- liability for activities of the acquired company before the acquisition, including patent and trademark infringement claims, data privacy and security issues, violations of laws, commercial disputes, tax liabilities, warranty claims, product liabilities, and other known and unknown liabilities; and
- litigation or other claims in connection with the acquired company, including claims from terminated employees, customers, former stockholders, or other third parties.

Our failure to address these risks or other problems encountered in connection with our past or future acquisitions and other strategic arrangements could cause us to fail to realize their anticipated benefits, incur unanticipated liabilities, and harm our business generally.

Our acquisitions and other strategic arrangements could also result in dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities, or amortization expenses, or impairment of goodwill and/or purchased long-lived assets, and restructuring charges, any of which could harm our financial condition and operating results. Also, the anticipated benefits or value of our acquisitions and other strategic arrangements may not materialize. In connection with our divestitures, we have agreed, and may in the future agree, to provide indemnification for certain potential liabilities, which could harm our financial condition and operating results.

We rely on highly skilled personnel and, if we are unable to retain or motivate key personnel, hire qualified personnel, or maintain and continue to adapt our corporate culture, we may not be able to grow or operate effectively.

Our performance and future success depends in large part upon the continued service of key technical leads as well as members of our senior management team. For instance, Sundar Pichai is critical to the overall management of Alphabet and its subsidiaries and plays an important role in the development of our technology, maintaining our culture, and setting our strategic direction.

Our ability to compete effectively and our future success depend on our continuing to identify, hire, develop, motivate, and retain highly skilled personnel for all areas of our organization. Competition in our industry for qualified employees is intense, and certain of our competitors have directly targeted, and may continue to target, our employees. In addition, our compensation arrangements, such as our equity award programs, may not always be successful in attracting new employees and retaining and motivating our existing employees. Restrictive immigration policy and regulatory changes may also affect our ability to hire, mobilize, or retain some of our global talent. All of our executive officers and key employees are at-will employees, and we do not maintain any key-person life insurance policies.

In addition, we believe that our corporate culture fosters innovation, creativity, and teamwork. As our organization grows and evolves, we may need to adapt our corporate culture and work environments to ever-changing circumstances, such as during times of a natural disaster or pandemic, and these changes could affect our ability to compete effectively or have an adverse effect on our corporate culture. Under our hybrid work models, we may experience increased costs and/or disruption, in addition to potential effects on our ability to operate effectively and maintain our corporate culture.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 1C. CYBERSECURITY

We maintain a comprehensive process for identifying, assessing, and managing material risks from cybersecurity threats as part of our broader risk management system and processes. We obtain input, as appropriate, for our cybersecurity risk management program on the security industry and threat trends from multiple external experts and internal threat intelligence teams. Teams of dedicated privacy, safety, and security professionals oversee cybersecurity risk management and mitigation, incident prevention, detection, and remediation. Leadership for these teams are professionals with deep cybersecurity expertise across multiple industries, including our Vice President of Privacy, Safety, and Security Engineering. Our executive leadership team, along with input from the above teams, are responsible for our overall enterprise risk management system and processes and regularly consider cybersecurity risks in the context of other material risks to the company.

As part of our cybersecurity risk management system, our incident management teams track and log privacy and security incidents across Alphabet, our vendors, and other third-party service providers to remediate and resolve any such incidents. Significant incidents are reviewed regularly by a cross-functional working group to determine whether further escalation is appropriate. Any incident assessed as potentially being or potentially becoming material is immediately escalated for further assessment, and then reported to designated members of our senior management. We consult with outside counsel as appropriate, including on materiality analysis and disclosure matters, and our senior management makes the final materiality determinations and disclosure and other compliance decisions. Our management apprises Alphabet's independent public accounting firm of matters and any relevant developments.

The Audit and Compliance Committee has oversight responsibility for risks and incidents relating to cybersecurity threats, including compliance with disclosure requirements, cooperation with law enforcement, and related effects on financial and other risks, and it reports any findings and recommendations, as appropriate, to the full Board for consideration. Senior management regularly discusses cyber risks and trends and, should they arise, any material incidents with the Audit and Compliance Committee. Internal Audit maintains a dedicated cybersecurity auditing team that independently tests our cybersecurity controls.

Our business strategy, results of operations and financial condition have not been materially affected by risks from cybersecurity threats, including as a result of previously identified cybersecurity incidents, but we cannot provide assurance that they will not be materially affected in the future by such risks or any future material incidents. For more information on our cybersecurity related risks, see Item 1A Risk Factors of this Annual Report on Form 10-K.

ITEM 2. PROPERTIES

Our headquarters are located in Mountain View, California. We own and lease office facilities and data centers around the world, primarily in Asia, Europe, and North America. We believe our existing facilities are in good condition and suitable for the conduct of our business.

ITEM 3. LEGAL PROCEEDINGS

For a description of our material pending legal proceedings, see Legal Matters in Note 10 of the Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K, which is incorporated herein by reference.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS, AND ISSUER PURCHASES OF EQUITY SECURITIES

As of October 2, 2015, Alphabet Inc. became the successor issuer of Google Inc. pursuant to Rule 12g-3(a) under the Exchange Act. Our Class A stock has been listed on the Nasdaq Global Select Market under the symbol "GOOG" since August 19, 2004, and under the symbol "GOOGL" since April 3, 2014. Prior to August 19, 2004, there was no public market for our stock. Our Class B stock is neither listed nor traded. Our Class C stock has been listed on the Nasdaq Global Select Market under the symbol "GOOG" since April 3, 2014.

Holders of Record

As of December 31, 2023, there were approximately 7,305 and 1,757 stockholders of record of our Class A stock and Class C stock, respectively. Because many of our shares of Class A stock and Class C stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders. As of December 31, 2023, there were approximately 59 stockholders of record of our Class B stock.

Dividend Policy

We have never declared or paid any cash dividend on our common or capital stock. The primary use of capital continues to be to invest for the long-term growth of the business. We regularly evaluate our cash and capital structure, including the size, pace, and form of capital return to stockholders.

Issuer Purchases of Equity Securities

The following table presents information with respect to Alphabet's repurchases of Class A and Class C stock during the quarter ended December 31, 2023:

Period	Total Number of Class A Shares Purchased (in thousands)[(1)]	Total Number of Class C Shares Purchased (in thousands)[(1)]	Average Price Paid per Class A Share[(2)]	Average Price Paid per Class C Share[(2)]	Total Number of Shares Purchased as Part of Publicly Announced Programs (in thousands)[(1)]	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Program (in millions)
October 1 - 31	9,923	38,687	$ 134.66	$ 135.65	48,610	$ 45,736
November 1 - 30	9,197	28,198	$ 134.53	$ 135.16	37,395	$ 40,725
December 1 - 31	7,502	24,760	$ 135.76	$ 136.37	32,262	$ 36,347
Total	26,622	91,645			118,267	

(1) Repurchases are being executed from time to time, subject to general business and market conditions and other investment opportunities, through open market purchases or privately negotiated transactions, including through Rule 10b5-1 plans. The repurchase program does not have an expiration date. For additional information related to share repurchases, see Note 11 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

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

Stock Performance Graphs

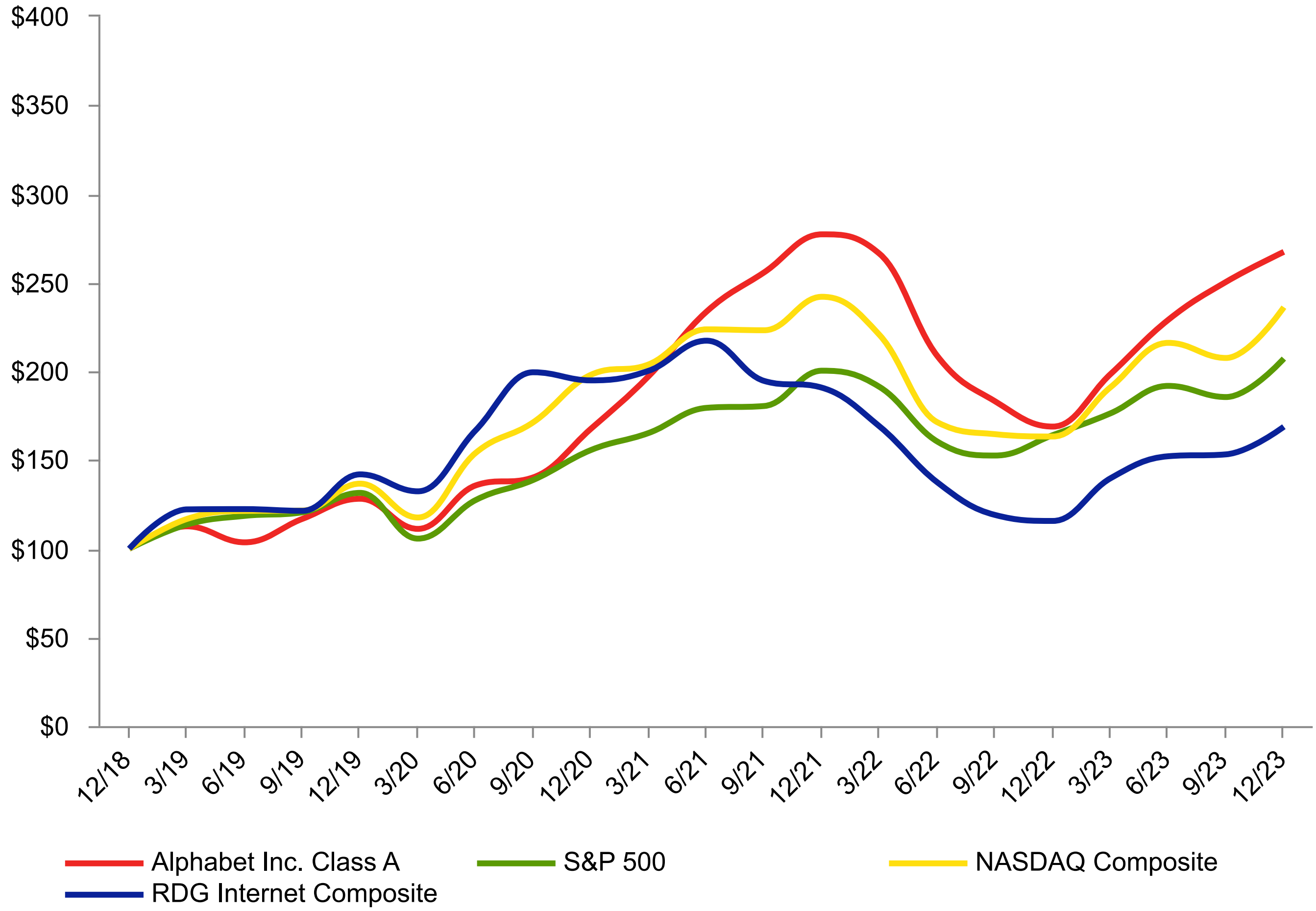
The graph below matches Alphabet Inc. Class A's cumulative five-year total stockholder return on common stock with the cumulative total returns of the S&P 500 index, the NASDAQ Composite index, and the RDG Internet Composite index. The graph tracks the performance of a $100 investment in our common stock and in each index (with the reinvestment of all dividends) from December 31, 2018, to December 31, 2023. The returns shown are based on historical results and are not intended to suggest future performance.

