the assets would be recognized. We may be required to record a significant charge in our financial statements during the period in which any impairment of our goodwill or finite-lived intangible assets is determined, which would negatively affect our results of operations.

Our business is dependent on our ability to maintain and scale our technical infrastructure, and any significant disruption in our service could damage our reputation, result in a potential loss of users and engagement, and adversely affect our financial results.

Our reputation and ability to attract, retain, and serve our users is dependent upon the reliable performance of our products and our underlying technical infrastructure. We have in the past experienced, and may in the future experience, interruptions in the availability or performance of our products from time to time. Our systems may not be adequately designed with the necessary reliability and redundancy to avoid performance delays or outages that could be harmful to our business. If our products are unavailable when users attempt to access them, or if they do not load as quickly as expected, users may not use our products as often in the future, or at all, and our ability to serve ads may be disrupted, any of which could adversely affect our business and financial performance. As the amount and types of information shared on Facebook and our other products continue to grow and evolve, as the usage patterns of our global community continue to evolve, and as our internal operational demands continue to grow, we will need an increasing amount of technical infrastructure, including network capacity and computing power, to continue to satisfy our needs. It is possible that we may fail to continue to effectively scale and grow our technical infrastructure to accommodate these increased demands, which may adversely affect our user engagement and advertising revenue growth. In addition, our business may be subject to interruptions, delays, or failures resulting from earthquakes, adverse weather conditions, other natural disasters, power loss, terrorism, geopolitical conflict, cyber-attacks, or other catastrophic events. If such an event were to occur, users may be subject to service disruptions or outages and we may not be able to recover our technical infrastructure and user data in a timely manner to restart or provide our services, which may adversely affect our financial results.

A substantial portion of our network infrastructure is provided by third parties. Any disruption or failure in the services we receive from these providers could harm our ability to handle existing or increased traffic and could significantly harm our business. Any financial or other difficulties these providers face may adversely affect our business, and we exercise little control over these providers, which increases our vulnerability to problems with the services they provide.

We could experience unforeseen difficulties in building and operating key portions of our technical infrastructure.

We have designed and built our own data centers and key portions of our technical infrastructure through which we serve our products, and we plan to continue to significantly expand the size of our infrastructure primarily through data centers and other projects. The infrastructure expansion we are undertaking is complex and involves projects in multiple locations, and unanticipated delays in the completion of these projects, including due to any shortage of labor necessary in building portions of such projects, or availability of components, may lead to increased project costs, operational inefficiencies, or interruptions in the delivery or degradation of the quality of our products. In addition, there may be issues related to this infrastructure that are not identified during the testing phases of design and implementation, which may only become evident after we have started to fully utilize the underlying equipment, that could further degrade the user experience or increase our costs.

Our products and internal systems rely on software and hardware that is highly technical, and if it contains undetected errors or vulnerabilities, our business could be adversely affected.

Our products and internal systems rely on software and hardware, including software and hardware developed or maintained internally and/or by third parties, that is highly technical and complex. In addition, our products and internal systems depend on the ability of such software and hardware to store, retrieve, process, and manage immense amounts of data. The software and hardware on which we rely has contained, and will in the future contain,

undetected errors, bugs, or vulnerabilities. Some errors may only be discovered after the code has been released for external or internal use. For example, in September 2018, we announced our discovery of a third-party cyber-attack that exploited a vulnerability in Facebook's code to steal user access tokens and access certain profile information from user accounts on Facebook. Errors, vulnerabilities, or other design defects within the software and hardware on which we rely have in the past, and may in the future, result in a negative experience for users and marketers who use our products, delay product introductions or enhancements, result in targeting, measurement, or billing errors, compromise our ability to protect the data of our users and/or our intellectual property or lead to reductions in our ability to provide some or all of our services. In addition, any errors, bugs, vulnerabilities, or defects discovered in the software and hardware on which we rely, and any associated degradations or interruptions of service, could result in damage to our reputation, loss of users, loss of revenue, or liability for damages, any of which could adversely affect our business and financial results.

Technologies have been developed that can block the display of our ads, which could adversely affect our financial results.

