

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

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2024

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____.

Commission file number: **001-37580**

Alphabet Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

61-1767919

(I.R.S. Employer Identification No.)

1600 Amphitheatre Parkway

Mountain View, CA 94043

(Address of principal executive offices, including zip code)

(650) 253-0000

(Registrant's telephone number, including area code)

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

| <u>Title of each class</u> | <u>Trading Symbol(s)</u> | <u>Name of each exchange on which registered</u> |
|--|--------------------------|--|
| Class A Common Stock, \$0.001 par value | GOOGL | Nasdaq Stock Market LLC (Nasdaq Global Select Market) |
| Class C Capital Stock, \$0.001 par value | GOOG | Nasdaq Stock Market LLC (Nasdaq Global Select Market) |

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

Title of each class

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C.7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of June 28, 2024, the aggregate market value of shares held by non-affiliates of the registrant (based upon the closing sale prices of such shares on the Nasdaq Global Select Market on June 28, 2024) was approximately \$2.0 trillion. For purposes of calculating the aggregate market value of shares held by non-affiliates, we have assumed that all outstanding shares are held by non-affiliates, except for shares held by each of our executive officers, directors, and 5% or greater stockholders. In the case of 5% or greater stockholders, we have not deemed such stockholders to be affiliates unless there are facts and circumstances which would indicate that such stockholders exercise any control over our company, or unless they hold 10% or more of our outstanding common stock. These assumptions should not be deemed to constitute an admission that all executive officers, directors, and 5% or greater stockholders are, in fact, affiliates of our company, or that there are not other persons who may be deemed to be affiliates of our company. Further information concerning shareholdings of our officers, directors, and principal stockholders is included or incorporated by reference in Part III, Item 12 of this Annual Report on Form 10-K.

As of January 28, 2025, there were 5,833 million shares of Alphabet's Class A stock outstanding, 860 million shares of Alphabet's Class B stock outstanding, and 5,497 million shares of the Alphabet's Class C stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement for the 2025 Annual Meeting of Stockholders are incorporated herein by reference in Part III of this Annual Report on Form 10-K to the extent stated herein. Such proxy statement will be filed with the Securities and Exchange Commission within 120 days of the registrant's fiscal year ended December 31, 2024.

Alphabet Inc.
Form 10-K
For the Fiscal Year Ended December 31, 2024

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Note About Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These include, among other things, statements regarding:

- the growth of our business and revenues and our expectations about the factors that influence our success and trends in our business;
- fluctuations in our revenues and margins and various factors contributing to such fluctuations;
- our expectation that the continuing shift to an online world as the digital economy evolves will continue to benefit our business;
- our expectation that the revenues that we derive beyond advertising will continue to increase and may affect our margins;
- our expectation that our traffic acquisition costs (TAC) and the associated TAC rate will fluctuate, which could affect our overall margins;
- our expectation that our monetization trends will fluctuate, which could affect our revenues and margins;
- fluctuations in paid clicks and cost-per-click as well as impressions and cost-per-impression, and various factors contributing to such fluctuations;
- our expectation that we will continue to periodically review, refine, and update our methodologies for monitoring, gathering, and counting the number of paid clicks and impressions, and for identifying the revenues generated by the corresponding click and impression activity;
- our expectation that our results will be affected by our performance in international markets as users in developing economies increasingly come online;
- our expectation that our foreign exchange risk management program will not fully offset our net exposure to fluctuations in foreign currency exchange rates;
- the expected variability of gains and losses related to hedging activities under our foreign exchange risk management program;
- the amount and timing of revenue recognition from customer contracts with commitments for performance obligations, including our estimate of the remaining amount of commitments and when we expect to recognize revenue;
- our expectation that our capital expenditures will increase, including our expected spend and the expected increase in our technical infrastructure investment to support the growth of our business and our long-term initiatives, in particular in support of artificial intelligence (AI) products and services;
- our plans to continue to invest in new businesses, products, services and technologies, and systems, as well as to continue to invest in acquisitions and strategic investments;
- our pace of hiring and our plans to provide competitive compensation programs;
- our expectation that our cost of revenues, research and development (R&D) expenses, sales and marketing expenses, and general and administrative expenses may increase in amount and/or may increase as a percentage of revenues and may be affected by a number of factors;
- estimates of our future employee compensation expenses;
- our expectation that our other income (expense), net (OI&E), will fluctuate in the future, as it is largely driven by market dynamics;
- our expectation that our effective tax rate and cash tax payments could increase in future years;
- seasonal fluctuations in internet usage, advertising expenditures, and underlying business trends such as traditional retail seasonality, which are likely to cause fluctuations in our quarterly results;
- the sufficiency of our sources of funding;
- our potential exposure in connection with new and pending investigations, proceedings, and other contingencies, including the possibility that certain legal proceedings to which we are a party could harm our business, financial condition, and operating results;