COMPARISON OF CUMULATIVE 5-YEAR TOTAL RETURN*

ALPHABET INC. CLASS A COMMON STOCK

Among Alphabet Inc., the S&P 500 Index, the

NASDAQ Composite Index, and the RDG Internet Composite Index



*$100 invested on December 31, 2018, in stock or index, including reinvestment of dividends.

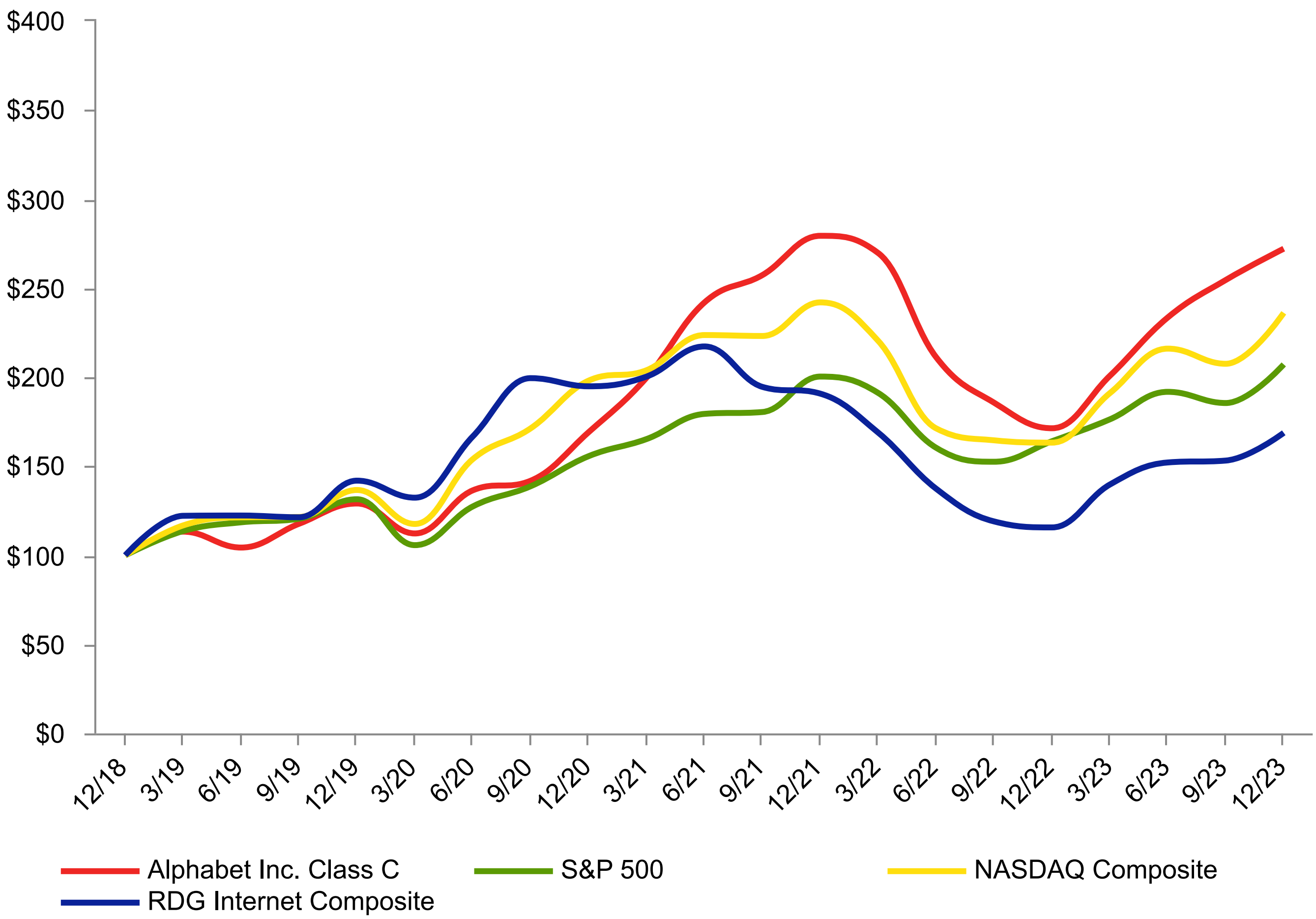
The graph below matches Alphabet Inc. Class C's cumulative five-year total stockholder return on capital stock with the cumulative total returns of the S&P 500 index, the NASDAQ Composite index, and the RDG Internet Composite index. The graph tracks the performance of a $100 investment in our Class C capital stock and in each index (with the reinvestment of all dividends) from December 31, 2018, to December 31, 2023. The returns shown are based on historical results and are not intended to suggest future performance.

COMPARISON OF CUMULATIVE 5-YEAR TOTAL RETURN*

ALPHABET INC. CLASS C CAPITAL STOCK

Among Alphabet Inc., the S&P 500 Index, the

NASDAQ Composite Index, and the RDG Internet Composite Index



*$100 invested on December 31, 2018, in stock or in index, including reinvestment of dividends.

ITEM 6. [Reserved]

ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Please read the following discussion and analysis of our financial condition and results of operations together with “Note about Forward-Looking Statements,” Part I, Item 1 "Business," Part I, Item 1A "Risk Factors," and our consolidated financial statements and related notes included under Item 8 of this Annual Report on Form 10-K.

The following section generally discusses 2023 results compared to 2022 results. Discussion of 2022 results compared to 2021 results to the extent not included in this report can be found in Item 7 of our 2022 Annual Report on Form 10-K.

Understanding Alphabet’s Financial Results

Alphabet is a collection of businesses — the largest of which is Google. We report Google in two segments, Google Services and Google Cloud; we also report all non-Google businesses collectively as Other Bets. For additional information on our segments, see Part I, Item 1 Business and Note 15 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

Trends in Our Business and Financial Effect

The following long-term trends have contributed to the results of our consolidated operations, and we anticipate that they will continue to affect our future results:

- **Users' behaviors and advertising continue to shift online as the digital economy evolves.**

The continuing evolution of the online world has contributed to the growth of our business and our revenues since inception. We expect that this evolution will continue to benefit our business and our revenues, although at a slower pace than we have experienced historically, in particular after the outsized growth in our advertising revenues during the COVID-19 pandemic. In addition, we face increasing competition for user engagement and advertisers, which may affect our revenues.

- **Users continue to access our products and services using diverse devices and modalities, which allows for new advertising formats that may benefit our revenues but adversely affect our margins.**

Our users are accessing our products and services via diverse devices and modalities, such as smartphones, wearables, connected TVs, and smart home devices, and want to be able to be connected no matter where they are or what they are doing. We are focused on expanding our products and services to stay in front of these trends in order to maintain and grow our business.

We benefit from advertising revenues generated from different channels, including mobile, and newer advertising formats. The margins from these channels and newer products have generally been lower than those from traditional desktop search. Additionally, as the market for a particular device type or modality matures, our advertising revenues may be affected. For example, changing dynamics within the global smartphone market, such as increased market saturation in developed countries, can affect our mobile advertising revenues.

We expect TAC paid to our distribution partners and Google Network partners to increase as our revenues grow and TAC as a percentage of our advertising revenues ("TAC rate") to be affected by changes in device mix; geographic mix; partner agreement terms; partner mix; the percentage of queries channeled through paid access points; product mix; the relative revenue growth rates of advertising revenues from different channels; and revenue share terms.

We expect these trends to continue to affect our revenues and put pressure on our margins.

