

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

FORM 10-Q

(Mark One)

- ☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the quarterly period ended March 31, 2021
or
☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from _____ to _____
Commission File Number: 001-35551

Facebook, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

20-1665019
(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)

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

Title of each class
Class A Common Stock, par value \$0.000006

Trading Symbol(s)
FB

Name of each exchange on which registered
The Nasdaq Stock Market LLC

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 ☒ No ☐
Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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 ☒

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	2,396,047,121 shares outstanding as of April 23, 2021
Class B Common Stock \$0.000006 par value	439,417,713 shares outstanding as of April 23, 2021

FACEBOOK, INC.
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NOTE ABOUT FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements. 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 subsidiaries. The term "Facebook" may also refer to our products, regardless of the manner in which they are accessed. The term "Family" refers to our Facebook, Instagram, Messenger, and WhatsApp products. For references to accessing Facebook or our other products on the "web" or via a "website," such terms refer to accessing such products on personal computers. For references to accessing Facebook or our other products on "mobile," such term refers to accessing such products via a mobile application or via a mobile-optimized version of our websites 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 are calculated using internal company data based on the activity of user accounts. We have historically reported the numbers of our daily active users (DAUs), monthly active users (MAUs), and average revenue per user (ARPU) (collectively, our "Facebook metrics") based on user activity only on Facebook and Messenger and not on our other products. Beginning with our Annual Report on Form 10-K for the year ended December 31, 2019, we also report our estimates of the numbers of our daily active people (DAP), monthly active people (MAP), and average revenue per person (ARPP) (collectively, our "Family metrics") based on the activity of users who visited at least one of Facebook, Instagram, Messenger, and WhatsApp (collectively, our "Family" of products) during the applicable period of measurement. We believe our Family metrics better reflect the size of our community and the fact that many people are using more than one of our products. As a result, over time we intend to report our Family metrics as key metrics in place of DAUs, MAUs, and ARPU in our periodic reports filed with the Securities and Exchange Commission.

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. The methodologies used to measure these metrics require significant judgment and are also susceptible to algorithm or other technical errors. 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 review our processes for calculating these metrics, and from time to time we discover inaccuracies in our metrics or make adjustments to improve their accuracy, which can result in adjustments to our historical metrics. Our ability to recalculate our historical metrics may be impacted by data limitations or other factors that require us to apply different methodologies for such adjustments. We generally do not intend to update previously disclosed Family metrics for any such inaccuracies or adjustments that are within the error margins disclosed below.

In addition, our Facebook metrics and Family metrics estimates will differ from estimates published by third parties due to differences in methodology.

Facebook Metrics

We regularly evaluate our Facebook 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) violating accounts, which represent user profiles that we believe are intended to be used for purposes that violate our terms of service, such as bots and spam. 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 identical IP addresses and similar 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. Any loss of access to data signals we use in this process, whether as a result of our own product decisions, actions by third-party browser or mobile platforms, regulatory or legislative requirements, limitations while our personnel work remotely during the COVID-19 pandemic, or other factors, also may impact the stability or accuracy of our estimates of duplicate and false accounts. Our estimates also may change as our methodologies evolve, including through the application of new data signals or technologies or product changes that 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 2020, 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 2020, 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 disable certain user accounts, 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. We intend to disclose our estimates of the number of duplicate and false accounts among our MAUs on an annual basis.

The numbers of DAUs and MAUs discussed in this Quarterly Report on Form 10-Q, as well as ARPU, do not include users on Instagram, WhatsApp, or our other products, unless they would otherwise qualify as DAUs or MAUs, respectively, based on their other activities on Facebook.

Family Metrics

Many people in our community have user accounts on more than one of our products, and some people have multiple user accounts within an individual product. Accordingly, for our Family metrics, we do not seek to count the total number of user accounts across our products because we believe that would not reflect the actual size of our community. Rather, our Family metrics represent our estimates of the number of unique people using at least one of Facebook, Instagram, Messenger, and WhatsApp. We do not require people to use a common identifier or link their accounts to use multiple products in our Family, and therefore must seek to attribute multiple user accounts within and across products to individual people. To calculate these metrics, we rely upon complex techniques, algorithms and machine learning models that seek to count the individual people behind user accounts, including by matching multiple user accounts within an individual product and across multiple products when we believe they are attributable to a single person, and counting such group of accounts as one person. These techniques and models require significant judgment, are subject to data and other limitations discussed below, and inherently are subject to statistical variances and uncertainties. We estimate the potential error in our Family metrics primarily based on user survey data, which itself is subject to error as well. While we expect the error margin for our Family metrics to vary from period to period, we estimate that such margin generally will be approximately 4% of our worldwide MAP. At our scale, it is very difficult to attribute multiple user accounts within and across products to individual people, and it is possible that the actual numbers of unique people using our products may vary significantly from our estimates, potentially beyond our estimated error margins. As a result, it is also possible that our Family metrics may indicate changes or trends in user numbers that do not match actual changes or trends.

To calculate our estimates of Family DAP and MAP, we currently use a series of machine learning models that are developed based on internal reviews of limited samples of user accounts and calibrated against user survey data. We apply significant judgment in designing these models and calculating these estimates. For example, to match user accounts within individual products and across multiple products, we use data signals such as similar device information, IP addresses, and user names. We also calibrate our models against data from periodic user surveys of varying sizes and frequency across our products, which are inherently subject to error. The timing and results of such user surveys have in the past contributed, and may in the future contribute, to changes in our reported Family metrics from period to period. In addition, our data limitations may affect our understanding of certain details of our business and increase the risk of error for our Family metrics estimates. Our techniques and models rely on a variety of data signals from different products, and we rely on more limited data signals for some products compared to others. For example, as a result of limited visibility into encrypted products, we have fewer data signals from WhatsApp user accounts and primarily rely on phone numbers and device information to match WhatsApp user accounts with accounts on our other products. Similarly, although Messenger Kids users are included in our Family metrics, we do not seek to match their accounts with accounts on our other applications for purposes of calculating DAP and MAP. Any loss of access to data signals we use in our process for calculating Family metrics, whether as a result of our own product decisions, actions by third-party browser or mobile platforms, regulatory or legislative requirements, limitations while our personnel work remotely during the COVID-19 pandemic, or other factors, also may impact the stability or accuracy of our reported Family metrics. Our estimates of Family metrics also may change as our methodologies evolve, including through the application of new data signals or technologies, product changes, or other improvements in our user surveys, algorithms, or machine learning that may improve our ability to match accounts within and across our products or otherwise evaluate the broad population of our users. In addition, such evolution may allow us to identify previously undetected violating accounts (as defined below).

We regularly evaluate our Family metrics to estimate the percentage of our MAP consisting solely of "violating" accounts. We define "violating" accounts as accounts which we believe are intended to be used for purposes that violate our terms of service, including bots and spam. In the fourth quarter of 2020, we estimated that approximately 3% of our worldwide MAP consisted solely of violating accounts. Such estimation is based on an internal review of a limited sample of accounts, and we apply significant judgment in making this determination. For example, we look for account information and behaviors associated with Facebook and Instagram accounts that appear to be inauthentic to the reviewers, but we have

limited visibility into WhatsApp user activity due to encryption. In addition, if we believe an individual person has one or more violating accounts, we do not include such person in our violating accounts estimation as long as we believe they have one account that does not constitute a violating account. From time to time, we disable certain user accounts, make product changes, or take other actions to reduce the number of violating accounts among our users, which may also reduce our DAP and MAP estimates in a particular period. We intend to disclose our estimates of the percentage of our MAP consisting solely of violating accounts on an annual basis. Violating accounts are very difficult to measure at our scale, and it is possible that the actual number of violating accounts may vary significantly from our estimates.

The numbers of Family DAP and MAP discussed in this Quarterly Report on Form 10-Q, as well as ARPP, do not include users on our other products, unless they would otherwise qualify as DAP or MAP, respectively, based on their other activities on our Family products.

User Geography

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 our metrics are also susceptible to algorithm or other technical errors, and our estimates for revenue by user location and revenue by user device are also affected by these factors.

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, 2021	December 31, 2020
Assets		
Current assets:		
Cash and cash equivalents	\$ 19,513	\$ 17,576
Marketable securities	44,706	44,378
Accounts receivable, net of allowances of \$111 million and \$114 million as of March 31, 2021 and December 31, 2020, respectively	10,276	11,335
Prepaid expenses and other current assets	2,827	2,381
Total current assets	77,322	75,670
Equity investments	6,342	6,234
Property and equipment, net	47,720	45,633
Operating lease right-of-use assets, net	10,202	9,348
Intangible assets, net	505	623
Goodwill	19,056	19,050
Other assets	2,376	2,758
Total assets	\$ 163,523	\$ 159,316
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	\$ 878	\$ 1,331
Partners payable	1,006	1,093
Operating lease liabilities, current	1,040	1,023
Accrued expenses and other current liabilities	9,411	11,152
Deferred revenue and deposits	382	382
Total current liabilities	12,717	14,981
Operating lease liabilities, non-current	10,574	9,631
Other liabilities	6,575	6,414
Total liabilities	29,866	31,026
Commitments and contingencies		
Stockholders' equity:		
Common stock, \$0.000006 par value; 5,000 million Class A shares authorized, 2,400 million and 2,406 million shares issued and outstanding, as of March 31, 2021 and December 31, 2020, respectively; 4,141 million Class B shares authorized, 441 million and 443 million shares issued and outstanding, as of March 31, 2021 and December 31, 2020, respectively	—	—
Additional paid-in capital	51,160	50,018
Accumulated other comprehensive income	154	927
Retained earnings	82,343	77,345
Total stockholders' equity	133,657	128,290
Total liabilities and stockholders' equity	\$ 163,523	\$ 159,316

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,	
	2021	2020
Revenue	\$ 26,171	\$ 17,737
Costs and expenses:		
Cost of revenue	5,131	3,459
Research and development	5,197	4,015
Marketing and sales	2,843	2,787
General and administrative	1,622	1,583
Total costs and expenses	14,793	11,844
Income from operations	11,378	5,893
Interest and other income (expense), net	125	(32)
Income before provision for income taxes	11,503	5,861
Provision for income taxes	2,006	959
Net income	\$ 9,497	\$ 4,902
Earnings per share attributable to Class A and Class B common stockholders:		
Basic	\$ 3.34	\$ 1.72
Diluted	\$ 3.30	\$ 1.71
Weighted-average shares used to compute earnings per share attributable to Class A and Class B common stockholders:		
Basic	2,847	2,851
Diluted	2,882	2,868
Share-based compensation expense included in costs and expenses:		
Cost of revenue	\$ 118	\$ 94
Research and development	1,408	999
Marketing and sales	174	149
General and administrative	130	93
Total share-based compensation expense	\$ 1,830	\$ 1,335

See Accompanying Notes to Condensed Consolidated Financial Statements.

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

	Three Months Ended March 31,	
	2021	2020
Net income	\$ 9,497	\$ 4,902
Other comprehensive income (loss):		
Change in foreign currency translation adjustment, net of tax	(601)	(376)
Change in unrealized gain (loss) on available-for-sale investments and other, net of tax	(172)	321
Comprehensive income	<u>\$ 8,724</u>	<u>\$ 4,847</u>

See Accompanying Notes to Condensed Consolidated Financial Statements.

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

	Three Months Ended March 31, 2021						Three Months Ended March 31, 2020					
	Class A and Class B Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income	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	2,849	\$ —	\$ 50,018	\$ 927	\$ 77,345	\$ 128,290	2,852	\$ —	\$ 45,851	\$ (489)	\$ 55,692	\$ 101,054
Issuance of common stock	11	—	—	—	—	—	8	—	—	—	—	—
Shares withheld related to net share settlement	(4)	—	(688)	—	(389)	(1,077)	(3)	—	(498)	—	(192)	(690)
Share-based compensation	—	—	1,830	—	—	1,830	—	—	1,335	—	—	1,335
Share repurchases	(15)	—	—	—	(4,110)	(4,110)	(6)	—	—	—	(1,242)	(1,242)
Other comprehensive loss	—	—	—	(773)	—	(773)	—	—	—	(55)	—	(55)
Net income	—	—	—	—	9,497	9,497	—	—	—	—	4,902	4,902
Balances at end of period	<u>2,841</u>	<u>\$ —</u>	<u>\$ 51,160</u>	<u>\$ 154</u>	<u>\$ 82,343</u>	<u>\$ 133,657</u>	<u>2,851</u>	<u>\$ —</u>	<u>\$ 46,688</u>	<u>\$ (544)</u>	<u>\$ 59,160</u>	<u>\$ 105,304</u>

See Accompanying Notes to Condensed Consolidated Financial Statements.

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

	Three Months Ended March 31,	
	2021	2020
Cash flows from operating activities		
Net income	\$ 9,497	\$ 4,902
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	1,972	1,597
Share-based compensation	1,830	1,335
Deferred income taxes	418	477
Other	(66)	6
Changes in assets and liabilities:		
Accounts receivable	849	2,046
Prepaid expenses and other current assets	(461)	(29)
Other assets	(10)	(16)
Accounts payable	(250)	(44)
Partners payable	(72)	(169)
Accrued expenses and other current liabilities	(1,681)	980
Deferred revenue and deposits	6	(16)
Other liabilities	210	(68)
Net cash provided by operating activities	12,242	11,001
Cash flows from investing activities		
Purchases of property and equipment	(4,272)	(3,558)
Purchases of marketable securities	(6,231)	(7,884)
Sales of marketable securities	1,650	2,764
Maturities of marketable securities	3,981	4,644
Other investing activities	(2)	(75)
Net cash used in investing activities	(4,874)	(4,109)
Cash flows from financing activities		
Taxes paid related to net share settlement of equity awards	(1,077)	(690)
Repurchases of Class A common stock	(3,939)	(1,250)
Principal payments on finance leases	(151)	(100)
Net change in overdraft in cash pooling entities	(50)	(80)
Other financing activities	32	98
Net cash used in financing activities	(5,185)	(2,022)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	(246)	(222)
Net increase in cash, cash equivalents, and restricted cash	1,937	4,648
Cash, cash equivalents, and restricted cash at beginning of the period	17,954	19,279
Cash, cash equivalents, and restricted cash at end of the period	\$ 19,891	\$ 23,927
Reconciliation of cash, cash equivalents, and restricted cash to the condensed consolidated balance sheets		
Cash and cash equivalents	\$ 19,513	\$ 23,618
Restricted cash, included in prepaid expenses and other current assets	257	137
Restricted cash, included in other assets	121	172
Total cash, cash equivalents, and restricted cash	\$ 19,891	\$ 23,927

See Accompanying Notes to Condensed Consolidated Financial Statements.

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

	Three Months Ended March 31,	
	2021	2020
Supplemental cash flow data		
Cash paid for income taxes	\$ 2,907	\$ 209
Non-cash investing and financing activities:		
Property and equipment in accounts payable and accrued expenses and other current liabilities	\$ 2,198	\$ 1,603
Acquisition of businesses in accrued expenses and other current liabilities and other liabilities	\$ 118	\$ 148
Repurchases of Class A common stock in accrued expenses and other current liabilities	\$ 240	\$ 35

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, 2020.

The condensed consolidated balance sheet as of December 31, 2020 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., its subsidiaries where we have controlling financial interests, and any variable interest entities for which we are deemed to be the primary beneficiary. 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, 2021.

Use of Estimates

Preparation of condensed consolidated financial statements in conformity with GAAP requires the use of estimates and judgments that affect the reported amounts in the condensed 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 revenue recognition, valuation of equity investments, income taxes, loss contingencies, valuation of long-lived assets including goodwill and intangible assets and their associated estimated useful lives, collectibility of accounts receivable, credit losses of available-for-sale debt securities, fair value of financial instruments, and leases. 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.

Significant Accounting Policies

There have been no material changes to our significant accounting policies from our Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

Recently Adopted Accounting Pronouncements

On January 1, 2021, we adopted Accounting Standards Update No. 2020-01, *Investments—Equity Securities (Topic 321), Investments—Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815)* (ASU 2020-01), which clarifies the interaction of the accounting for equity securities under Topic 321, the accounting for equity method investments in Topic 323, and the accounting for certain forward contracts and purchased options in Topic 815. The adoption of this new standard did not have a material impact on our condensed consolidated financial statements.

Accounting Pronouncements Not Yet Adopted

In August 2020, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2020-06, *Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity* (ASU 2020-06), which simplifies the accounting for convertible instruments by reducing the number of accounting models available for

convertible debt instruments. This guidance also eliminates the treasury stock method to calculate diluted earnings per share for convertible instruments and requires the use of the if-converted method. This guidance will be effective for us in the first quarter of 2022 on a full or modified retrospective basis, with early adoption permitted. We do not expect the adoption of this guidance to have a material impact on our consolidated financial statements.