- our expectation that we will continue to face heightened regulatory scrutiny, and changes in regulatory conditions, laws, and public policies, which could affect our business practices and financial results;
- the expected timing, amount, and effect of Alphabet Inc.'s share repurchases and dividends;
- our long-term sustainability goals;

as well as other statements regarding our future operations, financial condition and prospects, and business strategies. Forward-looking statements may appear throughout this report and other documents we file with the Securities and Exchange Commission (SEC), including without limitation, the following sections: Part I, Item 1 "Business;" Part I, Item 1A "Risk Factors;" and Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations." Forward-looking statements generally can be identified by words such as "anticipates," "believes," "could," "estimates," "expects," "intends," "may," "plans," "predicts," "projects," "will be," "will continue," "will likely result," and similar expressions. These forward-looking statements are based on current expectations and assumptions that are subject to risks and uncertainties, which could cause our actual results to differ materially from those reflected in the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in this Annual Report on Form 10-K, including the risks discussed in Part I, Item 1A "Risk Factors" and the trends discussed in Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations," and those discussed in other documents we file with the SEC. We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements.

As used herein, "Alphabet," "the company," "we," "us," "our," and similar terms include Alphabet Inc. and its subsidiaries, unless the context indicates otherwise.

"Alphabet," "Google," and other trademarks of ours appearing in this report are our property. We do not intend our use or display of other companies' trade names or trademarks to imply an endorsement or sponsorship of us by such companies, or any relationship with any of these companies.

PART I

ITEM 1. BUSINESS

Overview

As our founders Larry and Sergey wrote in the original founders' letter, "Google is not a conventional company. We do not intend to become one." That unconventional spirit has been a driving force throughout our history, inspiring us to tackle big problems and invest in moonshots. It led us to be a pioneer in the development of AI and, since 2016, an AI-first company. We continue this work under the leadership of Alphabet and Google CEO, Sundar Pichai.

Alphabet is a collection of businesses — the largest of which is Google. We report Google in two segments, Google Services and Google Cloud, and all non-Google businesses collectively as Other Bets. Supporting these businesses, we have centralized certain AI-related research and development which is reported in Alphabet-level activities. Alphabet's structure is about helping each of our businesses prosper through strong leaders and independence.

Access and Technology for Everyone

The Internet is one of the world's most powerful equalizers; it propels ideas, people, and businesses large and small. Our mission to organize the world's information and make it universally accessible and useful is as relevant today as it was when we were founded in 1998. Since then, we have evolved from a company that helps people find answers to a company that also helps people get things done.

We are focused on building an even more helpful Google for everyone, and we aspire to give everyone the tools they need to increase their knowledge, health, happiness, and success. Google Search helps people find information and make sense of the world in more natural and intuitive ways, with trillions of searches on Google every year. YouTube provides people with entertainment, information, and opportunities to learn something new and helps support the creator economy through the YouTube Partner Program. Google Cloud helps customers solve today's business challenges, improve productivity, reduce costs, and unlock new growth engines. We are continually innovating and building new products and features to help our users, partners, customers, and communities and have invested more than \$150 billion in research and development in the last five years in support of these efforts.

Making AI Helpful for Everyone

We believe AI is a profound platform shift, one that can bring meaningful and positive change to people and societies across the world, and to our business. At Google, we have been bringing AI into our products and services for more than a decade and making them available to our users.