- **As online advertising evolves, we continue to expand our product offerings, which may affect our monetization.**

As interactions between users and advertisers change, and as online user behavior evolves, we continue to expand our product offerings to serve these changing needs, which may affect our monetization. For example, revenues from ads on YouTube and Google Play monetize at a lower rate than our traditional search ads. We also expect to continue to incorporate AI innovations into our products, such as AI in Search, that could affect our monetization trends. When developing new products and services we generally focus first on user experience and then on monetization.

- **As users in developing economies increasingly come online, our revenues from international markets continue to increase, and may require continued investments. In addition, movements in foreign exchange rates affect such revenues.**

The shift to online, as well as the advent of the multi-device world, has brought opportunities outside of the U.S., including in emerging markets, such as India. We continue to invest heavily and develop localized versions of our products and advertising programs relevant to our users in these markets. This has led to a trend of increased revenues from emerging markets. We expect that our results will continue to be affected by our performance in these markets, particularly as low-cost mobile devices become more available. This trend could affect our revenues as developing markets initially monetize at a lower rate than more mature markets.

International revenues represent a significant portion of our revenues and are subject to fluctuations in foreign currency exchange rates relative to the U.S. dollar. While we have a foreign exchange risk management program designed to reduce our exposure to these fluctuations, this program does not fully offset their effect on our revenues and earnings.

- **The revenues that we derive beyond advertising are increasing and may adversely affect our margins.**

Revenues from cloud, consumer subscriptions, platforms, and devices, which may have differing characteristics than our advertising revenues, have grown over time, and we expect this trend to continue as we focus on expanding our products and services. The margins on these revenues vary significantly and are generally lower than the margins on our advertising revenues. For example, sales of our devices adversely affect our consolidated margins due to pressures on pricing and higher cost of sales.

- **As we continue to serve our users and expand our businesses, we will invest heavily in operating and capital expenditures.**

We continue to make significant research and development investments in areas of strategic focus as we seek to develop new, innovative offerings, improve our existing offerings, and rapidly and responsibly deploy AI across our businesses. We also expect to increase, relative to 2023, our investment in our technical infrastructure, including servers, network equipment, and data centers, to support the growth of our business and our long-term initiatives, in particular in support of AI products and services. In addition, acquisitions and strategic investments contribute to the breadth and depth of our offerings, expand our expertise in engineering and other functional areas, and build strong partnerships around strategic initiatives.

- **We continue to face an evolving regulatory environment, and we are subject to claims, lawsuits, investigations, and other forms of potential legal liability, which could affect our business practices and financial results.**

Changes in social, political, economic, tax, and regulatory conditions or in laws and policies governing a wide range of topics and related legal matters, including investigations, lawsuits, and regulatory actions, have resulted in fines and caused us to change our business practices. As these global trends continue, our cost of doing business may increase, our ability to pursue certain business models or offer certain products or services may be limited, and we may need to change our business practices to comply with evolving regulatory and legal matters. Examples include the antitrust complaints filed by the U.S. Department of Justice and a number of state Attorneys General; legislative proposals and pending litigation in the U.S., EU, and around the world that could diminish or eliminate safe harbor protection for websites and online platforms; and the Digital Markets Act and Digital Services Act in Europe and various legislative proposals in the U.S. focused on large technology platforms. For additional information, see Item 1A Risk Factors and Legal Matters in Note 10 of the Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

- **Our employees are critical to our success and we expect to continue investing in them.**

Our employees are among our best assets and are critical for our continued success. We expect to continue hiring talented employees around the globe and to provide competitive compensation programs. For additional information, see Culture and Workforce in Part I, Item 1 Business of this Annual Report on Form 10-K.

Revenues and Monetization Metrics

We generate revenues by delivering relevant, cost-effective online advertising; cloud-based solutions that provide enterprise customers of all sizes with infrastructure and platform services as well as communication and collaboration tools; sales of other products and services, such as apps and in-app purchases, and devices; and fees received for consumer subscription-based products. For additional information on how we recognize revenue, see Note 1 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

In addition to the long-term trends and their financial effect on our business discussed above, fluctuations in our revenues have been, and may continue to be, affected by a combination of general factors, including:

- changes in foreign currency exchange rates;

- changes in pricing, such as those resulting from changes in fee structures, discounts, and customer incentives;
- general economic conditions and various external dynamics, including geopolitical events, regulations, and other measures and their effect on advertiser, consumer, and enterprise spending;
- new product and service launches; and
- seasonality.

Additionally, fluctuations in our revenues generated from advertising ("Google advertising"), revenues from other sources ("Google subscriptions, platforms, and devices revenues"), Google Cloud, and Other Bets revenues have been, and may continue to be, affected by other factors unique to each set of revenues, as described below.

Google Services

Google Services revenues consist of Google advertising as well as Google subscriptions, platforms, and devices revenues.

Google Advertising

Google advertising revenues are comprised of the following:

- Google Search & other, which includes revenues generated on Google search properties (including revenues from traffic generated by search distribution partners who use Google.com as their default search in browsers, toolbars, etc.), and other Google owned and operated properties like Gmail, Google Maps, and Google Play;
- YouTube ads, which includes revenues generated on YouTube properties; and
- Google Network, which includes revenues generated on Google Network properties participating in AdMob, AdSense, and Google Ad Manager.

We use certain metrics to track how well traffic across various properties is monetized as it relates to our advertising revenues: paid clicks and cost-per-click pertain to traffic on Google Search & other properties, while impressions and cost-per-impression pertain to traffic on our Google Network properties.

Paid clicks represent engagement by users and include clicks on advertisements by end-users on Google search properties and other Google owned and operated properties including Gmail, Google Maps, and Google Play. Cost-per-click is defined as click-driven revenues divided by our total number of paid clicks and represents the average amount we charge advertisers for each engagement by users.

Impressions include impressions displayed to users on Google Network properties participating primarily in AdMob, AdSense, and Google Ad Manager. Cost-per-impression is defined as impression-based and click-based revenues divided by our total number of impressions, and represents the average amount we charge advertisers for each impression displayed to users.

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

Fluctuations in our advertising revenues, as well as the change in paid clicks and cost-per-click on Google Search & other properties and the change in impressions and cost-per-impression on Google Network properties and the correlation between these items have been, and may continue to be, affected by factors in addition to the general factors described above, such as:

- advertiser competition for keywords;
- changes in advertising quality, formats, delivery or policy;
- changes in device mix;
- seasonal fluctuations in internet usage, advertising expenditures, and underlying business trends, such as traditional retail seasonality; and
- traffic growth in emerging markets compared to more mature markets and across various verticals and channels.

Google Subscriptions, Platforms, and Devices

Google subscriptions, platforms, and devices revenues are comprised of the following:

- consumer subscriptions, which primarily include revenues from YouTube services, such YouTube TV, YouTube Music and Premium, and NFL Sunday Ticket, as well as Google One;
- platforms, which primarily include revenues from Google Play from the sales of apps and in-app purchases;
- devices, which primarily include sales of the Pixel family of devices; and
- other products and services.

Fluctuations in our Google subscriptions, platforms, and devices revenues have been, and may continue to be, affected by factors in addition to the general factors described above, such as changes in customer usage and demand, number of subscribers, and fluctuations in the timing of product launches.

Google Cloud

Google Cloud revenues are comprised of the following:

- Google Cloud Platform, which generates consumption-based fees and subscriptions for infrastructure, platform, and other services. These services provide access to solutions such as cybersecurity, databases, analytics, and AI offerings including our AI infrastructure, Vertex AI platform, and Duet AI for Google Cloud;
- Google Workspace, which includes subscriptions for cloud-based communication and collaboration tools for enterprises, such as Calendar, Gmail, Docs, Drive, and Meet, with integrated features like Duet AI in Google Workspace; and
- other enterprise services.

Fluctuations in our Google Cloud revenues have been, and may continue to be, affected by factors in addition to the general factors described above, such as customer usage.

Other Bets

Revenues from Other Bets are generated primarily from the sale of healthcare-related services and internet services.

Costs and Expenses

Our cost structure has two components: cost of revenues and operating expenses. Our operating expenses include costs related to R&D, sales and marketing, and general and administrative functions. Certain of our costs and expenses, including those associated with the operation of our technical infrastructure as well as components of our operating expenses, are generally less variable in nature and may not correlate to changes in revenue. Additionally, fluctuations in compensation expenses may not directly correlate with changes in headcount, in particular due to annual stock-based compensation (SBC) awards that generally vest over four years.

Cost of Revenues

Cost of revenues is comprised of TAC and other costs of revenues.

- TAC includes:
    - amounts paid to our distribution partners who make available our search access points and services. Our distribution partners include browser providers, mobile carriers, original equipment manufacturers, and software developers; and
    - amounts paid to Google Network partners primarily for ads displayed on their properties.
- Other cost of revenues primarily includes:
    - compensation expense related to our data centers and other operations such as content review and customer and product support;
    - content acquisition costs, which are payments to content providers from whom we license video and other content for distribution on YouTube and Google Play (we pay fees to these content providers based on revenues generated or a flat fee);
    - depreciation expense related to our technical infrastructure; and
    - inventory and other costs related to the devices we sell.

TAC as a percentage of revenues generated from ads placed on Google Network properties are significantly higher than TAC as a percentage of revenues generated from ads placed on Google Search & other properties, because most of the advertiser revenues from ads served on Google Network properties are paid as TAC to our Google Network partners.