Technologies have been developed, and will likely continue to be developed, that can block the display of our ads or block our ad measurement tools, particularly for advertising displayed on personal computers. We generate substantially all of our revenue from advertising, including revenue resulting from the display of ads on personal computers. Revenue generated from the display of ads on personal computers has been impacted by these technologies from time to time. As a result, these technologies have had an adverse effect on our financial results and, if such technologies continue to proliferate, in particular with respect to mobile platforms, our future financial results may be harmed.

Real or perceived inaccuracies in our user and other metrics may harm our reputation and negatively affect our business.

The numbers for our key metrics, which include our DAUs, MAUs, and average revenue per user (ARPU), are calculated using internal company data based on the activity of user accounts. While these numbers are based on what we believe to be reasonable estimates of our user base for the applicable period of measurement, there are inherent challenges in measuring usage of our products across large online and mobile populations around the world. In addition, we are continually seeking to improve our estimates of our user base, and such estimates may change due to improvements or changes in our methodology.

We regularly evaluate these metrics to estimate the number of "duplicate" and "false" accounts among our MAUs. A duplicate account is one that a user maintains in addition to his or her principal account. We divide "false" accounts into two categories: (1) user-misclassified accounts, where users have created personal profiles for a business, organization, or non-human entity such as a pet (such entities are permitted on Facebook using a Page rather than a personal profile under our terms of service); and (2) undesirable accounts, which represent user profiles that we determine are intended to be used for purposes that violate our terms of service, such as spamming. The estimates of duplicate and false accounts are based on an internal review of a limited sample of accounts, and we apply significant judgment in making this determination. For example, to identify duplicate accounts we use data signals such as similar IP addresses or user names, and to identify false accounts we look for names that appear to be fake or other behavior that appears inauthentic to the reviewers. Our estimates may change as our methodologies evolve, including through the application of new data signals or technologies, which may allow us to identify previously undetected duplicate or false accounts and may improve our ability to evaluate a broader population of our users. Duplicate and false accounts are very difficult to measure at our scale, and it is possible that the actual number of duplicate and false accounts may vary significantly from our estimates.

In the fourth quarter of 2018, we estimated that duplicate accounts may have represented approximately 11% of our worldwide MAUs. We believe the percentage of duplicate accounts is meaningfully higher in developing markets such as the Philippines and Vietnam, as compared to more developed markets. In the fourth quarter of 2018, we estimated that false accounts may have represented approximately 5% of our worldwide MAUs. Our estimation of false accounts can vary as a result of episodic spikes in the creation of such accounts, which we have seen originate more frequently in specific countries such as Indonesia and Vietnam. From time to time, we may make product changes or take other actions to reduce the number of duplicate or false accounts among our users, which may also reduce our DAU and MAU estimates in a particular period.

Our data limitations may affect our understanding of certain details of our business. For example, while user-provided data indicates a decline in usage among younger users, this age data is unreliable because a disproportionate number of our younger users register with an inaccurate age. Accordingly, our understanding of usage by age group may not be complete.

In addition, our data regarding the geographic location of our users is estimated based on a number of factors, such as the user's IP address and self-disclosed location. These factors may not always accurately reflect the user's actual location. For example, a user may appear to be accessing Facebook from the location of the proxy server that the user connects to rather than from the user's actual location. The methodologies used to measure user metrics may also be susceptible to algorithm or other technical errors. Our estimates for revenue by user location and revenue by user device are also affected by these factors. We regularly review our processes for calculating these metrics, and from time to time we may discover inaccuracies in our metrics or make adjustments to improve their accuracy, including

adjustments that may result in the recalculation of our historical metrics. We believe that any such inaccuracies or adjustments are immaterial unless otherwise stated. We intend to disclose our estimates of the number of duplicate and false accounts among our MAUs on an annual basis. In addition, our DAU and MAU estimates will differ from estimates published by third parties due to differences in methodology.

In addition, from time to time we provide, or rely on, certain other metrics, including those relating to the reach and effectiveness of our ads. All of our metrics are subject to software bugs, inconsistencies in our systems, and human error. If marketers, developers, or investors do not perceive our metrics to be accurate, or if we discover material inaccuracies in our metrics, we may be subject to liability, our reputation may be harmed, and marketers and developers may be less willing to allocate their budgets or resources to Facebook, which could negatively affect our business and financial results.

