UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2023

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	**61-1767919**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

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:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
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)**

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	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

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

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

As of July 18, 2023, there were 5,933 million shares of Alphabet’s Class A stock outstanding, 875 million shares of Alphabet's Class B stock outstanding, and 5,801 million shares of Alphabet's Class C stock outstanding.

Alphabet Inc.
Form 10-Q
For the Quarterly Period Ended June 30, 2023

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Note About Forward-Looking Statements

This Quarterly Report on Form 10-Q 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 from an offline to online world will continue to benefit our business;
- our expectation that the portion of our revenues that we derive from non-advertising revenues 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 our revenues, as well as the change in paid clicks and cost-per-click and the change in 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;
- 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;
- fluctuations in our capital expenditures;
- our expectation that we will continue to invest in our technical infrastructure;
- our plans to continue to invest in new businesses, products, services and technologies, systems, land and buildings for data centers, and infrastructure, 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 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;
- fluctuations in our effective tax rate;
- seasonal fluctuations in internet usage and advertiser expenditures, 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 the sufficiency and timing of our proposed remedies in response to decisions from the European Commission (EC) and other regulators and governmental entities;
- the expected timing, amount, and effect of Alphabet Inc.'s share repurchases;
- our long-term sustainability and diversity goals;
- the unpredictability of the ongoing broader economic effects resulting from the war in Ukraine on our future financial results;
- the expected financial effect of our announced workforce reduction and office space optimization;
- our expectation that the change in estimated useful lives of servers and certain network equipment will have a favorable effect on our 2023 operating results;

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 2, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in this Quarterly Report on Form 10-Q and Part I, Item 1A, “Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022. Forward-looking statements generally can be identified by words such as "anticipates," "believes," "estimates," "expects," "intends," "plans," "predicts," "projects," "will be," "will continue," "may," "could," "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 Quarterly Report on Form 10-Q, and in particular, the risks discussed in Part I, Item 1A, "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, 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. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

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

	As of December 31, 2022	As of June 30, 2023 (unaudited)
Assets		
Current assets:		
Cash and cash equivalents	$ 21,879	$ 25,929
Marketable securities	91,883	92,403
Total cash, cash equivalents, and marketable securities	113,762	118,332
Accounts receivable, net	40,258	38,804
Inventory	2,670	2,231
Other current assets	8,105	9,421
Total current assets	164,795	168,788
Non-marketable securities	30,492	31,224
Deferred income taxes	5,261	9,357
Property and equipment, net	112,668	121,208
Operating lease assets	14,381	14,469
Intangible assets, net	2,084	1,966
Goodwill	28,960	29,210
Other non-current assets	6,623	6,822
Total assets	$ 365,264	$ 383,044
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 5,128	$ 5,313
Accrued compensation and benefits	14,028	11,260
Accrued expenses and other current liabilities	37,866	49,300
Accrued revenue share	8,370	7,990
Deferred revenue	3,908	3,846
Total current liabilities	69,300	77,709
Long-term debt	14,701	13,705
Deferred revenue, non-current	599	667
Income taxes payable, non-current	9,258	8,753
Deferred income taxes	514	558
Operating lease liabilities	12,501	12,746
Other long-term liabilities	2,247	1,765
Total liabilities	109,120	115,903
Commitments and contingencies (Note 9)		
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 12,629 (Class A 5,934, Class B 876, Class C 5,819) shares issued and outstanding	68,184	72,248
Accumulated other comprehensive income (loss)	(7,603)	(5,991)
Retained earnings	195,563	200,884
Total stockholders' equity	256,144	267,141
Total liabilities and stockholders' equity	$ 365,264	$ 383,044

See accompanying notes.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Revenues	$ 69,685	$ 74,604	$ 137,696	$ 144,391
Costs and expenses:				
Cost of revenues	30,104	31,916	59,703	62,528
Research and development	9,841	10,588	18,960	22,056
Sales and marketing	6,630	6,781	12,455	13,314
General and administrative	3,657	3,481	7,031	7,240
Total costs and expenses	50,232	52,766	98,149	105,138
Income from operations	19,453	21,838	39,547	39,253
Other income (expense), net	(439)	65	(1,599)	855
Income before income taxes	19,014	21,903	37,948	40,108
Provision for income taxes	3,012	3,535	5,510	6,689
Net income	$ 16,002	$ 18,368	$ 32,438	$ 33,419
Basic net income per share of Class A, Class B, and Class C stock	$ 1.22	$ 1.45	$ 2.46	$ 2.63
Diluted net income per share of Class A, Class B, and Class C stock	$ 1.21	$ 1.44	$ 2.44	$ 2.61

See accompanying notes.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Net income	$ 16,002	$ 18,368	$ 32,438	$ 33,419
Other comprehensive income (loss):				
Change in foreign currency translation adjustment	(1,665)	235	(1,626)	831
Available-for-sale investments:				
Change in net unrealized gains (losses)	(926)	(570)	(3,404)	296
Less: reclassification adjustment for net (gains) losses included in net income	233	198	381	490
Net change, net of income tax benefit (expense) of $227, $106, $860 and $(224)	(693)	(372)	(3,023)	786
Cash flow hedges:				
Change in net unrealized gains (losses)	915	151	1,029	77
Less: reclassification adjustment for net (gains) losses included in net income	(336)	(5)	(585)	(82)
Net change, net of income tax benefit (expense) of $(113), $(11), $(69) and $19	579	146	444	(5)
Other comprehensive income (loss)	(1,779)	9	(4,205)	1,612
Comprehensive income	$ 14,223	$ 18,377	$ 28,233	$ 35,031

See accompanying notes.

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

	Three Months Ended June 30, 2022				
	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 March 31, 2022	13,175	$ 62,832	$ (4,049)	$ 195,221	$ 254,004
Stock issued	36	1	0	0	1
Stock-based compensation expense	0	4,823	0	0	4,823
Tax withholding related to vesting of restricted stock units and other	0	(2,434)	0	(1)	(2,435)
Repurchases of stock	(133)	(820)	0	(14,377)	(15,197)
Net income	0	0	0	16,002	16,002
Other comprehensive income (loss)	0	0	(1,779)	0	(1,779)
Balance as of June 30, 2022	13,078	$ 64,402	$ (5,828)	$ 196,845	$ 255,419

	Six Months Ended June 30, 2022				
	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, 2021	13,242	$ 61,774	$ (1,623)	$ 191,484	$ 251,635
Stock issued	67	8	0	0	8
Stock-based compensation expense	0	9,370	0	0	9,370
Tax withholding related to vesting of restricted stock units and other	0	(5,329)	0	(1)	(5,330)
Repurchases of stock	(231)	(1,421)	0	(27,076)	(28,497)
Net income	0	0	0	32,438	32,438
Other comprehensive income (loss)	0	0	(4,205)	0	(4,205)
Balance as of June 30, 2022	13,078	$ 64,402	$ (5,828)	$ 196,845	$ 255,419

	Three Months Ended June 30, 2023				
	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 March 31, 2023	12,722	$ 70,269	$ (6,000)	$ 196,625	$ 260,894
Stock issued	38	0	0	0	0
Stock-based compensation expense	0	5,815	0	0	5,815
Tax withholding related to vesting of restricted stock units and other	0	(2,831)	0	0	(2,831)
Repurchases of stock	(131)	(1,005)	0	(14,109)	(15,114)
Net income	0	0	0	18,368	18,368
Other comprehensive income (loss)	0	0	9	0	9
Balance as of June 30, 2023	12,629	$ 72,248	$ (5,991)	$ 200,884	$ 267,141

	Six Months Ended June 30, 2023				
	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, 2022	12,849	$ 68,184	$ (7,603)	$ 195,563	$ 256,144
Stock issued	68	0	0	0	0
Stock-based compensation expense	0	11,128	0	0	11,128
Tax withholding related to vesting of restricted stock units and other	0	(4,924)	0	0	(4,924)
Repurchases of stock	(288)	(2,140)	0	(28,098)	(30,238)
Net income	0	0	0	33,419	33,419
Other comprehensive income (loss)	0	0	1,612	0	1,612
Balance as of June 30, 2023	12,629	$ 72,248	$ (5,991)	$ 200,884	$ 267,141

See accompanying notes.

Alphabet Inc.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in millions; unaudited)

	Six Months Ended June 30, 2022	Six Months Ended June 30, 2023
Operating activities		
Net income	$ 32,438	$ 33,419
Adjustments:		
Depreciation and impairment of property and equipment	7,289	6,339
Amortization and impairment of intangible assets	392	244
Stock-based compensation expense	9,286	11,058
Deferred income taxes	(4,237)	(4,269)
Loss (gain) on debt and equity securities, net	2,478	425
Other	202	650
Changes in assets and liabilities, net of effects of acquisitions:		
Accounts receivable, net	2,395	1,506
Income taxes, net	(253)	8,520
Other assets	(1,621)	(1,259)
Accounts payable	(1,172)	14
Accrued expenses and other liabilities	(1,719)	(4,037)
Accrued revenue share	(942)	(418)
Deferred revenue	(8)	(17)
Net cash provided by operating activities	44,528	52,175
Investing activities		
Purchases of property and equipment	(16,614)	(13,177)
Purchases of marketable securities	(50,199)	(35,589)
Maturities and sales of marketable securities	55,374	37,049
Purchases of non-marketable securities	(1,264)	(1,513)
Maturities and sales of non-marketable securities	125	181
Acquisitions, net of cash acquired, and purchases of intangible assets	(1,236)	(340)
Other investing activities	576	(357)
Net cash used in investing activities	(13,238)	(13,746)
Financing activities		
Net payments related to stock-based award activities	(5,180)	(4,725)
Repurchases of stock	(28,497)	(29,526)
Proceeds from issuance of debt, net of costs	29,228	8,050
Repayments of debt	(29,582)	(8,207)
Proceeds from sale of interest in consolidated entities, net	0	5
Net cash used in financing activities	(34,031)	(34,403)
Effect of exchange rate changes on cash and cash equivalents	(268)	24
Net increase (decrease) in cash and cash equivalents	(3,009)	4,050
Cash and cash equivalents at beginning of period	20,945	21,879
Cash and cash equivalents at end of period	$ 17,936	$ 25,929

See accompanying notes.

Alphabet Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Note 1. Summary of Significant Accounting Policies

Nature of Operations

Google was incorporated in California in September 1998 and re-incorporated in the State of Delaware in August 2003. In 2015, we implemented a holding company reorganization, and as a result, Alphabet Inc. ("Alphabet") became the successor issuer to Google.

We generate revenues by delivering relevant, cost-effective online advertising; cloud-based solutions that provide enterprise customers 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 hardware; and fees received for subscription-based products.

Basis of Consolidation

The consolidated financial statements of Alphabet include the accounts of Alphabet and entities consolidated under the variable interest and voting models. Intercompany balances and transactions have been eliminated.

Unaudited Interim Financial Information

These unaudited interim consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States (GAAP), and in our opinion, include all adjustments of a normal recurring nature necessary for fair financial statement presentation. Interim results are not necessarily indicative of the results to be expected for the full year ending December 31, 2023. We have made estimates and assumptions that affect the amounts reported and disclosed in the financial statements and the accompanying notes. Actual results could differ materially from these estimates.

These consolidated financial statements and other information presented in this Form 10-Q should be read in conjunction with the consolidated financial statements and the related notes included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 filed with the SEC.

Change in Accounting Estimate

In January 2023, we completed an assessment of the useful lives of our servers and network equipment and adjusted the estimated useful life of our servers from four years to six years and the estimated useful life of certain network equipment from five years to six years. This change in accounting estimate was effective beginning in fiscal year 2023. Based on the carrying value of servers and certain network equipment as of December 31, 2022, and those placed in service during the six months ended June 30, 2023, the effect of this change in estimate was a reduction in depreciation expense of $966 million and $2.0 billion and an increase in net income of $752 million and $1.5 billion, or $0.06 and $0.12 per basic and $0.06 and $0.12 per diluted share, for the three and six months ended June 30, 2023, respectively.

Prior Period Reclassifications

Certain amounts in prior periods have been reclassified to conform with current period presentation.

Note 2. Revenues

Disaggregated Revenues

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Google Search & other	$ 40,689	$ 42,628	$ 80,307	$ 82,987
YouTube ads	7,340	7,665	14,209	14,358
Google Network	8,259	7,850	16,433	15,346
Google advertising	56,288	58,143	110,949	112,691
Google other	6,553	8,142	13,364	15,555
Google Services total	62,841	66,285	124,313	128,246
Google Cloud	6,276	8,031	12,097	15,485
Other Bets	193	285	633	573
Hedging gains (losses)	375	3	653	87
Total revenues	$ 69,685	$ 74,604	$ 137,696	$ 144,391

The following table presents revenues disaggregated by geography, based on the addresses of our customers (in millions):

	Three Months Ended June 30,				Six Months Ended June 30,			
	2022		2023		2022		2023	
United States	$ 32,727	47 %	$ 35,073	47 %	$ 64,460	47 %	$ 67,937	47 %
EMEA[(1)]	20,533	29	22,289	30	40,850	30	43,367	30
APAC[(1)]	11,710	17	12,728	17	23,551	17	24,409	17
Other Americas[(1)]	4,340	6	4,511	6	8,182	6	8,591	6
Hedging gains (losses)	375	1	3	0	653	0	87	0
Total revenues	$ 69,685	100 %	$ 74,604	100 %	$ 137,696	100 %	$ 144,391	100 %

(1) Regions represent Europe, the Middle East, and Africa (EMEA); Asia-Pacific (APAC); and Canada and Latin America ("Other Americas").

Revenue Backlog

As of June 30, 2023, we had $60.6 billion of remaining performance obligations (“revenue backlog”), primarily related to Google Cloud. Our revenue backlog represents commitments in customer contracts for future services that have not yet been recognized as revenue. The amount and timing of revenue recognition for these commitments is largely driven by our ability to deliver in accordance with relevant contract terms and when our customers utilize services, which could affect our estimate of revenue backlog and when we expect to recognize such as revenue. We expect to recognize approximately half of the revenue backlog as revenues over the next 24 months with the remaining to be recognized thereafter. Revenue backlog includes related deferred revenue currently recorded as well as amounts that will be invoiced in future periods, and excludes contracts with an original expected term of one year or less and cancellable contracts.

Deferred Revenues

We record deferred revenues when cash payments are received or due in advance of our performance, including amounts which are refundable. Deferred revenues primarily relate to Google Cloud and Google other. Total deferred revenue as of December 31, 2022 was $4.5 billion, of which $2.1 billion was recognized as revenues during the six months ended June 30, 2023.

Note 3. Financial Instruments

Fair Value Measurements

Investments Measured at Fair Value on a Recurring Basis

Cash, cash equivalents, and marketable equity securities are measured at fair value and classified within Level 1 and Level 2 in the fair value hierarchy, because we use quoted prices for identical assets in active markets or inputs that are based upon quoted prices for similar instruments in active markets.

Debt securities are measured at fair value and classified within Level 2 in the fair value hierarchy, because we use quoted market prices to the extent available or alternative pricing sources and models utilizing market observable inputs to determine fair value. For certain marketable debt securities, we have elected the fair value option for which changes in fair value are recorded in other income (expense), net. The fair value option was elected for these securities to align with the unrealized gains and losses from related derivative contracts.

The following tables summarize our cash, cash equivalents, and marketable securities measured at fair value on a recurring basis (in millions):

		As of December 31, 2022					
	Fair Value Hierarchy	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Cash and Cash Equivalents	Marketable Securities
Fair value changes recorded in other comprehensive income							
Time deposits	Level 2	$ 5,297	$ 0	$ 0	$ 5,297	$ 5,293	$ 4
Government bonds	Level 2	41,036	64	(2,045)	39,055	283	38,772
Corporate debt securities	Level 2	28,578	8	(1,569)	27,017	1	27,016
Mortgage-backed and asset-backed securities	Level 2	16,176	5	(1,242)	14,939	0	14,939
Total investments with fair value change reflected in other comprehensive income(1)		$ 91,087	$ 77	$ (4,856)	$ 86,308	$ 5,577	$ 80,731
Fair value adjustments recorded in net income							
Money market funds	Level 1				$ 7,234	$ 7,234	$ 0
Current marketable equity securities(2)	Level 1				4,013	0	4,013
Mutual funds	Level 2				339	0	339
Government bonds	Level 2				1,877	440	1,437
Corporate debt securities	Level 2				3,744	65	3,679
Mortgage-backed and asset-backed securities	Level 2				1,686	2	1,684
Total investments with fair value change recorded in net income					$ 18,893	$ 7,741	$ 11,152
Cash					0	8,561	0
Total		$ 91,087	$ 77	$ (4,856)	$ 105,201	$ 21,879	$ 91,883

(1) Represents gross unrealized gains and losses for debt securities recorded to accumulated other comprehensive income (AOCI).

(2) The long-term portion of marketable equity securities (subject to long-term lock-up restrictions) of $803 million as of December 31, 2022 is included within other non-current assets.

		As of June 30, 2023					
	Fair Value Hierarchy	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Cash and Cash Equivalents	Marketable Securities
Fair value changes recorded in other comprehensive income							
Time deposits	Level 2	$ 2,913	$ 0	$ 0	$ 2,913	$ 2,913	$ 0
Government bonds	Level 2	45,339	49	(1,588)	43,800	2,481	41,319
Corporate debt securities	Level 2	23,480	8	(1,162)	22,326	0	22,326
Mortgage-backed and asset-backed securities	Level 2	18,047	4	(1,092)	16,959	0	16,959
Total investments with fair value change reflected in other comprehensive income(1)		$ 89,779	$ 61	$ (3,842)	$ 85,998	$ 5,394	$ 80,604
Fair value adjustments recorded in net income							
Money market funds	Level 1				$ 9,472	$ 9,472	$ 0
Current marketable equity securities(2)	Level 1				4,088	0	4,088
Mutual funds	Level 2				315	0	315
Government bonds	Level 2				2,158	546	1,612
Corporate debt securities	Level 2				3,831	2	3,829
Mortgage-backed and asset-backed securities	Level 2				1,955	0	1,955
Total investments with fair value change recorded in net income					$ 21,819	$ 10,020	$ 11,799
Cash					0	10,515	0
Total		$ 89,779	$ 61	$ (3,842)	$ 107,817	$ 25,929	$ 92,403

(1) Represents gross unrealized gains and losses for debt securities recorded to AOCI.

(2) The long-term portion of marketable equity securities (subject to long-term lock-up restrictions) of $892 million as of June 30, 2023 is included within other non-current assets

Investments Measured at Fair Value on a Nonrecurring Basis

Our non-marketable equity securities are investments in privately held companies without readily determinable market values. The carrying value of our non-marketable equity securities is adjusted to fair value upon observable transactions for identical or similar investments of the same issuer or impairment. Non-marketable equity securities that have been remeasured during the period based on observable transactions are classified within Level 2 or Level 3 in the fair value hierarchy because we estimate the value based on valuation methods which may include a combination of the observable transaction price at the transaction date and other unobservable inputs including volatility, rights, and obligations of the securities we hold. The fair value of non-marketable equity securities that have been remeasured due to impairment are classified within Level 3.