Operating Expenses

Operating expenses are generally incurred during our normal course of business, which we categorize as either R&D, sales and marketing, or general and administrative.

The main components of our R&D expenses are:

- compensation expenses for engineering and technical employees responsible for R&D related to our existing and new products and services;
- depreciation; and
- third-party services fees primarily relating to consulting and outsourced services in support of our engineering and product development efforts.

The main components of our sales and marketing expenses are:

- compensation expenses for employees engaged in sales and marketing, sales support, and certain customer service functions; and
- spending relating to our advertising and promotional activities in support of our products and services.

The main components of our general and administrative expenses are:

- compensation expenses for employees in finance, human resources, information technology, legal, and other administrative support functions;
- expenses relating to legal matters, including certain fines and settlements; and
- third-party services fees, including audit, consulting, outside legal, and other outsourced administrative services.

Other Income (Expense), Net

OI&E, net primarily consists of interest income (expense), the effect of foreign currency exchange gains (losses), net gains (losses) and impairment on our marketable and non-marketable securities, performance fees, and income (loss) and impairment from our equity method investments.

For additional information, including how we account for our investments and factors that can drive fluctuations in the value of our investments, see Note 1 and Note 3 of the Notes to Consolidated Financial Statements included in Part II, Item 8 as well as Item 7A Quantitative and Qualitative Disclosures About Market Risk of this Annual Report on Form 10-K.

Provision for Income Taxes

Provision for income taxes represents the estimated amount of federal, state, and foreign income taxes incurred in the U.S. and the many jurisdictions in which we operate. The provision includes the effect of reserve provisions and changes to reserves that are considered appropriate as well as the related net interest and penalties.

For additional information, including a reconciliation of the U.S. federal statutory rate to our effective tax rate, see Note 14 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

Executive Overview

The following table summarizes our consolidated financial results (in millions, except for per share information and percentages):

	Year Ended December 31,			
	2022	2023	$ Change	% Change
Consolidated revenues	$ 282,836	$ 307,394	$ 24,558	9 %
Change in consolidated constant currency revenues[1]				10 %
Cost of revenues	$ 126,203	$ 133,332	$ 7,129	6 %
Operating expenses	$ 81,791	$ 89,769	$ 7,978	10 %
Operating income	$ 74,842	$ 84,293	$ 9,451	13 %
Operating margin	26 %	27 %		1 %
Other income (expense), net	$ (3,514)	$ 1,424	$ 4,938	NM
Net income	$ 59,972	$ 73,795	$ 13,823	23 %
Diluted EPS	$ 4.56	$ 5.80	$ 1.24	27 %

NM = Not Meaningful

(1) See "Use of Non-GAAP Constant Currency Information" below for details relating to our use of constant currency information.

- Revenues were $307.4 billion, an increase of 9% year over year, primarily driven by an increase in Google Services revenues of $19.0 billion, or 8%, and an increase in Google Cloud revenues of $6.8 billion, or 26%.
- Total constant currency revenues, which exclude the effect of hedging, increased 10% year over year.
- Cost of revenues was $133.3 billion, an increase of 6% year over year, primarily driven by increases in content acquisition costs, compensation expenses, and TAC. The increase in compensation expenses included charges related to employee severance associated with the reduction in our workforce. Additionally, cost of revenues benefited from a reduction in depreciation due to the change in estimated useful lives of our servers and network equipment.
- Operating expenses were $89.8 billion, an increase of 10% year over year, primarily driven by an increase in compensation expenses and charges related to our office space optimization efforts. The increase in compensation expenses was largely the result of charges related to employee severance associated with the reduction in our workforce and an increase in SBC expense. Operating expenses benefited from the change in the estimated useful lives of our servers and certain network equipment.

Other Information:

- In January 2023, we announced a reduction of our workforce, and as a result we recorded employee severance and related charges of $2.1 billion for the year ended December 31, 2023. In addition, we are taking actions to optimize our global office space. As a result, exit charges recorded during the year ended December 31, 2023, were $1.8 billion. In addition to these exit charges, for the year ended December 31, 2023, we incurred $269 million in accelerated rent and accelerated depreciation. For additional information, see Note 8 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.
- In January 2023, we completed an assessment of the useful lives of our servers and network equipment, resulting in a change in the estimated useful life of our servers and certain network equipment to six years. The effect of this change was a reduction in depreciation expense of $3.9 billion for the year ended December 31, 2023, recognized primarily in cost of revenues and R&D expenses. For additional information, see Note 1 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

- On July 21, 2023, the IRS announced a rule change allowing taxpayers to temporarily apply the regulations in effect prior to 2022 related to U.S. federal foreign tax credits. This announcement applies to foreign taxes paid or accrued in the fiscal years 2022 and 2023. A cumulative one-time adjustment applicable to the prior period for this tax rule change was recorded in 2023 and is reflected in our effective tax rate of 13.9% for the year ended December 31, 2023.
- Repurchases of Class A and Class C shares were $62.2 billion for the year ended December 31, 2023. For additional information, see Note 11 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.
- Operating cash flow was $101.7 billion for the year ended December 31, 2023.
- Capital expenditures, which primarily reflected investments in technical infrastructure, were $32.3 billion for the year ended December 31, 2023.
- As of December 31, 2023, we had 182,502 employees.

Financial Results

Revenues

The following table presents revenues by type (in millions):

	Year Ended December 31,	
	2022	2023
Google Search & other	$ 162,450	$ 175,033
YouTube ads	29,243	31,510
Google Network	32,780	31,312
Google advertising	224,473	237,855
Google subscriptions, platforms, and devices	29,055	34,688
Google Services total	253,528	272,543
Google Cloud	26,280	33,088
Other Bets	1,068	1,527
Hedging gains (losses)	1,960	236
Total revenues	$ 282,836	$ 307,394

Google Services

Google advertising revenues

Google Search & other

Google Search & other revenues increased $12.6 billion from 2022 to 2023. The overall growth was driven by interrelated factors including increases in search queries resulting from growth in user adoption and usage on mobile devices; growth in advertiser spending; and improvements we have made in ad formats and delivery.

YouTube ads

YouTube ads revenues increased $2.3 billion from 2022 to 2023. The growth was driven by our brand and direct response advertising products, both of which benefited from increased spending by our advertisers.

Google Network

Google Network revenues decreased $1.5 billion from 2022 to 2023, primarily driven by a decrease in Google Ad Manager and AdSense revenues.

Monetization Metrics

The following table presents changes in monetization metrics for Google Search & other revenues (paid clicks and cost-per-click) and Google Network revenues (impressions and cost-per-impression), expressed as a percentage, from 2022 to 2023:

Google Search & other	
Paid clicks change	7 %
Cost-per-click change	1 %
Google Network	
Impressions change	(5)%
Cost-per-impression change	0 %

Changes in paid clicks and impressions are driven by a number of interrelated factors, including changes in advertiser spending; ongoing product and policy changes; and, as it relates to paid clicks, fluctuations in search queries resulting from changes in user adoption and usage, primarily on mobile devices.

Changes in cost-per-click and cost-per-impression are driven by a number of interrelated factors including changes in device mix, geographic mix, advertiser spending, ongoing product and policy changes, product mix, property mix, and changes in foreign currency exchange rates.

Google subscriptions, platforms, and devices

Google subscriptions, platforms, and devices revenues increased $5.6 billion from 2022 to 2023 primarily driven by growth in subscriptions, largely for YouTube services. The growth in YouTube services was primarily due to an increase in paid subscribers.

Google subscriptions, platforms, and devices revenues increased $1.0 billion from 2021 to 2022 primarily driven by growth in subscription and device revenues, partially offset by a decrease in platform revenues. The growth in subscriptions was largely for YouTube services, primarily due to an increase in paid subscribers. The growth in device revenues was primarily driven by increased sales of Pixel devices. The decrease in platform revenues was primarily due to Google Play, driven by the fee structure changes we announced in 2021 as well as a decrease in buyer spending. Additionally, the overall increase in Google subscriptions, platforms, and devices revenues was adversely affected by the unfavorable effect of foreign currency exchange rates.

Google Cloud

Google Cloud revenues increased $6.8 billion from 2022 to 2023. Growth was primarily driven by Google Cloud Platform followed by Google Workspace offerings. Google Cloud's infrastructure and platform services were the largest drivers of growth in Google Cloud Platform.

Revenues by Geography

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

	Year Ended December 31,	
	2022	2023
United States	48 %	47 %
EMEA	29 %	30 %
APAC	16 %	17 %
Other Americas	6 %	6 %
Hedging gains (losses)	1 %	0 %

For additional information, see Note 2 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

Use of Non-GAAP Constant Currency Information

International revenues, which represent a significant portion of our revenues, are generally transacted in multiple currencies and therefore are affected by fluctuations in foreign currency exchange rates.

The effect of currency exchange rates on our business is an important factor in understanding period-to-period comparisons. We use non-GAAP constant currency revenues ("constant currency revenues") and non-GAAP percentage change in constant currency revenues ("percentage change in constant currency revenues") for financial and operational decision-making and as a means to evaluate period-to-period comparisons. We believe the presentation of results on a constant currency basis in addition to U.S. Generally Accepted Accounting Principles (GAAP) results helps improve the ability to understand our performance, because it excludes the effects of foreign currency volatility that are not indicative of our core operating results.