In 2023, we took a significant step on our journey to make AI more helpful for everyone with the introduction of Gemini, our natively multimodal AI model. In 2024, we launched Gemini 2.0, our most capable model yet. Gemini can generalize and seamlessly understand, operate across, and combine different types of information including text, code, audio, image, and video. Gemini is powering AI features across our products and services that are helping people everyday. Today, all seven of our two billion-user products — Android, Chrome, Gmail, Maps, Play Store, Search, and YouTube — are using Gemini.

Our Google Cloud products, including Google Cloud Platform and Google Workspace, help organizations stay at the forefront of innovation with our AI-optimized infrastructure, AI development platform, world-class models, as well as assistive agents and applications.

We believe AI has the potential to solve important societal, scientific, and engineering challenges. For example, in 2020, Google DeepMind's AlphaFold system solved a 50-year-old protein folding challenge, and in 2024, we introduced AlphaFold 3, built on the previous models, to predict the structure and interactions of all the molecules in life's processes.

We are focused on transforming our products to provide the most helpful tools to our users and customers as we deliver on our mission to organize the world's information and make it universally accessible and useful.

Deliver the Most Advanced, Safe, and Responsible AI

We aim to build the most advanced, safe, and responsible AI through a full stack of robust AI-optimized infrastructure, including data centers, chips, and a global fiber network; world class research teams; and a broad global reach through products and platforms that touch billions of people and customers around the world.

We are driving efficiencies in our data centers, while making significant hardware and model improvements. For example, since we started serving AI Overviews to our users, we have significantly lowered machine costs and latency through hardware, engineering, and technical breakthroughs. Our AI-optimized infrastructure allows us to use, and offer our customers, a range of AI accelerator options, including our own custom-built Tensor Processing Units (TPUs).

Our teams across Alphabet leverage Gemini, as well as other AI models we have previously developed and announced, to deliver the best product and service experiences for our users, advertisers, partners, customers, and developers. We are using Gemini 2.0 in new research prototypes, including Project Astra, which explores the future capabilities of a universal AI assistant and Project Mariner, an early prototype capable of taking actions in Chrome as an experimental extension.

We believe our approach to AI must be both bold and responsible. That means developing AI in a way that maximizes the positive benefits to society while addressing its potential challenges, guided by our AI Principles.

Enable Organizations and Developers to Innovate on Google Cloud

AI is a major technology shift for enterprises. Globally, businesses from startups to large enterprises, and the public sector are thinking about how to drive transformation. That is why we are focused on making it easy and scalable for others to innovate, and grow, with AI. That means providing advanced computing infrastructure and expanding access to Google's latest AI models. Our Vertex AI platform gives developers the ability to train, tune, augment, test, and deploy applications using Gemini, Imagen, Veo, and other generative AI models. Gemini for Google Cloud provides pre-packaged AI agents that can assist developers to write, document, test, and operate software as well as assist cybersecurity teams to analyze, detect, protect, and respond to threats.

Improve Knowledge, Learning, Creativity, and Productivity

As AI continues to improve rapidly, we are focused on transforming our products to provide our users the most helpful tools. Examples include AI Overviews, which allow users to ask their most complex questions, break down concepts in a format that is useful for them, or take a video and ask a question out loud, and NotebookLM, which helps users understand complex information by summarizing sources and providing relevant quotes. We are embedding the power of generative AI to continue helping our users express themselves and get things done. For example, the Gemini app allows users to collaborate with new AI features that include image generation capabilities, coding support, and app integration. Gemini for Google Workspace helps users write, organize, visualize, accelerate workflows, and have richer meetings. Additionally, we are using Gemini to improve recommendations on YouTube. We also know businesses of all sizes around the world rely on Google Ads to find customers and grow their businesses — and we

make that even easier with AI. For example, advertisers are able to use our updated image generation in Google Ads to produce high-quality imagery for their campaigns, and Demand Gen helps them reach their target audiences.