Note 2. Revenue

Revenue disaggregated by revenue source consists of the following (in millions):

	Three Months Ended March 31,	
	2021	2020
Advertising	\$ 25,439	\$ 17,440
Other revenue	732	297
Total revenue	<u>\$ 26,171</u>	<u>\$ 17,737</u>

Revenue disaggregated by geography, based on the addresses of our customers, consists of the following (in millions):

	Three Months Ended March 31,	
	2021	2020
United States and Canada ⁽¹⁾	\$ 11,436	\$ 8,012
Europe ⁽²⁾	6,384	4,150
Asia-Pacific	6,101	3,971
Rest of World ⁽²⁾	2,250	1,604
Total revenue	<u>\$ 26,171</u>	<u>\$ 17,737</u>

(1) United States revenue was \$10.75 billion and \$7.55 billion for the three months ended March 31, 2021 and 2020, respectively.

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

Our total deferred revenue was \$378 million and \$371 million as of March 31, 2021 and December 31, 2020, respectively. As of March 31, 2021, we expect \$334 million of our deferred revenue to be realized in less than a year.

Note 3. Earnings per Share

We compute earnings per share (EPS) of Class A and Class B common stock using the two-class method.

Basic EPS is computed by dividing net income by the weighted-average number of shares of our Class A and Class B common stock outstanding.

For the calculation of diluted EPS, net income for basic EPS is adjusted by the effect of dilutive securities under our equity compensation plans. 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 by the weighted-average number of fully diluted common shares outstanding.

Restricted stock units (RSUs) with anti-dilutive effect were excluded from the EPS calculation and they were not material for the three months ended March 31, 2021 and 2020.

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,			
	2021		2020	
	Class A	Class B	Class A	Class B
Basic EPS:				
Numerator				
Net income	\$ 8,025	\$ 1,472	\$ 4,138	\$ 764
Denominator				
Weighted-average shares outstanding	2,406	441	2,407	444
Basic EPS	\$ 3.34	\$ 3.34	\$ 1.72	\$ 1.72
Diluted EPS:				
Numerator				
Net income	\$ 8,025	\$ 1,472	\$ 4,138	\$ 764
Reallocation of net income as a result of conversion of Class B to Class A common stock	1,472	—	764	—
Reallocation of net income to Class B common stock	—	(18)	—	(5)
Net income for diluted EPS	\$ 9,497	\$ 1,454	\$ 4,902	\$ 759
Denominator				
Number of shares used for basic EPS computation	2,406	441	2,407	444
Conversion of Class B to Class A common stock	441	—	444	—
Weighted-average effect of dilutive RSUs and employee stock options	35	—	17	—
Number of shares used for diluted EPS computation	2,882	441	2,868	444
Diluted EPS	\$ 3.30	\$ 3.30	\$ 1.71	\$ 1.71

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, 2021	December 31, 2020
Cash and cash equivalents:		
Cash	\$ 6,391	\$ 6,488
Money market funds	12,291	9,755
U.S. government securities	496	1,016
Certificate of deposits and time deposits	269	305
Corporate debt securities	66	12
Total cash and cash equivalents	19,513	17,576
Marketable securities:		
U.S. government securities	21,747	20,921
U.S. government agency securities	11,345	11,698
Corporate debt securities	11,614	11,759
Total marketable securities	44,706	44,378
Total cash and cash equivalents and marketable securities	\$ 64,219	\$ 61,954

The gross unrealized gains on our marketable securities were \$492 million and \$641 million as of March 31, 2021 and December 31, 2020, respectively. The gross unrealized losses on our marketable securities were not material as of March 31, 2021 and December 31, 2020. The allowance for credit losses was not material as of March 31, 2021.

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

	March 31, 2021
Due within one year	\$ 12,710
Due after one year to five years	31,996
Total	\$ 44,706

Note 5. Equity Investments

Our equity investments are investments in equity securities of privately-held companies without readily determinable market values. The changes in the carrying value of equity investments for the three months ended March 31, 2021 are as follows (in millions):

Balance as of December 31, 2020	\$	6,234
Impairment		(10)
Adjustments		118
Balance as of March 31, 2021	\$	6,342

Note 6. 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, 2021	Fair Value Measurement at Reporting Date Using	
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
Cash equivalents:			
Money market funds	\$ 12,291	\$ 12,291	\$ —
U.S. government securities	496	496	—
Certificate of deposits and time deposits	269	—	269
Corporate debt securities	66	—	66
Marketable securities:			
U.S. government securities	21,747	21,747	—
U.S. government agency securities	11,345	11,345	—
Corporate debt securities	11,614	—	11,614
Total cash equivalents and marketable securities	\$ 57,828	\$ 45,879	\$ 11,949

Description	December 31, 2020	Fair Value Measurement at Reporting Date Using	
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
Cash equivalents:			
Money market funds	\$ 9,755	\$ 9,755	\$ —
U.S. government securities	1,016	1,016	—
Certificate of deposits and time deposits	305	—	305
Corporate debt securities	12	—	12
Marketable securities:			
U.S. government securities	20,921	20,921	—
U.S. government agency securities	11,698	11,698	—
Corporate debt securities	11,759	—	11,759
Total cash equivalents and marketable securities	\$ 55,466	\$ 43,390	\$ 12,076

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.

We have other assets and liabilities classified within Level 3 because factors used to develop the estimated fair value are unobservable inputs that are not supported by market activity. The aggregate absolute value of these Level 3 assets and liabilities was not material as of March 31, 2021 and December 31, 2020.

Note 7. Property and Equipment

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

	March 31, 2021	December 31, 2020
Land	\$ 1,360	\$ 1,326
Buildings	18,075	17,360
Leasehold improvements	4,946	4,321
Network equipment	22,580	22,003
Computer software, office equipment and other	2,533	2,458
Finance lease right-of-use assets	2,398	2,295
Construction in progress	12,318	11,288
Total	64,210	61,051
Less: Accumulated depreciation	(16,490)	(15,418)
Property and equipment, net	\$ 47,720	\$ 45,633

Depreciation expense on property and equipment was \$1.85 billion and \$1.49 billion for the three months ended March 31, 2021 and 2020, respectively. 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.

Note 8. Leases

We have entered into various non-cancelable operating lease agreements for certain of our offices, data centers, land, colocations, and equipment. We have also entered into various non-cancelable finance lease agreements for certain network equipment. Our leases have original lease periods expiring between the remainder of 2021 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. Our lease agreements generally do not contain any material residual value guarantees or material restrictive covenants.

The components of lease costs are as follows (in millions):

	Three Months Ended March 31,	
	2021	2020
Finance lease cost		
Amortization of right-of-use assets	\$ 81	\$ 60
Interest	4	3
Operating lease cost	362	340
Variable lease cost and other, net	66	60
Total lease cost	\$ 513	\$ 463

Supplemental balance sheet information related to leases is as follows:

	March 31, 2021	December 31, 2020
Weighted-average remaining lease term		
Operating leases	12.5 years	12.2 years
Finance leases	14.8 years	14.9 years
Weighted-average discount rate		
Operating leases	2.9 %	3.1 %
Finance leases	2.9 %	2.9 %

The following is a schedule, by years, of maturities of lease liabilities as of March 31, 2021 (in millions):

	Operating Leases	Finance Leases
The remainder of 2021	\$ 957	\$ 53
2022	1,420	52
2023	1,331	44
2024	1,270	42
2025	1,106	42
Thereafter	8,318	413
Total undiscounted cash flows	14,402	646
Less: Imputed interest	(2,788)	(119)
Present value of lease liabilities	\$ 11,614	\$ 527
Lease liabilities, current	\$ 1,040	\$ 53
Lease liabilities, non-current	10,574	474
Present value of lease liabilities	\$ 11,614	\$ 527

The table above does not include lease payments that were not fixed at commencement or lease modification. As of March 31, 2021, we have additional operating and finance leases, that have not yet commenced, with lease obligations of approximately \$6.14 billion and \$543 million, respectively, mostly for offices, data centers and network equipment. These operating and finance leases will commence between the remainder of 2021 and 2025 with lease terms of greater than one year to 30 years.

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

	Three Months Ended March 31,	
	2021	2020
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows for operating leases	\$ 329	\$ 276
Operating cash flows for finance leases	\$ 4	\$ 3
Financing cash flows for finance leases	\$ 151	\$ 100
Lease liabilities arising from obtaining right-of-use assets:		
Operating leases	\$ 1,282	\$ 304
Finance leases	\$ 24	\$ 25

Note 9. Goodwill and Intangible Assets

The changes in the carrying amount of goodwill for the three months ended March 31, 2021 are as follows (in millions):

Balance as of December 31, 2020	\$	19,050
Effect of currency translation and other adjustments		6
Balance as of March 31, 2021	\$	19,056

The following table sets forth the major categories of the intangible assets and the weighted-average remaining useful lives for those assets that are not already fully amortized (in millions):

	Weighted-Average Remaining Useful Lives (in years)	March 31, 2021			December 31, 2020		
		Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Acquired users	0.5	\$ 2,057	\$ (1,912)	\$ 145	\$ 2,057	\$ (1,840)	\$ 217
Acquired technology	2.7	1,297	(1,114)	183	1,297	(1,088)	209
Acquired patents	3.9	805	(688)	117	805	(677)	128
Trade names	1.5	636	(626)	10	636	(622)	14
Other	3.0	223	(173)	50	223	(168)	55
Total intangible assets		\$ 5,018	\$ (4,513)	\$ 505	\$ 5,018	\$ (4,395)	\$ 623

Amortization expense of intangible assets was \$118 million and \$111 million for the three months ended March 31, 2021 and 2020, respectively.

As of March 31, 2021, expected amortization expense for the unamortized acquired intangible assets for the next five years and thereafter is as follows (in millions):

The remainder of 2021	\$	269
2022		121
2023		53
2024		29
2025		17
Thereafter		16
Total	\$	505

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 \$9.07 billion of non-cancelable contractual commitments as of March 31, 2021, which are primarily related to our investments in network infrastructure, consumer hardware and content costs. The majority of these commitments are due within five years.

Legal and Related 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. On September 25, 2019, the district court granted our motion to dismiss the consolidated putative securities class action, with leave to amend. On November 15, 2019, a second amended complaint was filed in the consolidated putative securities class action. On August 7, 2020, the district court granted our motion to dismiss the second amended complaint, with leave to amend. On October 16, 2020, a third amended complaint was filed in the consolidated putative securities class action. 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), state attorneys general, and other government inquiries in the United States, Europe, and other jurisdictions. We entered into a settlement and modified consent order to resolve the FTC inquiry, which took effect in April 2020. Among other matters, our settlement with the FTC required us to pay a penalty of \$ 5.0 billion, which was paid in April 2020 upon the effectiveness of the modified consent order. The state attorneys general inquiry and certain government inquiries in other jurisdictions remain ongoing.

On April 1, 2015, a putative class action was filed against us in the U.S. District Court for the Northern District of California by Facebook users alleging that the "tag suggestions" facial recognition feature violates the Illinois Biometric Information Privacy Act, and seeking statutory damages and injunctive relief. On April 16, 2018, the district court certified a class of Illinois residents, and on May 14, 2018, the district court denied both parties' motions for summary judgment. On May 29, 2018, the U.S. Court of Appeals for the Ninth Circuit granted our petition for review of the class certification order and stayed the proceeding. On August 8, 2019, the Ninth Circuit affirmed the class certification order. On December 2, 2019, we filed a petition with the U.S. Supreme Court seeking review of the decision of the Ninth Circuit, which was denied. On January 15, 2020, the parties agreed to a settlement in principle to resolve the lawsuit, which provided for a payment of \$550 million by us and was subject to court approval. On or about May 8, 2020, the parties executed a formal settlement agreement, and plaintiffs filed a motion for preliminary approval of the settlement by the district court. On June 4, 2020, the district court denied the plaintiffs' motion without prejudice. On July 22, 2020, the parties executed an amended settlement agreement, which, among other terms, provides for a payment of \$650 million by us. On February 26, 2021, the court granted final approval of the settlement and the payment was made in March 2021. On March 27 and March 29, 2021, objectors filed notices of appeal of the order granting final approval of the settlement.

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. The actions filed in the United States were consolidated in the U.S. District Court for the Northern District of California. On November 26, 2019, the district court certified a class for injunctive relief purposes but denied certification of a class for purposes of pursuing damages. On January 16, 2020, the parties agreed to a settlement in principle to resolve the lawsuit. On November 15, 2020, the court granted preliminary approval of the settlement. The settlement is subject to final court approval. We believe the remaining 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 (IDPC) and other government inquiries.

From time to time we also notify the IDPC, our designated European privacy regulator under the General Data Protection Regulation, of certain other personal data breaches and privacy issues, and are subject to inquiries and investigations regarding various aspects of our regulatory compliance. Although we are vigorously defending our regulatory compliance, we believe there is a reasonable possibility that the ultimate potential loss related to the inquiries and investigations by the IDPC could be material in the aggregate.

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.

With respect to the cases, actions, and inquiries described above, we evaluate the associated developments on a regular basis and accrue a liability when we believe a loss is probable and the amount can be reasonably estimated. In addition, we believe there is a reasonable possibility that we may incur a loss in some of these matters. With respect to the matters described above that do not include an estimate of the amount of loss or range of possible loss, such losses or range of possible losses either cannot be estimated or are not individually material, but we believe there is a reasonable possibility that they may be material in the aggregate.

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. For example, from time to time we are subject to various litigation and government inquiries and investigations, formal or informal, by competition authorities in the United States, Europe, and other jurisdictions. Such investigations, inquiries, and lawsuits concern, among other things, our business practices in the areas of social networking or social media services, digital advertising, and/or mobile or online applications, as well as past acquisitions. For example, in June 2019 we were informed by the FTC that it had opened an antitrust investigation of our company. On December 9, 2020, the FTC filed a complaint against us in the U.S. District Court for the District of Columbia alleging that we engaged in anticompetitive conduct and unfair methods of competition in violation of Section 5 of the Federal Trade Commission Act and Section 2 of the Sherman Act, including by acquiring Instagram in 2012 and WhatsApp in 2014 and by maintaining conditions on access to our platform. In addition, beginning in the third quarter of 2019, we became the subject of antitrust investigations by the U.S. Department of Justice and state attorneys general. On December 9, 2020, the attorneys general from 46 states, the territory of Guam, and the District of Columbia filed a complaint against us in the U.S. District Court for the District of Columbia alleging that we engaged in anticompetitive conduct in violation of Section 2 of the Sherman Act, including by acquiring Instagram in 2012 and WhatsApp in 2014 and by maintaining conditions on access to our platform. The complaint also alleges that we violated Section 7 of the Clayton Act by acquiring Instagram and WhatsApp. The lawsuits of the FTC and attorneys general both seek a permanent injunction against our company's alleged violations of the antitrust laws, and other equitable relief, including divestiture or reconstruction of Instagram and WhatsApp. Multiple putative class actions have also been filed in state and federal courts in the United States against us alleging violations of antitrust laws and other causes of action in connection with these acquisitions and other alleged anticompetitive conduct, and seeking unspecified damages and injunctive relief. We believe these lawsuits are without merit, and we are vigorously defending them.

Additionally, we are required to comply with various legal and regulatory obligations around the world. The requirements for complying with these obligations may be uncertain and subject to interpretation and enforcement by regulatory and other authorities, and any failure to comply with such obligations could eventually lead to asserted legal or regulatory action. With respect to these other legal proceedings, claims, regulatory, tax, or government inquiries and investigations, and other matters, asserted and unasserted, we evaluate the associated developments on a regular basis and accrue a liability when we believe a loss is probable and the amount can be reasonably estimated. In addition, we believe there is a reasonable possibility that we may incur a loss in some of these other matters. We believe that the amount of losses or any estimable range of possible losses with respect to these other matters will not, either individually or in the aggregate, have a material adverse effect on our business and condensed consolidated financial statements.

The ultimate outcome of the legal and related matters described in this section, such as whether the likelihood of loss is remote, reasonably possible, or probable, or if and when the reasonably possible range of loss is estimable, is inherently uncertain. Therefore, if one or more of these matters were resolved against us for amounts in excess of management's estimates of loss, 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.

Indemnifications

In the normal course of business, to facilitate transactions of services and products, we have agreed to indemnify certain parties with respect to certain matters. We have agreed to hold certain parties harmless against losses arising from a breach of representations or covenants, or out of intellectual property infringement or other claims made by third parties. These agreements may limit the time within which an indemnification claim can be made and the amount of the claim. In

addition, we have entered into indemnification agreements with our officers, directors, and certain employees, and our certificate of incorporation and bylaws contain similar indemnification obligations.