As of June 30, 2023 the carrying value of our non-marketable equity securities was $29.1 billion, of which $1.5 billion were remeasured at fair value during the three months ended June 30, 2023 and primarily classified as Level 3.

Debt Securities

The following table summarizes the estimated fair value of investments in available-for-sale marketable debt securities by effective contractual maturity dates (in millions):

	As of June 30, 2023
Due in 1 year or less	$ 15,403
Due in 1 year through 5 years	43,749
Due in 5 years through 10 years	15,162
Due after 10 years	13,686
Total	$ 88,000

The following tables present fair values and gross unrealized losses recorded to AOCI, aggregated by investment category and the length of time that individual securities have been in a continuous loss position (in millions):

	As of December 31, 2022					
	Less than 12 Months		12 Months or Greater		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Government bonds	$ 21,039	$ (1,004)	$ 13,438	$ (1,041)	$ 34,477	$ (2,045)
Corporate debt securities	11,228	(440)	15,125	(1,052)	26,353	(1,492)
Mortgage-backed and asset-backed securities	7,725	(585)	6,964	(657)	14,689	(1,242)
Total	$ 39,992	$ (2,029)	$ 35,527	$ (2,750)	$ 75,519	$ (4,779)

	As of June 30, 2023					
	Less than 12 Months		12 Months or Greater		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Government bonds	$ 19,195	$ (580)	$ 13,976	$ (1,008)	$ 33,171	$ (1,588)
Corporate debt securities	3,915	(69)	17,573	(1,008)	21,488	(1,077)
Mortgage-backed and asset-backed securities	6,352	(153)	10,095	(939)	16,447	(1,092)
Total	$ 29,462	$ (802)	$ 41,644	$ (2,955)	$ 71,106	$ (3,757)

We determine realized gains or losses on the sale or extinguishment of debt securities on a specific identification method. The following table summarizes gains and losses for debt securities, reflected as a component of other income (expense), net (in millions):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Unrealized gain (loss) on fair value option debt securities	$ (367)	$ (24)	$ (569)	$ 121
Gross realized gain on debt securities	29	28	69	85
Gross realized loss on debt securities	(368)	(303)	(639)	(795)
(Increase) decrease in allowance for credit losses	(84)	(5)	(18)	(8)
Total gain (loss) on debt securities recognized in other income (expense), net	$ (790)	$ (304)	$ (1,157)	$ (597)

Equity Investments

The carrying value of equity securities is measured as the total initial cost plus the cumulative net gain (loss). Our share of gains and losses, including impairments, are included as a component of other income (expense), net, in the Consolidated Statements of Income. See Note 6 for further details on other income (expense), net.

The carrying values for marketable and non-marketable equity securities are summarized below (in millions):

	As of December 31, 2022			As of June 30, 2023		
	Marketable Equity Securities	Non-Marketable Equity Securities	Total	Marketable Equity Securities	Non-Marketable Equity Securities	Total
Total initial cost	$ 5,764	$ 16,157	$ 21,921	$ 5,647	$ 17,261	$ 22,908
Cumulative net gain (loss)[(1)]	(608)	12,372	11,764	(352)	11,868	11,516
Carrying value	$ 5,156	$ 28,529	$ 33,685	$ 5,295	$ 29,129	$ 34,424

(1) Non-marketable equity securities cumulative net gain (loss) is comprised of $16.8 billion gains and $4.5 billion losses (including impairments) as of December 31, 2022 and $17.8 billion gains and $5.9 billion losses (including impairments) as of June 30, 2023.

Gains and Losses on Marketable and Non-marketable Equity Securities

Gains and losses (including impairments), net, for marketable and non-marketable equity securities included in other income (expense), net are summarized below (in millions):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Realized net gain (loss) on equity securities sold during the period	$ 26	$ 87	$ (230)	$ 292
Unrealized net gain (loss) on marketable equity securities	(1,188)	397	(2,462)	349
Unrealized net gain (loss) on non-marketable equity securities[(1)]	911	(689)	1,371	(469)
Total gain (loss) on equity securities in other income (expense), net	$ (251)	$ (205)	$ (1,321)	$ 172

(1) Unrealized gain (loss) on non-marketable equity securities accounted for under the measurement alternative is comprised of $2.2 billion and $75 million of upward adjustments and $1.3 billion and $789 million of downward adjustments (including impairments) for three months ended June 30, 2022 and 2023, respectively, and $3.0 billion and $989 million of upward adjustments and $1.6 billion and $1.5 billion of downward adjustments (including impairments) for the six months ended June 30, 2022 and 2023, respectively.

In the table above, realized net gain (loss) on equity securities sold during the period reflects the difference between the sale proceeds and the carrying value of the equity securities at the beginning of the period or the purchase date, if later.

Cumulative net gains (losses) on equity securities sold during the period, which is summarized in the following table (in millions), represents the total net gains (losses) recognized after the initial purchase date of the equity security sold during the period. While these net gains (losses) may have been reflected in periods prior to the period of sale, we believe they are important supplemental information as they reflect the economic net gains (losses) on the securities sold during the period. Cumulative net gains (losses) are calculated as the difference between the sale price and the initial purchase price for the equity security sold during the period.

	Equity Securities Sold			
	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Total sale price	$ 645	$ 427	$ 1,335	$ 739
Total initial cost	168	156	428	367
Cumulative net gain (loss)	$ 477	$ 271	$ 907	$ 372

Equity Securities Accounted for Under the Equity Method

As of December 31, 2022 and June 30, 2023 equity securities accounted for under the equity method had a carrying value of approximately $1.5 billion for both periods. Our share of gains and losses, including impairments, are included as a component of other income (expense), net, in the Consolidated Statements of Income. See Note 6 for further details on other income (expense), net.

Derivative Financial Instruments

We use derivative instruments to manage risks relating to our ongoing business operations. The primary risk managed is foreign exchange risk. We use foreign currency contracts to reduce the risk that our cash flows, earnings, and investment in foreign subsidiaries will be adversely affected by foreign currency exchange rate fluctuations. We also enter into derivative instruments to partially offset our exposure to other risks and enhance investment returns.

We recognize derivative instruments in the Consolidated Balance Sheets at fair value and classify the derivatives primarily within Level 2 in the fair value hierarchy. We present our collar contracts (an option strategy comprised of a combination of purchased and written options) at net fair values and present all other derivatives at gross fair values. The accounting treatment for derivatives is based on the intended use and hedge designation.

Cash Flow Hedges

We designate foreign currency forward and option contracts (including collars) as cash flow hedges to hedge certain forecasted revenue transactions denominated in currencies other than the U.S. dollar. These contracts have maturities of 24 months or less.

Cash flow hedge amounts included in the assessment of hedge effectiveness are deferred in AOCI and subsequently reclassified to revenue when the hedged item is recognized in earnings. We exclude forward points and time value from our assessment of hedge effectiveness and amortize them on a straight-line basis over the life of the hedging instrument in revenues. The difference between fair value changes of the excluded component and the amount amortized to revenues is recorded in AOCI.

As of June 30, 2023 the net accumulated gain on our foreign currency cash flow hedges before tax effect was $24 million, which is expected to be reclassified from AOCI into revenues within the next 12 months.

Fair Value Hedges

We designate foreign currency forward contracts as fair value hedges to hedge foreign currency risks for our marketable securities denominated in currencies other than the U.S. dollar. Fair value hedge amounts included in the assessment of hedge effectiveness are recognized in other income (expense), net, along with the offsetting gains and losses of the related hedged items. We exclude forward points from the assessment of hedge effectiveness and recognize changes in the excluded component in other income (expense), net.

Net Investment Hedges

We designate foreign currency forward contracts as net investment hedges to hedge the foreign currency risks related to our investment in foreign subsidiaries. Net investment hedge amounts included in the assessment of hedge effectiveness are recognized in AOCI along with the foreign currency translation adjustment. We exclude forward points from the assessment of hedge effectiveness and recognize changes in the excluded component in other income (expense), net.

Other Derivatives

We enter into foreign currency forward and option contracts that are not designated as hedging instruments to hedge intercompany transactions and other monetary assets or liabilities denominated in currencies other than the functional currency of a subsidiary. Gains and losses on these derivatives that are not designated as accounting hedges are primarily recorded in other income (expense), net along with the foreign currency gains and losses on monetary assets and liabilities.

We also use derivatives not designated as hedging instruments to manage risks relating to interest rates, commodity prices, credit exposures, and to enhance investment returns. From time to time, we enter into derivatives to hedge the market price risk on certain of our marketable equity securities. Gains and losses arising from other derivatives are primarily reflected within the “other” component of other income (expense), net. See Note 6 for further details.

The gross notional amounts of outstanding derivative instruments were as follows (in millions):

	As of December 31, 2022	As of June 30, 2023
Derivatives designated as hedging instruments:		
Foreign exchange contracts		
Cash flow hedges	$ 15,972	$ 15,823
Fair value hedges	$ 2,117	$ 1,472
Net investment hedges	$ 8,751	$ 9,371
Derivatives not designated as hedging instruments:		
Foreign exchange contracts	$ 34,979	$ 34,185
Other contracts	$ 7,932	$ 9,133

The fair values of outstanding derivative instruments were as follows (in millions):

	As of December 31, 2022		As of June 30, 2023	
	Assets[1]	Liabilities[2]	Assets[1]	Liabilities[2]
Derivatives designated as hedging instruments:				
Foreign exchange contracts	$ 271	$ 556	$ 228	$ 201
Derivatives not designated as hedging instruments:				
Foreign exchange contracts	365	207	130	136
Other contracts	40	47	39	67
Total derivatives not designated as hedging instruments	405	254	169	203
Total	$ 676	$ 810	$ 397	$ 404

(1) Derivative assets are recorded as other current and non-current assets in the Consolidated Balance Sheets.
(2) Derivative liabilities are recorded as accrued expenses and other liabilities, current and non-current in the Consolidated Balance Sheets.

The gains (losses) on derivatives in cash flow hedging and net investment hedging relationships recognized in other comprehensive income (OCI) are summarized below (in millions):

	Gains (Losses) Recognized in OCI on Derivatives Before Tax Effect			
	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Derivatives in cash flow hedging relationship:				
Foreign exchange contracts				
Amount included in the assessment of effectiveness	$ 1,131	$ 77	$ 1,266	$ (61)
Amount excluded from the assessment of effectiveness	(39)	80	(54)	127
Derivatives in net investment hedging relationship:				
Foreign exchange contracts				
Amount included in the assessment of effectiveness	509	(59)	658	(274)
Total	$ 1,601	$ 98	$ 1,870	$ (208)

The table below presents the gains (losses) of our derivatives on the Consolidated Statements of Income: (in millions):

	Gains (Losses) Recognized in Income			
	Three Months Ended June 30,			
	2022		2023	
	Revenues	Other income (expense), net	Revenues	Other income (expense), net
Total amounts in the Consolidated Statements of Income	$ 69,685	$ (439)	$ 74,604	$ 65
Effect of cash flow hedges:				
Foreign exchange contracts				
Amount reclassified from AOCI to income	$ 400	$ 0	$ (2)	$ 0
Amount excluded from the assessment of effectiveness (amortized)	(24)	0	6	0
Effect of fair value hedges:				
Foreign exchange contracts				
Hedged items	0	(136)	0	22
Derivatives designated as hedging instruments	0	136	0	(22)
Amount excluded from the assessment of effectiveness	0	2	0	5
Effect of net investment hedges:				
Foreign exchange contracts				
Amount excluded from the assessment of effectiveness	0	28	0	72
Effect of non designated hedges:				
Foreign exchange contracts	0	(149)	0	124
Other contracts	0	86	0	(4)
Total gains (losses)	$ 376	$ (33)	$ 4	$ 197

	Gains (Losses) Recognized in Income			
	Six Months Ended June 30,			
	2022		2023	
	Revenues	Other income (expense), net	Revenues	Other income (expense), net
Total amounts in the Consolidated Statements of Income	$ 137,696	$ (1,599)	$ 144,391	$ 855
Effect of cash flow hedges:				
Foreign exchange contracts				
Amount of gains (losses) reclassified from AOCI to income	$ 697	$ 0	$ 86	$ 0
Amount excluded from the assessment of effectiveness (amortized)	(43)	0	2	0
Effect of fair value hedges:				
Foreign exchange contracts				
Hedged items	0	(123)	0	54
Derivatives designated as hedging instruments	0	124	0	(54)
Amount excluded from the assessment of effectiveness	0	3	0	10
Effect of net investment hedges:				
Foreign exchange contracts				
Amount excluded from the assessment of effectiveness	0	40	0	123
Effect of non designated hedges:				
Foreign exchange contracts	0	(396)	0	154
Other Contracts	0	124	0	(1)
Total gains (losses)	$ 654	$ (228)	$ 88	$ 286

Offsetting of Derivatives

We enter into master netting arrangements and collateral security arrangements to reduce credit risk. Cash collateral received related to derivative instruments under our collateral security arrangements are included in other current assets with a corresponding liability. Cash and non-cash collateral pledged related to derivative instruments under our collateral security arrangements are included in other current assets.

The gross amounts of derivative instruments subject to master netting arrangements with various counterparties, and cash and non-cash collateral received and pledged under such agreements were as follows (in millions):

	As of December 31, 2022					
				Gross Amounts Not Offset in the Consolidated Balance Sheets, but Have Legal Rights to Offset		
	Gross Amounts Recognized	Gross Amounts Offset in the Consolidated Balance Sheets	Net Amounts Presented in the Consolidated Balance Sheets	Financial Instruments[1]	Cash and Non-Cash Collateral Received or Pledged	Net Amounts
Derivatives assets	$ 760	$ (84)	$ 676	$ (463)	$ (132)	$ 81
Derivatives liabilities	$ 894	$ (84)	$ 810	$ (463)	$ (28)	$ 319

	As of June 30, 2023					
				Gross Amounts Not Offset in the Consolidated Balance Sheets, but Have Legal Rights to Offset		
	Gross Amounts Recognized	Gross Amounts Offset in the Consolidated Balance Sheets	Net Amounts Presented in the Consolidated Balance Sheets	Financial Instruments[(1)]	Cash and Non-Cash Collateral Received or Pledged	Net Amounts
Derivatives assets	$ 444	$ (47)	$ 397	$ (138)	$ (226)	$ 33
Derivatives liabilities	$ 451	$ (47)	$ 404	$ (138)	$ (34)	$ 232

(1) The balances as of December 31, 2022 and June 30, 2023 were related to derivatives allowed to be net settled in accordance with our master netting agreements.

Note 4. Variable Interest Entities (VIE)

Consolidated VIEs

We consolidate VIEs in which we hold a variable interest and are the primary beneficiary. The results of operations and financial position of these VIEs are included in our consolidated financial statements.

For certain consolidated VIEs, their assets are not available to us and their creditors do not have recourse to us. As of December 31, 2022 and June 30, 2023, assets that can only be used to settle obligations of these VIEs were $4.1 billion and $3.1 billion, respectively, and the liabilities for which creditors only have recourse to the VIEs were $2.6 billion for both periods. We may continue to fund ongoing operations of certain VIEs that are included within Other Bets.

Total noncontrolling interests (NCI) in our consolidated subsidiaries were $3.8 billion and $3.6 billion as of December 31, 2022 and June 30, 2023, respectively, of which $1.1 billion is redeemable noncontrolling interest (RNCI) for both periods. NCI and RNCI are included within additional paid-in capital. Net loss attributable to noncontrolling interests was not material for any period presented and is included within the "other" component of OI&E. See Note 6 for further details on OI&E.

Unconsolidated VIEs

We have investments in VIEs in which we are not the primary beneficiary. These VIEs include private companies that are primarily early stage companies and certain renewable energy entities in which activities involve power generation using renewable sources.

We have determined that the governance structures of these entities do not allow us to direct the activities that would significantly affect their economic performance. Therefore, we are not the primary beneficiary, and the results of operations and financial position of these VIEs are not included in our consolidated financial statements. We account for these investments as non-marketable equity securities or equity method investments.

The maximum exposure of these unconsolidated VIEs is generally based on the current carrying value of the investments and any future funding commitments. We have determined that the single source of our exposure to these VIEs is our capital investments in them. The carrying value and maximum exposure of these unconsolidated VIEs were $2.7 billion and $2.8 billion, respectively, as of December 31, 2022 and $3.0 billion and $3.0 billion, respectively, as of June 30, 2023.

Note 5. Debt

Short-Term Debt

We have a 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. We had no commercial paper outstanding as of December 31, 2022 and June 30, 2023.

Our short-term debt balance also includes the current portion of certain long-term debt.

Long-Term Debt

Total outstanding debt is summarized below (in millions, except percentages):

	Maturity	Coupon Rate	Effective Interest Rate	As of December 31, 2022	As of June 30, 2023
Debt					
2014-2020 Notes issuances	2024 - 2060	0.45% - 3.38%	0.57% - 3.38%	$ 13,000	$ 13,000
Future finance lease payments, net and other [1]				2,142	2,159
Total debt				15,142	15,159
Unamortized discount and debt issuance costs				(143)	(137)
Less: Current portion of long-term notes[2]				0	(999)
Less: Current portion future finance lease payments, net and other current debt[1][2]				(298)	(318)
Total long-term debt				$ 14,701	$ 13,705

(1) Future finance lease payments are net of imputed interest.

(2) Total current portion of long-term debt is included within other accrued expenses and current liabilities. See Note 6 for further details.

The notes in the table above are fixed-rate senior unsecured obligations and generally rank equally with each other. We may redeem the notes at any time in whole or in part at specified redemption prices. The effective interest rates are based on proceeds received with interest payable semi-annually.

The total estimated fair value of the outstanding notes was approximately $9.9 billion and $10.1 billion as of December 31, 2022 and June 30, 2023, respectively. The fair value was determined based on observable market prices of identical instruments in less active markets and is categorized accordingly as Level 2 in the fair value hierarchy.

Credit Facility

As of June 30, 2023, we had $10.0 billion of revolving credit facilities of which $4.0 billion expires in April 2024 and $6.0 billion expires 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 were outstanding under the credit facilities as of December 31, 2022 and June 30, 2023.

Note 6. Supplemental Financial Statement Information

Accounts Receivable

The allowance for credit losses on accounts receivable was $754 million and $836 million as of December 31, 2022 and June 30, 2023, respectively.