Build the Most Helpful Personal Computing Platforms and Devices

Over the years, our Pixel phones have incorporated AI compute directly into the device and built experiences on top of it. Our latest Pixel devices were built with Gemini Nano, bringing the best AI-assistive experiences to our users, such as Gemini on Pixel, Pixel Screenshots, and Pixel Studio. Our Android and Chrome operating systems enable users to access Gemini, and other Google AI features throughout their day. For example, with Circle to Search built directly into the Android experience, users can search anything they see on their phone using a simple gesture.

Moonshots

Many companies get comfortable doing what they have always done, making only incremental changes. This incrementalism leads to irrelevance over time, especially in technology, where change tends to be revolutionary, not evolutionary. Our acquisitions of YouTube and Android and subsequent launch of Chrome have matured into major platforms for digital video and mobile devices and a safer, popular browser. In Other Bets, our fully autonomous driving technology company, Waymo, is now providing fully autonomous, paid ride-hailing services to customers in multiple cities.

Our early investments in AI started out as moonshots but are now incorporated into our core products and central to future developments. We continue to look toward the future and to invest for the long term, most notably for the application of AI to our products and services, as well as other frontier technologies such as quantum computing. As we said in the original founders' letter, we will not shy away from high-risk, high-reward projects that we believe in, as they are the key to our long-term success.

Privacy and Security

We make it a priority to protect the privacy and security of our products, users, and customers, even if there are near-term financial consequences. We do this by continuously investing in building products that are secure by default; strictly upholding responsible data practices that emphasize privacy by design; and building easy-to-use settings that put people in control. We are continually enhancing these efforts over time, whether by enabling users to auto-delete their data, applying privacy technologies like on-device processing, giving people tools to control their experience, or advancing anti-malware, anti-phishing, and password security features.

Google

For reporting purposes Google comprises two segments: Google Services and Google Cloud.

Google Services

Serving Our Users

We have always been committed to building helpful products that can improve the lives of millions of people worldwide. Our product innovations are what make our services widely used, and our brand one of the most recognized in the world. Google Services' core products and platforms include ads, Android, Chrome, devices, Gmail, Google Drive, Google Maps, Google Photos, Google Play, Search, and YouTube, with broad and growing adoption by users around the world.

Our products and services have come a long way since the company was founded more than 25 years ago. While Google Search started as a way to find web pages, organized into ten blue links, we have driven technical advancements and product innovations that have transformed Google Search into a dynamic, multimodal experience. We first expanded from traditional desktop browsers into mobile web search, making it easier to navigate on smaller screens. As new types of content surfaced on the internet, Universal Search made it possible to search multiple content types, like news, images, videos, and more, to deliver rich, relevant results. The introduction of new search modalities, like voice and visual search, made it easier for people to express their curiosity in natural and intuitive ways. We took that a step further with multisearch, which lets people search with text and images at the same time. Large language models have made it possible to express more natural language queries, vastly improving the types of questions users can ask, and the quality of results. Each advancement has made it easier and more natural for people to find what they are looking for. We are now using Gemini customized for Google Search to provide our users an improved Search experience, and AI Overviews has been released in more than one hundred countries, reaching more than one billion users.

This drive to make information more accessible and helpful has led us over the years to improve the discovery and creation of digital content both on the web and through platforms like Google Play and YouTube. People are consuming many forms of digital content, including watching videos, streaming TV, playing games, listening to music,

reading books, and using apps. Working with content creators and partners, we continue to build new ways for people around the world to create and find great digital content.

Fueling all of these great digital experiences are extraordinary platforms and devices. That is why we continue to invest in platforms like our Android mobile operating system, Chrome browser, and Chrome operating system, as well as our family of devices. We see tremendous potential for devices to be helpful and make people's lives easier by combining the best of our AI, software, and hardware. This potential is reflected in our latest generation of devices, such as the new Pixel 9 series and the Pixel Watch 3. Creating products and services that people rely on every day is a journey that we are investing in for the long-term.

How We Make Money

We have built world-class advertising technologies for advertisers, agencies, and publishers to power their digital marketing businesses. Our advertising solutions help millions of companies grow their businesses through our wide range of products across devices and formats, and we aim to ensure positive user experiences by serving the right ads at the right time and by building deep partnerships with brands and agencies. AI has been foundational to our advertising business for more than a decade. Products like Demand Gen, Performance Max, and Product Studio use the full power of our AI to help advertisers find untapped and incremental conversion opportunities.

