## Facebook Q4 2019 Results

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### FACEBOOK

## Facebook Daily Active Users (DAUs)

In Millions



Please see Facebook's most recent quarterly or annual report filed with the SEC for definitions of user activity used to determine the number of our Facebook DAUs and MAUs. The numbers for DAUs and MAUs do not include users on Instagram, WhatsApp, or our other products unless they would otherwise qualify as DAUs or MAUs, based on their other activities on Facebook.

Beginning in Q3 2018, our DAU metrics reflect an update to our calculation methodology to exclude certain data signals that were previously misclassified as user account activity. This update resulted in the removal of a small percentage of accounts for Q3 2018. Excluding this update, DAUs in Q3 2018 would have been: Worldwide: 1,510 million; Rest of World: 474 million; Asia-Pacific: 567 million; Europe: 284 million; and US & Canada: 186 million. Periods prior to Q3 2018 have not been adjusted to reflect this updated methodology because the change was immaterial.

### Facebook Monthly Active Users (MAUs)

In Millions



Please see Facebook's most recent quarterly or annual report filed with the SEC for definitions of user activity used to determine the number of our Facebook DAUs and MAUs. The numbers for DAUs and MAUs do not include users on Instagram, WhatsApp, or our other products unless they would otherwise qualify as DAUs or MAUs, based on their other activities on Facebook.

Beginning in Q3 2018, our MAU metrics reflect an update to our calculation methodology to exclude certain data signals that were previously misclassified as user account activity. This update resulted in the removal of a small percentage of accounts for Q3 2018. Excluding this update, MAUs in Q3 2018 would have been: Worldwide: 2,280 million; Rest of World: 738 million; Asia-Pacific: 921 million; Europe: 377 million; and US & Canada: 242 million. Periods prior to Q3 2018 have not been adjusted to reflect this updated methodology because the change was immaterial.

### Facebook Average Revenue per User (ARPU)













Please see Facebook's most recent quarterly or annual report filed with the SEC for the definition of ARPU.

### Family Daily Active People (DAP)

In Billions



We define a daily active person (DAP) 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.

The numbers for DAP do not include users on our other products unless they would otherwise qualify as DAP based on their other activities on our Family products.

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. For additional information, see "Limitations of Key Metrics and Other Data" located in the Appendix of this presentation.

## Family Monthly Active People (MAP)

In Billions



We define a monthly active person (MAP) 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 in the last 30 days as of the date of measurement.

The numbers for MAP do not include users on our other products unless they would otherwise qualify as MAP based on their other activities on our Family products.

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. For additional information, see "Limitations of Key Metrics and Other Data" located in the Appendix of this presentation.

### Family Average Revenue per Person (ARPP)



We define average revenue per person (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 in the previous slide.

Revenue

In Millions



### Revenue by Facebook User Geography

In Millions



# Advertising Revenue by Facebook User Geography



# Other Revenue by Facebook User Geography



### Expenses as a Percentage of Revenue



\*Includes \$3.0 billion and \$2.0 billion in legal expenses accrued in the first quarter and second quarter of 2019, respectively, related to the U.S. Federal Trade Commission (FTC) settlement as discussed in our press releases furnished with our Reports on Form 8-K dated April 24, 2019 (Q1 2019 Press Release) and July 24, 2019 (Q2 2019 Press Release). These expenses are included in general and administrative expenses.

### Income from Operations

In Millions



\*Includes \$3.0 billion and \$2.0 billion in legal expenses accrued in the first quarter and second quarter of 2019, respectively, related to the FTC settlement as discussed in our Q1 2019 and Q2 2019 Press Releases.

### **Operating Margin**



\*Includes \$3.0 billion and \$2.0 billion in legal expenses accrued in the first quarter and second quarter of 2019, respectively, related to the FTC settlement as discussed in our Q1 2019 and Q2 2019 Press Releases. Excluding these expenses, our operating margin would have been 20 percentage points higher in Q1 2019 and 12 percentage points higher in Q2 2019.

### **Effective Tax Rate**

In Millions, Except for Percentages

	<u>Q4'17*</u>	<u>Q1'18</u>	<u>Q2'18</u>	<u>Q3'18</u>	<u>Q4'18</u>	<u>Q1'19**</u>	<u>Q2'19***</u>	<u>Q3'19</u>	<u>Q4'19</u>
Income before provision for income taxes	\$7,462	\$ 5,610	\$ 5,868	\$ 5,912	\$ 7,971	\$ 3,482	\$ 4,832	\$ 7,329	\$ 9,169
Provision for income taxes	3,194	622	762	775	1,089	1,053	2,216	1,238	1,820
Effective tax rate	43%	11%	13%	13%	14%	30%	46%	17%	20%

\*In December 2017, the 2017 Tax Cuts and Jobs Act (the Tax Act) was enacted and significantly impacted the U.S. tax law. As a result of this legislation, our fourth quarter and full year 2017 provision for income taxes increased by \$2.27 billion, which impacted our effective tax rate and income before provision for income taxes for such periods. As a result of the Tax Act, starting in 2018, the U.S. statutory tax rate decreased from 35% to 21%.