Property and Equipment, Net

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

	As of December 31, 2022	As of June 30, 2023
Land and buildings	$ 66,897	$ 68,890
Information technology assets	66,267	71,592
Construction in progress	27,657	32,019
Leasehold improvements	10,575	11,286
Furniture and fixtures	314	338
Property and equipment, gross	171,710	184,125
Less: accumulated depreciation	(59,042)	(62,917)
Property and equipment, net	$ 112,668	$ 121,208

Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following (in millions):

	As of December 31, 2022	As of June 30, 2023
European Commission fines[(1)]	$ 9,106	$ 9,446
Income taxes payable, net[(2)]	1,632	10,870
Accrued customer liabilities	3,619	3,498
Accrued purchases of property and equipment	3,019	3,380
Current operating lease liabilities	2,477	2,663
Other accrued expenses and current liabilities	18,013	19,443
Accrued expenses and other current liabilities	$ 37,866	$ 49,300

(1) While each EC decision is under appeal, the fines are included 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. Amounts include the effects of foreign exchange and interest. See Note 9 for further details.

(2) Income taxes payable, net as of the quarter ended June 30, 2023 includes balances related to the 2023 Internal Revenue Service (IRS) payment deferral relief made available to taxpayers headquartered in designated counties in California.

Accumulated Other Comprehensive Income (Loss)

Components of AOCI, net of income tax, were as follows (in millions):

	Foreign Currency Translation Adjustments	Unrealized Gains (Losses) on Available-for-Sale Investments	Unrealized Gains (Losses) on Cash Flow Hedges	Total
Balance as of December 31, 2021	$ (2,306)	$ 236	$ 447	$ (1,623)
Other comprehensive income (loss) before reclassifications	(1,626)	(3,404)	1,083	(3,947)
Amounts excluded from the assessment of hedge effectiveness recorded in AOCI	0	0	(54)	(54)
Amounts reclassified from AOCI	0	381	(585)	(204)
Other comprehensive income (loss)	(1,626)	(3,023)	444	(4,205)
Balance as of June 30, 2022	$ (3,932)	$ (2,787)	$ 891	$ (5,828)

	Foreign Currency Translation Adjustments	Unrealized Gains (Losses) on Available-for-Sale Investments	Unrealized Gains (Losses) on Cash Flow Hedges	Total
Balance as of December 31, 2022	$ (4,142)	$ (3,477)	$ 16	$ (7,603)
Other comprehensive income (loss) before reclassifications	831	296	(50)	1,077
Amounts excluded from the assessment of hedge effectiveness recorded in AOCI	0	0	127	127
Amounts reclassified from AOCI	0	490	(82)	408
Other comprehensive income (loss)	831	786	(5)	1,612
Balance as of June 30, 2023	$ (3,311)	$ (2,691)	$ 11	$ (5,991)

The effects on net income of amounts reclassified from AOCI were as follows (in millions):

		Gains (Losses) Reclassified from AOCI to the Consolidated Statements of Income			
		Three Months Ended June 30,		Six Months Ended June 30,	
AOCI Components	Location	2022	2023	2022	2023
Unrealized gains (losses) on available-for-sale investments					
	Other income (expense), net	$ (299)	$ (254)	$ (489)	$ (628)
	Benefit (provision) for income taxes	66	56	108	138
	Net of income tax	(233)	(198)	(381)	(490)
Unrealized gains (losses) on cash flow hedges					
Foreign exchange contracts	Revenue	400	(2)	697	86
Interest rate contracts	Other income (expense), net	1	1	3	3
	Benefit (provision) for income taxes	(65)	6	(115)	(7)
	Net of income tax	336	5	585	82
Total amount reclassified, net of income tax		$ 103	$ (193)	$ 204	$ (408)

Other Income (Expense), Net

Components of OI&E were as follows (in millions):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Interest income	$ 486	$ 892	$ 900	$ 1,689
Interest expense[1]	(83)	(43)	(166)	(123)
Foreign currency exchange gain (loss), net	(260)	(268)	(333)	(478)
Gain (loss) on debt securities, net	(790)	(304)	(1,157)	(597)
Gain (loss) on equity securities, net	(251)	(205)	(1,321)	172
Performance fees	318	5	551	123
Income (loss) and impairment from equity method investments, net	(118)	(106)	(207)	(157)
Other	259	94	134	226
Other income (expense), net	$ (439)	$ 65	$ (1,599)	$ 855

(1) Interest expense is net of interest capitalized of $37 million and $47 million for the three months ended June 30, 2022 and 2023, respectively, and $71 million and $87 million for the six months ended June 30, 2022 and 2023, respectively.

Note 7. Workforce Reduction and Other Initiatives

We have a company-wide effort underway to re-engineer our cost base. As part of this program, in January 2023, we announced a reduction of our workforce. As a result, total employee severance and related charges recorded during the six months ended June 30, 2023 were $2.0 billion, of which $2.0 billion and $1 million were recorded during the three months ended March 31, 2023 and June 30, 2023, respectively.

In addition, we are taking actions to optimize our global office space. As a result, total charges recorded during the six months ended June 30, 2023 were $633 million, of which $564 million and $69 million were recorded during the three months ended March 31, 2023 and June 30, 2023, respectively. We may incur additional charges in the future as we further evaluate our real estate needs.

These severance and office space charges are included within our consolidated statements of income as follows (in millions):

	Three Months Ended June 30, 2023			Six Months Ended June 30, 2023		
	Severance and Related [(1)]	Office Space	Total	Severance and Related [(1)]	Office Space	Total
Cost of revenues	$ (1)	$ 20	$ 19	$ 460	$ 240	$ 700
Research and development	(3)	14	11	832	261	1,093
Sales and marketing	(1)	23	22	444	58	502
General and administrative	6	12	18	259	74	333
Total charges	$ 1	$ 69	$ 70	$ 1,995	$ 633	$ 2,628

(1) Severance includes amounts to be settled in cash, accounted for as one-time involuntary employee termination benefits, and stock based compensation

For segment reporting, the substantial majority of these charges are included within unallocated corporate costs in our segment results.

For the six months ended June 30, 2023, changes in liabilities resulting from the severance charges and related accruals were as follows (in millions):

	Severance and Related
Balance as of December 31, 2022	$ 0
Charges[(1)]	1,566
Cash payments	(1,423)
Balance as of June 30, 2023[(2)]	$ 143

(1) Excludes non-cash stock-based compensation of $429 million.
(2) Included in Accrued compensation and benefits on the consolidated balance sheets.

Note 8. Goodwill and Other Intangible Assets

Goodwill

Changes in the carrying amount of goodwill for the six months ended June 30, 2023 were as follows (in millions):

	Google Services	Google Cloud	Other Bets	Total
Balance as of December 31, 2022	$ 20,847	$ 7,205	$ 908	$ 28,960
Acquisitions	240	0	0	240
Foreign currency translation and other adjustments	37	1	(28)	10
Balance as of June 30, 2023	$ 21,124	$ 7,206	$ 880	$ 29,210

Other Intangible Assets

Information regarding intangible assets was as follows (in millions):

	As of December 31, 2022			As of June 30, 2023		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Patents and developed technology	$ 1,164	$ 354	$ 810	$ 1,181	$ 420	$ 761
Customer relationships	862	235	627	884	306	578
Trade names and other	527	120	407	536	145	391
Total definite-lived intangible assets	2,553	709	1,844	2,601	871	1,730
Indefinite-lived intangible assets	240	0	240	236	0	236
Total intangible assets	$ 2,793	$ 709	$ 2,084	$ 2,837	$ 871	$ 1,966

Amortization expense relating to intangible assets was $201 million and $118 million for the three months ended June 30, 2022 and 2023, respectively, and $392 million and $244 million for the six months ended June 30, 2022 and 2023, respectively.

Expected amortization expense of definite-lived intangible assets held as of June 30, 2023 was as follows (in millions):

Remainder of 2023	$ 239
2024	468
2025	338
2026	261
2027	176
Thereafter	248
Total	$ 1,730

Note 9. Commitments and Contingencies

Commitments

We have content licensing agreements with future fixed or minimum guaranteed commitments of $11.5 billion as of June 30, 2023, of which the majority is paid over seven years ending in the first quarter of 2030.

Indemnifications

In the normal course of business, including to facilitate transactions in our services and products and corporate activities, we indemnify certain parties, including advertisers, Google Network partners, distribution partners, customers of Google Cloud offerings, lessors, and service providers with respect to certain matters. We have agreed to defend and/or hold certain parties harmless against losses arising from a breach of representations or covenants, or out of intellectual property infringement or other claims made against certain parties. Several of these agreements limit the time within which an indemnification claim can be made and the amount of the claim. In addition, we have entered into indemnification agreements with our officers and directors, and our bylaws contain similar indemnification obligations to our agents.

It is not possible to make a reasonable estimate of the maximum potential amount under these indemnification agreements due to the unique facts and circumstances involved in each particular agreement. Additionally, the payments we have made under such agreements have not had a material adverse effect on our results of operations, cash flows, or financial position. However, to the extent that valid indemnification claims arise in the future, future payments by us could be significant and could have a material adverse effect on our results of operations or cash flows in a particular period.

As of June 30, 2023, we did not have any material indemnification claims that were probable or reasonably possible.

Legal Matters

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 reasonably possible loss. We evaluate 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 as appropriate.

Certain outstanding matters seek speculative, substantial or indeterminate monetary amounts, substantial changes to our business practices and products, or structural remedies. Significant judgment is required to determine both the likelihood of there being a loss and the estimated amount of a loss related to such matters, and we may be unable to estimate the reasonably possible loss or range of losses. The outcomes of outstanding legal matters are inherently unpredictable and subject to significant uncertainties, and could, either individually or in aggregate, have a material adverse effect.

We expense legal fees in the period in which they are incurred.

Antitrust Investigations

On November 30, 2010, the EC's Directorate General for Competition opened an investigation into various antitrust-related complaints against us.

On June 27, 2017, the EC announced its decision that certain actions taken by Google regarding its display and ranking of shopping search results and ads infringed European competition law. The EC decision imposed a €2.4 billion ($2.7 billion as of June 27, 2017) fine. On September 11, 2017, we appealed the EC decision to the General Court, and on September 27, 2017, we implemented product changes to bring shopping ads into compliance with the EC's decision. We recognized a charge of $2.7 billion for the fine in the second quarter of 2017. On November 10, 2021, the General Court rejected our appeal, and we subsequently filed an appeal with the European Court of Justice on January 20, 2022.

On July 18, 2018, the EC announced its decision that certain provisions in Google’s Android-related distribution agreements infringed European competition law. The EC decision imposed a €4.3 billion ($5.1 billion as of June 30, 2018) fine and directed the termination of the conduct at issue. On October 9, 2018, we appealed the EC decision, and on October 29, 2018, we implemented changes to certain of our Android distribution practices. On September 14, 2022, the General Court reduced the fine from €4.3 billion to €4.1 billion. We subsequently filed an appeal with the European Court of Justice. In 2018, we recognized a charge of $5.1 billion for the fine, which we reduced by $217 million in 2022.

On March 20, 2019, the EC announced its decision that certain contractual provisions in agreements that Google had with AdSense for Search partners infringed European competition law. The EC decision imposed a fine of €1.5 billion ($1.7 billion as of March 20, 2019) and directed actions related to AdSense for Search partners' agreements, which we implemented prior to the decision. On June 4, 2019, we appealed the EC decision, which remains pending. We recognized a charge of $1.7 billion for the fine in the first quarter of 2019.

From time to time we are subject to formal and informal inquiries and investigations on various competition matters by regulatory authorities in the U.S., Europe, and other jurisdictions globally. For example:

- In August 2019, we began receiving civil investigative demands from the U.S. Department of Justice (DOJ) requesting information and documents relating to our prior antitrust investigations and certain aspects of our business. The DOJ and a number of state Attorneys General filed a lawsuit in the U.S. District Court for the District of Columbia on October 20, 2020 alleging that Google violated U.S. antitrust laws relating to Search and Search advertising, and a trial is scheduled for September 2023. Further, in June 2022, the Australian Competition and Consumer Commission (ACCC) and the United Kingdom's Competition and Markets Authority (CMA) each opened an investigation into Search distribution practices.

- On December 16, 2020, a number of state Attorneys General filed an antitrust complaint in the U.S. District Court for the Eastern District of Texas, alleging that Google violated U.S. antitrust laws as well as state deceptive trade laws relating to its advertising technology. Additionally, on January 24, 2023, the DOJ, along with a number of state Attorneys General, filed an antitrust complaint in the U.S. District Court for the Eastern District of Virginia alleging that Google’s digital advertising technology products violate U.S. antitrust laws, and on April 17, 2023, a number of additional state Attorneys General joined the complaint. The EC, the CMA, and the ACCC each opened a formal investigation into Google's advertising technology business practices on June 22, 2021, May 25, 2022, and June 29, 2022, respectively. On June 14, 2023, the EC issued a Statement of Objections (SO) informing Google of its preliminary view that Google violated European antitrust laws relating to its advertising technology. We will respond to the SO by December 31, 2023.

- On July 7, 2021, a number of state Attorneys General filed an antitrust complaint in the U.S. District Court for the Northern District of California, alleging that Google's operation of Android and Google Play violated U.S. antitrust laws and state antitrust and consumer protection laws. In May 2022, the EC and the CMA each opened investigations into Google Play's business practices. Korean regulators are investigating Google Play's billing practices, most recently opening a formal review in May 2022 of Google's compliance with the new app store billing regulations.

We believe these complaints are without merit and will defend ourselves vigorously. We continue to cooperate with federal and state regulators in the U.S., the EC, and other regulators around the world.

Patent and Intellectual Property Claims

We have had patent, copyright, trade secret, and trademark infringement lawsuits filed against us claiming that certain of our products, services, and technologies infringe others' intellectual property rights. Adverse results in these lawsuits may include awards of substantial monetary damages, costly royalty or licensing agreements, or orders preventing us from offering certain features, functionalities, products, or services. As a result, we may have to change our business practices and develop non-infringing products or technologies, which could result in a loss of revenues for us and otherwise harm our business. In addition, the U.S. International Trade Commission (ITC) has increasingly become an important forum to litigate intellectual property disputes because an ultimate loss in an ITC action can result in a prohibition on importing infringing products into the U.S. Because the U.S. is an important market, a prohibition on importation could have an adverse effect on us, including preventing us from importing many important products into the U.S. or necessitating workarounds that may limit certain features of our products.

Furthermore, many of our agreements with our customers and partners require us to indemnify them against certain intellectual property infringement claims, which would increase our costs as a result of defending such claims, and may require that we pay significant damages if there were an adverse ruling in any such claims. In addition, our customers and partners may discontinue the use of our products, services, and technologies, as a result of injunctions or otherwise, which could result in loss of revenues and adversely affect our business.

Other

We are 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 our users, goods and services offered by advertisers or publishers using our platforms, personal injury, consumer protection, and other matters. For example, we currently have a number of privacy investigations and lawsuits ongoing in multiple jurisdictions. We also periodically have data incidents that we report to relevant regulators as required by law. Such claims, lawsuits, regulatory and government investigations, other proceedings, and consent orders could result in substantial fines and penalties, injunctive relief, ongoing monitoring and auditing obligations, changes to our products and services, alterations to our business models and operations, and collateral related civil litigation or other adverse consequences, all of which could harm our business, reputation, financial condition, and operating results.

We have ongoing legal matters relating to Russia. For example, civil judgments that include compounding penalties have been imposed upon us in connection with disputes regarding the termination of accounts, including those of sanctioned parties. We do not believe these ongoing legal matters will have a material adverse effect.

Non-Income Taxes

We are under audit by various domestic and foreign tax authorities with regards to non-income tax matters. The subject matter of non-income tax audits primarily arises from disputes on the tax treatment and tax rate applied to the sale of our products and services in these jurisdictions and the tax treatment of certain employee benefits. We accrue non-income taxes that may result from examinations by, or any negotiated agreements with, these tax authorities when a loss is probable and reasonably estimable. If we determine that a loss is reasonably possible and the loss or range of loss can be estimated, we disclose the reasonably possible loss. Due to the inherent complexity and uncertainty of these matters and judicial process in certain jurisdictions, the final outcome may be materially different from our expectations.

For information regarding income tax contingencies, see Note 13.

Note 10. Stockholders' Equity

Share Repurchases

In the three and six months ended June 30, 2023, we repurchased $15.1 billion and $30.2 billion, respectively, of Alphabet's Class A and Class C shares.

In April 2022, the Board of Directors of Alphabet authorized the company to repurchase up to $70.0 billion of its Class A and Class C shares. The repurchases from the April 2022 authorization were completed during the second quarter of 2023. 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 June 30, 2023, $68.1 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):

	Three Months Ended June 30, 2023		Six Months Ended June 30, 2023	
	Shares	Amount	Shares	Amount
Class A share repurchases	17	$ 1,908	37	$ 3,919
Class C share repurchases	114	13,206	251	26,319
Total share repurchases[(1)]	131	$ 15,114	288	$ 30,238

(1) Shares repurchased include unsettled repurchases as of June 30, 2023.

Class A and Class C shares are repurchased in a manner deemed in the best interest of the company and its stockholders, taking into account the economic cost and prevailing market conditions, including the relative trading prices and volumes of the Class A and Class C shares. Repurchases are 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.

Note 11. Net Income Per Share

The following table sets forth the computation of basic and diluted net income per share of Class A, Class B, and Class C stock (in millions, except per share amounts):

	Three Months Ended June 30,					
	2022			2023		
	Class A	Class B	Class C	Class A	Class B	Class C
Basic net income per share:						
Numerator						
Allocation of undistributed earnings	$ 7,329	$ 1,081	$ 7,592	$ 8,600	$ 1,275	$ 8,493
Denominator						
Number of shares used in per share computation	6,015	887	6,231	5,931	879	5,858
Basic net income per share	$ 1.22	$ 1.22	$ 1.22	$ 1.45	$ 1.45	$ 1.45
Diluted net income per share:						
Numerator						
Allocation of undistributed earnings for basic computation	$ 7,329	$ 1,081	$ 7,592	$ 8,600	$ 1,275	$ 8,493
Reallocation of undistributed earnings as a result of conversion of Class B to Class A shares	1,081	0	0	1,275	0	0
Reallocation of undistributed earnings	(68)	(9)	68	(75)	(10)	75
Allocation of undistributed earnings	$ 8,342	$ 1,072	$ 7,660	$ 9,800	$ 1,265	$ 8,568
Denominator						
Number of shares used in basic computation	6,015	887	6,231	5,931	879	5,858
Weighted-average effect of dilutive securities						
Add:						
Conversion of Class B to Class A shares outstanding	887	0	0	879	0	0
Restricted stock units and other contingently issuable shares	0	0	106	0	0	96
Number of shares used in per share computation	6,902	887	6,337	6,810	879	5,954
Diluted net income per share	$ 1.21	$ 1.21	$ 1.21	$ 1.44	$ 1.44	$ 1.44

	Six Months Ended June 30,					
	2022			2023		
	Class A	Class B	Class C	Class A	Class B	Class C
Basic net income per share:						
Numerator						
Allocation of undistributed earnings	$ 14,812	$ 2,190	$ 15,436	$ 15,597	$ 2,311	$ 15,511
Denominator						
Number of shares used in per share computation	6,013	889	6,266	5,939	880	5,906
Basic net income per share	$ 2.46	$ 2.46	$ 2.46	$ 2.63	$ 2.63	$ 2.63
Diluted net income per share:						
Numerator						
Allocation of undistributed earnings for basic computation	$ 14,812	$ 2,190	$ 15,436	$ 15,597	$ 2,311	$ 15,511
Reallocation of undistributed earnings as a result of conversion of Class B to Class A shares	2,190	0	0	2,311	0	0
Reallocation of undistributed earnings	(162)	(21)	162	(96)	(12)	96
Allocation of undistributed earnings	$ 16,840	$ 2,169	$ 15,598	$ 17,812	$ 2,299	$ 15,607
Denominator						
Number of shares used in basic computation	6,013	889	6,266	5,939	880	5,906
Weighted-average effect of dilutive securities						
Add:						
Conversion of Class B to Class A shares outstanding	889	0	0	880	0	0
Restricted stock units and other contingently issuable shares	0	0	127	0	0	69
Number of shares used in per share computation	6,902	889	6,393	6,819	880	5,975
Diluted net income per share	$ 2.44	$ 2.44	$ 2.44	$ 2.61	$ 2.61	$ 2.61

For the periods presented above, the net income per share amounts are the same for Class A, Class B, and Class C stock because the holders of each class are entitled to equal per share dividends or distributions in liquidation in accordance with the Amended and Restated Certificate of Incorporation of Alphabet Inc.