Google Services generates revenues primarily by delivering both performance and brand advertising that appears on Google Search & other properties, YouTube, and Google Network partners' properties ("Google Network properties"). We continue to invest in both performance and brand advertising and seek to improve the measurability of advertising so advertisers understand the effectiveness of their campaigns.

- **Performance advertising** creates and delivers relevant ads that users will click on leading to direct engagement with advertisers. Performance advertising lets our advertisers connect with users while driving measurable results. Our ads tools allow performance advertisers to create simple text-based ads.
- **Brand advertising** helps enhance users' awareness of and affinity for advertisers' products and services, through videos, text, images, and other interactive ads that run across various devices. We help brand advertisers deliver digital videos and other types of ads to specific audiences for their brand-building marketing campaigns.

We have allocated substantial resources to stopping bad advertising practices and protecting users on the web. We focus on creating the best advertising experiences for our users and advertisers in many ways, including filtering out invalid traffic, removing billions of bad ads from our systems every year, and closely monitoring the sites, apps, and videos where ads appear and blocklisting them when necessary to ensure that ads do not fund bad content.

In addition, Google Services increasingly generates revenues from products and services beyond advertising, including:

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

Google Cloud

Through our Google Cloud Platform and Google Workspace offerings, Google Cloud generates revenues primarily from consumption-based fees and subscriptions for infrastructure, platform, applications, and other cloud services. Customers use Google Cloud in multiple ways such as:

- **AI-optimized Infrastructure:** provides open, reliable, and scalable compute, networking, and storage to enable customers to run workloads anywhere — on our Cloud, at the edge, or in their data centers. It can be used to migrate and modernize IT systems and to train and serve various types of AI models.
- **Developer Platform:** provides developers, through the Vertex AI platform, the ability to train, tune, augment, test, and deploy applications using Gemini and other leading generative AI models. We offer widely used first-party, third-party, and open models along with services such as vector search, grounding, and distillation to further improve the cost and quality of models.
- **Cybersecurity:** provides AI powered cybersecurity solutions to help customers analyze, detect, protect, and respond to a broad range of cybersecurity threats, to further strengthen security outcomes, prioritize which threats to investigate, and identify attack paths, as well as accelerate resolution of cybersecurity threats.

- **Data and Analytics:** provides a variety of different types of databases — relational, key-value, and in-memory — to store and manage data for different types of applications and deliver data to AI agents. Our data platform also unifies data lakes, data warehouses, data governance, and advanced machine learning into a single platform that helps users analyze data using AI models across any cloud.
- **Applications:** offers a broad applications portfolio, including Gemini for Google Cloud and Gemini for Google Workspace, as well as purpose-built agents for Search and our Customer Engagement Suite. AI has been used in Google Workspace for years to improve grammar, efficiency, security, and more with features like Smart Reply, Smart Compose, and malware and phishing protection in Gmail. Now, Gemini for Google Workspace brings our AI-powered agents into Gmail, Docs, Sheets and more to help users write, organize, visualize, accelerate workflows, and have richer meetings.

Other Bets

Across Alphabet, we are also using technology to try to solve big problems that affect a wide variety of industries, including transportation and health technology. Alphabet's investment in the portfolio of Other Bets includes businesses that are at various stages of development, ranging from those in the R&D phase to those that are in the beginning stages of commercialization. Our goal is for them to become thriving, successful businesses. Other Bets operate as independent companies and some of them have their own boards with independent members and outside investors. While these early-stage businesses naturally come with considerable uncertainty, some of them are already generating revenue and making important strides in their industries. Revenues from Other Bets are generated primarily from the sale of healthcare-related services, and internet services.