It is not possible to determine the maximum potential amount under these indemnification agreements due to the limited history of prior indemnification claims and the unique facts and circumstances involved in each particular agreement. Historically, payments made by us under these agreements have not had a material impact on our consolidated financial statements. In our opinion, as of March 31, 2021, there was not at least a reasonable possibility we had incurred a material loss with respect to indemnification of such parties. We have not recorded any liability for costs related to indemnification through March 31, 2021.

Note 11. Stockholders' Equity

Share Repurchase Program

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. As of December 31, 2020, \$8.60 billion remained available and authorized for repurchases under this program. In January 2021, an additional \$25.0 billion of repurchases was authorized under this program. During the three months ended March 31, 2021, we repurchased and subsequently retired 15 million shares of our Class A common stock for an aggregate amount of \$4.11 billion. As of March 31, 2021, \$29.49 billion remained available and authorized for repurchases.

The timing and actual number of shares repurchased under the 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 one active share-based employee compensation plan, the 2012 Equity Incentive Plan, which was amended in each of June 2016 and February 2018 (Amended 2012 Plan). Our Amended 2012 Plan 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. Shares that are withheld in connection with the net settlement of RSUs or forfeited under our stock plan are added to the reserves of the Amended 2012 Plan. We account for forfeitures as they occur.

Share-based compensation expense consists of the Company's RSUs expense. RSUs granted to employees are measured based on the grant-date fair value. In general, our RSUs vest over a service period of four years. Share-based compensation expense is generally recognized based on the straight-line basis over the requisite service period.

Effective January 1, 2021, there were 145 million shares of our Class A common stock reserved for future issuance under our Amended 2012 Plan. Pursuant to the automatic increase provision under our Amended 2012 Plan, the number of shares reserved for issuance 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, 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, 2021:

	Unvested RSUs	
	Number of Shares (in thousands)	Weighted-Average Grant Date Fair Value
Unvested at December 31, 2020	96,733	\$ 181.88
Granted	41,138	\$ 291.53
Vested	(10,446)	\$ 173.19
Forfeited	(2,286)	\$ 180.23
Unvested at March 31, 2021	125,139	\$ 218.68

The fair value as of the respective vesting dates of RSUs that vested during the three months ended March 31, 2021 and 2020 was \$2.83 billion and \$1.80 billion, respectively.

As of March 31, 2021, there was \$26.25 billion of unrecognized share-based compensation expense related to RSU awards. 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.

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 U.S. tax benefits from foreign derived intangible income, the effects of tax law changes, the effects of acquisitions, and the integration of those acquisitions.

Our gross unrecognized tax benefits were \$8.85 billion and \$8.69 billion on March 31, 2021 and December 31, 2020, respectively. If the gross unrecognized tax benefits as of March 31, 2021 were realized in a future period, this would result in a tax benefit of \$4.93 billion within our provision of income taxes at such time. The amount of interest and penalties accrued was \$811 million and \$774 million as of March 31, 2021 and December 31, 2020, respectively. We expect to continue to accrue unrecognized tax benefits for certain recurring tax positions.

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 and 2018 tax years and by the Irish tax authorities for our 2016 through 2018 tax years. Our 2017 and subsequent tax years remain open to examination by the IRS. Our 2019 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 stated that it will also apply its position for tax years subsequent to 2010 and has done so in years covered by the second Notice described below. We do not agree with the position of the IRS and have filed a petition in the Tax Court challenging the Notice. On January 15, 2020, the IRS's amendment to answer was filed stating that it planned to assert at trial an adjustment that is higher than the adjustment stated in the Notice. The first session of the trial was completed in March 2020 and a second session is expected to continue beginning in October 2021. Based on the information provided, we believe that, if the IRS prevails in its updated position, this could result in an additional federal tax liability of an estimated, aggregate amount of up to approximately \$9.0 billion in excess of the amounts in our originally filed U.S. return, plus interest and any penalties asserted.

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. returns, 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, *Income Taxes* that is lower than the potential additional federal tax liability from the positions taken by the IRS in the two Notices and its Pretrial Memorandum. 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. As of March 31, 2021, 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, 2021	December 31, 2020
United States	\$ 45,586	\$ 43,128
Rest of the world ⁽¹⁾	12,336	11,853
Total long-lived assets	<u>\$ 57,922</u>	<u>\$ 54,981</u>

(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, 2020, 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 community 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, 2021 and 2020—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, 2021 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 community metrics and financial results for the first quarter of 2021 are as follows:

Community growth:

- Facebook daily active users (DAUs) were 1.88 billion on average for March 2021, an increase of 8% year-over-year.
- Facebook monthly active users (MAUs) were 2.85 billion as of March 31, 2021, an increase of 10% year-over-year.
- Family daily active people (DAP) was 2.72 billion on average for March 2021, an increase of 15% year-over-year.
- Family monthly active people (MAP) was 3.45 billion as of March 31, 2021, an increase of 15% year-over-year.

Financial results:

- Revenue was \$26.17 billion, up 48% year-over-year, and advertising revenue was \$25.44 billion, up 46% year-over-year.
- Total costs and expenses were \$14.79 billion, up 25% year-over-year.
- Income from operations was \$11.38 billion, and operating margin was 43%.
- Net income was \$9.50 billion, with diluted earnings per share of \$3.30.
- Capital expenditures, including principal payments on finance leases, were \$4.42 billion.
- Effective tax rate was 17%.
- Cash and cash equivalents and marketable securities were \$64.22 billion as of March 31, 2021.
- Headcount was 60,654 as of March 31, 2021, an increase of 26% year-over-year.

Our mission is to give people the power to build community and bring the world closer together.

In response to the COVID-19 pandemic, we have focused on helping people stay connected, assisting the public health response, and working on the economic recovery. We have also continued to invest based on the following company priorities: (i) continue making progress on the major social issues facing the internet and our company, including privacy, safety, and security; (ii) build new experiences that meaningfully improve people's lives today and set the stage for even bigger improvements in the future; (iii) keep building our business by supporting the millions of businesses that rely on our services to grow and create jobs; and (iv) communicate more transparently about what we're doing and the role our services play in the world.

In the first quarter of 2021, we 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.

Our business and results of operations have been impacted by the COVID-19 pandemic and the preventative measures implemented by authorities to help limit the spread of the illness, which have caused, and are continuing to cause, business slowdowns or shutdowns in affected areas, both regionally and worldwide. Beginning in the first quarter of 2020, we experienced significant increases in the size and engagement of our active user base across a number of regions as a result of the COVID-19 pandemic. More recently, we have seen these pandemic-related trends subside, particularly in the United States & Canada region. We are unable to predict the impact of the pandemic on user growth and engagement with any certainty and we expect these trends to continue to be subject to volatility.

The COVID-19 pandemic has also previously caused a reduction in the demand for advertising, as well as a related decline in the pricing of our ads, particularly in the second quarter of 2020. More recently, we believe the pandemic has contributed to an acceleration in the shift of commerce from offline to online, as well as increasing consumer demand for purchasing products relative to services, and we experienced increasing demand for advertising as a result of these trends. However, it is possible that this increased demand may not continue in future periods and may even recede as the effects of the pandemic subside, which could adversely affect our advertising revenue growth. The impact of the pandemic on user growth and engagement, the demand for and pricing of our advertising services, as well as on our overall results of operations, remains highly uncertain for the foreseeable future. In addition, we expect that future advertising revenue growth will continue to be adversely affected by limitations on our ad targeting and measurement tools arising from changes to the regulatory environment and third-party mobile operating systems and browsers.

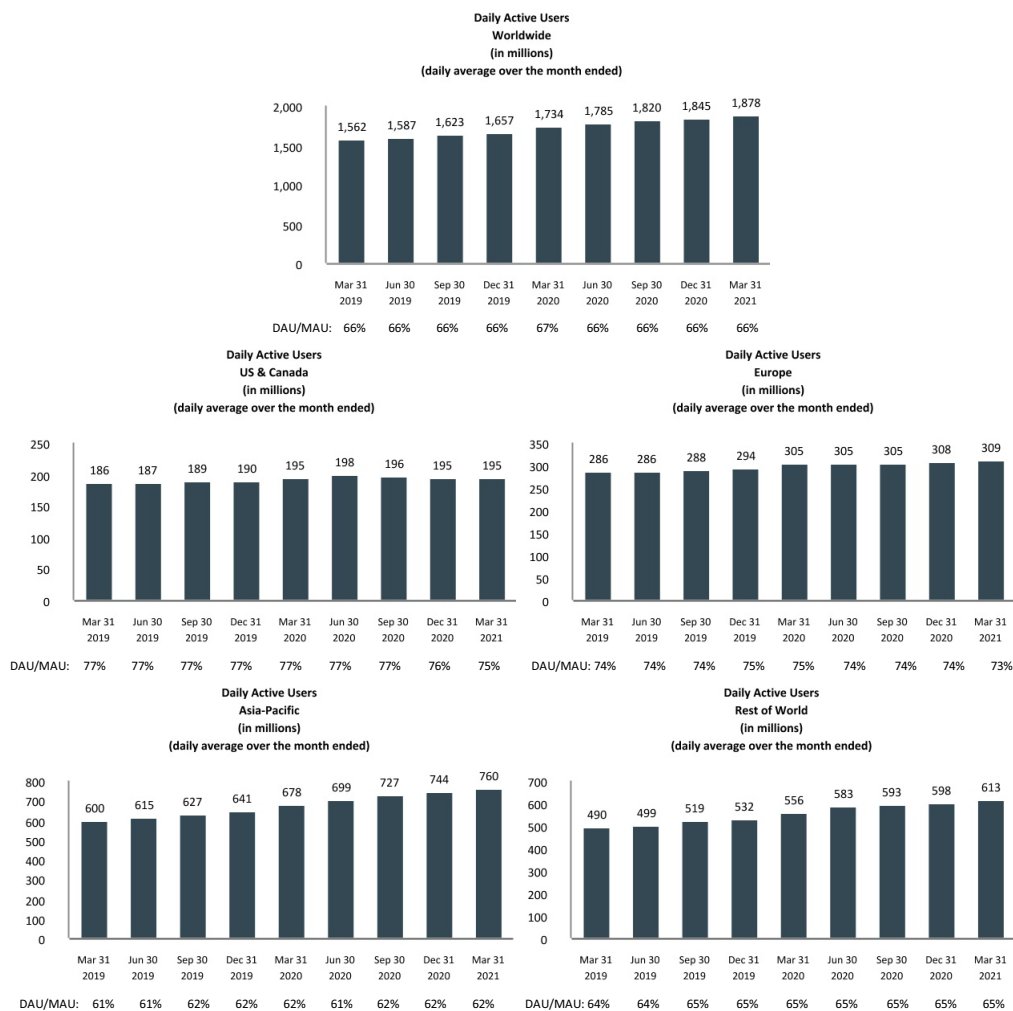
We intend to continue to invest in our business based on our company priorities, and we anticipate that additional investments in our data center capacity, servers, network infrastructure, and office facilities, as well as scaling our headcount to support our growth, including in our consumer hardware initiatives, will continue to drive expense growth in 2021.

Trends in Our Facebook User Metrics

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

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.

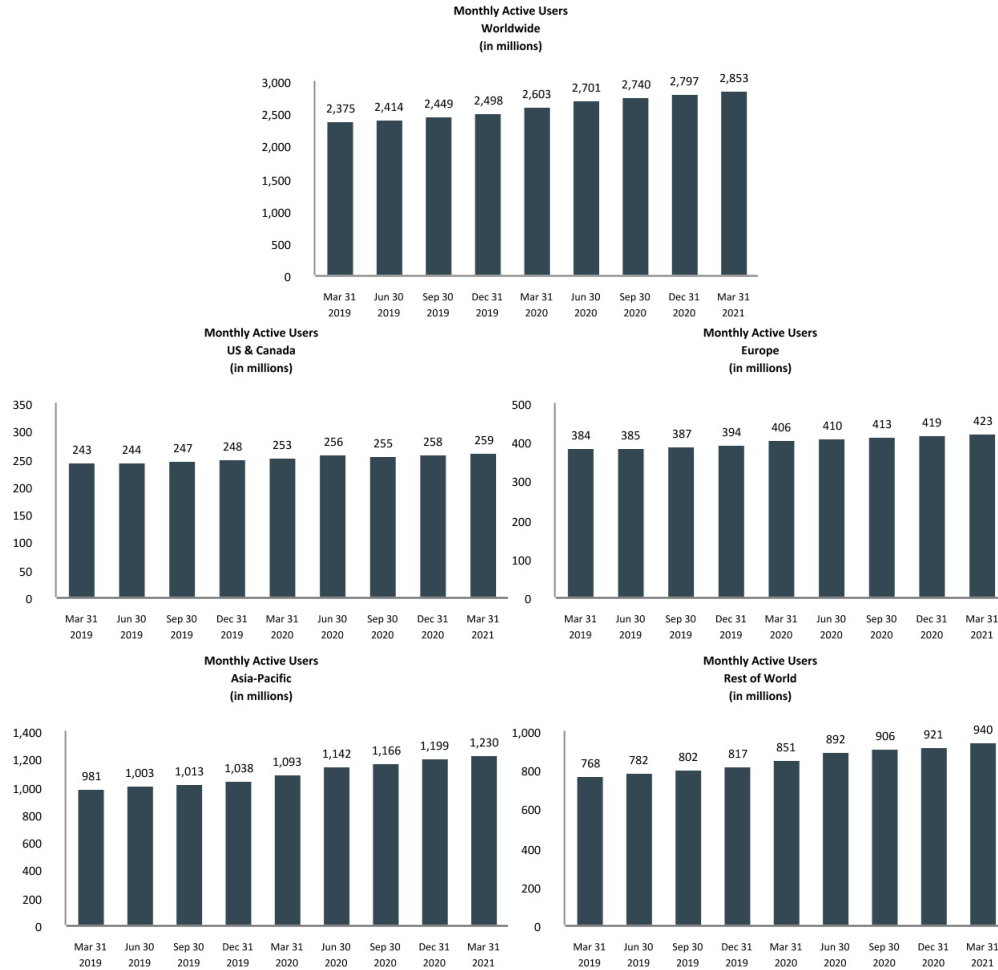
- Daily Active Users (DAUs).** We define a daily active user as a registered and logged-in Facebook user who visited Facebook through our website or a mobile device, or used our Messenger application (and is also a registered Facebook user), on a given day. We view DAUs, and DAUs as a percentage of MAUs, 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 1.88 billion on average during March 2021 from 1.73 billion during March 2020. Users in India, the Philippines, and Indonesia represented the top three sources of growth in DAUs during March 2021, relative to the same period in 2020.

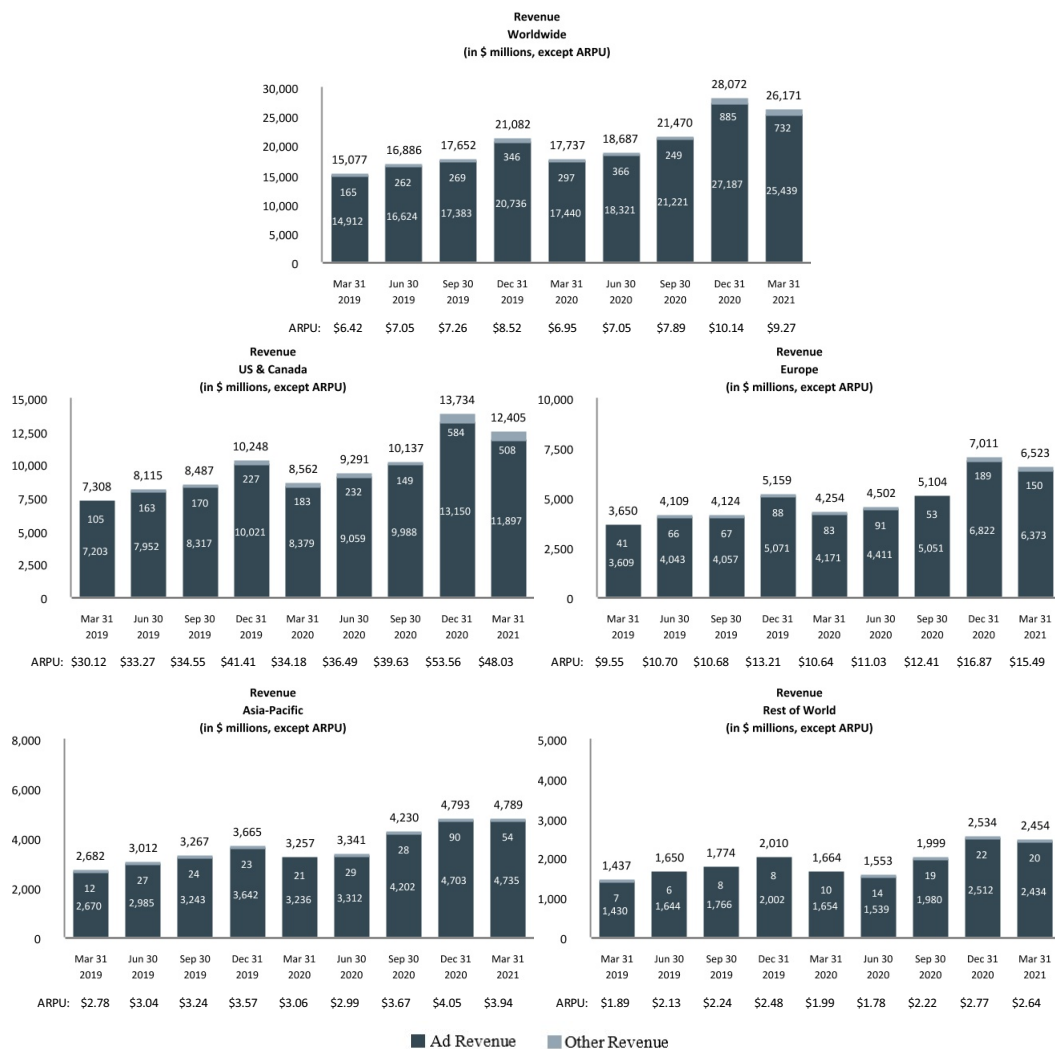
- Monthly Active Users (MAUs).** We define a monthly active user as a registered and logged-in Facebook user who visited Facebook through our website or a mobile device, or used our Messenger application (and is also a registered Facebook user), in the last 30 days as of the date of measurement. MAUs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



As of March 31, 2021, we had 2.85 billion MAUs, an increase of 10% from March 31, 2020. Users in India, Indonesia, and the Philippines represented the top three sources of growth in the first quarter of 2021, relative to the same period in 2020.