Note 12. Compensation Plans

Stock-Based Compensation

For the three months ended June 30, 2022 and 2023, total stock-based compensation (SBC) expense was $4.9 billion and $5.4 billion, including amounts associated with awards we expect to settle in Alphabet stock of $4.6 billion and $5.6 billion, respectively. For the six months ended June 30, 2022 and 2023, total SBC expense was $9.4 billion and $10.7 billion, including amounts associated with awards we expect to settle in Alphabet stock of $9.0 billion and $10.7 billion, respectively.

During the six months ended June 30, 2023, total SBC expense includes $429 million associated with workforce reduction costs, of which $412 million and $17 million were recorded during the three months ended March 31, 2023 and June 30, 2023, respectively. See Note 7 for further information.

Stock-Based Award Activities

The following table summarizes the activities for unvested Alphabet restricted stock units (RSUs) for the six months ended June 30, 2023 (in millions, except per share amounts):

	Unvested Restricted Stock Units	
	Number of Shares	Weighted-Average Grant-Date Fair Value
Unvested as of December 31, 2022	324	$ 107.98
Granted	246	$ 95.30
Vested	(109)	$ 99.65
Forfeited/canceled	(19)	$ 108.30
Unvested as of June 30, 2023	442	$ 102.97

As of June 30, 2023, there was $43.6 billion of unrecognized compensation cost related to unvested RSUs. This amount is expected to be recognized over a weighted-average period of 2.8 years.

Note 13. Income Taxes

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Income before provision for income taxes	$ 19,014	$ 21,903	$ 37,948	$ 40,108
Provision for income taxes	$ 3,012	$ 3,535	$ 5,510	$ 6,689
Effective tax rate	15.8 %	16.1 %	14.5 %	16.7 %

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. The total amount of gross unrecognized tax benefits was $7.1 billion and $8.8 billion as of December 31, 2022 and June 30, 2023, respectively, of which $5.3 billion and $6.7 billion, if recognized, would affect our effective tax rate, respectively.

Note 14. Information about Segments and Geographic Areas

We report our segment results as Google Services, Google Cloud, and Other Bets:

- Google Services includes products and services such as ads, Android, Chrome, hardware, Google Maps, Google Play, Search, and YouTube. Google Services generates revenues primarily from advertising; sales of apps and in-app purchases, and hardware; and fees received for subscription-based products such as YouTube Premium and YouTube TV.
- Google Cloud includes infrastructure and platform services, collaboration tools, and other services for enterprise customers. Google Cloud generates revenues from fees received for Google Cloud Platform services, Google Workspace communication and collaboration tools, and other enterprise services.
- Other Bets is a combination of multiple operating segments that are not individually material. Revenues from Other Bets are generated primarily from the sale of health technology and internet services.

Revenues, certain costs, such as costs associated with content and traffic acquisition, certain engineering activities, and hardware, as well as certain operating expenses are directly attributable to our segments. Due to the integrated nature of Alphabet, other costs and expenses, such as technical infrastructure and office facilities, are managed centrally at a consolidated level. These costs, including the associated depreciation and impairment, are allocated to operating segments as a service cost generally based on usage, headcount, or revenue.

Reflecting DeepMind's increasing collaboration with Google Services, Google Cloud, and Other Bets, beginning in the first quarter of 2023 DeepMind is reported as part of Alphabet's unallocated corporate costs instead of within Other Bets. Additionally, beginning in the first quarter of 2023, we updated and simplified our cost allocation methodologies to provide our business leaders with increased transparency for decision-making. Prior periods have been recast to conform to the current presentation.

As announced on April 20, 2023, we brought together part of Google Research (the Brain team) and DeepMind to significantly accelerate our progress in artificial intelligence (AI). The group, called Google DeepMind, is reported within Alphabet's unallocated corporate costs prospectively beginning in the second quarter of 2023. Previously, the Brain team was included within Google Services.

Certain costs are not allocated to our segments because they represent Alphabet-level activities. These costs primarily include AI-focused shared R&D activities; corporate initiatives such as our philanthropic activities; corporate shared costs such as certain finance, human resource, and legal costs, including certain fines and settlements. Charges associated with reductions in our workforce and office space announced in January 2023 are not allocated to our segments. Additionally, hedging gains (losses) related to revenue are not allocated to our segments.

Our operating segments are not evaluated using asset information.

The following table presents information about our segments (in millions):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Revenues:				
Google Services	$ 62,841	$ 66,285	$ 124,313	$ 128,246
Google Cloud	6,276	8,031	12,097	15,485
Other Bets	193	285	633	573
Hedging gains (losses)	375	3	653	87
Total revenues	$ 69,685	$ 74,604	$ 137,696	$ 144,391

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Operating income (loss):				
Google Services	$ 21,621	$ 23,454	$ 43,594	$ 45,191
Google Cloud	(590)	395	(1,296)	586
Other Bets	(1,339)	(813)	(2,174)	(2,038)
Corporate costs, unallocated	(239)	(1,198)	(577)	(4,486)
Total income from operations	$ 19,453	$ 21,838	$ 39,547	$ 39,253

For revenues by geography, see Note 2.

The following table presents long-lived assets by geographic area, which includes property and equipment, net and operating lease assets (in millions):

	As of December 31, 2022	As of June 30, 2023
Long-lived assets:		
United States	$ 93,565	$ 99,714
International	33,484	35,963
Total long-lived assets	$ 127,049	$ 135,677

ITEM 2. 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" and our consolidated financial statements and related notes included under Item 1 of this Quarterly Report on Form 10-Q as well as our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, including Part I, Item 1A "Risk Factors."

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 further details on our segments, see Note 14 of the Notes to Consolidated Financial Statements included in Item 1 of this Quarterly Report on Form 10-Q.

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 hardware; and fees received for subscription-based products. For details on how we recognize revenue, see Note 1 of the Notes to Consolidated Financial Statements included in Part II, Item 8 in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022.

In addition to the long-term trends and their financial effect on our business noted in "Trends in Our Business and Financial Effect" in Part II, Item 7 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, fluctuations in our revenues have been and may continue to be affected by a combination of 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 other 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 other 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 additional factors, 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 Other

Google other revenues are comprised of the following:

- Google Play, which includes sales of apps and in-app purchases;
- hardware, which includes sales of Fitbit wearable devices, Google Nest home products, and Pixel devices;
- YouTube non-advertising, which includes subscription revenues from services such as YouTube Premium and YouTube TV; and
- other products and services.

Fluctuations in our Google other revenues have been and may continue to be affected by additional factors, 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 includes fees for infrastructure, platform, and other services;
- Google Workspace, which includes fees for cloud-based communication and collaboration tools for enterprises, such as Gmail, Docs, Drive, Calendar and Meet; and
- other enterprise services.

Fluctuations in our Google Cloud revenues have been and may continue to be affected by additional factors, such as customer usage.

Other Bets

Revenues from Other Bets are generated primarily from the sale of health technology 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.

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.
  - Amounts paid to Google Network partners primarily for ads displayed on their properties.
- Other cost of revenues includes:
  - 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).
  - Expenses associated with our data centers (including bandwidth, compensation expenses, depreciation, energy, and other equipment costs) as well as other operations costs (such as content review as well as customer and product support costs).
  - Inventory and other costs related to the hardware 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 fines and settlements; and
- third-party services fees, including audit, consulting, outside legal, and other outsourced administrative services.

Other Income (Expense), Net

Other income (expense), 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 details, including how we account for our investments and factors that can drive fluctuations in the value of our investments, see Note 1 of the Notes to Consolidated Financial Statements included in Part II, Item 8 and Item 7A, “Quantitative and Qualitative Disclosures About Market Risk” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 as well as Note 3 of the Notes to Consolidated Financial Statements included in Item 1 of this Quarterly Report on Form 10-Q.

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 details, see Note 1 of the Notes to Consolidated Financial Statements included in Part II, Item 8 in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 as well as Note 13 of the Notes to Consolidated Financial Statements included in Item 1 of this Quarterly Report on Form 10-Q.

Executive Overview

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

	Three Months Ended June 30,			
	2022	2023	$ Change	% Change
Consolidated revenues	$ 69,685	$ 74,604	$ 4,919	7 %
Change in consolidated constant currency revenues[1]				9 %
Cost of revenues	$ 30,104	$ 31,916	$ 1,812	6 %
Operating expenses	$ 20,128	$ 20,850	$ 722	4 %
Operating income	$ 19,453	$ 21,838	$ 2,385	12 %
Operating margin	28 %	29 %		1 %
Other income (expense), net	$ (439)	$ 65	$ 504	NM
Net Income	$ 16,002	$ 18,368	$ 2,366	15 %
Diluted EPS	$ 1.21	$ 1.44	$ 0.23	19 %

NM = Not Meaningful

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

- Revenues were $74.6 billion, an increase of 7% year over year, primarily driven by an increase in Google Services revenues of $3.4 billion, or 5%, and an increase in Google Cloud revenues of $1.8 billion, or 28%.
- Total constant currency revenues, which exclude the effect of hedging, increased 9% year over year.
- Cost of revenues was $31.9 billion, an increase of 6% year over year, primarily driven by an increase in content acquisition costs and hardware costs. An overall increase in data center and other operations costs was partially offset by a reduction in depreciation expense due to the change in estimated useful lives of our servers and certain network equipment.
- Operating expenses were $20.9 billion, an increase of 4% year over year, primarily driven by an increase in compensation expenses largely due to headcount growth, partially offset by a reduction in valuation-based compensation liabilities related to certain Other Bets. Additionally, operating expenses benefited from a reduction in depreciation expense due to 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 $2.0 billion for the six months ended June 30, 2023. In addition, we are taking actions to optimize our global office space. As a result, total charges recorded during the six months ended June 30, 2023 were $633 million, of which $564 million and $69 million were recorded during the three months ended March 31, 2023 and June 30, 2023, respectively. We may incur additional charges in the future as we further evaluate our real estate needs. For additional information, see Note 7 of the Notes to Consolidated Financial Statements included in Item 1 of this Quarterly Report on Form 10-Q.

- 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 $966 million and $2.0 billion for the three and six months ended June 30, 2023, respectively, 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 1 of this Quarterly Report on Form 10-Q.
- Repurchases of Class A and Class C shares were $15.1 billion for the three months ended June 30, 2023. See Note 10 of the Notes to Consolidated Financial Statements included in Item 1 of this Quarterly Report on Form 10-Q for additional information.
- Operating cash flow was $28.7 billion for the three months ended June 30, 2023, and was affected by the 2023 IRS payment deferral relief made available to tax payers headquartered in designated counties in California.
- Capital expenditures, which primarily reflected investments in technical infrastructure, were $6.9 billion for the three months ended June 30, 2023.
- As of June 30, 2023, we had 181,798 employees. The substantial majority of the employees affected by the reduction of our workforce are no longer included in our headcount as of June 30, 2023. We expect most of the remaining employees affected will no longer be reflected in our headcount by the end of 2023, subject to local law and consultation requirements.

Financial Results

Revenues

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Google Search & other	$ 40,689	$ 42,628	$ 80,307	$ 82,987
YouTube ads	7,340	7,665	14,209	14,358
Google Network	8,259	7,850	16,433	15,346
Google advertising	56,288	58,143	110,949	112,691
Google other	6,553	8,142	13,364	15,555
Google Services total	62,841	66,285	124,313	128,246
Google Cloud	6,276	8,031	12,097	15,485
Other Bets	193	285	633	573
Hedging gains (losses)	375	3	653	87
Total revenues	$ 69,685	$ 74,604	$ 137,696	$ 144,391

Google Services

Google advertising revenues

Google Search & other

Google Search & other revenues increased $1.9 billion and $2.7 billion from the three and six months ended June 30, 2022 to the three and six months ended June 30, 2023, respectively. 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. Additionally, growth was adversely affected by changes in foreign currency exchange rates for the six months ended June 30, 2023 and, to a lesser extent, for the three months ended June 30, 2023.

YouTube ads

YouTube ads revenues increased $325 million and $149 million from the three and six months ended June 30, 2022 to the three and six months ended June 30, 2023, respectively. The growth was driven by our brand advertising products followed by our direct response advertising products, both of which benefited from increased spending by our advertisers. Additionally, growth was adversely affected by changes in foreign currency exchange rates for the six months ended June 30, 2023 and, to a lesser extent, for the three months ended June 30, 2023.

Google Network

Google Network revenues decreased $409 million and $1.1 billion from the three and six months ended June 30, 2022 to the three and six months ended June 30, 2023, respectively, primarily driven by a decrease in Google Ad Manager and AdSense revenues. Additionally, Google Network revenues were adversely affected by changes in foreign currency exchange rates for the six months ended June 30, 2023 and, to a lesser extent, for the three months ended June 30, 2023.

Monetization Metrics

Paid clicks and cost-per-click

The following table presents year-over-year changes in paid clicks and cost-per-click (expressed as a percentage):

	Three Months Ended June 30,	Six Months Ended June 30,
	2023	2023
Paid clicks change	8%	8%
Cost-per-click change	(3)%	(5)%

Paid clicks increased from the three and six months ended June 30, 2022 to the three and six months ended June 30, 2023 driven by a number of interrelated factors, including an increase in search queries resulting from growth in user adoption and usage on mobile devices; growth in advertiser spending; and ongoing product and policy changes.

Cost-per-click decreased from the three and six months ended June 30, 2022 to the three and six months ended June 30, 2023 driven by a number of interrelated factors including changes in device mix, geographic mix, advertiser spending, ongoing product and policy changes, and property mix. Additionally, cost-per-click was adversely affected by changes in foreign currency exchange rates for the six months ended June 30, 2023 and, to a lesser extent, for the three months ended June 30, 2023.

Impressions and cost-per-impression

The following table presents year-over-year changes in impressions and cost-per-impression (expressed as a percentage):

	Three Months Ended June 30,	Six Months Ended June 30,
	2023	2023
Impressions change	0%	(2)%
Cost-per-impression change	(5)%	(5)%

Impressions were relatively unchanged from the three months ended June 30, 2022 to the three months ended June 30, 2023, as an increase in AdMob was largely offset by decreases in AdSense and Google Ad Manager. The decrease in cost-per-impression from the three months ended June 30, 2022 to the three months ended June 30, 2023 was driven by a number of interrelated factors including ongoing product and policy changes, changes in device mix, geographic mix, product mix, and property mix, as well as the adverse effect of changes in foreign currency exchange rates.

Impressions decreased from the six months ended June 30, 2022 to the six months ended June 30, 2023 driven by decreases in Google Ad Manager and AdSense, partially offset by an increase in AdMob. The decrease in cost-per-impression from the six months ended June 30, 2022 to the six months ended June 30, 2023 was driven by a number of interrelated factors including ongoing product and policy changes, changes in device mix, geographic mix, product mix, and property mix, as well as the adverse effect of changes in foreign currency exchange rates.

Google other revenues

Google other revenues increased $1.6 billion and $2.2 billion from the three and six months ended June 30, 2022 to the three and six months ended June 30, 2023 primarily driven by growth in YouTube non-advertising, largely due to an increase in paid subscribers, and growth in hardware, due to increased sales of Pixel devices, in large part due to product launch timing. Additionally, growth was adversely affected by changes in foreign currency exchange rates for the six months ended June 30, 2023 and, to a lesser extent, for the three months ended June 30, 2023.

Google Cloud

Google Cloud revenues increased $1.8 billion and $3.4 billion from the three and six months ended June 30, 2022 to the three and six months ended June 30, 2023, respectively. 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:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
United States	47 %	47 %	47 %	47 %
EMEA	29 %	30 %	30 %	30 %
APAC	17 %	17 %	17 %	17 %
Other Americas	6 %	6 %	6 %	6 %
Hedging gains (losses)	1 %	0 %	0 %	0 %

For further details on revenues by geography, see Note 2 of the Notes to Consolidated Financial Statements included in Item 1 of this Quarterly Report on Form 10-Q.

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 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):

	Three Months Ended June 30,		Three Months Ended June 30, 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	$ 32,727	$ 35,073	$ 0	$ 35,073	7 %		0 %	7 %
EMEA	20,533	22,289	(275)	22,564	9 %		(1)%	10 %
APAC	11,710	12,728	(565)	13,293	9 %		(5)%	14 %
Other Americas	4,340	4,511	(306)	4,817	4 %		(7)%	11 %
Revenues, excluding hedging effect	69,310	74,601	(1,146)	75,747	8 %		(1)%	9 %
Hedging gains (losses)	375	3						
Total revenues[(1)]	$ 69,685	$ 74,604		$ 75,747	7 %	(1)%	(1)%	9 %

(1) Total constant currency revenues of $75.7 billion for the three months ended June 30, 2023 increased $6.4 billion compared to $69.3 billion in revenues, excluding hedging effect, for the three months ended June 30, 2022.

EMEA revenue growth was unfavorably affected by changes in foreign currency exchange rates, primarily due to the U.S. dollar strengthening relative to the British pound.

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.

	Six Months Ended June 30,		Six Months Ended June 30, 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	$ 64,460	$ 67,937	$ 0	$ 67,937	5 %		0 %	5 %
EMEA	40,850	43,367	(1,448)	44,815	6 %		(4)%	10 %
APAC	23,551	24,409	(1,399)	25,808	4 %		(6)%	10 %
Other Americas	8,182	8,591	(473)	9,064	5 %		(6)%	11 %
Revenues, excluding hedging effect	137,043	144,304	(3,320)	147,624	5 %		(3)%	8 %
Hedging gains (losses)	653	87						
Total revenues[(1)]	$ 137,696	$ 144,391		$ 147,624	5 %	0 %	(3)%	8 %

(1) Total constant currency revenues of $147.6 billion for the six months ended June 30, 2023 increased $10.6 billion compared to $137.0 billion in revenues, excluding hedging effect, for the six months ended June 30, 2022.