Competition

Our business is characterized by rapid change as well as new and disruptive technologies. We face formidable competition in every aspect of our business, including but not limited to, from:

- general purpose search engines and information services;
- vertical search engines and e-commerce providers for queries on topics such as those related to travel, jobs, and health, which users may navigate directly to rather than go through Google;
- online advertising platforms and networks, including online shopping and streaming services;
- other forms of advertising, such as billboards, magazines, newspapers, radio, and television as our advertisers typically advertise in multiple media, both online and offline;
- digital content and application platform providers;
- providers of enterprise cloud services;
- developers and providers of AI products and services;
- companies that design, manufacture, and market consumer hardware products, including businesses that have developed proprietary platforms;
- providers of digital video services;
- social networks, which users may rely on for product or service referrals, rather than seeking information through traditional search engines;
- providers of workspace communication and connectivity products; and
- digital assistant providers.

Competing successfully depends heavily on our ability to develop and distribute innovative products and technologies to the marketplace across our businesses. For example, for advertising, competing successfully depends on attracting and retaining:

- users, for whom other products and services are literally one click away, largely on the basis of the relevance of our advertising, as well as the general usefulness, security, and availability of our products and services;
- advertisers, primarily based on our ability to generate sales leads, and ultimately customers, and to deliver their advertisements in an efficient and effective manner across a variety of distribution channels; and
- content providers, primarily based on the quality of our advertiser base, our ability to help these partners generate revenues from advertising, and the terms of our agreements with them.

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 subject to claims, lawsuits, regulatory and government inquiries and 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 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.

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 monetary 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 net 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 \$503 million and \$135 million as of December 31, 2023 and 2024, respectively, after consideration of the effect of foreign exchange contracts in place for the years ended December 31, 2023 and 2024.

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 contracts 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 and 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, 2023 and 2024, the amount recorded in AOCI related to our cash flow hedges before tax effect would have been approximately \$1.5 billion and \$1.6 billion lower as of

December 31, 2023 and 2024, 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 \$946 million and \$660 million lower as of December 31, 2023 and 2024, 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 and 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 investment 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 our investment portfolio as of December 31, 2023 and 2024 are shown below (in millions):

| | As of December 31, | | 12-Month Average As of December 31, | |
|-------------------------------|--------------------|--------|--|--------|
| | 2023 | 2024 | 2023 | 2024 |
| Risk category - interest rate | \$ 296 | \$ 208 | \$ 271 | \$ 230 |

Actual future gains and losses associated with our investment portfolio may differ materially from the sensitivity analyses performed as of December 31, 2023 and 2024 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 \$6.0 billion and \$5.1 billion of our investments as of December 31, 2023 and 2024, respectively. A hypothetical adverse price change of 10% on our December 31, 2024 balance would decrease the fair value of marketable equity securities by \$508 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 primarily 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, 2023 and 2024, the carrying value of our non-marketable equity securities, which were accounted for under the measurement alternative, was \$28.8 billion and \$35.5 billion, respectively.

The carrying values of our equity method investments, which totaled approximately \$1.7 billion and \$2.0 billion as of December 31, 2023 and 2024, respectively, 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**

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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, 2023 and 2024, 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, 2024, 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, 2023 and 2024, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2024, 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, 2024, 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 February 4, 2025 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 subject to claims, lawsuits, regulatory and government inquiries and investigations, other proceedings, and 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, and other matters. As described in Note 10 to the consolidated financial statements "Commitments and Contingencies" such claims, lawsuits, regulatory and government inquiries and investigations, other proceedings, and 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 from internal and external legal counsel addressing the matters, 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

February 4, 2025

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, 2024, 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, 2024, 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 2024 consolidated financial statements of the Company and our report dated February 4, 2025 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
February 4, 2025