Trends in Our Monetization by Facebook User Geography

We calculate our revenue by Facebook user geography based on our estimate of the geography in which ad impressions are delivered, virtual and digital goods are purchased, or consumer hardware products 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. The share of 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 2021 in the United States & Canada region was more than 12 times higher than in the Asia-Pacific region.



Note: Our revenue by Facebook user geography in the charts above is geographically apportioned based on our estimation of the geographic location of our Facebook 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 addresses of our customers.

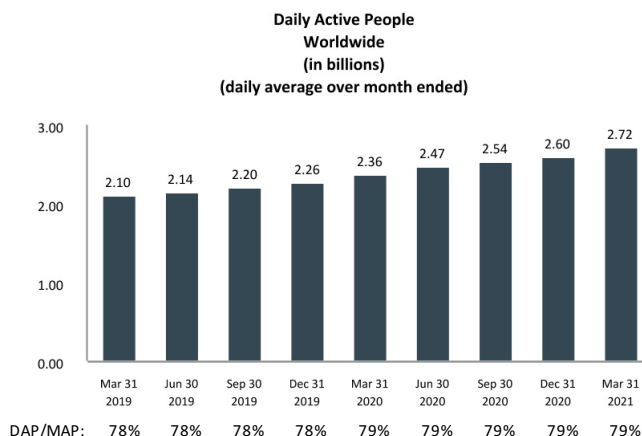
During the first quarter of 2021, worldwide ARPU was \$9.27, an increase of 33% from the first quarter of 2020. Over this period, ARPU increased by 46% in Europe, 41% in United States & Canada, 33% in Rest of World and 29% in Asia-Pacific. In addition, user growth was more rapid in geographies with relatively 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.

Trends in Our Family Metrics

The numbers for our key Family metrics, our DAP, MAP, and average revenue per person (ARPP), do not include users on our other products unless they would otherwise qualify as MAP or DAP, respectively, based on their other activities on our Family products.

Trends in the number of people in our community 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 people (as defined below) access our Family products on mobile devices.

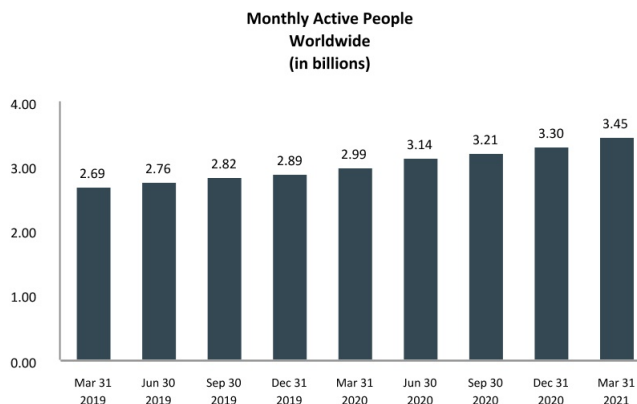
- Daily Active People (DAP).** We define a daily active person as a registered and logged-in user of Facebook, Instagram, Messenger, and/or WhatsApp (collectively, our "Family" of products) who visited at least one of these Family products through a mobile device application or using a web or mobile browser on a given day. We do not require people to use a common identifier or link their accounts to use multiple products in our Family, and therefore must seek to attribute multiple user accounts within and across products to individual people. Our calculations of DAP rely upon complex techniques, algorithms, and machine learning models that seek to estimate the underlying number of unique people using one or more of these products, including by matching user accounts within an individual product and across multiple products when we believe they are attributable to a single person, and counting such group of accounts as one person. As these techniques and models require significant judgment, are developed based on internal reviews of limited samples of user accounts, and are calibrated against user survey data, there is necessarily some margin of error in our estimates. We view DAP, and DAP as a percentage of MAP, as measures of engagement across our products. For additional information, see the section entitled "Limitations of Key Metrics and Other Data" in this Quarterly Report on Form 10-Q.



Note: We report the numbers of DAP and MAP as specific amounts, but these numbers are estimates of the numbers of unique people using our products and are subject to statistical variances and errors. While we expect the error margin for these estimates to vary from period to period, we estimate that such margin generally will be approximately 4% of our worldwide MAP. At our scale, it is very difficult to attribute multiple user accounts within and across products to individual people, and it is possible that the actual numbers of unique people using our products may vary significantly from our estimates, potentially beyond our estimated error margins. For additional information, see the section entitled "Limitations of Key Metrics and Other Data" in this Quarterly Report on Form 10-Q. In the second quarter of 2020, we updated our Family metrics calculations to reflect recent data from a periodic WhatsApp user survey and to incorporate certain methodology improvements, and we estimate such updates contributed an aggregate of approximately 40 million DAP to our reported worldwide DAP in June 2020. In the first quarter of 2021, we updated our Family metrics calculations to maintain calibration of our models against recent user survey data, and we estimate such update contributed an aggregate of approximately 60 million DAP to our reported worldwide DAP in March 2021.

Worldwide DAP increased 15% to 2.72 billion on average during March 2021 from 2.36 billion during March 2020.

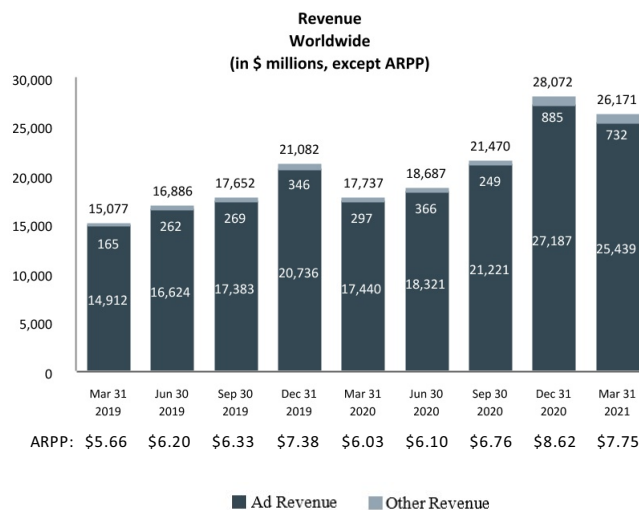
- **Monthly Active People (MAP).** We define a monthly active person as a registered and logged-in user of one or more Family products who visited at least one of these Family products through a mobile device application or using a web or mobile browser in the last 30 days as of the date of measurement. We do not require people to use a common identifier or link their accounts to use multiple products in our Family, and therefore must seek to attribute multiple user accounts within and across products to individual people. Our calculations of MAP rely upon complex techniques, algorithms, and machine learning models that seek to estimate the underlying number of unique people using one or more of these products, including by matching user accounts within an individual product and across multiple products when we believe they are attributable to a single person, and counting such group of accounts as one person. As these techniques and models require significant judgment, are developed based on internal reviews of limited samples of user accounts, and are calibrated against user survey data, there is necessarily some margin of error in our estimates. We view MAP as a measure of the size of our global active community of people using our products. For additional information, see the section entitled "Limitations of Key Metrics and Other Data" in this Quarterly Report on Form 10-Q.



Note: We report the numbers of DAP and MAP as specific amounts, but these numbers are estimates of the numbers of unique people using our products and are subject to statistical variances and errors. While we expect the error margin for these estimates to vary from period to period, we estimate that such margin generally will be approximately 4% of our worldwide MAP. At our scale, it is very difficult to attribute multiple user accounts within and across products to individual people, and it is possible that the actual numbers of unique people using our products may vary significantly from our estimates, potentially beyond our estimated error margins. For additional information, see the section entitled "Limitations of Key Metrics and Other Data" in this Quarterly Report on Form 10-Q. In the second quarter of 2020, we updated our Family metrics calculations to reflect recent data from a periodic WhatsApp user survey and to incorporate certain methodology improvements, and we estimate such updates contributed an aggregate of approximately 50 million MAP to our reported worldwide MAP in June 2020. In the first quarter of 2021, we updated our Family metrics calculations to maintain calibration of our models against recent user survey data, and we estimate such update contributed an aggregate of approximately 70 million MAP to our reported worldwide MAP in March 2021.

As of March 31, 2021, we had 3.45 billion MAP, an increase of 15% from 2.99 billion as of March 31, 2020.

- **Average Revenue Per Person (ARPP).** We define ARPP as our total revenue during a given quarter, divided by the average of the number of MAP at the beginning and end of the quarter. While ARPP includes all sources of revenue, the number of MAP used in this calculation only includes users of our Family products as described in the definition of MAP above. The share of revenue from users who are not also MAP was not material.



During the first quarter of 2021, worldwide ARPP was \$7.75, an increase of 29% from the first quarter of 2020.

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.

Other revenue. Other revenue consists of revenue from the delivery of consumer hardware products, net fees we receive from developers using our Payments infrastructure, and 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 and technical infrastructure, 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 costs, credit card and other transaction fees related to processing customer transactions, and cost of consumer hardware products sold.

Research and development. Research and development expenses consist primarily of salaries and benefits, share-based compensation, 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.

Marketing and sales. Marketing and sales expenses consist of salaries and benefits, and share-based compensation 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 to support our community and product operations.

General and administrative. General and administrative expenses consist of legal-related costs; salaries and 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 table sets forth our condensed consolidated statements of income data:

	Three Months Ended March 31,	
	2021	2020
	<i>(in millions)</i>	
Revenue	\$ 26,171	\$ 17,737
Costs and expenses:		
Cost of revenue	5,131	3,459
Research and development	5,197	4,015
Marketing and sales	2,843	2,787
General and administrative	1,622	1,583
Total costs and expenses	14,793	11,844
Income from operations	11,378	5,893
Interest and other income (expense), net	125	(32)
Income before provision for income taxes	11,503	5,861
Provision for income taxes	2,006	959
Net income	\$ 9,497	\$ 4,902

The following table sets forth our condensed consolidated statements of income data (as a percentage of revenue)⁽¹⁾:

	Three Months Ended March 31,	
	2021	2020
Revenue	100 %	100 %
Costs and expenses:		
Cost of revenue	20	20
Research and development	20	23
Marketing and sales	11	16
General and administrative	6	9
Total costs and expenses	57	67
Income from operations	43	33
Interest and other income (expense), net	—	—
Income before provision for income taxes	44	33
Provision for income taxes	8	5
Net income	36 %	28 %

(1) Percentages have been rounded for presentation purposes and may differ from unrounded results.

Share-based compensation expense included in costs and expenses:

	Three Months Ended March 31,	
	2021	2020
	<i>(in millions)</i>	
Cost of revenue	\$ 118	\$ 94
Research and development	1,408	999
Marketing and sales	174	149
General and administrative	130	93
Total share-based compensation expense	\$ 1,830	\$ 1,335

Share-based compensation expense included in costs and expenses (as a percentage of revenue)⁽¹⁾:

	Three Months Ended March 31,	
	2021	2020
Cost of revenue	— %	1 %
Research and development	5	6
Marketing and sales	1	1
General and administrative	—	1
Total share-based compensation expense	7 %	8 %

(1) Percentages have been rounded for presentation purposes and may differ from unrounded results.

Three Months Ended March 31, 2021 and 2020

Revenue

	Three Months Ended March 31,		
	2021	2020	% change
	(in millions, except for percentages)		
Advertising	\$ 25,439	\$ 17,440	46 %
Other revenue	732	297	146 %
Total revenue	\$ 26,171	\$ 17,737	48 %

Revenue in the three months ended March 31, 2021 increased \$8.43 billion, or 48%, compared to the same period in 2020. The increase was mostly due to an increase in advertising revenue as a result of increases in the average price per ad and the number of ads delivered.

During the three months ended March 31, 2021, the average price per ad increased by 30%, as compared with a decrease of approximately 16% in the same period in 2020. The increase in average price per ad during the three months ended March 31, 2021 was mainly caused by a recovery from declines in advertising demand due to the COVID-19 pandemic that started in the first quarter of 2020. Additionally, overall advertising demand increased, as compared to the same period in 2020, across our ad products and in all regions in part due to increasing consumer demand for purchasing products relative to services, as well as the shift of commerce from offline to online. During the three months ended March 31, 2021, the number of ads delivered increased by 12%, as compared with an increase of approximately 39% in the same period in 2020. The increase in the ads delivered was driven by increases in users and in the number and frequency of ads displayed across our products.

In the near-term, we anticipate that future advertising revenue growth will be determined primarily by price, which will be influenced by the extent to which we continue to see increasing advertising demand as the effects of the COVID-19 pandemic subside and the related economic recovery progresses, as well as the extent to which changes to the regulatory environment and third-party mobile operating systems and browsers result in limitations on our ad targeting and measurement tools.

Other revenue in the first quarter of 2021 increased \$435 million, or 146%, compared to the same period in 2020. The increase in other revenue was primarily due to increased sales in our consumer hardware products.

Foreign Exchange Impact on Revenue

The general weakening of the U.S. dollar relative to certain foreign currencies in the three months ended March 31, 2021 compared to the same period in 2020 had a favorable impact on revenue. If we had translated revenue for the three months ended March 31, 2021 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 \$25.47 billion and \$24.74 billion, respectively. Using these constant rates, total revenue and advertising revenue would have been \$706 million and \$695 million lower than actual total revenue and advertising revenue, respectively, for the three months ended March 31, 2021.

Cost of revenue

	Three Months Ended March 31,		% change
	2021	2020	
	<i>(in millions, except for percentages)</i>		
Cost of revenue	\$ 5,131	\$ 3,459	48 %
Percentage of revenue	20 %	20 %	

Cost of revenue in the three months ended March 31, 2021 increased \$1.67 billion, or 48%, compared to the same period in 2020. The increase was mostly due to an increase in operational expenses related to our data centers and technical infrastructure, an increase in cost of consumer hardware products sold and, to a lesser extent, higher cost associated with partner arrangements, including traffic acquisition and payment processing costs.

Research and development

	Three Months Ended March 31,		% change
	2021	2020	
	<i>(in millions, except for percentages)</i>		
Research and development	\$ 5,197	\$ 4,015	29 %
Percentage of revenue	20 %	23 %	

Research and development expenses in the three months ended March 31, 2021 increased \$1.18 billion, or 29%, compared to the same period in 2020. The increase was mostly due to higher payroll and benefits expenses as a result of a 35% growth in employee headcount from March 31, 2020 to March 31, 2021 in engineering and other technical functions supporting our continued investment in our family of products and consumer hardware products.

Marketing and sales

	Three Months Ended March 31,		% change
	2021	2020	
	<i>(in millions, except for percentages)</i>		
Marketing and sales	\$ 2,843	\$ 2,787	2 %
Percentage of revenue	11 %	16 %	

Marketing and sales expenses in the three months ended March 31, 2021 increased \$56 million, or 2%, compared to the same period in 2020. The majority of increase was driven by an increase in payroll and benefits expenses, partially offset by a decrease in marketing expenses. Our payroll and benefits expenses increased as a result of a 10% increase in employee headcount from March 31, 2020 to March 31, 2021 in our marketing and sales functions.