\*\*Includes a \$3.0 billion legal expense accrued in the first quarter of 2019 related to the FTC matter as discussed in our Q1 2019 Press Release. As this expense is not expected to be tax-deductible, it had no effect on our provision for income taxes. Excluding this expense, our effective tax rate would have been 14 percentage points lower in Q1 2019.

\*\*\*Includes an additional \$2.0 billion legal expense accrued in the second quarter of 2019 related to the FTC settlement and \$1.1 billion in income taxes due to the developments in Altera Corp. v. Commissioner as discussed in our Q2 2019 Press Release. As the FTC expense is not expected to be tax-deductible, it had no effect on our provision for income taxes. Excluding these expenses, our effective tax rate would have been 30 percentage points lower in Q2 2019.

### Net Income





\*In December 2017, the Tax Act was enacted and significantly impacted the U.S. tax law. As a result of this legislation, our fourth quarter and full year 2017 provision for income taxes increased by \$2.27 billion, which impacted our net income.

\*\*Includes a \$3.0 billion legal expense accrued in the first guarter of 2019 related to the FTC matter as discussed in our Q1 2019 Press Release.

\*\*\*Includes an additional \$2.0 billion legal expense accrued in the second quarter of 2019 related to the FTC settlement and \$1.1 billion in income taxes due to the developments in Altera Corp. v. Commissioner as discussed in our Q2 2019 Press Release.

### **Diluted Earnings Per Share**



\*In December 2017, the Tax Act was enacted and significantly impacted the U.S. tax law. As a result of this legislation, our fourth quarter and full year 2017 provision for income taxes increased by \$2.27 billion, which impacted our diluted earnings per share (EPS) for such periods. Our diluted EPS decreased by \$0.77 for both the fourth quarter and full year 2017.

\*\*Includes a \$3.0 billion legal expense accrued in the first quarter of 2019 related to the FTC matter as discussed in our Q1 2019 Press Release. Excluding this expense, our diluted EPS would have been \$1.04 higher.

\*\*\*Includes an additional \$2.0 billion legal expense accrued in the second quarter of 2019 related to the FTC settlement and \$1.1 billion in income taxes due to the developments in Altera Corp. v. Commissioner as discussed in our Q2 2019 Press Release. Excluding these expenses, our diluted EPS would have been \$1.08 higher.

## Capital Expenditures

In Millions



Capital expenditures for periods presented were related to net purchases of property and equipment and principal payments on finance leases.

# Appendix

### FACEBOOK

### Free Cash Flow Reconciliation

In Millions

	<u>Q4'17</u>	<u>Q1'18</u>	<u>Q2'18</u>	<u>Q3'18</u>	<u>Q4'18</u>	<u>Q1'19</u>	<u>Q2'19</u>	<u>Q3'19</u>	<u>Q4'19</u>
Net cash provided by operating activities	\$ 7,670	\$ 7,860	\$ 6,299	\$ 7,496	\$ 7,684	\$ 9,308	\$ 8,615	\$ 9,307	\$ 9,083
Less: Purchases of property and equipment, net	2,262	2,812	3,459	3,343	4,366	3,837	3,633	3,532	4,100
Less: Principal payments on finance leases	-	-	-	-	-	125	142	144	141
Free cash flow	\$ 5,408	\$ 5,048	\$ 2,840	\$ 4,153	\$ 3,318	\$ 5,346	\$ 4,840	\$ 5,631	\$ 4,842

Free cash flow (FCF) is a non-GAAP financial measure that has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of other GAAP financial measures, such as net cash provided by operating activities. Some of the limitations of FCF are: (i) FCF does not reflect our future contractual commitments, and (ii) other companies in our industry present similarly titled measures differently than we do, limiting their usefulness as comparative measures. FCF is not intended to represent our residual cash flow available for discretionary expenditures.

### 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 this presentation, we also are reporting 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 our key metrics in place of DAUs, MAUs, and ARPU.

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, or other factors, also may impact the stability or accuracy of our estimates of 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 2019, 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 2019, 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 presentation, 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.

### Limitations of Key Metrics and Other Data (Cont'd)

#### **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 3% 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. 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 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, 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 evalu

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 2019, 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 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 presentation, 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.

### Limitations of Key Metrics and Other Data (Cont'd)

#### 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.

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