EMEA revenue growth was unfavorably affected by changes in foreign currency exchange rates, primarily due to the U.S. dollar strengthening relative to the British pound and the Euro.

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):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
TAC	$ 12,214	$ 12,537	$ 24,204	$ 24,258
Other cost of revenues	17,890	19,379	35,499	38,270
Total cost of revenues	$ 30,104	$ 31,916	$ 59,703	$ 62,528
Total cost of revenues as a percentage of revenues	43 %	43 %	43 %	43 %

Cost of revenues increased $1.8 billion from the three months ended June 30, 2022 to the three months ended June 30, 2023 due to an increase in other cost of revenues and TAC of $1.5 billion and $323 million, respectively. Cost of revenues increased $2.8 billion from the six months ended June 30, 2022 to the six months ended June 30, 2023, primarily due to an increase in other cost of revenues of $2.8 billion.

The increase in TAC from the three months ended June 30, 2022 to the three months ended June 30, 2023 was largely due to an increase in TAC paid to distribution partners, primarily driven by growth in revenues subject to TAC. TAC was relatively unchanged from the six months ended June 30, 2022 to the six months ended June 30, 2023. The TAC rate decreased from 21.7% to 21.6% from the three months ended June 30, 2022 to the three months ended June 30, 2023 and decreased from 21.8% to 21.5% from the six months ended June 30, 2022 to the six months ended June 30, 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 the three and six months ended June 30, 2022 to the three and six months ended June 30, 2023.

The increase in other cost of revenues from the three months ended June 30, 2022 to the three months ended June 30, 2023 was primarily due to increases in content acquisition costs, primarily for YouTube, and hardware costs. An overall increase in data center and other operations costs was partially offset by a reduction in depreciation expense due to the change in the estimated useful lives of our servers and certain network equipment.

The increase in other cost of revenues from the six months ended June 30, 2022 to the six months ended June 30, 2023 was primarily due to increases in content acquisition costs, primarily for YouTube, and data center and other operations costs. The overall increase in data center and other operations costs includes $700 million of charges related to employee severance associated with the reduction of our workforce and our office space optimization efforts, partially offset by a reduction in depreciation expense due to the change in the estimated useful lives of our servers and certain network equipment.

Research and Development

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Research and development expenses	$ 9,841	$ 10,588	$ 18,960	$ 22,056
Research and development expenses as a percentage of revenues	14 %	14 %	14 %	15 %

R&D expenses increased $747 million from the three months ended June 30, 2022 to the three months ended June 30, 2023 primarily driven by an increase in compensation expenses of $356 million and an increase in depreciation of $168 million. The $356 million increase in compensation expenses was largely the result of a 6% increase in average headcount, after adjusting for roles affected by the reduction in workforce, partially offset by a reduction in valuation-based compensation liabilities related to certain Other Bets. The $168 million increase in depreciation includes the benefit of the change in the estimated useful lives of our servers and network equipment.

R&D expenses increased $3.1 billion from the six months ended June 30, 2022 to the six months ended June 30, 2023 primarily driven by an increase in compensation expenses of $2.0 billion and an increase in depreciation of $294 million. The $2.0 billion increase in compensation expenses was largely the result of a 10% increase in average headcount, after adjusting for roles affected by the reduction in workforce, and $832 million in employee

severance charges associated with the reduction of our workforce. The $294 million increase in depreciation includes the 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):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Sales and marketing expenses	$ 6,630	$ 6,781	$ 12,455	$ 13,314
Sales and marketing expenses as a percentage of revenues	10 %	9 %	9 %	9 %

Sales and marketing expenses increased $151 million from the three months ended June 30, 2022 to the three months ended June 30, 2023 primarily driven by an increase in compensation expenses of $320 million, largely due to a combination of factors, none of which were individually significant.

Sales and marketing expenses increased $859 million from the six months ended June 30, 2022 to the six months ended June 30, 2023 primarily driven by an increase in compensation expenses of $1.1 billion, largely due to $444 million in employee severance charges associated with the reduction in our workforce and a 5% increase in average headcount, after adjusting for roles affected by the reduction in workforce.

General and Administrative

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
General and administrative expenses	$ 3,657	$ 3,481	$ 7,031	$ 7,240
General and administrative expenses as a percentage of revenues	5 %	5 %	5 %	5 %

General and administrative expenses decreased $176 million from the three months ended June 30, 2022 to the three months ended June 30, 2023, due to a combination of factors, none of which were individually significant.

General and administrative expenses increased $209 million from the six months ended June 30, 2022 to the six months ended June 30, 2023, primarily driven by an increase in compensation expenses of $319 million, largely due to $259 million in employee severance charges associated with the reduction in our workforce.

Segment Profitability

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Operating income (loss):				
Google Services	$ 21,621	$ 23,454	$ 43,594	$ 45,191
Google Cloud	(590)	395	(1,296)	586
Other Bets	(1,339)	(813)	(2,174)	(2,038)
Corporate costs, unallocated[(1)]	(239)	(1,198)	(577)	(4,486)
Total income from operations	$ 19,453	$ 21,838	$ 39,547	$ 39,253

(1) In addition to the Alphabet-level costs included in unallocated corporate costs, hedging gains (losses) related to revenue were $375 million and $3 million for the three months ended June 30, 2022 and 2023, respectively, and $653 million and $87 million for the six months ended June 30, 2022 and 2023, respectively. For the three and six months ended June 30, 2023, unallocated corporate costs include charges related to the reductions in our workforce and office space totaling $70 million and $2.6 billion, respectively.

Google Services

Google Services operating income increased $1.8 billion from the three months ended June 30, 2022 to the three months ended June 30, 2023 and increased $1.6 billion from the six months ended June 30, 2022 to the six months ended June 30, 2023. The increase in operating income was primarily driven by an increase in revenues, partially offset by an increase in compensation expenses and content acquisition costs. 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 $395 million for the three months ended June 30, 2023 compared to an operating loss of $590 million for the three months ended June 30, 2022 represents an increase of $985 million. Operating income of $586 million for the six months ended June 30, 2023 compared to an operating loss of $1.3 billion for the six months ended June 30, 2022 represents an increase of $1.9 billion. The increase in operating income was primarily driven by revenue growth, partially offset by an increase in compensation expenses. 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 $526 million from the three months ended June 30, 2022 to the three months ended June 30, 2023 and decreased $136 million from the six months ended June 30, 2022 to the six months ended June 30, 2023, primarily driven by a reduction in valuation-based compensation liabilities related to certain Other Bets.

Other Income (Expense), Net

The following table presents other income (expense), net (in millions):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Other income (expense), net	$ (439)	$ 65	$ (1,599)	$ 855

Other income (expense), net, increased $504 million from the three months ended June 30, 2022 to the three months ended June 30, 2023 primarily due to gains and losses on equity and debt securities and changes in interest income. In the three months ended June 30, 2023, we recognized $892 million of interest income and $398 million of net unrealized gains on marketable equity securities. This was partially offset by $689 million of net unrealized losses on non-marketable equity securities and $304 million of net losses on debt securities. In the three months ended June 30, 2022, we recognized $1.2 billion of net unrealized losses on marketable equity securities and $790 million of net losses on debt securities. This was partially offset by $911 million of net unrealized gains on non-marketable equity securities and $486 million of interest income.

Other income (expense), net, increased $2.5 billion from the six months ended June 30, 2022 to the six months ended June 30, 2023 primarily due to unrealized gains and losses on equity securities and changes in interest income. In the six months ended June 30, 2023, we recognized $1.7 billion of interest income. This was partially offset by $597 million and $478 million of net losses on debt securities and foreign currency exchange, respectively, and $468 million of net unrealized losses on non-marketable equity securities. In the six months ended June 30, 2022, we recognized $2.5 billion of net unrealized losses on marketable equity securities, and $1.2 billion of net losses on debt securities. This was partially offset by $1.4 billion of net unrealized gains on non-marketable equity securities.

See Note 6 of the Notes to Consolidated Financial Statements included in Item 1 of this Quarterly Report on Form 10-Q for further information.

Provision for Income Taxes

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2023	2022	2023
Income before provision for income taxes	$ 19,014	$ 21,903	$ 37,948	$ 40,108
Provision for income taxes	$ 3,012	$ 3,535	$ 5,510	$ 6,689
Effective tax rate	15.8 %	16.1 %	14.5 %	16.7 %

The effective tax rate increased from the three months ended June 30, 2022 to the three months ended June 30, 2023, primarily driven by changes in certain tax return positions, partially offset by a decrease in the tax rate due to reduced 2023 tax losses of certain subsidiaries for which there is no tax benefit.

The effective tax rate increased from the six months ended June 30, 2022 to the six months ended June 30, 2023, primarily driven by a decrease in the stock-based compensation-related tax benefit and changes in certain tax return positions.

On July 21, 2023 the IRS announced in a notice that taxpayers can temporarily apply the regulations in effect prior to 2022 related to U.S. federal foreign tax credits. This relief applies to foreign taxes paid or accrued in our fiscal years 2022 and 2023. We are currently evaluating the effect on our consolidated financial statements and expect to recognize any changes in our financial results for the period ending September 30, 2023.

Financial Condition

Cash, Cash Equivalents, and Marketable Securities

As of June 30, 2023, we had $118.3 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):

	Six Months Ended June 30,	
	2022	2023
Net cash provided by operating activities	$ 44,528	$ 52,175
Net cash used in investing activities	$ (13,238)	$ (13,746)
Net cash used in financing activities	$ (34,031)	$ (34,403)

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. Additionally, we generate cash through sales of apps and in-app purchases, and hardware; and licensing and service fees, including fees received for Google Cloud offerings and subscription-based products.

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 hardware, to tax authorities for income taxes, and other general corporate expenditures.

Net cash provided by operating activities increased from the six months ended June 30, 2022 to the six months ended June 30, 2023 due to the 2023 IRS payment deferral relief made available to taxpayers headquartered in designated counties in California, partially offset by increased cash payments for costs and 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 the six months ended June 30, 2022 to the six months ended June 30, 2023 as a result of an increase in net purchases of and maturities and sales of marketable securities, partially offset by a decrease in purchases of property and equipment.

Cash Used in Financing Activities

Cash provided by financing activities consists primarily of proceeds from issuance of debt and proceeds from the sale of interest 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 the six months ended June 30, 2022 to the six months ended June 30, 2023 primarily due to an increase in repurchases of stock partially offset by a decrease in net payments related to stock-based award activities.

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 qualified land and buildings, construct buildings, and secure and install information technology assets.

During the six months ended June 30, 2022 and 2023, we spent $16.6 billion and $13.2 billion on capital expenditures, respectively. We expect to continue to invest in our technical infrastructure, including servers, network equipment, and data centers, over the remainder of 2023 and into 2024 to support the growth of our business and our long-term initiatives, in particular in support of AI. 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 six months ended June 30, 2022 and 2023, our depreciation and impairment expenses on property and equipment were $7.3 billion and $6.3 billion, respectively.

Leases

For the six months ended June 30, 2022 and 2023, we recognized total operating lease assets of $2.2 billion and $1.7 billion, respectively. As of June 30, 2023, the amount of total future lease payments under operating leases, which had a weighted average remaining lease term of 8.2 years, was $18.2 billion. As of June 30, 2023, we have entered into leases that have not yet commenced with future lease payments of $2.9 billion, that are not yet recorded on our Consolidated Balance Sheets. These leases will commence between 2023 and 2027 with non-cancelable lease terms of 1 to 34 years. As of June 30, 2023 our actions to optimize our office space did not affect our operating lease obligations.

For the six months ended June 30, 2022 and 2023, our operating lease expenses (including variable lease costs) were $1.8 billion and $2.2 billion, respectively. Finance lease costs were not material for the six months ended June 30, 2022 and 2023.

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 June 30, 2023, we had no commercial paper outstanding.

As of June 30, 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 June 30, 2023, we had senior unsecured notes outstanding with a total carrying value of $12.9 billion. See Note 5 of the Notes to Consolidated Financial Statements included in Item 1 of this Quarterly Report on Form 10-Q for further information on our debt.

We primarily utilize contract manufacturers for the assembly of our servers used in our technical infrastructure and hardware products 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 hardware products. 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 1 of this Quarterly Report on Form 10-Q.

Share Repurchase Program

During the three and six months ended June 30, 2023, we repurchased and subsequently retired 131 million and 288 million shares for $15.1 billion and $30.2 billion, respectively. Of the aggregate amount repurchased and subsequently retired during the three months ended June 30, 2023, 17 million shares were Class A stock for $1.9 billion and 114 million shares were Class C stock for $13.2 billion. Of the aggregate amount repurchased and subsequently retired during the six months ended June 30, 2023, 37 million shares were Class A stock for $3.9 billion and 251 million shares were Class C stock for $26.3 billion.

In April 2022, the Board of Directors of Alphabet authorized the company to repurchase up to $70.0 billion of its Class A and Class C shares. The repurchases from the April 2022 authorization were completed during the second quarter of 2023. 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 June 30, 2023, $68.1 billion remains available for Class A and Class C share repurchases.

See Note 10 of the Notes to Consolidated Financial Statements included in Item 1 of this Quarterly Report on Form 10-Q.

The U.S. Inflation Reduction Act of 2022 was enacted on August 16, 2022 and requires a one percent excise tax on certain share repurchases in excess of shares issued for employee compensation made after December 31, 2022. We do not expect this provision to have a material effect on our consolidated financial statements.

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 further details, see Note 9 of the Notes to Consolidated Financial Statements included in Item 1 of this Quarterly Report on Form 10-Q.

Taxes

As of June 30, 2023, we had short-term and long-term income taxes payable of $3.6 billion and $2.2 billion 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 $6.6 billion primarily related to uncertain tax positions as of June 30, 2023.

As a result of the 2023 IRS payment deferral relief made available to taxpayers headquartered in designated counties in California, we are postponing our second and third quarter tax payments until the fourth quarter of 2023. See Note 6 of the Notes to Consolidated Financial Statements included in Item 1 of this Quarterly Report on Form 10-Q.

Purchase Commitments

As of June 30, 2023, we had material contractual obligations of $42.0 billion, of which $27.9 billion was short-term. These amounts 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 June 30, 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 9 of the Notes to Consolidated Financial Statements included in Item I of this Quarterly Report on Form 10-Q.

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

See Part II, Item 7, "Critical Accounting Estimates" in our Annual Report on Form 10-K for the year ended December 31, 2022.

Available Information

Our website is located at www.abc.xyz, and our investor relations website is located at www.abc.xyz/investor. Access to our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and our Proxy Statements, and any amendments to these reports, is available on our investor relations website, free of charge, after we file or furnish them with the SEC and they are available on the SEC's website at www.sec.gov.

We webcast via our investor relations website our earnings calls and certain events we participate in or host with members of the investment community. Our investor relations website also provides notifications of news or announcements regarding our financial performance and other items of interest to our investors, including SEC filings, investor events, press and earnings releases, and blogs. We also share Google news and product updates on Google’s Keyword blog at https://www.blog.google/, which may be of interest or material to our investors. Further, corporate governance information, including our certificate of incorporation, bylaws, governance guidelines, board committee charters, and code of conduct, is also available on our investor relations website under the heading "Governance." The content of our websites are not incorporated by reference into this Quarterly Report on Form 10-Q or in any other report or document we file with the SEC, and any references to our websites are intended to be inactive textual references only.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

For quantitative and qualitative disclosures about market risk, refer to Part II, Item 7A, Quantitative and Qualitative Disclosures About Market Risk, in our Annual Report on Form 10-K for the year ended December 31, 2022.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 under the Exchange Act, as of the end of the period covered by this Quarterly Report on Form 10-Q.

Based on this evaluation, our chief executive officer and chief financial officer concluded that, as of June 30, 2023, our disclosure controls and procedures are designed at a reasonable assurance level and are effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting that occurred during the quarter ended June 30, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

For a description of our material pending legal proceedings, see Note 9 “Commitments and Contingencies - Legal Matters” of the Notes to Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q, which is incorporated herein by reference.

ITEM 1A. RISK FACTORS

Our operations and financial results are subject to various risks and uncertainties, including those described in Part I, Item 1A, "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2022, which could adversely affect our business, financial condition, results of operations, cash flows, and the trading price of our stock.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

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 June 30, 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)
April 1 - 30	6,163	41,151	$ 106.53	$ 106.94	47,314	$ 78,059
May 1 - 31	5,490	38,571	$ 116.89	$ 116.97	44,061	$ 72,945
June 1 - 30	4,941	34,664	$ 123.29	$ 123.88	39,605	$ 68,070
Total	16,594	114,386			130,980	

(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. See Note 10 in Part I, Item 1 of this Quarterly Report on Form 10-Q for additional information related to share repurchases.

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

ITEM 5. OTHER INFORMATION

10b5-1 Trading Plans

During the fiscal quarter ended June 30, 2023, the following Section 16 officers adopted, modified or terminated “Rule 10b5-1 trading arrangements” (as defined in Item 408 of Regulation S-K of the Exchange Act):

- Amie Thuener O’Toole, Vice President, Corporate Controller and Principal Accounting Officer, adopted a new trading plan on May 31, 2023 (with the first trade under the new plan scheduled for September 5, 2023). The trading plan will be effective until September 9, 2024 to sell an aggregate of (i) 2,904 shares of Class C Capital Stock, plus (ii) 50% of the (net) shares resulting from the vesting of 32,093 additional (gross) Class C Capital Stock during the plan period (net shares are net of tax withholding).

- Kent Walker, President, Global Affairs, Chief Legal Officer and Secretary, effected a trading plan modification by terminating a trading plan on May 30, 2023, originally adopted on May 28, 2022, and adopting a new trading plan on May 31, 2023 (with the first trade under the new plan scheduled for September 5, 2023). The trading plan will be effective until February 27, 2026 to sell 100% of the (net) shares resulting from the vesting of 511,048 (gross) Class C Capital Stock during the plan period (net shares are net of tax withholding)*.

*In accordance with new SEC rules adopted on December 14, 2022, any modification or change to the amount, price, or timing of the purchase or sale of securities constitutes a termination of an existing Rule 10b5-1 trading arrangement and the adoption of a new Rule 10b5-1 trading arrangement.

There were no “non-Rule 10b5-1 trading arrangements” (as defined in Item 408 of Regulation S-K of the Exchange Act) adopted, modified or terminated during the fiscal quarter ended June 30, 2023 by our directors and Section 16 officers. Each of the Rule 10b5-1 trading arrangements are in accordance with our Policy Against Insider

Trading and actual sale transactions made pursuant to such trading arrangements will be disclosed publicly in Section 16 filings with the SEC in accordance with applicable securities laws, rules and regulations.