General and administrative

	Three Months Ended March 31,		% change
	2021	2020	
	<i>(in millions, except for percentages)</i>		
General and administrative	\$ 1,622	\$ 1,583	2 %
Percentage of revenue	6 %	9 %	

General and administrative expenses in the three months ended March 31, 2021 increased \$39 million, or 2%, compared to the same period in 2020. The majority of the increase was due to an increase in payroll and benefits expenses, partially offset by lower bad debt expense due to a decrease in our estimated credit losses, compared to the same period in 2020. Our payroll and benefits expenses increased mainly due to a 23% increase in employee headcount from March 31, 2020 to March 31, 2021 in our general and administrative functions.

Interest and other income (expense), net

	Three Months Ended March 31,		% change
	2021	2020	
	(in millions, except for percentages)		
Interest income, net	\$ 118	\$ 228	(48) %
Foreign currency exchange losses, net	(93)	(251)	(63) %
Other income (expense), net	100	(9)	NM
Interest and other income (expense), net	\$ 125	\$ (32)	NM

Interest and other income (expense), net in the three months ended March 31, 2021 increased \$157 million compared to the same period in 2020. The increase was due to a decrease in foreign currency exchange losses as a result of foreign currency transactions and re-measurement and an increase in other income due to net unrealized gains related to our equity investments, partially offset by a decrease in interest income related to lower interest rates compared to the same period in 2020.

Provision for income taxes

	Three Months Ended March 31,		% change
	2021	2020	
	(in millions, except for percentages)		
Provision for income taxes	\$ 2,006	\$ 959	109 %
Effective tax rate	17 %	16 %	

Our provision for income taxes in the three months ended March 31, 2021 increased \$1.05 billion, or 109%, compared to the same period in 2020, primarily due to an increase in income from operations. Our effective tax rate did not materially change in the three months ended March 31, 2021 compared to the same period in 2020.

Effective Tax Rate Items. Our effective tax rate in the future will depend upon the proportion between the following items and income before provision for income taxes: U.S. tax benefits from foreign derived intangible income, tax effects 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 effects of changes in tax law.

The accounting for share-based compensation may 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 depend upon the stock price at the time of employee award vesting. If our stock price remains constant to the April 23, 2021 price, we expect our effective tax rate for the full year of 2021 will be in the high-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.

Unrecognized Tax Benefits. As of March 31, 2021, we had net unrecognized tax benefits of \$3.62 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 and the current status of tax audits in various jurisdictions, we do not anticipate a material change 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 stated that it will also apply its position for tax years subsequent to 2010 and has done so in years covered by the second Notice described below. We do not agree with the position of the IRS and have filed a petition in the Tax Court challenging the Notice. On January 15, 2020, the IRS's amendment to answer was filed stating that it planned to assert at trial

an adjustment that is higher than the adjustment stated in the Notice. The first session of the trial was completed in March 2020 and a second session is expected to continue beginning in October 2021. Based on the information provided, we believe that, if the IRS prevails in its updated position, this could result in an additional federal tax liability of an estimated, aggregate amount of up to approximately \$9.0 billion in excess of the amounts in our originally filed U.S. return, plus interest and any penalties asserted.

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. returns, 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, *Income Taxes*, that is lower than the potential additional federal tax liability from the positions taken by the IRS in the two Notices and its Pretrial Memorandum. 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 (TaxAct). As of March 31, 2021, 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, *Income Taxes*, 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 \$64.22 billion as of March 31, 2021, an increase of \$2.27 billion from December 31, 2020. The increase was mostly due to \$12.24 billion of cash generated from operations, offset by \$4.42 billion for capital expenditures, including principal payments on finance leases, \$3.94 billion for repurchases of our Class A common stock, \$1.08 billion of taxes paid related to net share settlement of employee restricted stock unit (RSU) awards and \$600 million of net purchases of marketable securities.

Cash paid for income taxes was \$2.91 billion in the three months ended March 31, 2021. As of March 31, 2021, our federal net operating loss carryforward was \$10.61 billion and our federal tax credit carryforward was \$444 million. We anticipate the utilization of a significant portion of these net operating losses and credits within the next three years.

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. As of December 31, 2020, \$8.60 billion remained available and authorized for repurchases under this program. In January 2021, an additional \$25.0 billion of repurchases was authorized under this program. During the three months ended March 31, 2021, we repurchased and subsequently retired 15 million shares of our Class A common stock for an aggregate amount of \$4.11 billion. As of March 31, 2021, \$29.49 billion remained available and authorized for repurchases.

As of March 31, 2021, \$8.12 billion of the \$64.22 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 and cash flow from operations will be sufficient to meet our operational cash needs and fund our share repurchase program for the foreseeable future.

Cash Provided by Operating Activities

Cash flow from operating activities during the three months ended March 31, 2021 mostly consisted of net income adjusted for certain non-cash items, such as \$1.97 billion of depreciation and amortization and \$1.83 billion of share-based compensation expense, offset by \$1.68 billion decrease in accrued expenses and other current liabilities. The increase in cash flow from operating activities during the three months ended March 31, 2021, compared to the same period in 2020, was due to higher net income partially offset by changes in working capital such as a \$2.70 billion increase in cash payments of income taxes.

Cash Used in Investing Activities

Cash used in investing activities during the three months ended March 31, 2021 was primarily from \$4.27 billion of purchases of property and equipment as we continued to invest in data centers, servers, office facilities, and network infrastructure. The increase in cash used in investing activities during the three months ended March 31, 2021, compared to the same period in 2020, was mostly due to an increase in purchases of property and equipment.

We anticipate making capital expenditures of approximately \$19 billion to \$21 billion in 2021.

Cash Used in Financing Activities

Cash used in financing activities during the three months ended March 31, 2021 mostly consisted of \$3.94 billion for repurchases of our Class A common stock and \$1.08 billion of taxes paid related to net share settlement of RSUs. The increase in cash used in financing activities during the three months ended March 31, 2021, compared to the same period in 2020, was primarily due to an increase in repurchases of our Class A common stock.

Off-Balance Sheet Arrangements

As of March 31, 2021, we did not have any off-balance sheet arrangements that are reasonably likely to have a material current or future effect on our financial condition, results of operations, liquidity, capital expenditures, or capital resources.

Contractual Obligations

Our principal commitments consist mostly of obligations under operating leases and other contractual commitments. Our obligations under operating leases include among others, certain of our offices, data centers, land, colocations, and equipment. Our other contractual commitments are primarily related to our investments in network infrastructure, consumer hardware and content costs. The following table summarizes our commitments to settle contractual obligations in cash as of March 31, 2021:

	Total	Payment Due by Period			
		The remainder of 2021	2022-2023	2024-2025	Thereafter
			<i>(in millions)</i>		
Operating lease obligations, including imputed interest ⁽¹⁾	\$ 20,548	\$ 959	\$ 3,007	\$ 3,082	\$ 13,500
Finance lease obligations, including imputed interest ⁽¹⁾	1,193	241	266	117	569
Transition tax payable	1,543	—	300	1,243	—
Other contractual commitments	9,067	4,778	1,550	450	2,289
Total contractual obligations	<u>\$ 32,351</u>	<u>\$ 5,978</u>	<u>\$ 5,123</u>	<u>\$ 4,892</u>	<u>\$ 16,358</u>

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

Additionally, as part of the normal course of the business, we may also enter into multi-year agreements 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 \$5.73 billion. The ultimate spend under these agreements may vary and will be based on prevailing market prices or actual volume purchased.

Our other liabilities also include \$3.62 billion related to net uncertain tax positions as of March 31, 2021. 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 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 there is a reasonable possibility that we may incur a loss and the loss or range of loss can be estimated, we disclose the possible loss in the accompanying notes to the condensed consolidated financial statements to the extent material. 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 U.S. 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. On an ongoing basis, we evaluate our estimates and assumptions based on historical experience and on various other assumptions that we believe are reasonable under the circumstances. Our actual results could differ from these estimates under different assumptions or conditions.

An accounting policy is deemed to be critical if the nature of the estimates or assumptions is material due to the levels of subjectivity and judgment necessary to account for highly uncertain matters or the susceptibility of such matters to change, and the impact of the estimates and assumptions on our condensed consolidated financial statements is material. We believe that the assumptions and estimates associated with gross vs. net in revenue recognition, valuation of equity investments, income taxes, loss contingencies, and valuation of long-lived assets including goodwill and intangible assets and their associated estimated useful lives 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, 2020.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risks, including changes to foreign currency exchange rates, interest rates, equity investment risk, 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. 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 monetary asset and 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, net of \$93 million and \$251 million were recognized in the three months ended March 31, 2021 and 2020, respectively, as interest and other income (expense), net in our condensed consolidated statements of income.

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 investment grade 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 \$822 million and \$794 million in the market value of our available-for-sale debt securities as of March 31, 2021 and December 31, 2020, respectively. Any realized gains or losses resulting from such interest rate changes would only occur if we sold the investments prior to maturity.

Equity Investment Risk

Our equity investments are subject to a wide variety of market-related risks that could have a material impact on the carrying value of our holdings. We continually evaluate our equity investments in privately-held companies.

Our equity investments are investments in equity securities of privately-held companies without readily determinable market values. We elected to account for most of our equity investments using the measurement alternative, which is cost, less any impairment, adjusted for changes in fair value resulting from observable transactions for identical or similar investments of the same issuer. We perform a qualitative assessment at each reporting date to determine whether there are triggering events for impairment. The qualitative assessment considers factors such as, but not limited to, the investee's financial condition and business outlook; industry and sector performance; economic or technological environment; and other relevant events and factors affecting the investee. Valuations of our equity investments are complex due to the lack of readily available market data and observable transactions. Volatility in the global economic climate and financial markets, including recent and ongoing effects related to the impact of the COVID-19 pandemic, which requires significant judgments, could result in a material impairment charge on our equity investments. Equity investments accounted for under the equity method were immaterial as of March 31, 2021 and December 31, 2020. Our equity investments had a carrying value of \$6.34 billion and \$6.23 billion as of March 31, 2021 and December 31, 2020, respectively.

For additional information about our equity investments, see Note 5 — Equity Investments in the notes to the condensed consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

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, 2021, 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. On September 25, 2019, the district court granted our motion to dismiss the consolidated putative securities class action, with leave to amend. On November 15, 2019, a second amended complaint was filed in the consolidated putative securities class action. On August 7, 2020, the district court granted our motion to dismiss the second amended complaint, with leave to amend. On October 16, 2020, a third amended complaint was filed in the consolidated putative securities class action. 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), state attorneys general, and other government inquiries in the United States, Europe, and other jurisdictions. We entered into a settlement and modified consent order to resolve the FTC inquiry, which took effect in April 2020 and required us to pay a penalty of \$5.0 billion and to significantly enhance our practices and processes for privacy compliance and oversight. The state attorneys general inquiry and certain government inquiries in other jurisdictions remain ongoing and could subject us to additional 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.

On April 1, 2015, a putative class action was filed against us in the U.S. District Court for the Northern District of California by Facebook users alleging that the "tag suggestions" facial recognition feature violates the Illinois Biometric Information Privacy Act, and seeking statutory damages and injunctive relief. On April 16, 2018, the district court certified a class of Illinois residents, and on May 14, 2018, the district court denied both parties' motions for summary judgment. On May 29, 2018, the U.S. Court of Appeals for the Ninth Circuit granted our petition for review of the class certification order and stayed the proceeding. On August 8, 2019, the Ninth Circuit affirmed the class certification order. On December 2, 2019, we filed a petition with the U.S. Supreme Court seeking review of the decision of the Ninth Circuit, which was denied. On January 15, 2020, the parties agreed to a settlement in principle to resolve the lawsuit, which provided for a payment of \$550 million by us and was subject to court approval. On or about May 8, 2020, the parties executed a formal settlement agreement, and plaintiffs filed a motion for preliminary approval of the settlement by the district court. On June 4, 2020, the district court denied the plaintiffs' motion without prejudice. On July 22, 2020, the parties executed an amended settlement agreement, which, among other terms, provides for a payment of \$650 million by us. On February 26, 2021, the court granted final approval of the settlement, and the payment was made in March 2021. On March 27 and March 29, 2021, objectors filed notices of appeal of the order granting final approval of the settlement.

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. The actions filed in the United States were consolidated in the U.S. District Court for the Northern District of California. On November 26, 2019, the district court certified a class for injunctive relief purposes, but denied certification of a class for purposes of pursuing damages. On January 16, 2020, the parties agreed to a settlement in principle to resolve the lawsuit. On November 15, 2020, the court granted preliminary approval of the settlement. The settlement is subject to final court approval. We believe the remaining 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 (IDPC) 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.

From time to time we also notify the IDPC, our designated European privacy regulator under the General Data Protection Regulation, of certain other personal data breaches and privacy issues, and are subject to inquiries and

investigations regarding various aspects of our regulatory compliance. For example, in August 2020, we received a preliminary draft decision from the IDPC that preliminarily concluded that Facebook Ireland's reliance on Standard Contractual Clauses in respect of European user data does not achieve compliance with the GDPR and preliminarily proposed that such transfers of user data from the European Union to the United States should therefore be suspended. Facebook Ireland challenged procedural aspects of this IDPC inquiry in a judicial review commenced in the Irish High Court in September 2020, and the court ordered the IDPC not to take further steps in respect of the inquiry until the judicial review proceedings conclude (subject to the IDPC's right to apply to vary or lift this order), which we expect to occur in the first half of 2021. For additional information, see Part II, Item 1A, "Risk Factors—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" in this Quarterly Report on Form 10-Q. Any such inquiries or investigations 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 various litigation and government inquiries and investigations, formal or informal, by competition authorities in the United States, Europe, and other jurisdictions. Such investigations, inquiries, and lawsuits concern, among other things, our business practices in the areas of social networking or social media services, digital advertising, and/or mobile or online applications, as well as past acquisitions. For example, in June 2019 we were informed by the FTC that it had opened an antitrust investigation of our company. On December 9, 2020, the FTC filed a complaint against us in the U.S. District Court for the District of Columbia alleging that we engaged in anticompetitive conduct and unfair methods of competition in violation of Section 5 of the Federal Trade Commission Act and Section 2 of the Sherman Act, including by acquiring Instagram in 2012 and WhatsApp in 2014 and by maintaining conditions on access to our platform. In addition, beginning in the third quarter of 2019, we became the subject of antitrust investigations by the U.S. Department of Justice and state attorneys general. On December 9, 2020, the attorneys general from 46 states, the territory of Guam, and the District of Columbia filed a complaint against us in the U.S. District Court for the District of Columbia alleging that we engaged in anticompetitive conduct in violation of Section 2 of the Sherman Act, including by acquiring Instagram in 2012 and WhatsApp in 2014 and by maintaining conditions on access to our platform. The complaint also alleges that we violated Section 7 of the Clayton Act by acquiring Instagram and WhatsApp. The lawsuits of the FTC and attorneys general both seek a permanent injunction against our company's alleged violations of the antitrust laws, and other equitable relief, including divestiture or reconstruction of Instagram and WhatsApp. Multiple putative class actions have also been filed in state and federal courts in the United States against us alleging violations of antitrust laws and other causes of action in connection with these acquisitions and other alleged anticompetitive conduct, and seeking unspecified damages and injunctive relief. We believe these lawsuits are without merit, and we are vigorously defending them. The result of such litigation, investigations or inquiries could subject us to substantial monetary remedies and costs, interrupt or require us to change our business practices, divert resources and the attention of management from our business, or subject us to other structural or behavioral remedies that 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.

Summary Risk Factors

Our business is subject to a number of risks, including risks that may prevent us from achieving our business objectives or may adversely affect our business, financial condition, results of operations, cash flows, and prospects. These risks are discussed more fully below and include, but are not limited to, risks related to:

Risks Related to Our Product Offerings

- our ability to add and retain users and maintain levels of user engagement with our products;
- the loss of, or reduction in spending by, our marketers;
- reduced availability of data signals used by our ad targeting and measurement tools;
- ineffective operation with mobile operating systems or changes in our relationships with mobile operating system partners;
- failure of our new products, or changes to our existing products, to attract or retain users or generate revenue;

Risks Related to Our Business Operations and Financial Results

- the COVID-19 pandemic, including its impact on our advertising business;
- our ability to compete effectively;
- unfavorable media coverage and other risks affecting our ability to maintain and enhance our brands;
- volatile or slower user and revenue growth rates in the future;
- acquisitions and our ability to successfully integrate our acquisitions;
- our ability to build, maintain, and scale our technical infrastructure, and risks associated with disruptions in our service;
- operating our business in multiple countries around the world;
- litigation, including class action lawsuits;

Risks Related to Government Regulation and Enforcement

- government restrictions on access to Facebook or our other products, or other actions that impair our ability to sell advertising, in their countries;
- complex and evolving U.S. and foreign privacy, data use and data protection, content, competition, consumer protection, and other laws and regulations;
- the impact of government investigations, enforcement actions, and settlements, including litigation and investigations by privacy and competition authorities;

- our ability to comply with regulatory and legislative privacy requirements, including our consent order with the Federal Trade Commission;

Risks Related to Data, Security, and Intellectual Property

- the occurrence of security breaches, improper access to or disclosure of our data or user data, and other cyber incidents or undesirable activity on our platform;
- our ability to obtain, maintain, protect, and enforce our intellectual property rights; and

Risks Related to Ownership of Our Class A Common Stock

- limitations on the ability of holders of our Class A Common Stock to influence corporate matters due to the dual class structure of our common stock and the control of a majority of the voting power of our outstanding capital stock by our founder, Chairman, and CEO.