We cannot assure you that we will effectively manage our growth.

Our employee headcount and the scope and complexity of our business have increased significantly, with the number of employees increasing to 37,773 as of March 31, 2019 from 27,742 as of March 31, 2018, and we expect such headcount growth to continue for the foreseeable future. In addition, we plan to continue to hire a number of employees and contractors in order to address various safety, security, and content review initiatives. The growth and expansion of our business and products create significant challenges for our management, operational, and financial resources, including managing multiple relationships with users, marketers, developers, and other third parties. As our operations and the number of our third-party relationships continue to grow, our information technology systems or our internal controls and procedures may not be adequate to support such growth. In addition, some members of our management do not have significant experience managing a large global business operation, so our management may not be able to manage such growth effectively. To effectively manage our growth, we must continue to improve our operational, financial, and management processes and systems and to effectively expand, train, and manage our personnel. As our organization continues to grow, and we are required to implement more complex organizational management structures, we may find it increasingly difficult to maintain the benefits of our corporate culture, including our ability to quickly develop and launch new and innovative products. This could negatively affect our business performance.

The loss of one or more of our key personnel, or our failure to attract and retain other highly qualified personnel in the future, could harm our business.

We currently depend on the continued services and performance of our key personnel, including Mark Zuckerberg and Sheryl K. Sandberg. Although we have entered into employment agreements with Mr. Zuckerberg and Ms. Sandberg, the agreements have no specific duration and constitute at-will employment. In addition, many of our key technologies and systems are custom-made for our business by our personnel. The loss of key personnel, including members of management as well as key engineering, product development, marketing, and sales personnel, could disrupt our operations and have an adverse effect on our business.

As we continue to grow, we cannot guarantee we will continue to attract and retain the personnel we need to maintain our competitive position. In particular, we intend to continue to hire a significant number of technical personnel in the foreseeable future, and we expect to continue to face significant competition from other companies in hiring such personnel, particularly in the San Francisco Bay Area, where our headquarters are located and where the cost of living is high. As we continue to mature, the incentives to attract, retain, and motivate employees provided by our equity awards or by future arrangements may not be as effective as in the past, and if we issue significant equity to attract additional employees or to retain our existing employees, we would incur substantial additional share-based compensation expense and the ownership of our existing stockholders would be further diluted. Our ability to attract, retain, and motivate employees may also be adversely affected by stock price volatility. As a result of these factors, it may be difficult for us to continue to retain and motivate our employees. If we do not succeed in attracting, hiring, and integrating excellent personnel, or retaining and motivating existing personnel, we may be unable to grow effectively.

We may not be able to continue to successfully maintain or grow usage of and engagement with mobile and web applications that integrate with Facebook and our other products.

We have made and are continuing to make investments to enable developers to build, grow, and monetize mobile and web applications that integrate with Facebook and our other products. Such existing and prospective developers may not be successful in building, growing, or monetizing mobile and/or web applications that create and maintain user engagement. Additionally, developers may choose to build on other platforms, including mobile platforms controlled by third parties, rather than building products that integrate with Facebook and our other products. We are continuously seeking to balance the distribution objectives of our developers with our desire to provide an optimal user experience, and we may not be successful in achieving a balance that continues to attract and retain such developers. For example, from time to time, we have taken actions to reduce the volume of communications from these developers to users on Facebook and our other products with the objective of enhancing the user experience, and such actions have reduced distribution from, user engagement with, and our monetization opportunities from, mobile and web applications integrated with our products. In addition, as part of our investment in safety and security, we are conducting investigations and audits of a large number of platform applications, and we also recently announced several product changes that restrict developer access to certain user data. In some instances, these actions, as well as

other actions to enforce our policies applicable to developers, have adversely affected, or will adversely affect, our relationships with developers. If we are not successful in our efforts to maintain or grow the number of developers that choose to build products that integrate with Facebook and our other products or if we are unable to continue to build and maintain good relations with such developers, our user growth and user engagement and our financial results may be adversely affected.