ITEM 6. EXHIBITS

Exhibit Number		Description	Incorporated by reference herein	
			Form	Date
10.01	◆	Alphabet Inc. Amended and Restated 2021 Stock Plan	Current Report on Form 8-K (File No. 001-37580)	June 8, 2023
10.02	◆ *	Alphabet Inc. Amended and Restated 2021 Stock Plan - Form of Alphabet 2023 Non-CEO Performance Stock Unit Agreement		
10.03	◆ *	Alphabet Inc. Amended and Restated 2021 Stock Plan - Form of Alphabet Restricted Stock Unit Agreement		
31.01	*	Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002		
31.02	*	Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002		
32.01	‡	Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002		
101.INS	*	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.		
101.SCH	*	Inline XBRL Taxonomy Extension Schema Document		
101.CAL	*	Inline XBRL Taxonomy Extension Calculation Linkbase Document		
101.DEF	*	Inline XBRL Taxonomy Extension Definition Linkbase Document		
101.LAB	*	Inline XBRL Taxonomy Extension Label Linkbase Document		
101.PRE	*	Inline XBRL Taxonomy Extension Presentation Linkbase Document		
104		Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)		

◆ Indicates management compensatory plan, contract, or arrangement.

* Filed herewith.

‡ Furnished herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

	ALPHABET INC.
July 25, 2023	By: /s/ RUTH M. PORAT
	Ruth M. Porat
	Senior Vice President and Chief Financial Officer
	ALPHABET INC.
July 25, 2023	By: /s/ AMIE THUENER O'TOOLE
	Amie Thuener O'Toole
	Vice President, Corporate Controller and Principal Accounting Officer

ALPHABET INC.
AMENDED AND RESTATED 2021 STOCK PLAN
ALPHABET PERFORMANCE STOCK UNIT AGREEMENT

This Alphabet Performance Stock Unit Agreement (this “**Agreement**”) is entered into as of the Grant Date (as defined below) by and between the Participant (as defined below) and Alphabet Inc., a Delaware corporation (“**Alphabet**”, and together with its Subsidiaries, the “**Company**”). Capitalized terms used but not otherwise defined in this Agreement shall have the meanings given to such terms in the Alphabet Inc. Amended and Restated 2021 Stock Plan (the “**Plan**”).

I. GRANTS

Pursuant to the Plan, Alphabet hereby awards grants of performance stock units (“**PSUs**,” and each grant of PSUs, a “**Grant**”). Certain details of the PSUs, specifically the name of the individual being granted PSUs under this Agreement (the “**Participant**”), the date on which the PSUs subject to this Agreement are granted (the “**Grant Date**”), the number of PSUs granted (the “**Target Award**”) and the Performance Period during which the PSUs are earned (collectively, the “**PSU Details**”) are accessible to the Participant through the Participant’s brokerage account and the PSU Details are hereby incorporated into this Agreement by reference. Each PSU represents the right to receive one share of Capital Stock, subject to the terms and conditions of the Plan and this Agreement, including any additional terms and conditions for the jurisdiction in which the Participant resides and/or works contained in Exhibit B or any other appendix hereto (the “**Appendix**”). The number of PSUs earned under each Grant may be equal to, greater than or less than its Target Award (including zero).

II. TERMS OF PSUs

1. Vesting of PSUs.

(a) In General. Except as otherwise provided in subsections (b) and (c) below, the number of PSUs (if any) earned by the Participant under each Grant based on Alphabet’s performance against the Performance Goals (as defined in Exhibit A) during the applicable Performance Period as determined by the Committee in accordance with Exhibit A (each, a “**Final Award**”) will vest on the Determination Date (as defined in Exhibit A) for such Grant, subject to the Participant’s continued employment with, or service to, the Company through such date, and be settled in accordance with Section II.2 below, and any unvested PSUs will be forfeited as of the Determination Date and the Participant will have no further rights to such unvested PSUs. In the event the Participant ceases to be employed by, or ceases to provide services to, the Company prior to the Determination Date for a Grant for any reason other than (i) death (as set forth in subsection (b) below) or (ii) termination by the Company without Cause (as set forth in subsection (c) below), all of the then outstanding and unvested PSUs granted under this Agreement will be forfeited effective as of the date that the Participant ceases to be employed by, or ceases to provide services to, the Company (the “**Termination Date**”) and the Participant will have no further rights to such unvested PSUs. Prior to any actual delivery of shares of Capital Stock pursuant to the PSUs, the PSUs represent an unfunded, unsecured obligation of the Company, payable (if at all) only from the general assets of the Company.

(b) Death of the Participant. In the event that the Participant ceases to be employed by, or ceases to provide services to, the Company as a result of the Participant’s death (i)(x) prior to the start of the Performance Period of a Grant or during the Performance Period of a Grant, then the Target Award in respect of such Grant shall immediately vest as of the Termination Date or (y) following the end of the Performance Period of a Grant but prior to its Determination Date, then the Final Award (as determined by the Committee in accordance with Exhibit A) in respect of such Grant shall immediately vest as of such Determination Date and (ii) any delivery of shares of Capital Stock to be made to the Participant under this Agreement will be made, subject to satisfaction of all applicable Tax-Related Items, as described in Section II.4 below, to the Participant's designated beneficiary; provided, that, such beneficiary has been designated prior to the Participant's death; in the absence of any such effective designation, the shares will be delivered to the administrator or executor of the Participant's estate. Any such administrator or executor must furnish Alphabet with (A) written notice of his or her status as transferee, (B) a copy of the will and/or such evidence as the Committee may deem necessary to establish the validity of the transfer, and (C) an agreement by the transferee to comply with all the terms and conditions of PSUs that are or would be applicable to the Participant and to be bound by the acknowledgments made by the Participant hereunder. Delivery of the shares of Capital Stock in respect of PSUs vesting pursuant to this Section II.1(b) will be made as soon as practicable following the Termination Date or the Determination Date, as applicable, but in no event later than forty-five (45) days following such date and the Company shall have no further obligations under this Agreement.

(c) Termination of the Participant without Cause. In the event that the Participant ceases to be employed by, or ceases to provide services to, the Company as a result of the Company's termination of the Participant's employment or services without Cause prior to the Determination Date for a Grant, then the number of PSUs (if any) calculated by multiplying the Final Award (as determined by the Committee in accordance with Exhibit A) in respect of such Grant by a fraction, the numerator of which is the number of calendar days during the Performance Period during which the Participant was employed by, or providing services to, the Company and the denominator of which is the aggregate number of calendar days in the Performance Period, will vest and be settled in accordance with Section II.2 below and any unvested PSUs will be forfeited as of the Determination Date and the Participant will have no further rights to such unvested PSUs; provided, that if the Termination Date occurs prior to the start of the Performance Period of a Grant, all PSUs under the Grant will be immediately forfeited as of the Termination Date and the Participant will have no further rights to such PSUs.

For purposes of this Agreement, "**Cause**" means any of the following: (i) a willful failure by Participant, in the good faith judgment of the Board, to substantially perform the duties associated and consistent with the scope of the Participant's position; (ii) the Participant's refusal to implement or follow a lawful directive from the Board or CEO; (iii) the Participant's breach of fiduciary duty to the Company; (iv) the Participant's material breach of any written agreement between the Participant and the Company, including, without limitation, any applicable At-Will Employment, Confidential Information and Invention Assignment Agreement; (v) the Participant's intentional engagement in conduct that is materially injurious to the Company (economically or reputationally), including but not limited to, misappropriation of trade secrets or any other tangible or intangible property of the Company, fraud or embezzlement, but excluding any conduct by Participant that is consistent with or pursuant to a lawful directive of the Board or CEO; (vi) the Participant's material violation of a material provision of the Code of Conduct or any policy of Alphabet, Google LLC or any other affiliate of Alphabet that is applicable to the Participant (e.g., policy against sexual harassment, Alphabet's Policy Against Insider Trading (the "Trading Policy"), etc.); (vii) the Participant's material violation of any federal or state law or regulation applicable to the business of the Company; (viii) the Participant's violation of any securities laws, rules or regulations, or the rules and regulations of any securities exchange or association of which the Company is a member, failure to cooperate with the Company in any investigation or formal proceeding or being found liable in a Securities and Exchange Commission enforcement action or otherwise being disqualified from serving in the Participant's position; (ix) the Participant's engaging in gross misconduct; (x) a substantiated finding by the Company (or its delegate) of sexual harassment, sexual misconduct or retaliation; (xi) the Participant being under investigation for sexual harassment, sexual misconduct or retaliation; or (xii) the Participant's commission of a felony under the laws of the United States or any state thereof or any comparably-classified crime under the laws of a non-US jurisdiction or other serious crime involving moral turpitude. Notwithstanding the foregoing, termination of the Participant's employment or service under (i), (ii), (iii), (iv) or (vi) (only) above will not be for “Cause” unless the Company determines in its sole discretion that the conduct alleged to constitute “Cause” is susceptible of cure or remedy; and, if so, the Participant: (a) is provided with written notice setting forth with specificity the conduct alleged to constitute “Cause,” (b) is provided not less than 30 days following such notice (the “Cure Period”) to cure or remedy such conduct prior to the effective date of the Participant's termination of employment or services, during which period the Participant shall be provided the opportunity at the Participant’s election to address the Board with respect to such conduct (with the assistance of legal counsel, if requested) and (c) fails to cure or remedy such conduct during the Cure Period.

2. Settlement of PSUs. Settlement of vested PSUs in respect of a Grant shall occur as soon as practicable following the applicable Determination Date, but in no event later than forty-five (45) days following such Determination Date, and the Company shall have no further obligations under such Grant. Alphabet will settle vested PSUs by issuing (either in book-entry form or otherwise) to the Participant (or the Participant’s beneficiary or estate, in the event of the Participant’s death), one share of Capital Stock for each vested PSU, subject to satisfaction of all applicable Tax-Related Items, as described in Section II.4 below.

3. Adjustment Upon Certain Changes. In the event of any transaction or other event described in Section 9 of the Plan, each Grant shall be treated the same way as all other performance stock units issued under the Plan held by the executive officers of Alphabet in office at the time of such event; provided, that in addition to any actions taken by the Committee in respect of such awards pursuant to Sections 9(c) and (d) of the Plan, to the extent determined by the Committee to be necessary and appropriate in its sole discretion, the number of PSUs subject to each Grant will be fixed at its Target Award.

4. Taxes.

(a) Liability for Tax-Related Items. The Participant acknowledges that the Participant is ultimately liable and responsible for any and all income taxes (including federal, state and local income taxes), payroll taxes and other tax-related withholding (the “**Tax-Related Items**”) arising in connection with PSUs, regardless of any action the Company takes with respect to such Tax-Related Items. The Participant further acknowledges that the Company (i) does not make any representation or undertaking regarding the treatment of any Tax-Related Items in connection with any aspect of PSUs, including the grant, vesting and settlement of PSUs under any Grant, or the subsequent sale of shares of Capital Stock acquired upon settlement of any PSUs and (ii) does not commit, and is under no obligation, to structure the terms of PSUs or any aspect of PSUs under any Grant to reduce or eliminate the Participant’s liability for Tax-Related Items or achieve any particular tax result.

(b) Payment of Withholding Taxes. Alphabet shall, pursuant to such procedures as the Committee may specify from time to time, withhold a number of shares of Capital Stock otherwise issuable upon settlement of any vested PSUs having an aggregate Fair Market Value sufficient to satisfy the federal, state and local withholding tax requirements attributable to vested PSUs but not greater than the withholding obligations, as determined by the Committee in its discretion; provided, that, the Committee hereby reserves the discretion to amend this Agreement by notice to the Participant and without obtaining the Participant’s consent, to allow the Committee to use any one or more methods permitted by the Plan to satisfy the federal, state and local withholding tax requirements attributable to the PSUs being settled.

5. Rights as Stockholder. Neither the Participant nor any person claiming under or through the Participant will have any of the rights or privileges of a stockholder of Alphabet in respect of any shares of

Capital Stock deliverable pursuant to PSUs unless and until such shares of Capital Stock have been issued on the records of Alphabet or its transfer agents or registrars. After such issuance, the Participant will have all the rights as a stockholder of Alphabet with respect to such shares of Capital Stock.

Notwithstanding the foregoing, in the event that any dividend or other distribution is declared and paid on shares of Capital Stock after the Grant Date (the date of such dividend or other distribution, the "**Dividend Payment Date**"), dividend equivalents in the form of additional PSUs shall be credited to the Participant. The number of additional PSUs to be credited as dividend equivalents to such Participant shall be determined (x) to the extent the dividend or other distribution is in the form of cash, by dividing (A) the product of (i) the total number of outstanding and unsettled Target Award PSUs held by the Participant immediately prior to the Dividend Payment Date, and (ii) the per-share amount of the dividend paid on shares of Capital Stock on the Dividend Payment Date, by (B) the Fair Market value of a share of Capital Stock on the Dividend Payment Date and (y) to the extent the dividend is in the form of Capital Stock, by multiplying (x) the total number of outstanding and unsettled Target Award PSUs held by the Participant immediately prior to the Dividend Payment Date and (y) the number of shares of Capital Stock paid as a dividend per share of Capital Stock. Any additional PSUs credited to the Participant under this Section 5 as dividend equivalents shall be subject to the restrictions and conditions that apply to the PSUs with respect to which such additional PSUs are credited and will be earned and payable if and when the underlying PSU becomes earned and payable, including taking into account the percentage of Target Award earned per Exhibit A. If the underlying PSU does not vest or is otherwise forfeited, any additional PSUs credited under this Section 5 with respect to the underlying PSU will also fail to vest and be forfeited. Notwithstanding anything herein to the contrary, the Committee may specify an alternative form of dividend equivalents from that specified herein with respect to any such dividend or other distribution.

6. No Special Employment Rights; No Right to Future Awards. Nothing contained in this Agreement shall confer upon the Participant any right with respect to the continuation of the Participant's employment by, or service to, the Company or interfere in any way with the right of the Company at any time to terminate such employment or service or to increase or decrease the compensation of the Participant from the rate in existence at the Grant Date. The award of the Grants is at the sole discretion of Alphabet and does not create any contractual or other right to receive future grants of PSUs, or benefits in lieu of PSUs, even if PSUs have been awarded to the Participant repeatedly in the past.

7. PSUs Not Transferable. Except to the limited extent provided in Section II.1(b) above, PSUs and the rights and privileges conferred under the Grants awarded hereby may not be transferred, assigned, pledged or hypothecated in any way by the Participant (whether by operation of law or otherwise) and may not be subject to sale under execution, attachment or similar process. Any attempt by the Participant to transfer, assign, pledge, hypothecate or otherwise transfer PSUs, or any right or privilege conferred under the Grants awarded hereby, and any attempted sale under any execution, attachment or similar process, shall be void and unenforceable against the Company.

Notwithstanding the immediately preceding paragraph, and subject to the terms and conditions of this paragraph, the Participant may, with the Company's express written consent, transfer all or a portion of any unvested Grants (but only a whole number of PSUs subject to any Grant) into one or more trusts for the purposes of estate planning (the "**Trust**"). Any Trust must: (a) be subject to any and all terms and conditions of the Plan and this Agreement, including, but not limited to, Section II.1 of this Agreement; (b) be described in General Instruction A.1(a)(5) of Form S-8; (c) not provide Participant with any consideration in connection with a transfer permitted under this paragraph; and (d) if requested by the Company, comply with the Trading Policy (as it may be amended from time to time). The Participant acknowledges and agrees that the Company has not made, and does not make in connection with the Grants made under this Agreement, any representations under any applicable law, including, but not limited to, federal or state tax, securities, property, probate or other estate laws, and that the Participant is solely responsible for compliance with all such applicable laws, with respect to any Grants or PSUs transferred into a Trust as permitted under this paragraph.

8. Modification; Entire Agreement; Waiver. No modification of any provision of this Agreement which reduces the Participant's rights hereunder will be valid unless the same is agreed to in writing by the parties hereto. This Agreement, including Exhibit A and the Appendix in Exhibit B, together with the Plan, represent the entire agreement between the parties with respect to the PSUs awarded by the Grants hereunder. The failure of Alphabet to enforce at any time any provision of this Agreement will in no way be construed to be a waiver of such provision or of any other provision hereof. Alphabet reserves the right, however, to the extent Alphabet deems necessary or advisable in its sole discretion, to unilaterally alter or modify the terms of the Grants awarded under this Agreement in order to ensure that PSUs either qualify for exemption from, or comply with, the requirements of Section 409A of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder ("**Section 409A**"); provided, however that the Company makes no representations that PSUs will be exempt from, or will comply with, the requirements of Section 409A.

9. Binding Agreement. Subject to the limitation on the transferability of PSUs contained herein, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

10. Additional Conditions to Issuance of Shares of Capital Stock. Alphabet shall not be required to issue any shares of Capital Stock hereunder prior to fulfillment of all of the following conditions: (a) the completion of any registration or other qualification of such shares of Capital Stock under any federal, state or local law or under the rulings or regulations of the Securities and Exchange Commission or any other governmental regulatory body, or under any stock exchange on which the shares of Capital Stock are listed for trading, which the Committee shall, in its absolute discretion, deem necessary or advisable; (b) the obtaining of any approval or other clearance from any federal, state or local governmental agency, which the Committee shall, in its absolute discretion, determine to be necessary or advisable; and (c) the lapse of such reasonable period of time not to exceed forty-five (45) days following a Determination Date as the Committee may establish from time to time for reasons of administrative convenience.

11. Plan Governs. This Agreement is subject in all respects to all terms and provisions of the Plan and the Plan document is hereby incorporated into this Agreement. In the event of a conflict between one or more provisions of this Agreement and one or more provisions of the Plan, the provisions of the Plan will control.

12. Policy Against Insider Trading; Recoupment.

(a) By accepting the Grants, the Participant acknowledges that (i) a copy of the Trading Policy has been made available to the Participant, (ii) the Participant has had an opportunity to review the Trading Policy and (iii) the Participant is bound by all the terms and conditions of the Trading Policy.

(b) By accepting the Grants, the Participant agrees that (i) incentive-based compensation paid to the Participant pursuant to this Agreement may be subject to recoupment or clawback to the extent permitted or required by applicable law (A) in the event of a restatement of financial statements due to material noncompliance with any financial reporting requirement as a result of misconduct by any person or (B) as may be required by any applicable listing standards of a national securities exchange adopted in accordance with Section 954 of the Dodd-Frank Wall Street Reform and Consumer Protection Act and any implementing rules and regulations of the U.S. Securities and Exchange Commission adopted thereunder, and (ii) by accepting the Grants pursuant to the Plan and this Agreement, Participant authorizes such clawback and agrees to comply with any Company request or demand for such recoupment.

13. Committee Authority. The Committee has full discretionary authority to administer the Plan, including discretionary authority to interpret and construe any and all provisions of the Plan and this Agreement and to adopt and amend from time to time such rules and regulations for the administration of the Plan as the Committee may deem necessary or appropriate. All actions taken and all interpretations and determinations made by the Committee will be final and binding upon the Participant, the Company and all other interested persons.