Risks Related to Our Product Offerings

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 we expect that the size of our active user base will fluctuate or decline in one or more markets from time to time, particularly in markets where we have achieved higher penetration rates. For example, beginning in the first quarter of 2020, we experienced significant increases in the size and engagement of our active user base across a number of regions as a result of the COVID-19 pandemic. More recently, we have seen these pandemic-related trends subside, and in each of the third and fourth quarters of 2020, we experienced slight declines on a quarter-over-quarter basis in the number of daily active users on Facebook in the United States & Canada region. We are unable to predict the impact of the pandemic on user growth and engagement with any certainty, and we expect these trends to continue to be subject to volatility. 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 can 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, concerns about the nature of content made available on our products, or concerns related to privacy, 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, government and regulatory authorities, or litigation that adversely affect our products or users;
- we are unable to offer a number of our most significant products and services, including Facebook and Instagram, in Europe, or are otherwise limited in our business operations, as a result of European regulators, courts, or legislative bodies determining that our reliance on Standard Contractual Clauses (SCCs) or other legal bases we rely upon to transfer user data from the European Union to the United States is invalid;
- there is decreased engagement with our products, or failure to accept our terms of service, as part of privacy-focused changes that we have implemented or may implement in the future, whether voluntarily, in connection with the General Data Protection Regulation (GDPR), the European Union's ePrivacy Directive, the California Consumer Privacy Act (CCPA), or other laws, regulations, or 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, or take actions to enforce our policies, that are perceived negatively by our users or the general public, including as a result of decisions or recommendations from the independent Oversight Board regarding content on our platform;
- 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 products;
- 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, internet shutdowns, or other actions by governments that 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.

From time to time, certain of these factors have negatively affected user retention, growth, and engagement to varying degrees. If we are unable to maintain or increase our user base and user engagement, particularly for our significant

revenue-generating products like Facebook and Instagram, our revenue and financial results may be adversely affected. Any significant 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 implemented, and we will continue to implement, changes to our user data practices. Some of these changes reduce our ability to effectively target 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 can 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;
- changes to third-party policies that limit our ability to deliver, target, or measure the effectiveness of advertising, including changes by mobile operating system and browser providers such as Apple and Google;
- adverse government actions or legislative, regulatory, or other legal developments relating to advertising, including developments that may impact our ability to deliver, target, or measure the effectiveness of advertising;
- user behavior or product changes that may reduce traffic to features or products that we successfully monetize, including as a result of increased usage of the Stories format or our video or messaging products;
- reductions of advertising by marketers due to our efforts to implement or enforce advertising policies that protect the security and integrity of our platform;
- 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;
- limitations on our ability to offer a number of our most significant products and services, including Facebook and Instagram, in Europe as a result of European regulators, courts, or legislative bodies determining that our reliance on SCCs or other legal bases we rely upon to transfer user data from the European Union to the United States is invalid;
- changes in our marketing and sales or other operations that we are required to or elect to make as a result of risks related to complying with foreign laws or regulatory requirements or other government actions;

- 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, our efforts to implement or enforce policies relating to content on our products (including as a result of decisions or recommendations from the independent Oversight Board), 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 made available 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 (for example, a number of marketers announced that they paused advertising with us in July 2020 due to concerns about content on our products);
- the effectiveness of our ad targeting or degree to which users opt out of the use of data for ads, including as a result of product changes and controls that we have implemented or may implement in the future in connection with the GDPR, ePrivacy Directive, California Consumer Privacy Act (CCPA), other laws, regulations, or regulatory actions, or otherwise, that impact our ability to use data for advertising purposes;
- 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;
- the success of technologies designed to block the display of ads or ad measurement tools;
- 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.

From time to time, certain of these factors have adversely affected our advertising revenue to varying degrees. The occurrence of any of these or other factors in the future 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. For example, macroeconomic conditions have affected, and may in the future affect, marketers' ability or willingness to spend with us, as we have seen with the regional and worldwide economic disruption related to the COVID-19 pandemic and associated declines in advertising activity on our products. The effects of the pandemic previously resulted in reduced demand for our ads, a related decline in pricing of our ads, and additional demands on our technical infrastructure as a result of increased usage of our services, and any similar occurrences in the future may impair our ability to maintain or increase the quantity or quality of ads shown to users and adversely affect our revenue and financial results.

Our advertising revenue is dependent on targeting and measurement tools that incorporate data signals from user activity on websites and services that we do not control, and changes to the regulatory environment, third-party mobile operating systems and browsers, and our own products have impacted, and we expect will continue to impact, the availability of such signals, which will adversely affect our advertising revenue.

We rely on data signals from user activity on websites and services that we do not control in order to deliver relevant and effective ads to our users. Our advertising revenue is dependent on targeting and measurement tools that incorporate these signals, and any changes in our ability to use such signals will adversely affect our business. For example, legislative and regulatory developments, such as the GDPR, ePrivacy Directive, and CCPA, have impacted, and we expect will continue to impact, our ability to use such signals in our ad products. In particular, we have seen an increasing number of users opt to control certain types of ad targeting in Europe following adoption of the GDPR, which will increase further with upcoming expanded control over third-party data as part of our ePrivacy Directive compliance, and we have introduced product changes that limit data signal use for certain users in California following adoption of the CCPA. Regulatory guidance or decisions or new legislation may require us to make additional changes to our products in the future that further reduce our ability to use these signals. In addition, mobile operating system and browser providers, such as Apple and Google, have announced product changes as well as future plans to limit the ability of websites and application developers to collect and use these signals to target and measure advertising. For example, in April 2021, Apple made certain changes to its products and data use policies in connection with changes to its iOS 14 operating system that will reduce our and other iOS developers' ability to target and measure advertising, which we expect will in turn reduce the budgets marketers are willing to commit to us and other advertising platforms. In addition, we have implemented, and may continue to implement, product changes that give

users the ability to limit our use of such data signals to improve ads and other experiences on our products and services, including our Off-Facebook Activity tool and our worldwide offering of certain product changes we implemented in connection with the GDPR. These developments have limited our ability to target and measure the effectiveness of ads on our platform and negatively impacted our advertising revenue, and if we are unable to mitigate these developments as they take further effect in the future, our targeting and measurement capabilities will be materially and adversely affected, which would in turn significantly impact our future advertising revenue growth.

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 previously 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, and more recently released changes to iOS 14 that will limit our ability to target and measure ads effectively. We expect that any similar changes to its, Google's, or other browser or mobile platforms will further limit our ability to target and measure the effectiveness of ads and impact 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, other business partners, or advertisers, 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. We have in the past experienced challenges in operating with mobile operating systems, networks, technologies, products, and standards that we do not control, and any such occurrences in the future may negatively impact our user growth, engagement, and monetization on mobile devices, which may in turn materially and adversely affect our business and financial results.

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. We continue to incur substantial costs, and we may not be successful in generating profits, in connection with these efforts. In addition, the introduction of new products, or changes to existing products, may result in new or enhanced governmental or regulatory scrutiny, litigation, 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 limited fashion, and we may not be successful in our efforts to generate meaningful revenue or profits from messaging over

the long term. In addition, we are moving forward with plans to implement end-to-end encryption across our messaging services, as well as facilitate cross-app communication between these platforms, which plans have drawn governmental and regulatory scrutiny in multiple jurisdictions. If our 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 implemented, and we will continue to implement, changes to our user data practices. Some of these changes reduce our ability to effectively target ads, which has to some extent adversely affected, and will continue to adversely affect, our advertising business. For example, our Off-Facebook Activity tool enables users to place limits on our storage and use of information about their interactions with advertisers' apps and websites, which reduces our ability to deliver the most relevant and effective ads to our users. 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 or our other products. 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 previously introduced the Stories format, which we do not currently monetize at the same rate as News Feed. In addition, as we focus on growing users and engagement across our family of products, 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, data use, encryption, content, advertising, competition, and other issues, including actions or decisions in connection with elections or the COVID-19 pandemic, which has in the past adversely affected, and may in the future 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, by the use of our products or services for illicit or objectionable ends, including, for example, any such actions around the pandemic or elections in the United States and around the world, by decisions or recommendations regarding content on our platform from the independent Oversight Board, or by our decisions to remove content or suspend participation on our platform by persons who violate our community standards or terms of service. 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 and concerns around our handling of political speech and advertising, hate speech, and other content, 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.

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 efforts related to privacy, safety, and security, we conduct investigations and audits of platform applications from time to time, and we also have 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.

Risks Related to Our Business Operations and Financial Results

The COVID-19 pandemic has had, and may in the future have, a significant adverse impact on our advertising revenue and also exposes our business to other risks.

The COVID-19 pandemic has resulted in authorities implementing numerous preventative measures to contain or mitigate the outbreak of the virus, such as travel bans and restrictions, limitations on business activity, quarantines, and shelter-in-place orders. These measures have caused, and are continuing to cause, business slowdowns or shutdowns in affected areas, both regionally and worldwide, which have significantly impacted our business and results of operations. For example, in the second quarter of 2020, our advertising revenue grew 10% year-over-year, which was the slowest growth rate for any fiscal quarter since our initial public offering. While our advertising revenue growth rate improved in subsequent quarters, there can be no assurance that it will not decrease again as a result of the effects of the pandemic. In addition, we believe that the pandemic has contributed to an acceleration in the shift of commerce from offline to online, as well as increasing consumer demand for purchasing products relative to services, which in turn have increased demand for our advertising services; however, it is possible that this increased demand may not continue in future periods and may even recede as the effects of the pandemic subside, which could adversely affect our advertising revenue growth. The demand for and pricing of our advertising services may be materially and adversely impacted by the pandemic for the foreseeable future, and we are unable to predict the duration or degree of such impact with any certainty. In addition to the impact on our advertising business, the pandemic exposes our business, operations, and workforce to a variety of other risks, including:

- volatility in the size of our user base and user engagement, particularly for our messaging products, whether as a result of shelter-in-place measures or other factors;
- decreased user engagement as a result of users' inability to purchase data packs or devices to access our products and services;
- interruptions in the accessibility or performance of our products and services due to capacity constraints from increased usage, or product changes we implement to maintain accessibility of our services, such as reducing the quality of video to reduce bandwidth usage;

- delays in product development or releases, or reductions in manufacturing production and sales of consumer hardware, as a result of inventory shortages, supply chain or labor shortages, or diversion of our efforts and resources to projects related to COVID-19;
- increased misuse of our products and services or user data by third parties, including improper advertising practices or other activity inconsistent with our terms, contracts, or policies, misinformation or other illicit or objectionable material on our platforms, election interference, or other undesirable activity;
- adverse impacts to our efforts to combat misuse of our products and services and user data as a result of limitations on our safety, security, and content review efforts while our workforce is working remotely, such as the necessity to rely more heavily on artificial intelligence to perform tasks that our workforce is unable to perform;
- our inability to recognize revenue, collect payment, or generate future revenue from marketers, including from those that have been or may be forced to close their businesses or are otherwise impacted by the economic downturn;
- increased expenses resulting from our initiatives or donations related to the pandemic;
- significant volatility and disruption of global financial markets, which could cause fluctuations in currency exchange rates or negatively impact our ability to access capital in the future;
- negative impact on our workforce productivity, product development, and research and development due to difficulties resulting from our personnel working remotely;
- illnesses to key employees, or a significant portion of our workforce, which may result in inefficiencies, delays, and disruptions in our business; and
- increased volatility and uncertainty in the financial projections we use as the basis for estimates used in our financial statements.

Any of these developments may adversely affect our business, harm our reputation, or result in legal or regulatory actions against us. The persistence of COVID-19, and the preventative measures implemented to help limit the spread of the illness, have impacted, and will continue to impact, our ability to operate our business and may materially and adversely impact our business, financial condition, and results of operations.

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

We compete with companies providing connection and communication products and services to users online, as well as companies that sell advertising to businesses looking to reach consumers and/or develop tools and systems for managing and optimizing advertising campaigns. We face significant competition in every aspect of our business, including, but not limited to, companies that facilitate the ability of users to share, communicate, and discover content and information online or enable marketers to reach their existing or prospective audiences, including, for example, Google, Apple, YouTube, Tencent, Snap, Twitter, ByteDance, Microsoft, and Amazon. We compete to attract, engage, and retain people who use our products, to attract and retain businesses that use our free or paid business and advertising services, and to attract and retain developers who build compelling mobile and web applications that integrate with our products. We also compete with companies that develop and deliver consumer hardware and virtual reality products and services. As we introduce or acquire new products, as our existing products evolve, or as other companies introduce new products and services, we may become subject to additional competition.

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. For example, 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. 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. 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. In addition, Apple has released changes to iOS 14 that will limit our ability, and the ability of others in the digital advertising industry, to target and measure ads effectively. As a result, our competitors may, and in some cases will, acquire and engage users or generate advertising or other revenue at the expense of our own efforts, which would 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;
- our ability to attract and retain businesses who use our free or paid business and advertising services;
- 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.

Unfavorable media coverage negatively affects our business from time to time.

We receive a high degree of media coverage around the world. Unfavorable publicity regarding, for example, our privacy practices, terms of service, advertising policies, 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 or objectionable 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, we have been the subject of significant media coverage involving concerns around our handling of political speech and advertising, hate speech, and other content, and we continue to receive negative publicity related to these topics. In addition, we have been, and may in the future be, subject to negative publicity in connection with our handling of misinformation and other illicit or objectionable use of our products or services, including in connection with the COVID-19 pandemic and elections in the United States and around the world. Any such negative publicity could have an adverse effect on the size, engagement, and loyalty of our user base and marketer demand for advertising on our products, which could result in decreased revenue and adversely affect our business and financial results, and we have experienced such adverse effects to varying degrees from time to time.

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;
- our ability to recognize revenue or collect payments from marketers in a particular period, including as a result of the effects of the COVID-19 pandemic;
- 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, including the COVID-19 pandemic, 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;
- changes to third-party policies that limit our ability to deliver, target, or measure the effectiveness of advertising, including changes by mobile operating system and browser providers such as Apple and Google;
- 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 privacy, safety, security, and content review efforts, including as a result of implementing changes to our practices, whether voluntarily, in connection with laws, regulations, regulatory actions, or decisions or recommendations from the independent Oversight Board, or otherwise;
- 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;
- refunds or other concessions provided to advertisers;
- 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 is affected by the mix of income we earn in the U.S. and in jurisdictions with different tax rates, the effects of share-based compensation, the effects of integrating intellectual property from acquisitions, the effects of changes in our business or structure, and the effects of discrete items such as legal and tax settlements and tax elections;
- 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;
- trading activity in our share repurchase program;
- fluctuations in the market values of our investments in marketable securities, in the valuation of our equity investments, and in interest rates;
- changes in U.S. generally accepted accounting principles; and

- changes in regional or global business or macroeconomic conditions, including as a result of the COVID-19 pandemic, which may impact the other factors described above.

We expect our rates of growth to be volatile in the near term as a result of the COVID-19 pandemic and to decline over time in the future.

We expect our user and revenue growth rates to be volatile in the near term as a result of the COVID-19 pandemic, although we are unable to predict the duration or degree of such volatility with any certainty. In the long term, we expect that our user growth rate will generally decline over time as the size of our active user base increases, and the size of our active user base may fluctuate or decline in one or more markets, particularly as we achieve greater market penetration. We also expect our revenue growth rate will continue to decline over time as our revenue increases to higher levels. As our growth rates experience volatility or 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, and some of our investments, particularly our investments in virtual and augmented reality, have the effect of reducing our operating margin and profitability. If our investments are not successful longer-term, our business and financial performance will 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 privacy, safety, security, and content review. In addition, from time to time we are subject to settlements, judgments, fines, or other monetary penalties in connection with legal and regulatory developments that may be material to our business. We are also continuing to increase our investments in new platforms and technologies. Some of these investments, particularly our significant investments in virtual and augmented reality, have generated only limited revenue and reduced our operating margin and profitability, and we expect the adverse financial impact of such investments to continue for the foreseeable future. If our investments are not successful longer-term, our business and financial performance will be harmed.