Payment transactions may subject us to additional regulatory requirements and other risks that could be costly and difficult to comply with or that could harm our business.

Our users can purchase virtual and digital goods from developers that offer applications using our Payments infrastructure on the Facebook website. In addition, certain of our users can use our Payments infrastructure, including on Messenger, for other activities, such as sending money to other users and making donations to certain charitable organizations. We are subject to a variety of laws and regulations in the United States, Europe, and elsewhere, including those governing anti-money laundering and counter-terrorist financing, money transmission, gift cards and other prepaid access instruments, electronic funds transfer, charitable fundraising, and import and export restrictions. Depending on how our Payments product evolves, we may also be subject to other laws and regulations including those governing gambling, banking, and lending. In some jurisdictions, the application or interpretation of these laws and regulations is not clear. To increase flexibility in how our use of Payments may evolve and to mitigate regulatory uncertainty, we have received certain money transmitter licenses in the United States and an Electronic Money (E-Money) license that allows us to conduct certain regulated payment activities in the participating member countries of the European Economic Area, which will generally require us to demonstrate compliance with many domestic and foreign laws in these areas. Our efforts to comply with these laws and regulations could be costly and result in diversion of management time and effort and may still not guarantee compliance. In the event that we are found to be in violation of any such legal or regulatory requirements, we may be subject to monetary fines or other penalties such as a cease and desist order, or we may be required to make product changes, any of which could have an adverse effect on our business and financial results.

In addition, we may be subject to a variety of additional risks as a result of Payments transactions, including: increased costs and diversion of management time and effort and other resources to deal with bad transactions or customer disputes; potential fraudulent or otherwise illegal activity by users, developers, employees, or third parties; restrictions on the investment of consumer funds used to transact Payments; and additional disclosure and reporting requirements. We also intend to launch certain payments functionality on WhatsApp, which may subject us to many of the foregoing risks.

We have significant international operations and plan to continue expanding our operations abroad where we have more limited operating experience, and this may subject us to increased business and economic risks that could affect our financial results.

We have significant international operations and plan to continue the international expansion of our business operations and the translation of our products. We currently make Facebook available in more than 100 different languages, and we have offices or data centers in more than 30 different countries. We may enter new international markets where we have limited or no experience in marketing, selling, and deploying our products. Our products are generally available globally, but some or all of our products or functionality may not be available in certain markets due to legal and regulatory complexities. For example, Facebook and certain of our other products are not generally available in China. We also outsource certain operational functions to third-party vendors globally. If we fail to deploy, manage, or oversee our international operations successfully, our business may suffer. In addition, we are subject to a variety of risks inherent in doing business internationally, including:

- political, social, or economic instability;
- risks related to legal, regulatory, and other government scrutiny applicable to U.S. companies with sales and operations in foreign jurisdictions, including with respect to privacy, tax, law enforcement, content, trade compliance, intellectual property, and terrestrial infrastructure matters;
- potential damage to our brand and reputation due to compliance with local laws, including potential censorship or requirements to provide user information to local authorities;
- enhanced difficulty in reviewing content on our platform and enforcing our community standards across different languages and countries;
- fluctuations in currency exchange rates and compliance with currency controls;
- foreign exchange controls and tax and other regulations and orders that might prevent us from repatriating cash earned in countries outside the United States or otherwise limit our ability to move cash freely, and impede our ability to invest such cash efficiently;
- higher levels of credit risk and payment fraud;

- enhanced difficulties of integrating any foreign acquisitions;
- burdens of complying with a variety of foreign laws, including laws related to taxation, content removal, data localization, and regulatory oversight;

- reduced protection for intellectual property rights in some countries;
- difficulties in staffing, managing, and overseeing global operations and the increased travel, infrastructure, and legal compliance costs associated with multiple international locations;
- compliance with the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act, and similar laws in other jurisdictions;
- compliance with statutory equity requirements and management of tax consequences; and
- geopolitical events affecting us, our marketers or our industry, including trade disputes.

If we are unable to expand internationally and manage the complexity of our global operations successfully, our financial results could be adversely affected.

We face design, manufacturing, and supply chain risks that, if not properly managed, could adversely impact our financial results.