14. Captions. Captions provided herein are for convenience only and shall not affect the scope, meaning, intent or interpretation of the provisions of this Agreement.

15. Severability. In the event that any provision in this Agreement is held to be invalid or unenforceable for any reason, such provision will be severable from, and such invalidity or unenforceability will not be construed to have any effect on, the remaining provisions of this Agreement.

16. Governing Law. This Agreement shall be construed and administered in accordance with the laws of the State of California without regard to its conflict of law principles.

17. Section 409A Compliance. It is intended that the Plan and the Agreement comply with, or be exempt from, the requirements of Section 409A and any related guidance promulgated with respect to such Section by the U.S. Department of the Treasury or the Internal Revenue Service. Accordingly, to the maximum extent permitted, this Agreement shall be interpreted and administered to be in compliance therewith or exempt therefrom. Notwithstanding anything contained herein to the contrary, to the extent required in order to avoid accelerated taxation and/or tax penalties under Section 409A, the Participant shall not be considered to have terminated employment with, or service to, the Company for purposes of this Agreement until the Participant would be considered to have incurred a "separation from service" from the Company within the meaning of Section 409A. Each amount to be paid or benefit to be provided pursuant to this Agreement shall be construed as a separate identified payment for purposes of Section 409A.

18. Employee Data Privacy.

(a) The Company is located at 1600 Amphitheatre Parkway, Mountain View, CA 94043, U.S.A., and grants employees of the Company and its affiliates PSUs at the Company's sole discretion. If the Participant would like to be eligible to participate in the Plan, the Participant should review and accept the following information about the Company's data processing practices.

(b) Data Collection and Usage. The Company collects, processes and uses the Participant's personal data, including, name, home address and telephone number, date of birth, social insurance number or other identification number, salary, citizenship, job title, any shares of stock or directorships held in the Company, and details of all PSUs cancelled, vested, unvested or outstanding in the Participant's favor, which the Company receives from the Participant or the Participant's employer. If the Company offers the Participant a grant of PSUs under the Plan, then the Company will collect the Participant's personal data for purposes of implementing, administering and managing the Plan. The Company's legal basis for the processing of the Participant's personal data would be his or her consent.

(c) Stock Plan Administration Service Providers. The Company may transfer personal data to third parties which assist the Company with the implementation, administration and management of the Plan, including Charles Schwab & Co., Inc., Morgan Stanley Smith Barney, LLC, and/or such other third parties as may be selected by the Company. In the future, the Company may select a different service provider and disclose the Participant's data with another company that serves in a similar manner. The Company's service provider will open an account for the Participant to receive and trade shares of Capital Stock. The Participant will be asked to agree on separate terms and data processing practices with the service provider, which is a condition to the Participant's ability to participate in the Plan.

(d) International Data Transfers. The Company and its service providers are based in the United States. If the Participant is outside the United States, the Participant should note that his or her country may have enacted data privacy laws that are different from those of the United States. The Company's legal basis for the transfer of personal data is the Participant's consent.

(e) Data Retention. The Company will use the Participant's personal data only as long as is necessary to implement, administer and manage the Participant's participation in the Plan or as required to comply with legal or regulatory obligations, including under applicable tax and securities laws. When the Company no longer needs the personal data, the Company will remove it from its systems. If the Company keeps data longer, it would be to satisfy legal, tax or regulatory obligations and the Company's legal basis would be relevant laws or regulations.

(f) Voluntariness and Consequences of Consent Denial or Withdrawal. The Participant's participation in the Plan and grant of consent is purely voluntary. The Participant may deny or withdraw his or her consent at any time. If the Participant does not consent, or if the Participant withdraws his or her consent, the Participant may not be able to participate in the Plan. This would not affect the Participant's salary from or employment with the Participant's employer; the Participant would merely forfeit the opportunities associated with the Plan.

(g) Data Subject Rights. The Participant may have a number of rights under data privacy laws in his or her country. Depending on where the Participant is based, the Participant's rights may include the right to (a) request access to or copies of personal data the Company processes, (b) rectification of incorrect data, (c) deletion of data, (d) restrictions on processing, (e) portability of data, (f) lodge complaints with competent authorities in the Participant's country, and/or (g) request a list with the names and addresses of any potential recipients of personal data. To receive clarification regarding the Participant's rights or to exercise your rights, please contact gem-help@google.com.

(h) Additional Consents. Upon request of the Company or if different, the Participant's employer, the Participant agrees to provide a separate executed data privacy consent form (or any other agreements or consents that may be required by the Company and/or the Participant's employer) that the Company and/or the Participant's employer may deem necessary to obtain from the Participant for the purpose of administering the Participant's participation in the Plan in compliance with the data privacy laws in the Participant's country, either now or in the future. The Participant understands and agrees that the Participant may not be able to participate in the Plan if he or she fails to provide any such consent or agreement requested by the Company and/or the Participant's employer.

(i) Supplemental Notice at Collection for California Residents. The following additional disclosures are addressed and only apply to a Participant who resides in California. The categories of personal information that the Company collects from the Participant correspond with the following categories of "personal information" as defined in the California Consumer Privacy Act ("CCPA"): identifiers; any information that identifies, relates to, describes, or is capable of being associated with, a particular individual; characteristics of protected classifications under California or federal law (namely, age); commercial information; and professional or employment related information. The Company collects from the Participant the following category of "sensitive personal information" as defined in the CCPA: social security, driver's license, state identification card and/or passport number. The Company does not use such sensitive personal

information to infer characteristics about the Participant and only uses such sensitive personal information for the purposes referenced in subsection 1798.121(a) of the CCPA. The Company does not "sell" or "share" the Participant's "personal information" as the CCPA defines these terms. The Company's CCPA Privacy Policy is available at go/epp.

19. Appendix. Notwithstanding any provisions in this Agreement, if the Participant resides and/or works outside of the United States, certain additional general terms and conditions as set forth in the Appendix in Exhibit B will apply to the Participant. In addition, the PSUs shall be subject to any additional terms and conditions set forth in the Appendix for the jurisdiction in which the Participant resides and/or works. If the Participant relocates from the United States to a country outside the United States or relocates between the jurisdictions specified in the Appendix, the additional general and country-specific terms and conditions, as applicable, will apply to the Participant, to the extent that Alphabet determines that the application of such terms and conditions is necessary or advisable in order to comply with local law or facilitate the administration of the Plan. The Appendix constitutes part of this Agreement.

20. Acceptance. The Participant must accept the Grants and agree to the terms and conditions of the Grants as set forth in the Plan and this Agreement (including Exhibit A and Exhibit B), by electronically accepting this Agreement immediately following the Grant Date.

EXHIBIT A

A.Performance Goals. The number of PSUs that may be earned under each Grant will be determined based on Alphabet's achievement of Threshold, Target or Maximum levels ("**Performance Goals**") of cumulative total shareholder return ("**TSR**") vs. the respective TSRs of the constituent companies in the S&P 100 Index (the "**S&P 100 Index Companies**") (the "**TSR Performance**") over the Performance Period in respect of such Grant. The terms "Threshold," "Target" and "Maximum," when used in this Exhibit A to describe Alphabet's TSR Performance, are defined below:

Performance Goals	Alphabet's Percentile Rank Relative to Peer Companies	Percentage of Target Award Earned (straight-line interpolation between Threshold and Target; and Target and Maximum)
Minimum	Below 25th percentile	0%
Threshold	At 25th percentile	50%
Target	At 50th percentile	100%
Maximum	At or above 75th percentile	200%

TSR Performance for Alphabet and for the S&P 100 Index Companies (each, a "**Peer Company**") shall be calculated as follows:

$$\frac{\text{(Ending Average Share Price – Starting Average Share Price) + Dividends Reinvested}}{\text{Starting Average Share Price}}$$

Where:

Starting Average Share Price for both Alphabet and the Peer Companies is equal to the average closing price for each trading day in the 90 calendar day period ending on the calendar day immediately preceding the first day of the Performance Period (inclusive of such calendar day).

Ending Average Share Price for both Alphabet and the Peer Companies is equal to the average closing price for each trading day in the 90 calendar day period ending on the last calendar day of the Performance Period (inclusive of such last calendar day).

The Peer Companies are those companies (other than Alphabet) comprising the S&P 100 Index on the Grant Date adjusted as follows in the event of certain corporate events in connection with the Peer Companies:

Merger with Company in Peer Group	In the event of a merger, acquisition or business combination transaction of a Peer Company with or by another Peer Company, the surviving entity shall remain a Peer Company
Merger with Company not in Peer Group where Peer Company survives	In the event of a merger of a Peer Company with an entity that is not a Peer Company, or the acquisition or business combination transaction of a Peer Company by an entity that is not a Peer Company, in each case where the Peer Company is the surviving entity and remains publicly traded, the surviving entity shall remain a Peer Company
Merger with Company not in Peer Group where Peer Company is not the survivor/Peer Company taken private	In the event of a merger or acquisition or business combination transaction of a Peer Company by or with an entity that is not a Peer Company or a "going private" transaction involving a Peer Company where the Peer Company is not the surviving entity or is otherwise no longer publicly traded, the company shall no longer be a Peer Company
Bankruptcy, Liquidation or Delisting	In the event of a bankruptcy, liquidation or delisting of a Peer Company at any time during the Performance Period, such company shall remain a Peer Company and be assigned a TSR of -100%. Delisting shall mean that a company ceases to be publicly traded on a national securities exchange as a result of any involuntary failure to meet the listing requirements of such national securities exchange, but shall not include delisting as a result of any voluntary going private or similar transaction.
Spin-off Transaction	In the event of a stock distribution from a Peer Company consisting of the shares of a new publicly-traded company (a "spin-off"), the Peer Company shall remain a Peer Company and the stock distribution shall be treated as a dividend from the Peer Company based on the fair market value of the distribution on the date of such distribution; the performance of the shares of the spun-off company shall not thereafter be tracked for purposes of calculating TSR

Dividends Reinvested for both Alphabet and the Peer Companies shall mean dividends paid with respect to an ex-dividend date that occurs beginning from the date when the Starting Average Share Price is measured through the end of the Performance Period (whether or not the dividend payment date occurs during this period), which shall be deemed to have been reinvested in the underlying Capital Stock or common shares, as applicable.

For TSR Performance, should Alphabet fail to achieve at least Threshold, zero percent (0%) of the Target Award shall be earned. Should Alphabet achieve (a) Threshold, fifty percent (50%) of the Target Award shall be earned, (b) Target, one hundred percent (100%) of the Target Award shall be earned, or (c) Maximum (or greater), two hundred percent (200%) of the Target Award shall be earned. Should Alphabet achieve a TSR Performance level that falls between Threshold and Target or between Target and Maximum, the percentage of the Target Award that shall be earned will be based upon straight-line interpolation between such Performance Goals, rounded up to the nearest whole share of Capital Stock.

B. Determination and Approval of Final Award. Within forty-five (45) days following the last day of the Performance Period, the Committee shall determine achievement in respect of the Performance Goals (the date of such determination, the "**Determination Date**") and shall calculate and approve the Final Award in respect of such Grant. Any PSUs that are determined not to be earned by the Committee under such Grant will be forfeited as of the Determination Date and the Participant will have no further rights to such PSUs.

The Committee, in its sole discretion, shall make all determinations regarding the Performance Goals, including, but not limited to, the extent of achievement, and any adjustments to the calculation of TSR of Alphabet or the Peer Companies, as necessary or appropriate. Determinations made by the Committee will be final and binding on all parties and will be given the maximum discretion permitted by law.

<u>EXHIBIT B</u>

APPENDIX OF
ADDITIONAL TERMS AND CONDITIONS FOR
PARTICIPANTS OUTSIDE THE U.S.

ALPHABET INC.
AMENDED AND RESTATED 2021 STOCK PLAN

ALPHABET PERFORMANCE STOCK UNIT AGREEMENT

This Appendix, which is part of the Alphabet Performance Stock Unit Agreement (the "**Agreement**"), contains additional "terms and conditions" that will apply to the Participant if he or she resides outside the United States. The terms and conditions in Part A of this Appendix apply to *all* Participants who reside outside the United States. The additional terms and conditions in Part B of this Appendix will also apply to the Participant if he or she resides in one of the countries referenced in Part B. Capitalized terms used but not defined herein shall have the same meanings assigned to them in the Plan and/or the Agreement.

Further, this Appendix includes information regarding certain other issues of which the Participant should be aware with respect to his or her participation in the Plan. The information is based on the laws in effect in the respective countries as of April 2023. Such laws are often complex and change frequently, and the information in this Appendix may be outdated when the PSUs vest and/or are settled and/or the Participant sells any shares of Capital Stock issued pursuant to the vested PSUs.

Participant may also be subject to reporting, notification or other obligations related to foreign asset/account reporting, exchange control or other laws not described in this Appendix. Alphabet therefore strongly recommends that the Participant not rely on the information in this Appendix as the only source of information relating to the consequences of his or her participation in the Plan.

In addition, the information contained in this Appendix is general in nature and may not apply to the Participant's particular situation. As a result, Alphabet cannot assure the Participant of any particular result. *The Participant is therefore advised to seek appropriate professional advice as to how the relevant laws in the Participant's country may apply to his or her situation.*

Finally, if the Participant is a citizen or resident of a country, or is considered a resident of a country, other than that in which he or she is currently working, or transfers residence and/or employment after the Grant Date, the information contained herein may not apply to the Participant in the same manner.

A. ALL COUNTRIES OUTSIDE THE UNITED STATES

TERMS AND CONDITIONS

The following additional terms and conditions will apply to the Participant if he or she resides in any country outside the United States.

Taxes. ***The following language replaces Part II, Section 4(a) and 4(b) of the Agreement:***

The Participant acknowledges that, regardless of any action Alphabet or the Participant's employer (the "**Employer**") takes with respect to any or all income tax, social insurance, payroll tax, fringe benefits tax, payment on account or other tax-related items related to the Participant's participation in the Plan and legally applicable to the Participant or deemed applicable to the Participant (the "**Tax-Related Items**"), the ultimate liability for all Tax-Related Items is and remains his or her responsibility and may exceed the amount actually withheld by Alphabet or the Employer. The Participant further acknowledges that Alphabet and/or the Employer (1) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the PSUs or the underlying shares of Capital Stock, including, but not limited to, the grant, vesting or settlement of the PSUs, the issuance of shares of Capital Stock upon settlement of the PSUs, the subsequent sale of shares of Capital Stock acquired pursuant to such issuance and the receipt of any dividends and/or any dividend equivalents; and (2) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the PSUs to reduce or eliminate the Participant's liability for Tax-Related Items or achieve any particular tax result. Further, if the Participant has become subject to tax in more than one jurisdiction, the Participant acknowledges that Alphabet and/or the Employer (or former employer, as applicable) may be required to withhold or account for Tax-Related Items in more than one jurisdiction.

Unless the Participant is a Section 16 Person, prior to any relevant taxable or tax withholding event, as applicable, the Participant will pay or make adequate arrangements satisfactory to Alphabet and/or the Employer to satisfy all Tax-Related Items. In this regard, the Participant authorizes Alphabet and/or the Employer, or their respective agents, at their discretion, to satisfy any applicable withholding obligations or rights with regard to all Tax-Related Items by one or a combination of the following:

(a) withholding from the Participant's wages or other cash compensation paid to him or her by Alphabet and/or the Employer; or

(b) requiring the Participant to make a payment in a form acceptable to Alphabet in an amount equal to the withholding obligations for Tax-Related Items; or

(c) withholding from proceeds of the sale of shares of Capital Stock acquired upon vesting/settlement of the PSUs either through a voluntary sale or through a mandatory sale arranged by Alphabet (on the Participant's behalf pursuant to this authorization without further consent); or

(d) withholding in shares of Capital Stock to be issued upon vesting/settlement of the PSUs.

If the Participant is a Section 16 Person at the time the PSUs, or a portion thereof, are settled, or at the time of any other relevant taxable or tax withholding event under the Plan, as applicable, then Part II, Section 4(b) of the Agreement shall govern with respect to satisfaction of all Tax-Related Items.

Alphabet may withhold or account for Tax-Related Items by considering applicable minimum statutory withholding rates or other applicable withholding rates, including maximum applicable rates in the Participant's country, in which case the Participant may receive a refund of any over-withheld amount in cash (with no entitlement to the Capital Stock equivalent), or if not refunded, the Participant may seek a refund from the local tax authorities. In the event of under-withholding, the Participant may be required to pay any additional Tax-Related Items directly to the applicable tax authority or to Alphabet and/or the Employer. If the obligation for Tax-Related Items is satisfied by withholding in shares of Capital Stock, for tax purposes, the Participant will be deemed to have been issued the full number of shares of Capital Stock subject to the vested PSUs, notwithstanding that a number of the shares of Capital Stock is held back solely for the purpose of paying the Tax-Related Items due as a result of any aspect of the Participant’s participation in the Plan.

Finally, the Participant agrees to pay to Alphabet or the Employer any amount of Tax-Related Items that Alphabet or the Employer may be required to withhold or account for as a result of his or her participation in the Plan that cannot be satisfied by the means previously described. Alphabet may refuse to issue or deliver the shares of Capital Stock or the proceeds of the sale of shares of Capital Stock, if the Participant fails to comply with his or her obligations in connection with the Tax-Related Items.

