- Limitation of Key Metrics & other data:
  - Family Metrics:
    - Our Family metrics represent our estimates of the number of unique people using at least one of Facebook, Instagram, Messenger, and WhatsApp.
    - 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.
    - 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.
    - 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.

## Competition:

- Companies that offer products across broad platforms that replicate capabilities we provide. For example, among other areas, we compete with Apple in messaging, Google and YouTube in advertising and video, Tencent and Snap in messaging and social media, Bytedance and Twitter in social media, and Amazon in advertising.
  - First mention of Bytedance
- As of December 31, 2019, we had 44,942 employees.
- Risk Factors:
  - 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.
    - legislative and regulatory changes, such as the GDPR and CCPA, have impacted, and we expect will continue to impact, our ability to use such signals in our ad products.
    - 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 application developers to use these signals to target and measure advertising on their platforms.
    - Similarly, 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 product changes we implemented in connection with the GDPR.
  - 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.
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    rules and creates new data privacy rights for users, including more ability to control how their data is shared with third
    parties.
  - Compliance with our FTC consent order, the GDPR, the CCPA, and other regulatory and legislative privacy requirements will 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.
  - Our participation in the Libra Association will subject 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 Libra Association, which will oversee a proposed digital payments system powered by blockchain technology, and our plans for Calibra, a digital wallet for Libra which we expect to launch in Messenger, WhatsApp, and as a standalone application.
- Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities
  - 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.
  - O As of December 31, 2019, \$4.90 billion remained available and authorized for repurchases. In January 2020, an additional \$10.0 billion of repurchases was authorized under this program.
- Our annual worldwide ARPU in 2019, which represents the sum of quarterly ARPU during such period, was \$29.25, an increase of 17% from 2018. (stats based on FB data)
- Our annual worldwide ARPP in 2019, which represents the sum of quarterly ARPP during such period, was \$25.57, an increase of 14% from 2018. (stats based on overall FB services data)

## RESULTS OF OPERATIONS

FACTOR	VARIATION YOY	DRIVER
Revenue	+ 27%	<ul> <li>Advertising +27%   Payments +26%</li> </ul>

	.070	<ul> <li>Increase due to increase in advertising revenue as a result of an increase in the # of ads delivered, partially offset by a slight decrease in average price per ad.</li> <li># of ads increase 33%</li> <li>The increase in the ads delivered was driven by an increase in the number and frequency of ads displayed across our products, and an increase in users and their engagement</li> <li>Avg price of ad -5%</li> <li>he decrease in average price per ad was primarily driven by an increasing proportion of the number of ads delivered as Stories ads and in geographies that monetize at lower rates.</li> <li>We anticipate that future advertising revenue growth will be determined by a combination of the number of ads delivered and price.</li> <li>Strengthening of US dollar had unfavorable impact on revenue.</li> </ul>
Cost of Revenue	+37%	The increase was mostly due to an increase in operational expenses related to our data centers and technical infrastructure, as well as higher cost of consumer hardware devices sold and traffic acquisition costs.
R&D	+32%	Payroll   +31% headcount
Marketing & Sales	+26%	The increase was primarily driven by increases in marketing expenses, payroll and benefits expenses, and community and product operations expenses. Our payroll and benefits expenses increased as a result of a 23% increase in employee headcount from December 31, 2018 to December 31, 2019 in our marketing and sales functions.
General & Admin	+203%	<ul> <li>The majority of the increase was due to the \$5 billion FTC settlement expense recorded in the first 6 months of 2019. (Can be considered as a onetime occurrence)</li> <li>Increase in other legal-related costs and higher payroll and benefits expenses as a result of a 31% increase in employee headcount from December 31, 2018 to December 31, 2019 in our general and administrative functions.</li> </ul>
Taxes	+95%	<ul> <li>a majority of which is due to an increase in income taxes from the Altera Ninth Circuit Opinion discussed below, an increase in income from operations prior to the effect of the legal accrual related to the FTC settlement that is not expected to be tax-deductible, and a decrease in excess tax benefits recognized from share-based compensation.</li> <li>Our effective tax rate in 2019 increased compared to 2018, primarily due to an increase in income taxes from the Altera Ninth Circuit Opinion, the legal accrual related to the FTC settlement that is not expected to be tax-deductible, and a decrease in excess tax benefits recognized from share-based compensation.</li> <li>Effective tax rate is 26% vs 13% for same quarter in 2018.</li> </ul>

## LIQUIDITY & CAPITAL RESOURCES

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  - o net operating loss carryforward was \$9.06 billion
  - o \$357 million of federal tax credit carryforward
  - O As of December 31, 2019, \$19.01 billion of the \$54.86 billion in cash and cash equivalents and marketable securities was held by our foreign subsidiaries.

## OTHER NOTES TO FINANCIAL STATEMENTS

- Revenue by geography: P.87
- Stock options: P.98
  - O Share-based compensation expense mostly consists of the Company's restricted stock units (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.
  - O There were no options granted, forfeited, or canceled for the year ended December 31, 2019. The aggregate intrinsic value of the options exercised in the years ended December 31, 2019, 2018, and 2017 was \$185 million, \$315 million, and \$359 million, respectively. All of our outstanding options had vested by December 31, 2018. The total grant date fair value of stock options vested during the years ended December 31, 2018, and 2017 was not material.