We face a number of risks related to design, manufacturing, and supply chain management with respect to our consumer hardware products. For example, the consumer hardware products we sell may have quality issues resulting from the design or manufacture of the products, or from the software used in the products. Sometimes, these issues may be caused by components we purchase from other manufacturers or suppliers. If the quality of our consumer hardware products does not meet our customers' expectations or such products are found to be defective, then our brand and financial results could be adversely affected.

We rely on third parties to manufacture and manage the logistics of transporting and distributing our consumer hardware products. We may experience supply shortages or other disruptions in logistics or the supply chain in the future that could result in shipping delays and negatively impact our operations. We could be negatively affected if we are not able to engage third parties with the necessary capabilities or capacity on reasonable terms, or if those we engage with fail to meet their obligations (whether due to financial difficulties or other reasons), or make adverse changes in the pricing or other material terms of such arrangements with them.

We also require the suppliers and business partners of our consumer hardware products to comply with laws and certain company policies regarding sourcing practices and standards on labor, health and safety, the environment, and business ethics, but we do not control them or their practices and standards. If any of them violates laws, fails to implement changes in accordance with newly enacted laws, or implements practices or standards regarded as unethical, corrupt, or non-compliant, we could experience supply chain disruptions, government action or fines, canceled orders, or damage to our reputation.

We may face inventory risk with respect to our consumer hardware products.

We may be exposed to inventory risks with respect to our consumer hardware products as a result of rapid changes in product cycles and pricing, unsafe or defective merchandise, changes in consumer demand and consumer spending patterns, changes in consumer tastes with respect to our consumer hardware products, and other factors. We endeavor to accurately predict these trends and avoid overstocking or understocking consumer hardware products we may sell. Demand for products, however, can change significantly between the time inventory or components are ordered and the date of sale. In addition, when we begin selling or manufacturing a new consumer hardware product, it may be difficult to establish vendor relationships, determine appropriate product or component selection, and accurately forecast demand. The acquisition of certain types of inventory or components may require significant lead-time and prepayment and they may not be returnable. Any one of these factors may adversely affect our operating results.

We may have exposure to greater than anticipated tax liabilities.

Our tax obligations, including income and non-income taxes, are based in part on our corporate operating structure and intercompany arrangements, including the manner in which we operate our business, develop, value, manage, protect, and use our intellectual property, and the valuations of our intercompany transactions. The tax laws applicable to our business, including the laws of the United States and other jurisdictions, are subject to interpretation and certain jurisdictions are aggressively interpreting their laws in new ways in an effort to raise additional tax revenue from companies such as Facebook. We are subject to regular review and audit by U.S. federal, state, and foreign tax authorities. Tax authorities may disagree with certain positions we have taken, including our methodologies for valuing developed technology or intercompany arrangements, and any adverse outcome of such a review or audit could increase our worldwide effective tax rate, increase the amount of non-income taxes imposed on our business, and harm our financial position, results of operations, and cash flows. For example, in 2016 and 2018, the IRS issued

formal assessments relating to transfer pricing with our foreign subsidiaries in conjunction with the examination of the 2010 through 2013 tax years. Although we disagree with the IRS's position and are contesting this issue, the ultimate resolution is uncertain and, if resolved in a manner unfavorable to us, may adversely affect our financial results.

The determination of our worldwide provision for income taxes and other tax liabilities requires significant judgment by management, and there are many transactions where the ultimate tax determination is uncertain. Our provision for income taxes is determined by the manner in which we operate our business, and any changes to such operations or laws applicable to such operations may affect our effective tax rate. Although we believe that our provision for income taxes and estimates of our non-income tax liabilities are reasonable, the ultimate settlement may differ from the amounts recorded in our financial statements and may materially affect our financial results in the period or periods for which such determination is made.

Our future income tax rates could be volatile and difficult to predict due to changes in jurisdictional profit split, changes in the amount and recognition of deferred tax assets and liabilities, or by changes in tax laws, regulations, or accounting principles.

Changes in tax laws or tax rulings could materially affect our financial position, results of operations, and cash flows.