We plan to continue to make acquisitions and pursue other strategic transactions, 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, and from time to time may enter into other strategic transactions such as investments and joint ventures. We may not be able to find suitable acquisition candidates, and we may not be able to complete acquisitions or other strategic transactions on favorable terms, if at all, including as a result of regulatory challenges. In some cases, the costs of such acquisitions or other strategic transactions may be substantial, and there is no assurance that we will receive a favorable return on investment for our acquisitions or other strategic transactions.

We may pay substantial amounts of cash or incur debt to pay for acquisitions or other strategic transactions, which has occurred in the past and 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 or other strategic transactions 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, deficiencies, or other claims 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 or other strategic transaction, including tax and accounting charges. Acquisitions or other strategic transactions 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 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. 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.

Our business is dependent on our ability to maintain and scale our technical infrastructure, and any significant disruption in our service, including as a result of the COVID-19 pandemic, 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 or may not operate with the reliability and redundancy necessary 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, other physical security threats, cyber-attacks, or other catastrophic events. Any such events may result in users being 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. We also have been, and may in the future be, subject to increased energy or other costs to maintain the availability or performance of our products in connection with any such events.

In 2020, the increase in the use of our products as a result of the COVID-19 pandemic increased demands on our technical infrastructure. We may not be able to accommodate any such demands in the future, including as a result of our reduced data center operations and personnel working remotely during the pandemic.

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 hamper 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. The effects of the COVID-19 pandemic have increased the risk of supply or labor shortages or other disruptions in logistics or the supply chain for our technical infrastructure. As a result, we may not be able to procure sufficient equipment or services from third parties to satisfy our needs, or we may be required to procure such services or equipment on unfavorable terms.

Any of these developments may result in interruptions in the availability or performance of our products, require unfavorable changes to existing products, delay the introduction of future products, or otherwise adversely affect our business and financial results.

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, subsea and terrestrial fiber optic cable systems, and other projects. The infrastructure expansion we are undertaking is

complex and involves projects in multiple locations around the world, including in emerging markets that expose us to increased risks relating to anti-corruption compliance and political challenges, among others. We have in the past suspended, and may in the future suspend, certain of these projects as a result of the COVID-19 pandemic. Additional unanticipated delays or disruptions in the completion of these projects, including due to any shortage of labor necessary in building portions of such projects, or availability of components, challenges in obtaining required government or regulatory approvals, or other geopolitical challenges or actions by governments, whether as a result of the pandemic, trade disputes, or otherwise, may lead to increased project costs, operational inefficiencies, interruptions in the delivery or degradation of the quality or reliability of our products, or impairment of assets on our balance sheet. 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. Further, much of our technical infrastructure is located outside the United States, and it is possible that action by a foreign government, or our response to such government action, could result in the impairment of a portion of our technical infrastructure, which may interrupt the delivery or degrade the quality or reliability of our products and lead to a negative user experience or increase our costs. Any of these events could adversely affect our business, reputation, or financial results.

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

The numbers for our key metrics, which include our Facebook metrics (DAUs, MAUs, and average revenue per user (ARPU)) and Family metrics (DAP, MAP, and average revenue per person (ARPP)), 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. The methodologies used to measure these metrics require significant judgment and are also susceptible to algorithm or other technical errors. 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 review our processes for calculating these metrics, and from time to time we discover inaccuracies in our metrics or make adjustments to improve their accuracy, which can result in adjustments to our historical metrics. Our ability to recalculate our historical metrics may be impacted by data limitations or other factors that require us to apply different methodologies for such adjustments. We generally do not intend to update previously disclosed Family metrics for any such inaccuracies or adjustments that are within the error margins disclosed below.

In addition, our Facebook metrics and Family metrics estimates will differ from estimates published by third parties due to differences in methodology.

We regularly evaluate our Facebook 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) violating accounts, which represent user profiles that we believe are intended to be used for purposes that violate our terms of service, such as bots and spam. 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 identical IP addresses and similar 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. Any loss of access to data signals we use in this process, whether as a result of our own product decisions, actions by third-party browser or mobile platforms, regulatory or legislative requirements, limitations while our personnel work remotely during the COVID-19 pandemic, or other factors, also may impact the stability or accuracy of our estimates of duplicate and false accounts. Our estimates also may change as our methodologies evolve, including through the application of new data signals or technologies or product changes that 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 2020, 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 2020, 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 disable certain user accounts, 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. We intend to disclose our estimates of the number of duplicate and false accounts among our MAUs on an annual basis.

Many people in our community have user accounts on more than one of our products, and some people have multiple user accounts within an individual product. Accordingly, for our Family metrics, we do not seek to count the total number of user accounts across our products because we believe that would not reflect the actual size of our community. Rather, our Family metrics represent our estimates of the number of unique people using at least one of Facebook, Instagram, Messenger, and WhatsApp. We do not require people to use a common identifier or link their accounts to use multiple products in our Family, and therefore must seek to attribute multiple user accounts within and across products to individual people. To calculate these metrics, we rely upon complex techniques, algorithms and machine learning models that seek to count the individual people behind user accounts, including by matching multiple user accounts within an individual product and across multiple products when we believe they are attributable to a single person, and counting such group of accounts as one person. These techniques and models require significant judgment, are subject to data and other limitations discussed below, and inherently are subject to statistical variances and uncertainties. We estimate the potential error in our Family metrics primarily based on user survey data, which itself is subject to error as well. While we expect the error margin for our Family metrics to vary from period to period, we estimate that such margin generally will be approximately 4% of our worldwide MAP. At our scale, it is very difficult to attribute multiple user accounts within and across products to individual people, and it is possible that the actual numbers of unique people using our products may vary significantly from our estimates, potentially beyond our estimated error margins. As a result, it is also possible that our Family metrics may indicate changes or trends in user numbers that do not match actual changes or trends.

To calculate our estimates of Family DAP and MAP, we currently use a series of machine learning models that are developed based on internal reviews of limited samples of user accounts and calibrated against user survey data. We apply significant judgment in designing these models and calculating these estimates. For example, to match user accounts within individual products and across multiple products, we use data signals such as similar device information, IP addresses, and user names. We also calibrate our models against data from periodic user surveys of varying sizes and frequency across our products, which are inherently subject to error. The timing and results of such user surveys have in the past contributed, and may in the future contribute, to changes in our reported Family metrics from period to period. In addition, our data limitations may affect our understanding of certain details of our business and increase the risk of error for our Family metrics estimates. Our techniques and models rely on a variety of data signals from different products, and we rely on more limited data signals for some products compared to others. For example, as a result of limited visibility into encrypted products, we have fewer data signals from WhatsApp user accounts and primarily rely on phone numbers and device information to match WhatsApp user accounts with accounts on our other products. Similarly, although Messenger Kids users are included in our Family metrics, we do not seek to match their accounts with accounts on our other applications for purposes of calculating DAP and MAP. Any loss of access to data signals we use in our process for calculating Family metrics, whether as a result of our own product decisions, actions by third-party browser or mobile platforms, regulatory or legislative requirements, limitations while our personnel work remotely during the COVID-19 pandemic, or other factors, also may impact the stability or accuracy of our reported Family metrics. Our estimates of Family metrics also may change as our methodologies evolve, including through the application of new data signals or technologies, product changes, or other improvements in our user surveys, algorithms, or machine learning that may improve our ability to match accounts within and across our products or otherwise evaluate the broad population of our users. In addition, such evolution may allow us to identify previously undetected violating accounts (as defined below).

We regularly evaluate our Family metrics to estimate the percentage of our MAP consisting solely of "violating" accounts. We define "violating" accounts as accounts which we believe are intended to be used for purposes that violate our terms of service, including bots and spam. In the fourth quarter of 2020, we estimated that approximately 3% of our worldwide MAP consisted solely of violating accounts. Such estimation is based on an internal review of a limited sample of accounts, and we apply significant judgment in making this determination. For example, we look for account information and behaviors associated with Facebook and Instagram accounts that appear to be inauthentic to the reviewers, but we have limited visibility into WhatsApp user activity due to encryption. In addition, if we believe an individual person has one or more violating accounts, we do not include such person in our violating accounts estimation as long as we believe they have one account that does not constitute a violating account. From time to time, we disable certain user accounts, make product changes, or take other actions to reduce the number of violating accounts among our users, which may also reduce our DAP.

and MAP estimates in a particular period. We intend to disclose our estimates of the percentage of our MAP consisting solely of violating accounts on an annual basis. Violating accounts are very difficult to measure at our scale, and it is possible that the actual number of violating accounts may vary significantly from our estimates.

Other data limitations also 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 our metrics are also susceptible to algorithm or other technical errors, and our estimates for revenue by user location and revenue by user device are also affected by these factors.

In addition, from time to time we provide, or rely on, certain other metrics and estimates, including those relating to the reach and effectiveness of our ads. Many of our metrics involve the use of estimations and judgments, and our metrics and estimates are subject to software bugs, inconsistencies in our systems, and human error. Where marketers, developers, or investors do not perceive our metrics or estimates to be accurate, or where we discover material inaccuracies in our metrics or estimates, 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 or our other products, 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 60,654 as of March 31, 2021 from 48,268 as of March 31, 2020, and we expect headcount growth to continue for the foreseeable future. In addition, we plan to continue to hire a number of employees and contractors to continue to bolster various privacy, safety, security, and content review initiatives as well as other functions to support our expected growth. 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. Additionally, the vast majority of our personnel are currently working remotely as a result of the COVID-19 pandemic, which limits their ability to perform certain job functions and may negatively impact productivity. In the long term, we may experience such challenges to productivity and collaboration as some personnel transition to working remotely on a regular basis, and we may experience difficulties integrating recently hired personnel when our offices re-open. To effectively manage our growth, we must continue to adapt to a remote work environment; improve our operational, financial, and management processes and systems; and 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.

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, economic, and legal 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, competition, consumer protection, intellectual property, and 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, payments, 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, including difficulties arising from personnel working remotely during the COVID-19 pandemic;
- compliance with statutory equity requirements and management of tax consequences; and
- geopolitical events affecting us, our marketers or our industry, including trade disputes and pandemics.

In addition, we must manage the potential conflicts between locally accepted business practices in any given jurisdiction and our obligations to comply with laws and regulations, including anti-corruption laws or regulations applicable to us, such as the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act 2010. We also must manage our obligations to comply with laws and regulations related to import and export controls, sanctions, and embargoes, including regulations established by the U.S. Office of Foreign Assets Control. Government agencies and authorities have a broad range of civil and criminal penalties they may seek to impose against companies for violations of anti-corruption laws or regulations, import and export controls, and other laws, rules, sanctions, embargoes, and regulations.

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 from time to time have had, and in the future 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. Our brand and financial results could be adversely affected by any such quality issues, other failures to meet our customers' expectations, or findings of our consumer hardware products to be defective.

We rely on third parties to manufacture and manage the logistics of transporting and distributing our consumer hardware products, which subjects us to a number of risks that have been exacerbated as a result of the COVID-19 pandemic.

We may experience supply or labor shortages or other disruptions in logistics or the supply chain that could result in shipping delays and negatively impact our operations, product development, and sales. 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, manufacturing constraints, or other reasons), or make adverse changes in the pricing or other material terms of such arrangements with them. The manufacturing, distribution, and sale of our consumer hardware products also may be negatively impacted by macroeconomic conditions, geopolitical challenges, trade disputes, or other actions by governments that subject us to supply shortages, increased costs, or supply chain disruptions.

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 face inventory risk with respect to our consumer hardware products.

We are 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. The demand for our products can also change significantly between the time inventory or components are ordered and the date of sale. While we endeavor to accurately predict these trends and avoid overstocking or understocking consumer hardware products we may sell, from time to time we have experienced difficulties in accurately predicting and meeting the consumer demand for our products. In addition, when we begin selling or manufacturing a new consumer hardware product or enter new international markets, 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 the foregoing factors may adversely affect our operating results.

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.

We are involved in numerous lawsuits, including stockholder derivative lawsuits and 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, advertiser, and developer base, the plaintiffs in class action cases filed against us typically claim enormous monetary damages even if the alleged per-user or entity harm is small or non-existent. In addition, we have in the past, and may in the future, be subject to additional class action lawsuits based on claims related to advertising, antitrust, privacy, content, employment, or 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 our acquisitions of Instagram and WhatsApp, as well as other alleged anticompetitive conduct. We also agreed to settle certain lawsuits in connection with the "tag suggestions" facial recognition feature on Facebook 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. The results of any such lawsuits and claims cannot be predicted with certainty, and 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.

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 has occurred in the past and which could adversely affect our business, financial conditions, or results of operations.

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 litigating 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. The issuance of additional regulatory or accounting guidance related to the Tax Act, or other executive or Congressional actions in the United States (including, for example, if the Made in America tax plan released in March 2021 were to become law), could materially increase our tax obligations and significantly impact our effective tax rate in the period such guidance is issued or such actions take effect, and in future periods. 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 blueprints in 2020 that, if implemented, would 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 apply to 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, several countries have proposed or enacted taxes applicable to digital services, which includes business activities on social media platforms and online marketplaces, and which 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.

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 three months ended March 31, 2021, excess tax benefits recognized from share-based compensation decreased our provision for income taxes by \$206 million and our effective tax rate by two percentage points 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.

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.

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 challenges in hiring such personnel, particularly in the San Francisco Bay Area, where our headquarters are located, whether as a result of competition with other companies, challenges due to the high cost of living, facilities and infrastructure constraints, or other factors. 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. In addition, restrictive immigration policies or regulatory changes may negatively affect our efforts to attract and hire new personnel as well as retain our existing personnel. 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.

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, in some cases, the 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 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 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 Government Regulation and Enforcement

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. For example, in June 2020, Hong Kong adopted a National Security Law that provides authorities with the ability to obtain information, remove and block access to content, and suspend user services, and if we are found to be in violation of this law then the use of our products may be restricted. In addition, if we are required to or elect to make changes to our marketing and sales or other operations in Hong Kong as a result of the National Security Law, our revenue and business in the region will be adversely affected. It is also 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, and it is possible that the Chinese government could take action that reduces or eliminates our China-based advertising revenue, whether as a result of the trade dispute with the United States, in response to content issues or information requests in Hong Kong or elsewhere, or for other reasons, or take other action against us, such as imposing taxes or other penalties, which could adversely affect our financial results. Similarly, if we are found to be out of compliance with certain legal requirements for social media companies in Turkey, the Turkish government could take action to reduce or eliminate our Turkey-based advertising revenue or otherwise adversely impact access to our products. 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, we are required to or elect to make changes to our operations, 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 business is subject to complex and evolving U.S. and foreign laws and regulations regarding privacy, data use and data protection, content, competition, safety and consumer protection, e-commerce, 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 use, data protection and personal information, rights of publicity, content, intellectual property, advertising, marketing, distribution, data security, data retention and deletion, data localization and storage, data disclosure, artificial intelligence, electronic contracts and other communications, competition, protection of minors, consumer protection, civil rights, telecommunications, product liability, e-commerce, taxation, economic or other trade prohibitions or sanctions, anti-corruption and political law compliance, 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, consumer protection, 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 evolving 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 a transfer framework for data transferred from the European Union to the United States, called the Privacy Shield, but the Privacy Shield was invalidated in July 2020 by the Court of Justice of the European Union (CJEU). In addition, the other bases upon which Facebook relies to transfer such data, such as Standard Contractual Clauses (SCCs), have been subjected to regulatory and judicial scrutiny. For example, the CJEU considered the validity of SCCs as a basis to transfer user data from the European Union to the United States following a challenge brought by the Irish Data Protection Commission (IDPC). Although the CJEU upheld the validity of SCCs in July 2020, our continued reliance on SCCs is contingent on SCCs being held to satisfy certain new conditions that are yet to be clearly defined and will be the subject of future regulatory guidance (and the European Commission has proposed new SCCs, which are expected to be adopted in the first half of 2021). In addition, in August 2020, we received a preliminary draft decision from the IDPC that preliminarily concluded that Facebook Ireland's reliance on SCCs in respect of European user data does not achieve compliance with the GDPR and preliminarily proposed that such transfers of user data from the European Union to the United States should therefore be suspended. Facebook Ireland challenged procedural aspects of this IDPC inquiry in a judicial review commenced in the Irish High Court in September 2020, and the court ordered the IDPC not to take further steps in respect of the inquiry until the judicial review proceedings conclude (subject to the IDPC's right to apply to vary or lift this order), which we expect to occur in the first half of 2021. If a new transatlantic data transfer framework is not adopted and we are unable to continue to rely on SCCs or rely upon other alternative means of data transfers from Europe to the United States, we will likely be unable to offer a number of our most significant products and services, including Facebook and Instagram, in Europe, which would materially and adversely affect our business, financial condition, and results of operations. In addition, we have 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, and also became subject to government inquiries and lawsuits regarding the 2021 update to WhatsApp's terms of service and privacy policy. 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 our ability to provide our services, 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. We have implemented a number of product changes and controls as a result of requirements under the GDPR, and may implement additional changes in the future. In addition, the GDPR requires submission of personal data breach notifications to our designated European privacy regulator, the IDPC, and includes significant penalties for non-compliance with the notification obligation as well as other requirements of the regulation. Similarly, the Brazilian General Data Protection Law recently took effect and imposes data privacy-related requirements on products and services offered to users in Brazil. The California Consumer Privacy Act (CCPA), which took effect in January 2020, also establishes certain transparency rules and creates new data privacy rights for users, including more ability to control how their data is shared with third parties. These laws and regulations are evolving and subject to interpretation, and resulting limitations on our advertising services, or reductions of advertising by marketers, have to some extent adversely affected, and will continue to adversely affect, our advertising business. For example, regulators have recently issued new guidance concerning the ePrivacy Directive's requirements regarding the use of cookies and similar technologies. In addition, effective December 2020, the ePrivacy Directive includes additional limitations on the use of data across messaging products and includes significant penalties for non-compliance. Changes to our products or business practices as a result of these developments may adversely affect our advertising business. 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 or limitations in areas affecting our business. For example, the proposed Digital Markets Act in the European Union could cause us to incur significant compliance costs and could potentially impose new restrictions and requirements on companies like ours, including in areas such as the combination of data across services and product design. In addition, some countries, such as India, 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 claims, inquiries, or investigations or any other government actions, have in the past led to, and may in the future lead to, unfavorable outcomes including increased compliance costs, delays or impediments in the development of new products, negative publicity and reputational harm, increased operating costs, diversion of management time and attention, and remedies that 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, requests for information, actions, and audits in the United States, Europe, and around the world, particularly in the areas of privacy, data protection, law enforcement, consumer protection, civil rights, 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, competition, and consumer protection authorities in the European Union and other jurisdictions 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 FTC, 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 July 2019, we entered into a settlement and modified consent order to resolve the FTC inquiry, which was approved by the federal court and took effect in April 2020. Among other matters, our settlement with the FTC required us to pay a penalty of \$5.0 billion and to significantly enhance our practices and processes for privacy compliance and oversight. The state attorneys general inquiry and certain government inquiries in other jurisdictions remain ongoing. Beginning in September 2018, we also became subject to IDPC 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. From time to time we also notify the IDPC, our designated European privacy regulator under the GDPR, of certain other personal data breaches and privacy issues, and are subject to inquiries and investigations regarding various aspects of our regulatory compliance.