Constant currency information compares results between periods as if exchange rates had remained constant period over period. We define constant currency revenues as revenues excluding the effect of foreign currency exchange rate movements ("FX Effect") as well as hedging activities, which are recognized at the consolidated level. We use constant currency revenues to determine the constant currency revenue percentage change on a year-on-year basis. Constant currency revenues are calculated by translating current period revenues using prior year comparable period exchange rates, as well as excluding any hedging effects realized in the current period.

Constant currency revenue percentage change is calculated by determining the change in current period revenues over prior year comparable period revenues where current period foreign currency revenues are translated using prior year comparable period exchange rates and hedging effects are excluded from revenues of both periods.

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

The following table presents the foreign currency exchange effect on international revenues and total revenues (in millions, except percentages):

	Year Ended December 31,		Year Ended December 31, 2023					
					% Change from Prior Period			
	2022	2023	Less FX Effect	Constant Currency Revenues	As Reported	Less Hedging Effect	Less FX Effect	Constant Currency Revenues
United States	$ 134,814	$ 146,286	$ 0	$ 146,286	9 %		0 %	9 %
EMEA	82,062	91,038	460	90,578	11 %		1 %	10 %
APAC	47,024	51,514	(1,759)	53,273	10 %		(3)%	13 %
Other Americas	16,976	18,320	(654)	18,974	8 %		(4)%	12 %
Revenues, excluding hedging effect	280,876	307,158	(1,953)	309,111	9 %		(1)%	10 %
Hedging gains (losses)	1,960	236						
Total revenues[(1)]	$ 282,836	$ 307,394		$ 309,111	9 %	0 %	(1)%	10 %

(1) Total constant currency revenues of $309.1 billion for 2023 increased $28.2 billion compared to $280.9 billion in revenues, excluding hedging effect, for 2022.

EMEA revenue growth was favorably affected by changes in foreign currency exchange rates, primarily due to the U.S. dollar weakening relative to the Euro, partially offset by the U.S. dollar strengthening relative to the Turkish lira.

APAC revenue growth was unfavorably affected by changes in foreign currency exchange rates, primarily due to the U.S. dollar strengthening relative to the Japanese yen.

Other Americas revenue growth was unfavorably affected by changes in foreign currency exchange rates, primarily due to the U.S. dollar strengthening relative to the Argentine peso.

Costs and Expenses

Cost of Revenues

The following table presents cost of revenues, including TAC (in millions, except percentages):

	Year Ended December 31,		
	2021	2022	2023
TAC	$ 45,566	$ 48,955	$ 50,886
Other cost of revenues	65,373	77,248	82,446
Total cost of revenues	$ 110,939	$ 126,203	$ 133,332
Total cost of revenues as a percentage of revenues	43 %	45 %	43 %

Cost of revenues increased $7.1 billion from 2022 to 2023 due to an increase in other cost of revenues and TAC of $5.2 billion and $1.9 billion, respectively.

The increase in TAC from 2022 to 2023 was largely due to an increase in TAC paid to distribution partners, primarily driven by growth in revenues subject to TAC. The TAC rate decreased from 21.8% to 21.4% from 2022 to 2023 primarily due to a revenue mix shift from Google Network properties to Google Search & other properties. The TAC rate on Google Search & other revenues and the TAC rate on Google Network revenues were both substantially consistent from 2022 to 2023.

The increase in other cost of revenues from 2022 to 2023 was primarily due to increases in content acquisition costs, largely for YouTube, and compensation expenses, which included $479 million of charges related to employee severance associated with the reduction in our workforce. Additionally, other cost of revenues benefited from a reduction in depreciation expense due to the change in estimated useful lives of our servers and network equipment.

The increase in other cost of revenues of $11.9 billion from 2021 to 2022 was primarily due to increases in device costs, compensation expenses, depreciation, and equipment-related expenses.

Research and Development

The following table presents R&D expenses (in millions, except percentages):

	Year Ended December 31,	
	2022	2023
Research and development expenses	$ 39,500	$ 45,427
Research and development expenses as a percentage of revenues	14 %	15 %

R&D expenses increased $5.9 billion from 2022 to 2023 primarily driven by an increase in compensation expenses of $2.9 billion, $870 million in charges related to our office space optimization efforts, and an increase in depreciation expense of $722 million. The $2.9 billion increase in compensation expenses was largely the result of a 4% increase in average headcount, after adjusting for roles affected by the reduction in our workforce, and an increase in SBC expense. Additionally, the increase in compensation expenses included $848 million in employee severance charges associated with the reduction in our workforce. The $722 million increase in depreciation expense reflected an offsetting benefit of the change in the estimated useful lives of our servers and network equipment.

Sales and Marketing

The following table presents sales and marketing expenses (in millions, except percentages):

	Year Ended December 31,	
	2022	2023
Sales and marketing expenses	$ 26,567	$ 27,917
Sales and marketing expenses as a percentage of revenues	9 %	9 %

Sales and marketing expenses increased $1.4 billion from 2022 to 2023, primarily driven by an increase in compensation expenses of $1.6 billion, partially offset by a decrease in advertising and promotional activities of $441 million. The $1.6 billion increase in compensation expenses was largely the result of $497 million in employee severance charges associated with the reduction in our workforce in addition to a combination of other factors, none of which were individually significant.

General and Administrative

The following table presents general and administrative expenses (in millions, except percentages):

	Year Ended December 31,	
	2022	2023
General and administrative expenses	$ 15,724	$ 16,425
General and administrative expenses as a percentage of revenues	6 %	5 %

General and administrative expenses increased $701 million from 2022 to 2023, primarily driven by an increase in compensation expenses of $416 million, which was largely the result of $264 million in employee severance charges associated with the reduction in our workforce in addition to a combination of other factors, none of which were individually significant.

Segment Profitability

The following table presents segment operating income (loss) (in millions).

	Year Ended December 31,	
	2022	2023
Operating income (loss):		
Google Services	$ 82,699	$ 95,858
Google Cloud	(1,922)	1,716
Other Bets	(4,636)	(4,095)
Alphabet-level activities[(1)]	(1,299)	(9,186)
Total income from operations	$ 74,842	$ 84,293

(1) In addition to the costs included in Alphabet-level activities, hedging gains (losses) related to revenue were $2.0 billion and $236 million in 2022 and 2023, respectively. For the year ended December 31, 2023, Alphabet-level activities include charges related to the reduction in force and our office space optimization efforts totaling $3.9 billion. In addition, for the year ended December 31, 2023, we incurred $269 million in accelerated rent and accelerated depreciation. For additional information relating to our workforce reduction and other initiatives, see Note 8 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K. For additional information relating to our segments, see Note 15 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

Google Services

Google Services operating income increased $13.2 billion from 2022 to 2023. The increase in operating income was primarily driven by an increase in revenues, partially offset by an increase in content acquisition costs and compensation expenses including an increase in SBC expense. Additionally, operating income benefited from a reduction in costs driven by the change in the estimated useful lives of our servers and certain network equipment.

Google Cloud

Google Cloud operating income of $1.7 billion for 2023 compared to an operating loss of $1.9 billion for 2022 represents an increase of $3.6 billion. The increase in operating income was primarily driven by an increase in revenues, partially offset by an increase in compensation expenses largely driven by headcount growth. Additionally, operating income benefited from a reduction in costs driven by the change in the estimated useful lives of our servers and certain network equipment.

Other Bets

Other Bets operating loss decreased $541 million from 2022 to 2023 primarily due to growth in revenues as well as a reduction in valuation-based compensation liabilities related to Other Bet companies.

Other Income (Expense), Net

The following table presents OI&E, (in millions):

	Year Ended December 31,	
	2022	2023
Interest income	$ 2,174	$ 3,865
Interest expense	(357)	(308)
Foreign currency exchange gain (loss), net	(654)	(1,238)
Gain (loss) on debt securities, net	(2,064)	(1,215)
Gain (loss) on equity securities, net	(3,455)	392
Performance fees	798	257
Income (loss) and impairment from equity method investments, net	(337)	(628)
Other	381	299
Other income (expense), net	$ (3,514)	$ 1,424

OI&E, net increased $4.9 billion from 2022 to 2023. The increase was primarily due to fluctuations in the value of equity securities reflecting market driven changes in the value of our marketable equity securities, investment specific event driven changes in our non-marketable equity securities, and increased interest income due to interest rates.

For additional information, see Note 7 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

Provision for Income Taxes

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

	Year Ended December 31,	
	2022	2023
Income before provision for income taxes	$ 71,328	$ 85,717
Provision for income taxes	$ 11,356	$ 11,922
Effective tax rate	15.9 %	13.9 %

In 2023, the Internal Revenue Services (IRS) issued a rule change allowing taxpayers to temporarily apply the regulations in effect prior to 2022 related to U.S. federal foreign tax credits, as well as a separate rule change with interim guidance on the capitalization and amortization of R&D expenses. A cumulative one-time adjustment applicable to the prior period for these tax rule changes was recorded in 2023.

The effective tax rate decreased from 2022 to 2023, reflecting the effect of the two tax rule changes described above, particularly the change related to foreign tax credits. The effect of these tax rule changes was partially offset by changes in uncertain tax benefits and a decrease in the U.S. federal Foreign Derived Intangible Income tax deduction.