The tax regimes we are subject to or operate under, including income and non-income taxes, are unsettled and may be subject to significant change. Changes in tax laws or tax rulings, or changes in interpretations of existing laws, could materially affect our financial position, results of operations, and cash flows. For example, the 2017 Tax Cuts and Jobs Act (Tax Act) enacted in December 2017 had a significant impact on our tax obligations and effective tax rate for the fourth quarter of 2017, and the issuance of additional regulatory or accounting guidance related to the Tax Act could materially affect our tax obligations and effective tax rate in the period issued. In addition, the Ninth Circuit Court of Appeals is expected to issue a decision in Altera Corp. v. Commissioner regarding the treatment of share-based compensation expense in a cost sharing arrangement, which could have a material effect on our tax obligations and effective tax rate for the quarter in which the decision is issued. In addition, many countries in Europe, as well as a number of other countries and organizations, have recently proposed or recommended changes to existing tax laws or have enacted new laws that could significantly increase our tax obligations in many countries where we do business or require us to change the manner in which we operate our business.

The Organization for Economic Cooperation and Development has been working on a Base Erosion and Profit Shifting Project, and issued a report in 2015, an interim report in 2018, and is expected to continue to issue guidelines and proposals that may change various aspects of the existing framework under which our tax obligations are determined in many of the countries in which we do business. Similarly, the European Commission and several countries have issued proposals that would change various aspects of the current tax framework under which we are taxed. These proposals include changes to the existing framework to calculate income tax, as well as proposals to change or impose new types of non-income taxes, including taxes based on a percentage of revenue. For example, the United Kingdom, Spain, Italy, and France have each proposed taxes applicable to digital services, which includes business activities on social media platforms and online marketplaces, and would likely apply to our business.

The European Commission has conducted investigations in multiple countries focusing on whether local country tax rulings or tax legislation provides preferential tax treatment that violates European Union state aid rules and concluded that certain countries, including Ireland, have provided illegal state aid in certain cases. These investigations may result in changes to the tax treatment of our foreign operations.

Due to the large and expanding scale of our international business activities, many of these types of changes to the taxation of our activities described above could increase our worldwide effective tax rate, increase the amount of non-income taxes imposed on our business, and harm our financial position, results of operations, and cash flows. Such changes may also apply retroactively to our historical operations and result in taxes greater than the amounts estimated and recorded in our financial statements.

We cannot guarantee that our share repurchase program will be fully consummated or that it will enhance long-term stockholder value. Share repurchases could also increase the volatility of the trading price of our stock and will diminish our cash reserves.

Although our board of directors has authorized a share repurchase program that commenced in 2017 and does not have an expiration date, the program does not obligate us to repurchase any specific dollar amount or to acquire any specific number of shares of our Class A common stock. We cannot guarantee that the program will be fully consummated or that it will enhance long-term stockholder value. The program could affect the trading price of our stock and increase volatility, and any announcement of a termination of this program may result in a decrease in the trading price of our stock. In addition, this program will diminish our cash reserves.

Risks Related to Ownership of Our Class A Common Stock

The trading price of our Class A common stock has been and will likely continue to be volatile.

The trading price of our Class A common stock has been, and is likely to continue to be, volatile. Since shares of our Class A common stock were sold in our initial public offering in May 2012 at a price of $38.00 per share, our stock price has ranged from $17.55 to $218.62 through March 31, 2019. In addition to the factors discussed in this Quarterly Report on Form 10-Q, the trading

price of our Class A common stock may fluctuate significantly in response to numerous factors, many of which are beyond our control, including:

- actual or anticipated fluctuations in our revenue and other operating results;
- the financial projections we may provide to the public, any changes in these projections or our failure to meet these projections;
- actions of securities analysts who initiate or maintain coverage of us, changes in financial estimates by any securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- additional shares of our stock being sold into the market by us, our existing stockholders, or in connection with acquisitions, or the anticipation of such sales;
- investor sentiment with respect to our competitors, our business partners, and our industry in general;
- announcements by us or our competitors of significant products or features, technical innovations, acquisitions, strategic partnerships, joint ventures, or capital commitments;
- announcements by us or estimates by third parties of actual or anticipated changes in the size of our user base, the level of user engagement, or the effectiveness of our ad products;
- changes in operating performance and stock market valuations of technology companies in our industry, including our developers and competitors;
- price and volume fluctuations in the overall stock market, including as a result of trends in the economy as a whole;
- the inclusion, exclusion, or deletion of our stock from any trading indices, such as the S&P 500 Index;
- media coverage of our business and financial performance;
- lawsuits threatened or filed against us, or developments in pending lawsuits;
- developments in anticipated or new legislation or regulatory actions, including interim or final rulings by tax, judicial, or regulatory bodies;
- trading activity in our share repurchase program; and
- other events or factors, including those resulting from war or incidents of terrorism, or responses to these events.