In addition, from time to time, we are subject to various litigation and formal and informal inquiries and investigations by competition authorities in the United States, Europe, and other jurisdictions, which relate to many aspects of our business, including with respect to users and advertisers, as well as our industry. Such inquiries, investigations, and lawsuits concern, among other things, our business practices in the areas of social networking or social media services, digital advertising, and/

or mobile or online applications, as well as past acquisitions. For example, in June 2019 we were informed by the FTC that it had opened an antitrust investigation of our company. In addition, beginning in the third quarter of 2019, we became the subject of antitrust inquiries and investigations by the U.S. Department of Justice, the U.S. House of Representatives, and state attorneys general. In December 2020, the FTC and the attorneys general from 46 states, the territory of Guam, and the District of Columbia filed complaints against us in the U.S. District Court for the District of Columbia alleging that we violated antitrust laws by acquiring Instagram in 2012 and WhatsApp in 2014 and by maintaining conditions on access to our platform, among other things. The lawsuits of the FTC and attorneys general both seek a permanent injunction against our company's alleged violations of the antitrust laws, and other equitable relief, including divestiture or reconstruction of Instagram and WhatsApp.

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 remedies), interrupt or require us to change our business practices in a manner materially adverse to our business, result in negative publicity and reputational harm, divert resources and the time and attention of management from our business, or subject us to other structural or behavioral remedies that adversely affect our business, and we have experienced some of these adverse effects to varying degrees from time to time.

Compliance with our FTC consent order, the GDPR, the CCPA, the ePrivacy Directive, and other regulatory and legislative privacy requirements require significant operational resources and modifications to our business practices, and any compliance failures may have a material adverse effect on our business, reputation, and financial results.

We are engaged in ongoing privacy compliance and oversight efforts, including in connection with our modified consent order with the FTC, requirements of the GDPR, and other regulatory and legislative requirements around the world, such as the CCPA and the ePrivacy Directive. In particular, we are implementing a comprehensive expansion of our privacy program in connection with the FTC consent order, including substantial management and board of directors oversight, stringent operational requirements and reporting obligations, prohibitions against making misrepresentations relating to user data, a process to regularly certify our compliance with the privacy program to the FTC, and regular assessments of our privacy program by an independent third-party assessor, which has been and will continue to be challenging and costly to implement. These compliance and oversight efforts are increasing demand on our systems and resources, and require significant new and ongoing investments, including investments in compliance processes, personnel, and technical infrastructure. We are reallocating resources internally to assist with these efforts, and this has had, and will continue to have, an adverse impact on our other business initiatives. In addition, these efforts require substantial modifications to our business practices and make some practices such as product and ads development more difficult, time-consuming, and costly. As a result, we believe our ability to develop and launch new features, products, and services in a timely manner has been and will continue to be adversely affected. We also expect that our privacy compliance and oversight efforts will require significant time and attention from our management and board of directors. The requirements of the FTC consent order and other privacy-related laws and regulations are complex and apply broadly to our business, and from time to time we notify relevant authorities of instances where we are not in full compliance with these requirements or otherwise discover privacy issues, and we expect to continue to do so as any such issues arise in the future. In addition, regulatory and legislative privacy requirements are constantly evolving and can be subject to significant change and uncertain interpretation. If we are unable to successfully implement and comply with the mandates of the FTC consent order, GDPR, CCPA, ePrivacy Directive, or other regulatory or legislative requirements, or if we are found to be in violation of the consent order or other applicable requirements, we may be subject to regulatory or governmental investigations or lawsuits, which may result in significant monetary fines, judgments, or other penalties, and we may also be required to make additional changes to our business practices. Any of these events could have a material adverse effect on our business, reputation, and financial results.

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 and may adversely affect our business and financial results.

We have faced, currently face, and will continue to face claims relating to information or content that is published or made available on our products, including our policies and enforcement actions with respect to such information or content. In particular, the nature of our business exposes us to claims related to defamation, dissemination of misinformation or news hoaxes, discrimination, harassment, intellectual property rights, rights of publicity and privacy, personal injury torts, laws regulating hate speech or other types of content, and breach of contract, among others. 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, in April 2019, the European Union passed a directive expanding online platform liability for copyright infringement and regulating certain uses of news content online, which member states are required to implement by June 2021. In addition, the European Union revised the European Audiovisual Media Service Directive to apply to online video-sharing platforms, which member states are expected to implement by 2021. In the United States, there have been, and continue to be, various Congressional and executive efforts to remove or restrict the scope of the protections available to online platforms under Section 230 of the Communications Decency Act, as well as to impose new obligations on online platforms with respect to commerce listings, counterfeit goods and copyright-infringing material, 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, orders restricting or blocking our services in particular geographies, or other government-imposed remedies as a result of content hosted on our services. For example, legislation in Germany and India has in the past, and may in the future, result in the imposition of fines for failure to comply with certain content removal, law enforcement cooperation, and disclosure obligations. Numerous other countries in Europe, Asia-Pacific, and Latin America are considering or have implemented similar legislation imposing penalties, including fines, service throttling, or advertising bans, for failure to remove certain types of content or follow certain processes. For example, we have been subject to fines and may in the future be subject to other penalties in connection with social media legislation in Turkey. Content-related legislation also has required us in the past, and may require us in the future, to change our products or business practices, increase our costs, or otherwise impact our operations or our ability to provide services in certain geographies. For example, the European Copyright Directive requires certain online services to obtain authorizations for copyrighted content or to implement measures to prevent the availability of that content, which may require us to make substantial investments in compliance processes. In addition, changes to Section 230 of the Communications Decency Act may increase our costs or require significant changes to our products, business practices, or operations, which could adversely affect user growth and engagement. A new Digital Services Act has also been proposed in the European Union that is expected to take effect in early 2023 and may significantly increase our compliance costs. Any of the foregoing events could adversely affect our business and financial results.

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 and WhatsApp, 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 are 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 have also launched certain payments functionality on WhatsApp and have announced plans to develop digital payments products and services, which may subject us to many of the foregoing risks and additional licensing requirements.

Our participation in the Diem Association subjects us to significant regulatory scrutiny and other risks that could adversely affect our business, reputation, or financial results.

In June 2019, we announced our participation in the Diem Association, which will oversee a proposed digital payments system powered by blockchain technology, and our plans for Novi, a digital wallet for Diem which we expect to launch as a standalone application and subsequently in Messenger and WhatsApp.

Diem is based on relatively new and unproven technology, and the laws and regulations surrounding blockchain-based payments are uncertain and evolving. Diem has drawn significant scrutiny from governments and regulators in multiple jurisdictions and we expect that scrutiny to continue. As a sponsor of the initiative and a proposed digital wallet service provider, we are participating in responses to inquiries from governments and regulators, and adverse government or regulatory actions or negative publicity resulting from such participation may adversely affect our reputation and harm our business.

As this initiative evolves, both Diem and Novi may be subject to a variety of laws and regulations in the United States and international jurisdictions, including those governing payments, financial services, anti-money laundering, counter-terrorism financing, economic sanctions, data protection, tax, and competition. In many jurisdictions, the application or interpretation of these laws and regulations is not clear, particularly with respect to evolving laws and regulations that are applied to blockchain and digital payments. To mitigate regulatory uncertainty, Diem has applied for a payment system operator license with the Swiss Financial Market Supervisory Authority (FINMA), and Novi has applied for money transmitter licenses in the United States and certain other countries, and other financial services licenses in certain other countries, that would allow us to conduct digital wallet activities in these countries using the Diem network. These licenses, laws, and regulations, as well as any associated inquiries or investigations, may delay or impede the launch of the Diem digital payments system as well as the development of our products and services, increase our operating costs, require significant management time and attention, or otherwise harm our business.

In addition, market acceptance of such a digital payments system is subject to significant uncertainty. As such, there can be no assurance that Diem or our associated products and services will be made available in a timely manner, or at all. We do not have significant prior experience with blockchain-based payments technology, which may adversely affect our ability to successfully develop and market these products and services. We will also incur increased costs in connection with our participation in the Diem Association and the development and marketing of associated products and services, and our investments may not be successful. Any of these events could adversely affect our business, reputation, or financial results.

Risks Related to Data, Security, and Intellectual Property

Security breaches, improper access to or disclosure of our data or user data, other hacking and phishing attacks on our systems, or other cyber incidents 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. Our products and services involve the collection, storage, processing, and transmission of a large amount of data. 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, modification, disclosure, destruction, or other 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), scraping, 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 and content on our systems, and the evolving nature of our products and services (including our efforts involving new and emerging technologies), we believe that we are a particularly attractive target for such breaches and attacks, including from nation states and highly sophisticated, state-sponsored, or otherwise well-funded actors. Our efforts to address undesirable activity on our platform also increase the risk of retaliatory attacks. Such breaches and 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, and to disable undesirable activities on our platform, may also be unsuccessful due to software bugs or other technical malfunctions; employee, contractor, or vendor error or malfeasance, including defects or vulnerabilities in our vendors' information technology systems or offerings; government surveillance; breaches of physical security of our

facilities or technical infrastructure; 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, that we will be able to react in a timely manner, or that our remediation efforts will be successful.

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.

We experience such cyber-attacks and other security incidents of varying degrees from time to time, and we incur significant costs in protecting against or remediating such incidents. In addition, we are subject to a variety of laws and regulations in the United States and abroad relating to cybersecurity and data protection, as well as obligations under our modified consent order with the FTC. As a result, affected users or government authorities could initiate legal or regulatory actions against us in connection with any actual or perceived security breaches or improper access to or disclosure of data, which has occurred in the past and 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. 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, the changes in our work environment as a result of the COVID-19 pandemic could impact the security of our systems, as well as our ability to protect against attacks and detect and respond to them quickly. The rapid adoption of some third-party services designed to enable the transition to a remote workforce also may introduce security risk that is not fully mitigated prior to the use of these services. We may also be subject to increased cyber-attacks, such as phishing attacks by threat actors using the attention placed on the pandemic as a method for targeting our personnel.

We anticipate that our ongoing efforts related to privacy, 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 privacy, 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. 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 or technical limitations, including our lack of visibility over our encrypted services, the scale of activity on our platform, challenges related to our personnel working remotely during the COVID-19 pandemic, the allocation of resources to other projects, or other factors, and we may be notified of such incidents or activity by the independent privacy assessor required under our modified consent order with the FTC, the media, or other third parties. Such incidents and activities have in the past, and may in the future, include the use of user data or our systems in a manner inconsistent with our terms, contracts or policies, the existence of false or undesirable user accounts, election interference, improper advertising practices, activities that threaten people's safety on- or offline, or instances of spamming, scraping, data harvesting, unsecured datasets, or spreading misinformation. We may also be unsuccessful in our efforts to enforce our policies or otherwise remediate any such incidents. Any of the foregoing developments 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 developments 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.

Our products and internal systems rely on software and hardware that is highly technical, and any errors, bugs, or vulnerabilities in these systems, or failures to address or mitigate technical limitations in our systems, could adversely affect our business.

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, errors, bugs, or vulnerabilities, and our systems are subject to certain technical limitations that may compromise our ability to meet our objectives. Some errors, bugs, or vulnerabilities inherently may be difficult to detect and 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, bugs, vulnerabilities, design defects, or technical limitations within the software and hardware on which we rely have in the past led to, and may in the future lead to, outcomes including a negative experience for users and marketers who use our products, compromised ability of our products to perform in a manner consistent with our terms, contracts, or policies, delayed product introductions or enhancements, targeting, measurement, or billing errors, compromised ability to protect the data of our users and/or our intellectual property or other data, or reductions in our ability to provide some or all of our services. For example, we make commitments to our users as to how their data will be used within and across our products, and our systems are subject to errors, bugs and technical limitations that may prevent us from fulfilling these commitments reliably. In addition, any errors, bugs, vulnerabilities, or defects in our systems or the software and hardware on which we rely, failures to properly address or mitigate the technical limitations in our systems, or associated degradations or interruptions of service or failures to fulfill our commitments to our users, have in the past led to, and may in the future lead to, outcomes including damage to our reputation, loss of users, loss of marketers, loss of revenue, regulatory inquiries, litigation, or liability for fines, damages, or other remedies, any of which could adversely affect our business and financial results.

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. 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, could result in less effective technology or practices or otherwise negatively affect the user experience, or may not be feasible. We have experienced unfavorable outcomes in such disputes and litigation in the past, and 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.

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 \$304.67 through March 31, 2021. 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;
- adverse government actions or legislative or regulatory developments relating to advertising, competition, content, privacy, or other matters, 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, incidents of terrorism, pandemics, and other disruptive external events, 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. 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 the future we could elect not to have a majority of our board of directors be independent or not to have a compensation committee or an independent nominating function. 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, 2021:

	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, 2021	2,375	\$ 265.37	2,375	\$ 32,973
February 1 - 28, 2021	2,375	\$ 266.54	2,375	\$ 32,340
March 1 - 31, 2021	10,280	\$ 276.97	10,280	\$ 29,492
	<u>15,030</u>		<u>15,030</u>	

(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. As of December 31, 2020, \$8.60 billion remained available for repurchases under this program. In January 2021, an additional \$25.0 billion of repurchases was authorized under this program. 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	
10.1	Offer letter, dated June 5, 2020, between Registrant and Christopher K. Cox.					X
10.2	Indemnification Agreement Relating to Subsidiary Operations, dated March 14, 2021, between Registrant and Mark Zuckerberg.					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	Inline XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document).					X
101.SCH	Inline XBRL Taxonomy Extension Schema Document.					X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.					X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.					X
101.LAB	Inline XBRL Taxonomy Extension Labels Linkbase Document.					X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.					X
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101).					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, 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 28th day of April 2021.

Date: April 28, 2021

FACEBOOK, INC.

/s/ DAVID M. WEHNER

David M. Wehner
Chief Financial Officer
(Principal Financial Officer)

Date: April 28, 2021

/s/ SUSAN J.S. TAYLOR

Susan J.S. Taylor
Chief Accounting Officer
(Principal Accounting Officer)