The OECD is coordinating negotiations among more than 140 countries with the goal of achieving consensus around substantial changes to international tax policies, including the implementation of a minimum global effective tax rate of 15%. While various countries have implemented the legislation as of January 1, 2024, we do not expect a resulting material change to our income tax provision for the 2024 fiscal year. As additional jurisdictions enact such legislation, we expect our effective tax rate and cash tax payments could increase in future years.

Financial Condition

Cash, Cash Equivalents, and Marketable Securities

As of December 31, 2023, we had $110.9 billion in cash, cash equivalents, and short-term marketable securities. Cash equivalents and marketable securities are comprised of time deposits, money market funds, highly liquid government bonds, corporate debt securities, mortgage-backed and asset-backed securities, and marketable equity securities.

Sources, Uses of Cash and Related Trends

Our principal sources of liquidity are cash, cash equivalents, and marketable securities, as well as the cash flow that we generate from operations. The primary use of capital continues to be to invest for the long-term growth of the business. We regularly evaluate our cash and capital structure, including the size, pace, and form of capital return to stockholders.

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

	Year Ended December 31,	
	2022	2023
Net cash provided by operating activities	$ 91,495	$ 101,746
Net cash used in investing activities	$ (20,298)	$ (27,063)
Net cash used in financing activities	$ (69,757)	$ (72,093)

Cash Provided by Operating Activities

Our largest source of cash provided by operations are advertising revenues generated by Google Search & other properties, Google Network properties, and YouTube properties. In Google Services, we also generate cash through consumer subscriptions and the sale of apps and in-app purchases and devices. In Google Cloud we generate cash through consumption-based fees and subscriptions for infrastructure, platform, collaboration tools, and other cloud services.

Our primary uses of cash from operating activities include payments to distribution and Google Network partners, to employees for compensation, and to content providers. Other uses of cash from operating activities include payments to suppliers for devices, to tax authorities for income taxes, and other general corporate expenditures.

Net cash provided by operating activities increased from 2022 to 2023 due to the increase in cash received from customers, partially offset by increases in cash paid for cost of revenues and operating expenses.

Cash Used in Investing Activities

Cash provided by investing activities consists primarily of maturities and sales of investments in marketable and non-marketable securities. Cash used in investing activities consists primarily of purchases of marketable and non-marketable securities, purchases of property and equipment, and payments for acquisitions.

Net cash used in investing activities increased from 2022 to 2023 due to a decrease in maturities and sales of marketable securities, partially offset by a decrease in payments for acquisitions.

Cash Used in Financing Activities

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

Net cash used in financing activities increased from 2022 to 2023 due to an increase in repurchases of stock.

Liquidity and Material Cash Requirements

We expect existing cash, cash equivalents, short-term marketable securities, cash flows from operations and financing activities to continue to be sufficient to fund our operating activities and cash commitments for investing and financing activities for at least the next 12 months and thereafter for the foreseeable future.

Capital Expenditures and Leases

We make investments in land and buildings for data centers and offices and information technology assets through purchases of property and equipment and lease arrangements to provide capacity for the growth of our services and products.

Capital Expenditures

Our capital investments in property and equipment consist primarily of the following major categories:

- technical infrastructure, which consists of our investments in servers and network equipment for computing, storage, and networking requirements for ongoing business activities, including AI, (collectively referred to as our information technology assets) and data center land and building construction; and
- office facilities, ground-up development projects, and building improvements (also referred to as "fit-outs").

Construction in progress consists primarily of technical infrastructure and office facilities which have not yet been placed in service. The time frame from date of purchase to placement in service of these assets may extend from months to years. For example, our data center construction projects are generally multi-year projects with multiple phases, where we acquire land and buildings, construct buildings, and secure and install information technology assets.

During the years ended December 31, 2022 and 2023, we spent $31.5 billion and $32.3 billion on capital expenditures, respectively. We expect to increase, relative to 2023, our investment in our technical infrastructure, including servers, network equipment, and data centers, to support the growth of our business and our long-term initiatives, in particular in support of AI products and services. Depreciation of our property and equipment commences when the deployment of such assets are completed and are ready for our intended use. Land is not depreciated. For the years ended December 31, 2022 and 2023, our depreciation on property and equipment were $13.5 billion and $11.9 billion, respectively.

Leases

For the years ended December 31, 2022 and 2023, we recognized total operating lease assets of $4.4 billion and $2.9 billion, respectively. As of December 31, 2023, the amount of total future lease payments under operating leases, which had a weighted average remaining lease term of eight years, was $17.7 billion, of which $3.2 billion is short-term. As of December 31, 2023, we have entered into leases that have not yet commenced with future short-term and long-term lease payments of $657 million and $3.3 billion, that are not yet recorded on our Consolidated Balance Sheets. These leases will commence between 2024 and 2026 with non-cancelable lease terms of one to 25 years.

For the years ended December 31, 2022 and 2023, our operating lease expenses (including variable lease costs) were $3.7 billion and $4.5 billion, respectively. Finance lease costs were not material for the years ended December 31, 2022 and 2023. For additional information, see Note 4 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

Financing

We have a short-term debt financing program of up to $10.0 billion through the issuance of commercial paper. Net proceeds from this program are used for general corporate purposes. As of December 31, 2023, we had no commercial paper outstanding.

As of December 31, 2023, we had $10.0 billion of revolving credit facilities, $4.0 billion expiring in April 2024 and $6.0 billion expiring in April 2028. The interest rates for all credit facilities are determined based on a formula using certain market rates, as well as our progress toward the achievement of certain sustainability goals. No amounts have been borrowed under the credit facilities.

As of December 31, 2023, we had senior unsecured notes outstanding with a total carrying value of $12.9 billion with short-term and long-term future interest payments of $214 million and $3.6 billion, respectively. For additional information, see Note 6 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

We primarily utilize contract manufacturers for the assembly of our servers used in our technical infrastructure and devices we sell. We have agreements where we may purchase components directly from suppliers and then supply these components to contract manufacturers for use in the assembly of the servers and devices. Certain of these arrangements result in a portion of the cash received from and paid to the contract manufacturers to be presented as financing activities in the Consolidated Statements of Cash Flows included in Item 8 of this Annual Report on Form 10-K.

Share Repurchase Program

During 2023 we repurchased and subsequently retired 528 million shares for $62.2 billion.

In April 2023, the Board of Directors of Alphabet authorized the company to repurchase up to an additional $70.0 billion of its Class A and Class C shares. As of December 31, 2023, $36.3 billion remains available for Class A and Class C share repurchases.

The following table presents Class A and Class C shares repurchased and subsequently retired (in millions):

	Year Ended December 31, 2022		Year Ended December 31, 2023	
	Shares	Amount	Shares	Amount
Class A share repurchases	61	$ 6,719	78	$ 9,316
Class C share repurchases	469	52,577	450	52,868
Total share repurchases(1)	530	$ 59,296	528	$ 62,184

(1) Shares repurchased include unsettled repurchases as of December 31, 2023.

For additional information, see Note 11 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

European Commission Fines

In 2017, 2018 and 2019, the EC announced decisions that certain actions taken by Google infringed European competition law and imposed fines of €2.4 billion ($2.7 billion as of June 27, 2017), €4.3 billion ($5.1 billion as of June 30, 2018), and €1.5 billion ($1.7 billion as of March 20, 2019), respectively. On September 14, 2022, the General Court reduced the 2018 fine from €4.3 billion to €4.1 billion. We subsequently filed an appeal to the European Court of Justice.

While each EC decision is under appeal, we included the fines in accrued expenses and other current liabilities on our Consolidated Balance Sheets as we provided bank guarantees (in lieu of a cash payment) for the fines. For additional information, see Note 10 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

Taxes

As of December 31, 2023, we had income taxes payable of $4.2 billion, of which $2.1 billion was short-term, related to a one-time transition tax payable incurred as a result of the U.S. Tax Cuts and Jobs Act ("Tax Act"). As permitted by the Tax Act, we will pay the transition tax in annual interest-free installments through 2025. We also have long-term taxes payable of $6.3 billion primarily related to uncertain tax positions as of December 31, 2023.

Purchase Commitments and Other Contractual Obligations

As of December 31, 2023, we had material purchase commitments and other contractual obligations of $45.9 billion, of which $31.6 billion was short-term. These amounts primarily consist of purchase orders for certain technical infrastructure as well as the non-cancelable portion or the minimum cancellation fee in certain agreements related to commitments to purchase licenses, including content licenses, inventory and network capacity. For those agreements with variable terms, we do not estimate the non-cancelable obligation beyond any minimum quantities and/or pricing as of December 31, 2023. In certain instances, the amount of our contractual obligations may change based on the expected timing of order fulfillment from our suppliers. For more information related to our content licenses, see Note 10 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

In addition, we regularly enter into multi-year, non-cancellable agreements to purchase renewable energy and energy attributes, such as renewable energy certificates. These agreements do not include a minimum dollar commitment. The amounts to be paid under these agreements are based on the actual volumes to be generated and are not readily determinable.

Critical Accounting Estimates

We prepare our consolidated financial statements in accordance with GAAP. In doing so, we have to make estimates and assumptions. Our critical accounting estimates are those estimates that involve a significant level of uncertainty at the time the estimate was made, and changes in them have had or are reasonably likely to have a material effect on our financial condition or results of operations. Accordingly, actual results could differ materially from our estimates. We base our estimates on past experience and other assumptions that we believe are reasonable under the circumstances, and we evaluate these estimates on an ongoing basis. We have reviewed our critical accounting estimates with the Audit and Compliance Committee of our Board of Directors.