In addition, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many technology companies. Stock prices of many technology companies have fluctuated in a manner unrelated or disproportionate to the operating performance of those companies. We are currently subject to securities litigation in connection with our platform and user data practices and the misuse of certain data by a developer that shared such data with third parties in violation of our terms and policies, as well as the disclosure of our earnings results for the second quarter of 2018. We may experience more such litigation following future periods of volatility. Any securities litigation could subject us to substantial costs, divert resources and the attention of management from our business, and adversely affect our business.

We do not intend to pay cash dividends for the foreseeable future.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain any future earnings to finance the operation and expansion of our business and fund our share repurchase program, and we do not expect to declare or pay any cash dividends in the foreseeable future. As a result, you may only receive a return on your investment in our Class A common stock if the trading price of your shares increases.

The dual class structure of our common stock and a voting agreement between certain stockholders have the effect of concentrating voting control with our CEO and certain other holders of our Class B common stock; this will limit or preclude your ability to influence corporate matters.

Our Class B common stock has ten votes per share and our Class A common stock has one vote per share. Stockholders who hold shares of Class B common stock, including certain of our executive officers, employees, and directors and their affiliates, together hold a substantial majority of the voting power of our outstanding capital stock. Because of the ten-to-one voting ratio between our Class B and Class A common stock, the holders of our Class B common stock collectively control a majority of the

combined voting power of our common stock and therefore are able to control all matters submitted to our stockholders for approval so long as the shares of Class B common stock represent at least 9.1% of all outstanding shares of our Class A and Class B common stock. This concentrated control will limit or preclude your ability to influence corporate matters for the foreseeable future.

Transfers by holders of Class B common stock will generally result in those shares converting to Class A common stock, subject to limited exceptions, such as certain transfers effected for estate planning or charitable purposes. The conversion of Class B common stock to Class A common stock will have the effect, over time, of increasing the relative voting power of those holders of Class B common stock who retain their shares in the long term. If, for example, Mr. Zuckerberg retains a significant portion of his holdings of Class B common stock for an extended period of time, he could, in the future, continue to control a majority of the combined voting power of our outstanding capital stock.

Our status as a "controlled company" could make our Class A common stock less attractive to some investors or otherwise harm our stock price.

Because we qualify as a "controlled company" under the corporate governance rules for Nasdaq-listed companies, we are not required to have a majority of our board of directors be independent, nor are we required to have a compensation committee or an independent nominating function. In light of our status as a controlled company, our board of directors determined not to have a separate and independent nominating function and chose to have the full board of directors be directly responsible for nominating members of our board, and in the future we could elect not to have a majority of our board of directors be independent or not to have a compensation committee. Accordingly, should the interests of our controlling stockholder differ from those of other stockholders, the other stockholders may not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance rules for Nasdaq-listed companies. Our status as a controlled company could make our Class A common stock less attractive to some investors or otherwise harm our stock price.

Delaware law and provisions in our restated certificate of incorporation and bylaws could make a merger, tender offer, or proxy contest difficult, thereby depressing the trading price of our Class A common stock.