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

| | As of December 31, | |
|---|--------------------|------------|
| | 2023 | 2024 |
| Assets | | |
| Current assets: | | |
| Cash and cash equivalents | \$ 24,048 | \$ 23,466 |
| Marketable securities | 86,868 | 72,191 |
| Total cash, cash equivalents, and marketable securities | 110,916 | 95,657 |
| Accounts receivable, net | 47,964 | 52,340 |
| Other current assets | 12,650 | 15,714 |
| Total current assets | 171,530 | 163,711 |
| Non-marketable securities | 31,008 | 37,982 |
| Deferred income taxes | 12,169 | 17,180 |
| Property and equipment, net | 134,345 | 171,036 |
| Operating lease assets | 14,091 | 13,588 |
| Goodwill | 29,198 | 31,885 |
| Other non-current assets | 10,051 | 14,874 |
| Total assets | \$ 402,392 | \$ 450,256 |
| Liabilities and Stockholders' Equity | | |
| Current liabilities: | | |
| Accounts payable | \$ 7,493 | \$ 7,987 |
| Accrued compensation and benefits | 15,140 | 15,069 |
| Accrued expenses and other current liabilities | 46,168 | 51,228 |
| Accrued revenue share | 8,876 | 9,802 |
| Deferred revenue | 4,137 | 5,036 |
| Total current liabilities | 81,814 | 89,122 |
| Long-term debt | 11,870 | 10,883 |
| Income taxes payable, non-current | 8,474 | 8,782 |
| Operating lease liabilities | 12,460 | 11,691 |
| Other long-term liabilities | 4,395 | 4,694 |
| Total liabilities | 119,013 | 125,172 |
| 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); 12,460 (Class A 5,899, Class B 870, Class C 5,691) and 12,211 (Class A 5,835, Class B 861, Class C 5,515) shares issued and outstanding | 76,534 | 84,800 |
| Accumulated other comprehensive income (loss) | (4,402) | (4,800) |
| Retained earnings | 211,247 | 245,084 |
| Total stockholders' equity | 283,379 | 325,084 |
| Total liabilities and stockholders' equity | \$ 402,392 | \$ 450,256 |

See accompanying notes.

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

| | Year Ended December 31, | | |
|--|-------------------------|------------|------------|
| | 2022 | 2023 | 2024 |
| Revenues | \$ 282,836 | \$ 307,394 | \$ 350,018 |
| Costs and expenses: | | | |
| Cost of revenues | 126,203 | 133,332 | 146,306 |
| Research and development | 39,500 | 45,427 | 49,326 |
| Sales and marketing | 26,567 | 27,917 | 27,808 |
| General and administrative | 15,724 | 16,425 | 14,188 |
| Total costs and expenses | 207,994 | 223,101 | 237,628 |
| Income from operations | 74,842 | 84,293 | 112,390 |
| Other income (expense), net | (3,514) | 1,424 | 7,425 |
| Income before income taxes | 71,328 | 85,717 | 119,815 |
| Provision for income taxes | 11,356 | 11,922 | 19,697 |
| Net income | \$ 59,972 | \$ 73,795 | \$ 100,118 |
| Basic net income per share (Note 12) | \$ 4.59 | \$ 5.84 | \$ 8.13 |
| Diluted net income per share (Note 12) | \$ 4.56 | \$ 5.80 | \$ 8.04 |

See accompanying notes.

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

| | Year Ended December 31, | | |
|--|-------------------------|-----------|------------|
| | 2022 | 2023 | 2024 |
| Net income | \$ 59,972 | \$ 73,795 | \$ 100,118 |
| Other comprehensive income (loss): | | | |
| Change in foreign currency translation adjustment, net of income tax benefit (expense) of \$(134), \$63 and \$(49) | (1,836) | 735 | (1,673) |
| Available-for-sale investments: | | | |
| Change in net unrealized gains (losses) | (4,720) | 1,344 | (116) |
| Less: reclassification adjustment for net (gains) losses included in net income | 1,007 | 1,168 | 782 |
| Net change, net of income tax benefit (expense) of \$1,056, \$(698), and \$(190) | (3,713) | 2,512 | 666 |
| Cash flow hedges: | | | |
| Change in net unrealized gains (losses) | 1,275 | 168 | 775 |
| Less: reclassification adjustment for net (gains) losses included in net income | (1,706) | (214) | (166) |
| Net change, net of income tax benefit (expense) of \$110, \$2, and \$(151) | (431) | (46) | 609 |
| Other comprehensive income (loss) | (5,980) | 3,201 | (398) |
| Comprehensive income | \$ 53,992 | \$ 76,996 | \$ 99,720 |

See accompanying notes.