For a summary of significant accounting policies and the effect on our financial statements, see Note 1 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

Fair Value Measurements of Non-Marketable Equity Securities

We measure certain financial instruments at fair value on a nonrecurring basis, consisting primarily of our non-marketable equity securities. These investments are accounted for under the measurement alternative method ("the measurement alternative") and are measured at cost, less impairment, subject to upward and downward adjustments resulting from observable price changes for identical or similar investments of the same issuer. These adjustments require quantitative assessments of the fair value of our securities, which may require the use of unobservable inputs. Adjustments are determined primarily based on a market approach as of the transaction date and involve the use of estimates using the best information available, which may include cash flow projections or other available market data.

Non-marketable equity securities are also evaluated for impairment, based on qualitative factors including the companies' financial and liquidity position and access to capital resources, among others. When indicators of impairment exist, we prepare quantitative measurements of the fair value of our equity investments using a market approach or an income approach, which requires judgment and the use of unobservable inputs, including discount rates, investee revenues and costs, and comparable market data of private and public companies, among others.

When the quantitative remeasurements of fair value indicate an impairment exists, we write down the investment to its current fair value.

We also have compensation arrangements with payouts based on realized returns from certain investments, i.e. performance fees. We record compensation expense based on the estimated payouts on an ongoing basis, which may result in expense recognized before investment returns are realized and compensation is paid and may require the use of unobservable inputs.

Property and Equipment

We assess the reasonableness of the useful lives of our property and equipment periodically as well as when other changes occur, such as when there are changes to ongoing business operations, changes in the planned use and utilization of assets, or technological advancements, that could indicate a change in the period over which we expect to benefit from the assets.

Income Taxes

We are subject to income taxes in the U.S. and foreign jurisdictions. Significant judgment is required in evaluating our uncertain tax positions and determining our provision for income taxes.

Recording an uncertain tax position involves various qualitative considerations, including evaluation of comparable and resolved tax exposures, applicability of tax laws, and likelihood of settlement. We evaluate uncertain tax positions periodically, considering changes in facts and circumstances, such as new regulations or recent judicial opinions, as well as the status of audit activities by taxing authorities. Although we believe we have adequately reserved for our uncertain tax positions, no assurance can be given that the final tax outcome of these matters will not be different. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will affect the provision for income taxes and the effective tax rate in the period in which such determination is made.

The provision for income taxes includes the effect of reserve provisions and changes to reserves as well as the related net interest and penalties. In addition, we are subject to the continuous examination of our income tax returns by the IRS and other tax authorities which may assert assessments against us. We regularly assess the likelihood of adverse outcomes resulting from these examinations and assessments to determine the adequacy of our provision for income taxes.

Loss Contingencies

We are regularly subject to claims, lawsuits, regulatory and government investigations, other proceedings, and consent orders involving competition, intellectual property, privacy, data security, tax and related compliance, labor and employment, commercial disputes, content generated by our users, goods and services offered by advertisers or publishers using our platforms, personal injury consumer protection, and other matters. Certain of these matters include speculative claims for substantial or indeterminate amounts of damages. We record a liability when we believe that it is probable that a loss has been incurred and the amount can be reasonably estimated. If we determine that a loss is reasonably possible and the loss or range of loss can be estimated, we disclose the possible loss in Note 10 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

We evaluate, on a regular basis, developments in our legal matters that could affect the amount of liability that has been previously accrued, and the matters and related reasonably possible losses disclosed, and make adjustments and changes to our disclosures. Significant judgment is required to determine both the likelihood and the estimated amount of a loss related to such matters. Until the final resolution of such matters, there may be an exposure to loss in excess of the amount recorded, and such amounts could be material.

Change in Accounting Estimate

In January 2023, we completed an assessment of the useful lives of our servers and network equipment resulting in a change in the estimated useful life of our servers and certain network equipment to six years. This change in accounting estimate was effective beginning fiscal year 2023. For additional information, see Note 1 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to financial market risks, including changes in foreign currency exchange rates, interest rates, and equity investment risks.

Foreign Currency Exchange Risk

We transact business globally in multiple currencies. International revenues, as well as costs and expenses denominated in foreign currencies, expose us to the risk of fluctuations in foreign currency exchange rates against the U.S. dollar. As discussed below, we enter into derivative instruments to hedge foreign currency risk. Principal currencies hedged included the Australian dollar, British pound, Canadian dollar, Euro, and Japanese yen. For the purpose of analyzing foreign currency exchange risk, we considered the historical trends in foreign currency exchange rates and determined that it was reasonably possible that adverse changes in exchange rates of 10% could be experienced.

We use foreign currency forward and option contracts to offset the foreign exchange risk on assets and liabilities denominated in currencies other than the functional currency of the subsidiary. These forward and option contracts reduce, but do not entirely eliminate, the effect of foreign currency exchange rate movements on our assets and liabilities. The foreign currency gains and losses on these assets and liabilities are recorded in OI&E, which are offset by the gains and losses on the forward and option contracts.

If an adverse 10% foreign currency exchange rate change was applied to total monetary assets, liabilities, and commitments denominated in currencies other than the functional currencies at the balance sheet date, it would have resulted in an adverse effect on income before income taxes of approximately $136 million and $503 million as of December 31, 2022 and 2023, respectively, after consideration of the effect of foreign exchange contracts in place for the years ended December 31, 2022 and 2023.

We use foreign currency forward and option contracts, including collars (an option strategy comprised of a combination of purchased and written options) to protect forecasted U.S. dollar-equivalent earnings from changes in foreign currency exchange rates. When the U.S. dollar strengthens, gains from foreign currency forward and option contacts reduce the foreign currency losses related to our earnings. When the U.S. dollar weakens, losses from foreign currency forward and option contracts offset the foreign currency gains related to our earnings. These hedging contracts reduce, but do not entirely eliminate, the effect of foreign currency exchange rate movements. We designate these contracts as cash flow hedges for accounting purposes. We reflect the gains or losses of foreign currency spot rate changes as a component of accumulated other comprehensive income (AOCI) and subsequently reclassify them into revenues to offset the hedged exposures as they occur.

If the U.S. dollar weakened by 10% as of December 31, 2022 and 2023, the amount recorded in AOCI related to our cash flow hedges before tax effect would have been approximately $1.3 billion and $1.5 billion lower as of December 31, 2022 and 2023, respectively. The change in the value recorded in AOCI would be expected to offset a corresponding foreign currency change in forecasted hedged revenues when recognized.

We use foreign exchange forward contracts designated as net investment hedges to hedge the foreign currency risks related to investment in foreign subsidiaries. These forward contracts serve to offset the foreign currency translation risk from our foreign operations.

If the U.S. dollar weakened by 10%, the amount recorded in cumulative translation adjustment (CTA) within AOCI related to our net investment hedges before tax effect would have been approximately $903 million and $946 million lower as of December 31, 2022 and 2023, respectively. The change in value recorded in CTA would be expected to offset a corresponding foreign currency translation gain or loss from our investment in foreign subsidiaries.

Interest Rate Risk

Our Corporate Treasury investment strategy is to achieve a return that will allow us to preserve capital and maintain liquidity. We invest primarily in debt securities, including government bonds, corporate debt securities, mortgage-backed and asset-backed securities, money market and other funds, time deposits, and interest rate derivatives. By policy, we limit the amount of credit exposure to any one issuer. Our investments in both fixed rate and floating rate interest earning securities carry a degree of interest rate risk. Fixed rate securities may have their fair market value adversely affected due to a rise in interest rates, while floating rate securities may produce less income than predicted if interest rates fall. Unrealized gains or losses on our marketable debt securities are primarily due to interest rate fluctuations as compared to interest rates at the time of purchase. For certain fixed and variable rate debt securities, we have elected the fair value option for which changes in fair value are recorded in OI&E. We measure securities for which we have not elected the fair value option at fair value with gains and losses recorded in AOCI until the securities are sold, less any expected credit losses.

We use value-at-risk (VaR) analysis to determine the potential effect of fluctuations in interest rates on the value of our marketable debt security portfolio. The VaR is the expected loss in fair value, for a given confidence interval, for our investment portfolio due to adverse movements in interest rates. We use a variance/covariance VaR model with 95% confidence interval. The estimated one-day loss in fair value of marketable debt securities as of December 31, 2022 and 2023 are shown below (in millions):

	As of December 31,		12-Month Average As of December 31,	
	2022	2023	2022	2023
Risk category - interest rate	$ 256	$ 296	$ 198	$ 271

Actual future gains and losses associated with our marketable debt security portfolio may differ materially from the sensitivity analyses performed as of December 31, 2022 and 2023 due to the inherent limitations associated with predicting the timing and amount of changes in interest rates and our actual exposures and positions. VaR analysis is not intended to represent actual losses but is used as a risk estimation.

Equity Investment Risk

Our marketable and non-marketable equity securities are subject to a wide variety of market-related risks that could substantially reduce or increase the fair value of our holdings.

Our marketable equity securities are publicly traded stocks or funds and our non-marketable equity securities are investments in privately held companies, some of which are in the startup or development stages.