Our status as a Delaware corporation and the anti-takeover provisions of the Delaware General Corporation Law may discourage, delay, or prevent a change in control by prohibiting us from engaging in a business combination with an interested stockholder for a period of three years after the person becomes an interested stockholder, even if a change of control would be beneficial to our existing stockholders. In addition, our current restated certificate of incorporation and bylaws contain provisions that may make the acquisition of our company more difficult, including the following:

- until the first date on which the outstanding shares of our Class B common stock represent less than 35% of the combined voting power of our common stock, any transaction that would result in a change in control of our company requires the approval of a majority of our outstanding Class B common stock voting as a separate class;
- we currently have a dual class common stock structure, which provides Mr. Zuckerberg with the ability to control the outcome of matters requiring stockholder approval, even if he owns significantly less than a majority of the shares of our outstanding Class A and Class B common stock;
- when the outstanding shares of our Class B common stock represent less than a majority of the combined voting power of common stock, certain amendments to our restated certificate of incorporation or bylaws will require the approval of two-thirds of the combined vote of our then-outstanding shares of Class A and Class B common stock;
- when the outstanding shares of our Class B common stock represent less than a majority of the combined voting power of our common stock, vacancies on our board of directors will be able to be filled only by our board of directors and not by stockholders;
- when the outstanding shares of our Class B common stock represent less than a majority of the combined voting power of our common stock, our board of directors will be classified into three classes of directors with staggered three-year terms and directors will only be able to be removed from office for cause;
- when the outstanding shares of our Class B common stock represent less than a majority of the combined voting power of our common stock, our stockholders will only be able to take action at a meeting of stockholders and not by written consent;
- only our chairman, our chief executive officer, our president, or a majority of our board of directors are authorized to call a special meeting of stockholders;

- advance notice procedures apply for stockholders to nominate candidates for election as directors or to bring matters before an annual meeting of stockholders;

- our restated certificate of incorporation authorizes undesignated preferred stock, the terms of which may be established, and shares of which may be issued, without stockholder approval; and
- certain litigation against us can only be brought in Delaware.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

a) Sales of Unregistered Securities

None.

c) Issuer Purchases of Equity Securities

The following table summarizes the share repurchase activity for the three months ended March 31, 2019:

	Total Number of Shares Purchased[1]	Average Price Paid Per Share[2]	Total Number of Shares Purchased as Part of Publicly Announced Programs[1]	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs [1]
	(in thousands)		(in thousands)	(in millions)
January 1 - 31, 2019	—	$—	—	$ 9,000
February 1 - 28, 2019	—	$—	—	$ 9,000
March 1 - 31, 2019	3,137	$166.34	3,137	$ 8,478
	3,137		3,137	

(1) Our board of directors has authorized a share repurchase program of our Class A common stock, which commenced in January 2017 and does not have an expiration date. In December 2018, our board of directors authorized an additional $9.0 billion of repurchases under this program. As of March 31, 2019, approximately $8.5 billion remained available and authorized for repurchases. The timing and actual number of shares repurchased depend on a variety of factors, including price, general business and market conditions, and other investment opportunities, and shares may be repurchased through open market purchases or privately negotiated transactions, including through the use of trading plans intended to qualify under Rule 10b5-1 under the Exchange Act.

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

Item 6. Exhibits

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
3.1	Amended and Restated Bylaws.	8-K	001-35551	3.1	April 15, 2019	
10.1	Form of Indemnification Agreement.	8-K	001-35551	10.1	April 15, 2019	
10.2	2012 Equity Incentive Plan forms of award agreements.					X
10.3	Bonus Plan.					X
10.4	Advisory Services Agreement, dated April 8, 2019, between Registrant and Christopher Cox.					X
31.1	Certification of Mark Zuckerberg, Chief Executive Officer, pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of David M. Wehner, Chief Financial Officer, pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1#	Certification of Mark Zuckerberg, Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2#	Certification of David M. Wehner, Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
101.INS	XBRL Instance Document.					X
101.SCH	XBRL Taxonomy Extension Schema Document.					X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.					X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.					X
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document.					X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.					X

This certification is deemed not filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (Exchange Act), or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended (Securities Act), or the Exchange Act.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this Quarterly Report on Form 10-Q to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Menlo Park, State of California, on this 24th day of April 2019.

FACEBOOK, INC.

Date: April 24, 2019 /s/ DAVID M. WEHNER
David M. Wehner
Chief Financial Officer
(Principal Financial Officer)

Date: April 24, 2019 /s/ SUSAN J.S. TAYLOR
Susan J.S. Taylor
Chief Accounting Officer
(Principal Accounting Officer)