We record marketable equity securities not accounted for under the equity method at fair value based on readily determinable market values, of which publicly traded stocks and mutual funds are subject to market price volatility, and represent $5.2 billion and $6.0 billion of our investments as of December 31, 2022 and 2023, respectively. A hypothetical adverse price change of 10% on our December 31, 2023 balance would decrease the fair value of marketable equity securities by $597 million. From time to time, we may enter into derivatives to hedge the market price risk on certain of our marketable equity securities.

Our non-marketable equity securities not accounted for under the equity method are adjusted to fair value for observable transactions for identical or similar investments of the same issuer or impairment (referred to as the measurement alternative). The fair value measured at the time of the observable transaction is not necessarily an indication of the current fair value as of the balance sheet date. These investments, especially those that are in the early stages, are inherently risky because the technologies or products these companies have under development are typically in the early phases and may never materialize, and they may experience a decline in financial condition, which could result in a loss of a substantial part of our investment in these companies. Valuations of our equity investments in private companies are inherently more complex due to the lack of readily available market data and observable transactions at lower valuations could result in significant losses. In addition, global economic conditions could result in additional volatility. The success of our investment in any private company is also typically dependent on the likelihood of our ability to realize appreciation in the value of investments through liquidity events such as public offerings, acquisitions, private sales or other market events. Changes in the valuation of non-marketable equity securities may not directly correlate with changes in valuation of marketable equity securities. As of December 31, 2022 and 2023, the carrying value of our non-marketable equity securities, which were accounted for under the measurement alternative, was $28.5 billion and $28.8 billion, respectively.

The carrying values of our equity method investments, which totaled approximately $1.7 billion as of December 31, 2022 and 2023, generally do not fluctuate based on market price changes. However, these investments could be impaired if the carrying value exceeds the fair value and is not expected to recover.

For additional information about our equity investments, see Note 1 and Note 3 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Alphabet Inc.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Alphabet Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Alphabet Inc. (the Company) as of December 31, 2022 and 2023, the related consolidated statements of income, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2023, and the related notes and financial statement schedule listed in the Index at Item 15 (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2023, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated January 30, 2024 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the account or disclosure to which it relates.

Loss Contingencies

Description of the Matter	The Company is regularly subject to claims, lawsuits, regulatory and government investigations, other proceedings, and consent orders involving competition, intellectual property, data privacy and security, tax and related compliance, labor and employment, commercial disputes, content generated by its users, goods and services offered by advertisers or publishers using their platforms, personal injury, consumer protection, and other matters. As described in Note 10 to the consolidated financial statements “Commitments and contingencies” such claims, lawsuits, regulatory and government investigations, other proceedings, and consent orders could result in adverse consequences. Significant judgment is required to determine both the likelihood, and the estimated amount, of a loss related to such matters. Auditing management’s accounting for and disclosure of loss contingencies from these matters involved challenging and subjective auditor judgment in assessing the Company’s evaluation of the probability of a loss, and the estimated amount or range of loss.
How We Addressed the Matter in Our Audit	We tested relevant controls over the identified risks associated with management’s accounting for and disclosure of these matters. This included controls over management’s assessment of the probability of incurrence of a loss and whether the loss or range of loss was reasonably estimable and the development of related disclosures. Our audit procedures included gaining an understanding of previous rulings and the status of ongoing lawsuits, reviewing letters addressing the matters from internal and external legal counsel, meeting with internal legal counsel to discuss the allegations, and obtaining a representation letter from management on these matters. We also evaluated the Company’s disclosures in relation to these matters.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1999.

San Jose, California
January 30, 2024

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Alphabet Inc.

Opinion on Internal Control Over Financial Reporting

We have audited Alphabet Inc.'s internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Alphabet Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the 2023 consolidated financial statements of the Company and our report dated January 30, 2024 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

San Jose, California
January 30, 2024

Alphabet Inc.
CONSOLIDATED BALANCE SHEETS
(in millions, except par value per share amounts)

	As of December 31,	
	2022	2023
Assets		
Current assets:		
Cash and cash equivalents	$ 21,879	$ 24,048
Marketable securities	91,883	86,868
Total cash, cash equivalents, and marketable securities	113,762	110,916
Accounts receivable, net	40,258	47,964
Other current assets	10,775	12,650
Total current assets	164,795	171,530
Non-marketable securities	30,492	31,008
Deferred income taxes	5,261	12,169
Property and equipment, net	112,668	134,345
Operating lease assets	14,381	14,091
Goodwill	28,960	29,198
Other non-current assets	8,707	10,051
Total assets	$ 365,264	$ 402,392
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 5,128	$ 7,493
Accrued compensation and benefits	14,028	15,140
Accrued expenses and other current liabilities	37,866	46,168
Accrued revenue share	8,370	8,876
Deferred revenue	3,908	4,137
Total current liabilities	69,300	81,814
Long-term debt	14,701	13,253
Deferred revenue, non-current	599	911
Income taxes payable, non-current	9,258	8,474
Deferred income taxes	514	485
Operating lease liabilities	12,501	12,460
Other long-term liabilities	2,247	1,616
Total liabilities	109,120	119,013
Commitments and Contingencies (Note 10)		
Stockholders' equity:		
Preferred stock, $0.001 par value per share, 100 shares authorized; no shares issued and outstanding	0	0
Class A, Class B, and Class C stock and additional paid-in capital, $0.001 par value per share: 300,000 shares authorized (Class A 180,000, Class B 60,000, Class C 60,000); 12,849 (Class A 5,964, Class B 883, Class C 6,002) and 12,460 (Class A 5,899, Class B 870, Class C 5,691) shares issued and outstanding	68,184	76,534
Accumulated other comprehensive income (loss)	(7,603)	(4,402)
Retained earnings	195,563	211,247
Total stockholders' equity	256,144	283,379
Total liabilities and stockholders' equity	$ 365,264	$ 402,392

See accompanying notes.

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

	Year Ended December 31,		
	2021	2022	2023
Revenues	$ 257,637	$ 282,836	$ 307,394
Costs and expenses:			
Cost of revenues	110,939	126,203	133,332
Research and development	31,562	39,500	45,427
Sales and marketing	22,912	26,567	27,917
General and administrative	13,510	15,724	16,425
Total costs and expenses	178,923	207,994	223,101
Income from operations	78,714	74,842	84,293
Other income (expense), net	12,020	(3,514)	1,424
Income before income taxes	90,734	71,328	85,717
Provision for income taxes	14,701	11,356	11,922
Net income	$ 76,033	$ 59,972	$ 73,795
Basic net income per share of Class A, Class B, and Class C stock	$ 5.69	$ 4.59	$ 5.84
Diluted net income per share of Class A, Class B, and Class C stock	$ 5.61	$ 4.56	$ 5.80

See accompanying notes.

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

	Year Ended December 31,		
	2021	2022	2023
Net income	$ 76,033	$ 59,972	$ 73,795
Other comprehensive income (loss):			
Change in foreign currency translation adjustment	(1,442)	(1,836)	735
Available-for-sale investments:			
Change in net unrealized gains (losses)	(1,312)	(4,720)	1,344
Less: reclassification adjustment for net (gains) losses included in net income	(64)	1,007	1,168
Net change, net of income tax benefit (expense) of $394, $1,056, and $(698)	(1,376)	(3,713)	2,512
Cash flow hedges:			
Change in net unrealized gains (losses)	716	1,275	168
Less: reclassification adjustment for net (gains) losses included in net income	(154)	(1,706)	(214)
Net change, net of income tax benefit (expense) of $(122), $110, and $2	562	(431)	(46)
Other comprehensive income (loss)	(2,256)	(5,980)	3,201
Comprehensive income	$ 73,777	$ 53,992	$ 76,996

See accompanying notes.

Alphabet Inc.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in millions)

	Class A, Class B, Class C Stock and Additional Paid-In Capital		Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Stockholders' Equity
	Shares	Amount			
Balance as of December 31, 2020	13,504	$ 58,510	$ 633	$ 163,401	$ 222,544
Stock issued	145	12	0	0	12
Stock-based compensation expense	0	15,539	0	0	15,539
Tax withholding related to vesting of restricted stock units and other	0	(10,273)	0	0	(10,273)
Repurchases of stock	(407)	(2,324)	0	(47,950)	(50,274)
Sale of interest in consolidated entities	0	310	0	0	310
Net income	0	0	0	76,033	76,033
Other comprehensive income (loss)	0	0	(2,256)	0	(2,256)
Balance as of December 31, 2021	13,242	61,774	(1,623)	191,484	251,635
Stock issued	137	8	0	0	8
Stock-based compensation expense	0	19,525	0	0	19,525
Tax withholding related to vesting of restricted stock units and other	0	(9,754)	0	(1)	(9,755)
Repurchases of stock	(530)	(3,404)	0	(55,892)	(59,296)
Sale of interest in consolidated entities	0	35	0	0	35
Net income	0	0	0	59,972	59,972
Other comprehensive income (loss)	0	0	(5,980)	0	(5,980)
Balance as of December 31, 2022	12,849	68,184	(7,603)	195,563	256,144
Stock issued	139	0	0	0	0
Stock-based compensation expense	0	22,578	0	0	22,578
Tax withholding related to vesting of restricted stock units and other	0	(10,164)	0	9	(10,155)
Repurchases of stock	(528)	(4,064)	0	(58,120)	(62,184)
Net income	0	0	0	73,795	73,795
Other comprehensive income (loss)	0	0	3,201	0	3,201
Balance as of December 31, 2023	12,460	$ 76,534	$ (4,402)	$ 211,247	$ 283,379

See accompanying notes.