Nature of Grant. In accepting the PSUs, the Participant acknowledges, understands and agrees that:

(a) the Plan is established voluntarily by Alphabet, it is discretionary in nature and it may be modified, amended, suspended or terminated by Alphabet at any time, to the extent permitted by the Plan;

(b) the PSU grant is exceptional, voluntary and occasional and does not create any contractual or other right to receive future grants of PSUs, or benefits in lieu of PSUs, even if PSUs have been granted in the past;

(c) all decisions with respect to future PSU grants, if any, will be at the sole discretion of Alphabet;

(d) the PSU grant and the Participant’s participation in the Plan shall not create a right to employment or other service relationship with Alphabet;

(e) the PSU grant and the Participant's participation in the Plan shall not be interpreted as forming or amending an employment or service contract with Alphabet or the Employer, and shall not interfere with the ability of Alphabet, the Employer or any Subsidiary or affiliate of Alphabet, as applicable, to terminate the Participant's employment or service relationship;

(f) the Participant is voluntarily participating in the Plan;

(g) the PSUs and the shares of Capital Stock subject to the PSUs, and the income from and value of same, are an extraordinary item that does not constitute compensation of any kind for services of any kind rendered to Alphabet or the Employer, and which is outside the scope of the Participant’s employment or service contract, if any;

(h) the PSUs and the shares of Capital Stock subject to the PSUs, and the income from and value of same, are not intended to replace any pension rights or compensation;

(i) unless otherwise agreed with Alphabet in writing, the PSUs and the shares of Capital Stock subject to the PSUs, and the income from and value of same, are not granted as consideration for, or in connection with, the service the Participant may provide as a director of a Subsidiary or affiliate of Alphabet;

(j) the PSUs and the shares of Capital Stock subject to the PSUs, and the income from and value of same, are not part of normal or expected compensation or salary for any purposes, including, but not limited to, calculating any severance, resignation, termination, redundancy, dismissal, end of service payments, bonuses, long-service awards, holiday pay, leave-related payments, holiday top-up, pension or retirement or welfare benefits or similar mandatory payments;

(k) the future value of the underlying shares of Capital Stock is unknown, indeterminable and cannot be predicted with certainty;

(l) no claim or entitlement to compensation or damages shall arise from forfeiture of the PSUs resulting from termination of the Participant’s employment or service (for any reason whatsoever, whether or not later found to be invalid or in breach of employment laws in the jurisdiction where the Participant is employed or the terms of the Participant's employment agreement, if any);

(m) for purposes of the PSUs, the Participant's Termination Date will be the date he or she is no longer actively providing services to Alphabet, the Employer or any of the other Subsidiaries or affiliates of

Alphabet (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where the Participant is employed or the terms of the Participant's employment agreement, if any) and unless otherwise determined by Alphabet, such date will not be extended by any notice period (*e.g.*, the Participant's period of employment would not include any contractual notice period or any period of “garden leave” or similar period mandated under employment laws in the jurisdiction where the Participant is employed or the terms of the Participant's employment agreement, if any); the Committee shall have the exclusive discretion to determine when the Participant is no longer actively providing services for purposes of the Participant's PSU Grant (including whether the Participant may still be considered to be providing services while on a leave of absence);

(n) unless otherwise provided in the Plan or by Alphabet in its discretion, the PSUs and the benefits evidenced by this Agreement do not create any entitlement to have the PSUs or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the Capital Stock; and

(o) neither Alphabet, the Employer nor any Subsidiary or affiliate of Alphabet shall be liable for any foreign exchange rate fluctuation between the Participant's local currency and the United States Dollar that may affect the value of the PSUs or of any amounts due to the Participant pursuant to the vesting of the PSUs or the subsequent sale of any shares of Capital Stock acquired upon settlement.

No Advice Regarding Grant. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding the Participant’s participation in the Plan, or his or her acquisition or sale of the underlying shares of Capital Stock. The Participant is hereby advised to consult with his or her own personal tax, legal and financial advisors regarding his or her participation in the Plan before taking any action related to the Plan.

Insider Trading Restrictions / Market Abuse Laws. The Participant acknowledges that, depending on the Participant's country, the broker's country or the country where Alphabet's shares are listed, the Participant may be subject to insider trading restrictions and/or market abuse laws, which may affect his or her ability to accept, acquire, sell or otherwise dispose of shares of Capital Stock, rights to acquire shares of Capital Stock (*e.g.*, PSUs) or rights linked to the value of shares of Capital Stock during such times as the Participant is considered to have “inside information” regarding the Company as defined by or determined under the laws or regulations in the applicable jurisdictions. Local insider trading laws and regulations may prohibit the cancellation or amendment of orders the Participant placed before he or she possessed inside information. Furthermore, the Participant could be prohibited from (i) disclosing the inside information to any third party and (ii) “tipping” third parties or causing them otherwise to buy or sell securities, where third parties include fellow employees. Any restrictions under these laws or regulations are separate from and in addition to the Trading Policy described in Part II, Section 12 of the Agreement. The Participant acknowledges that it is his or her responsibility to comply with any applicable restrictions and that he or she should speak to his or her personal legal advisor regarding this matter.

Foreign Asset / Account Reporting Requirements, Exchange Controls and Tax Requirements. The Participant’s country may have certain foreign asset and/or account reporting requirements and exchange controls which may affect the Participant’s ability to acquire or hold shares of Capital Stock under the Plan or cash received from participating in the Plan (including from any dividends received or sale proceeds arising from the sale of shares of Capital Stock) in a brokerage or bank account outside the Participant’s country. The Participant may be required to report such accounts, assets or transactions to the tax or other authorities in the Participant’s country. The Participant also may be required to repatriate sale proceeds or other funds received as a result of the Participant’s participation in the Plan to the Participant’s country through a designated bank or broker and/or within a certain time after receipt. In addition, the Participant may be subject to tax payment and/or reporting obligations in connection with any income realized under the Plan and/or from the sale of shares of Capital Stock. The Participant acknowledges that it is the Participant's responsibility to be compliant with all such requirements, and the Participant should consult his or her personal legal and tax advisors, as applicable, to ensure his or her compliance.

Issuance of Shares. If advisable due to local law requirements, the Committee, in its sole and absolute discretion, may require the immediate forced sale of the shares of Capital Stock issuable upon settlment of the PSUs. Alternatively, unless otherwise set forth in this Appendix, the Committee, in its sole and absolute discretion, may determine to pay out the PSUs in cash equal to the Fair Market Value of the shares of Capital Stock underlying the PSUs.

Imposition of Other Requirements. Alphabet reserves the right to impose other requirements on the Participant's participation in the Plan, on the PSUs and on any shares of Capital Stock acquired under the Plan, to the extent Alphabet determines it is necessary or advisable in order to comply with local law or facilitate the administration of the Plan, and to require the Participant to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

Language. The Participant acknowledges and represents that he or she is proficient in the English language, or has consulted with an advisor who is proficient in the English language, so that the Participant understands the terms of the Plan and this Agreement and any other documents related to the Plan. If the Participant has received this Agreement or any other document related to the Plan translated into a language other than English and if the meaning of the translated version is different from the English version, the English version will control.

Notice of Venue. For purposes of litigating any dispute that arises directly or indirectly from the relationship of the parties evidenced by this grant or the Agreement, the parties hereby submit to and consent to the exclusive jurisdiction of the State of California and agree that such litigation shall be conducted only in the courts of Santa Clara County, California, or the federal courts for the United States for the Northern District of California, and no other courts, where this grant is made and/or to be performed.

Electronic Delivery and Participation. Alphabet may, in its sole discretion, decide to deliver any documents related to current or future participation by electronic means. The Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through an on-line or electronic system established and maintained by Alphabet or another third party designated by Alphabet.

B. <u>COUNTRY-SPECIFIC ADDITIONAL TERMS AND CONDITIONS</u>

[*INTENTIONALLY OMITTED*]

Exhibit 10.03

ALPHABET INC.
AMENDED AND RESTATED 2021 STOCK PLAN
ALPHABET RESTRICTED STOCK UNIT AGREEMENT

This Alphabet Restricted Stock Unit Agreement (the "Agreement") is entered into as of [DATE] (the "Grant Date") by and between [NAME] (the "Participant") and Alphabet Inc., a Delaware corporation ("Alphabet", and together with its Subsidiaries, the "Company").

I. GRANT OF AWARD

Alphabet has granted the Participant an award of Alphabet restricted stock units (the "GSUs") pursuant to the Alphabet Inc. Amended and Restated 2021 Stock Plan (the "Plan"). Each GSU represents the right to receive one share of Capital Stock, subject to the terms and conditions of the Plan and this Agreement, including any special terms and conditions for the jurisdiction in which the Participant resides contained in Exhibit A or any other appendix hereto (the "Appendix"). Certain details of the GSUs, specifically the number of GSUs and the vesting schedule of the GSUs (collectively, the "GSU Details") are accessible to the Participant through the Participant's brokerage account and the GSU Details are hereby incorporated into this Agreement by reference. Capitalized terms used but not otherwise defined in this Agreement shall have the meanings given to such terms in the Plan.

II. TERMS OF GSUs

1. Vesting of GSUs.

(a) In General. Except as otherwise provided in subsection (b) below, the GSUs will vest in accordance with the vesting schedule set forth in the GSU Details, subject to the Participant's continued employment with, or service to, the Company on each applicable vesting date. In the event the Participant ceases to be employed by, or ceases to provide services to, the Company for any reason except his or her death (as set forth in subsection (b) below), if applicable, all of the then outstanding and unvested GSUs will be forfeited effective as of the date that the Participant ceases to be employed by, or ceases to provide services to, the Company (the "Termination Date") and the Participant will have no further rights to such unvested GSUs. Unless and until the GSUs have vested, the Participant will have no right to the delivery of any shares of Capital Stock pursuant thereto and prior to the actual delivery of the shares of Capital Stock pursuant to the GSUs, the GSUs represent an unfunded, unsecured obligation of the Company, payable (if at all) only from the general assets of the Company.

(b) Death of Participant. In the event that the Participant ceases to be employed by, or ceases to provide services to, the Company as a result of the Participant's death, then (i) all of the then outstanding and unvested GSUs shall immediately vest as of the Termination Date, and (ii) any delivery of shares of Capital Stock to be made to the Participant under this Agreement will be made to the Participant's designated beneficiary, provided, that, such beneficiary has been designated prior to the Participant's death; in the absence of any such effective designation, the shares will be delivered to the administrator or executor of the Participant's estate. Any such administrator or executor must furnish Alphabet with (A) written notice of his or her status as transferee, (B) a copy of the will and/or such evidence as the Committee may deem necessary to establish the validity of the transfer, and (C) an agreement by the transferee to comply with all the terms and conditions of the GSUs that are or would be applicable to the Participant and to be bound by the acknowledgments made by the Participant hereunder. Delivery of the shares of Capital Stock pursuant to the GSUs will be made as soon as practicable following the Termination Date but in no event later than thirty (30) days following such date.

2. Settlement of GSUs. Settlement of vested GSUs shall occur as soon as practicable following the applicable vesting date, but in no event later than thirty (30) days following such vesting date. Alphabet will settle the vested GSUs by issuing (either in book-entry form or otherwise) to the Participant (or the Participant's beneficiary or estate, in the event of the Participant's death), one share of Capital Stock for each vested GSU, subject to satisfaction of all applicable Tax-Related Items, as described in Section 4 below.

3. Leaves of Absence. Vesting of the GSUs during any leave of absence of the Participant shall be subject to the terms and conditions of the leaves of absence policy governing such GSUs for the Participant's country, as may be amended from time to time.

4. Taxes.

(a) Liability for Tax-Related Items. The Participant acknowledges that the Participant is ultimately liable and responsible for any and all income taxes (including federal, state and local income taxes), social insurance, payroll taxes and other tax-related withholding (the "Tax-Related Items") arising in connection with the GSUs, regardless of any action the Company takes with respect to such Tax-Related Items. The Participant further acknowledges that the Company (i) does not make any representation or undertaking regarding the treatment of any Tax-Related Items in connection with any aspect of the GSUs, including the grant, vesting and settlement of the GSUs, or the subsequent sale of shares of Capital Stock acquired upon settlement of the GSUs and (ii) does not commit, and is under no obligation, to structure the terms of the GSUs or any aspect of the GSUs to reduce or eliminate the Participant's liability for Tax-Related Items or achieve any particular tax result.

(b) Payment of Withholding Taxes. Notwithstanding any contrary provision of this Agreement, no portion of the GSUs will be settled unless and until satisfactory arrangements (as determined by the Committee) have been made by the Participant with respect to the payment of any taxes which the Company determines must be withheld with respect to such portion of the GSUs; provided, that, if the Participant fails to make satisfactory arrangements with respect to such taxes within two and one half (2.5) months following the end of the calendar year in which the applicable vesting date occurs, then the applicable portion of the GSUs shall be forfeited.

(i) Unless the Participant is a director or executive officer (within the meaning of Section 16 of the Exchange Act and the regulations thereunder) of Alphabet (each, a "Section 16 Person") at the time that the GSUs, or a portion thereof, are settled, the Committee may use any method permitted by the Plan to satisfy the federal, state and local withholding tax requirements attributable to the GSUs, or portion thereof, being settled; and

(ii) If the Participant is a Section 16 Person at the time that the GSUs, or a portion thereof, are settled, then the Committee shall, pursuant to such procedures as it may specify from time to time, withhold a number of shares of Capital Stock otherwise issuable upon settlement of the GSUs, or portion thereof, having an aggregate Fair Market Value sufficient to satisfy the federal, state and local withholding tax requirements attributable to the GSUs, or such portion thereof, but not greater than the withholding obligations, as determined by the Committee in its discretion; provided, that, the Committee hereby reserves the discretion to amend this Agreement by notice to the Participant and without obtaining the Participant's consent, to allow the Committee to use any one or more methods permitted by the Plan to satisfy the federal, state and local withholding tax requirements attributable to the GSUs, or portion thereof, being settled.

5. Rights as Stockholder. Neither the Participant nor any person claiming under or through the Participant will have any of the rights or privileges of a stockholder of Alphabet in respect of any shares of Capital Stock deliverable pursuant to the GSUs unless and until such shares of Capital Stock have been issued on the records of Alphabet or its transfer agents or registrars. After such issuance, the Participant will have all the rights as a stockholder of Alphabet with respect to such shares of Capital Stock.

6. No Special Employment Rights; No Right to Future Awards. Nothing contained in this Agreement shall confer upon the Participant any right with respect to the continuation of his or her employment by, or service to, the Company or interfere in any way with the right of the Company at any time to terminate such employment or service or to increase or decrease the compensation of the Participant from the rate in existence at the Grant Date. The grant of the GSUs is at the sole discretion of Alphabet and does not create any contractual or other right to receive future awards of GSUs, or benefits in lieu of GSUs, even if GSUs have been awarded to the Participant repeatedly in the past.

7. GSUs Not Transferable. Except to the limited extent provided in Section 1(b) above, the GSUs and the rights and privileges conferred hereby may not be transferred, assigned, pledged or hypothecated in any way by the Participant (whether by operation of law or otherwise) and may not be subject to sale under execution, attachment or similar process. Any attempt by the Participant to transfer, assign, pledge, hypothecate or otherwise transfer the GSUs, or any right or privilege conferred hereby, and any attempted sale under any execution, attachment or similar process, shall be void and unenforceable against the Company.

8. Modification; Entire Agreement; Waiver. No modification of any provision of this Agreement which reduces the Participant's rights hereunder will be valid unless the same is agreed to in writing by the parties hereto. This Agreement, including the Appendix and the GSU Details, together with the Plan, represent the entire agreement between the parties with respect to the GSUs. The failure of Alphabet to enforce at any time any provision of this Agreement will in no way be construed to be a waiver of such provision or of any other provision hereof. Alphabet reserves the right, however, to the extent Alphabet deems necessary or advisable in its sole discretion, to unilaterally alter or modify the terms of the GSUs set forth in this Agreement in order to ensure that the GSUs either qualify for exemption from, or comply with, the requirements of Section 409A of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder ("Section 409A"); provided, however that the Company makes no representations that the GSUs will be exempt from, or will comply with, the requirements of Section 409A.

9. Binding Agreement. Subject to the limitation on the transferability of the GSUs contained herein, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

10. Additional Conditions to Issuance of Shares of Capital Stock. Alphabet shall not be required to issue any shares of Capital Stock hereunder prior to fulfillment of all of the following conditions: (a) the completion of any registration or other qualification of such shares of Capital Stock under any federal, state or local law or under the rulings or regulations of the Securities and Exchange Commission or any other governmental regulatory body, or under any stock exchange on which the shares of Capital Stock are listed for trading, which the Committee shall, in its absolute discretion, deem necessary or advisable; (b) the obtaining of any approval or other clearance from any federal, state or local governmental agency, which the Committee shall, in its absolute discretion, determine to be necessary or advisable; and (c) the lapse of such reasonable period of time not to exceed thirty (30) days following the applicable vesting date of any portion of the GSUs as the Committee may establish from time to time for reasons of administrative convenience.

11. Plan Governs. This Agreement is subject in all respects to all terms and provisions of the Plan and the Plan document is hereby incorporated into this Agreement. In the event of a conflict between one or more provisions of this Agreement and one or more provisions of the Plan, the provisions of the Plan will control.

12. Policy Against Insider Trading. By accepting the GSUs, the Participant acknowledges that (a) a copy of Alphabet's Policy Against Insider Trading (the "Trading Policy") has been made available to the Participant, (b) the Participant has had an opportunity to review the Trading Policy and (c) the Participant is bound by all the terms and conditions of the Trading Policy.

13. Committee Authority. The Committee has full discretionary authority to administer the Plan, including discretionary authority to interpret and construe any and all provisions of the Plan and this Agreement and to adopt and amend from time to time such rules and regulations for the administration of the Plan as the Committee may deem necessary or appropriate. All actions taken and all interpretations and determinations made by the Committee will be final and binding upon the Participant, the Company and all other interested persons.

14. Captions. Captions provided herein are for convenience only and shall not affect the scope, meaning, intent or interpretation of the provisions of this Agreement.

15. Severability. In the event that any provision in this Agreement is held to be invalid or unenforceable for any reason, such provision will be severable from, and such invalidity or unenforceability will not be construed to have any effect on, the remaining provisions of this Agreement.

16. Governing Law. This Agreement shall be construed and administered in accordance with the laws of the State of New York without regard to its conflict of law principles.

17. Section 409A Compliance. It is intended that the Plan and the Agreement comply with, or be exempt from the requirements of Section 409A and any related guidance promulgated with respect to such Section by the U.S. Department of the Treasury or the Internal Revenue Service. Accordingly, to the maximum extent permitted, this Agreement shall be interpreted and administered to be in compliance therewith or exempt therefrom. Notwithstanding anything contained herein to the contrary, to the extent required in order to avoid accelerated taxation and/or tax penalties under Section 409A, the Participant shall not be considered to have terminated employment with, or service to, the Company for purposes of this Agreement until the Participant would be considered to have incurred a "separation from service" from the Company within the meaning of Section 409A. Each amount to be paid or benefit to be provided pursuant to this Agreement shall be construed as a separate identified payment for purposes of Section 409A.

18. ***Employee Data Privacy Consent.***

(a) ***The Company is located at 1600 Amphitheatre Parkway, Mountain View, CA 94043, U.S.A., and grants employees of the Company and its affiliates GSUs, at the Company's sole discretion. If the Participant would like to be eligible to participate in the Plan, the Participant should review and accept the following information about the Company's data processing practices.***

(b) ***Data Collection and Usage. The Company collects, processes and uses the Participant's personal data, including, name, home address and telephone number, date of birth, social insurance number or other identification number, salary, citizenship, job title, any***

shares of stock or directorships held in the Company, and details of all GSUs cancelled, vested, or outstanding in the Participant's favor, which the Company receives from the Participant or the Participant's employer. If the Company offers the Participant a grant of GSUs under the Plan, then the Company will collect the Participant's personal data for purposes of implementing, administering and managing the Plan. The Company's legal basis for the processing of the Participant's personal data would be his or her consent.

(c) ***<u>Stock Plan Administration Service Providers</u>. The Company may transfer personal data to third parties which assist the Company with the implementation, administration and management of the Plan, including Charles Schwab & Co., Inc., Morgan Stanley Smith Barney, LLC, and/or such other third parties as may be selected by the Company. In the future, the Company may select a different service provider and disclose the Participant's data with another company that serves in a similar manner. The Company's service provider will open an account for the Participant to receive and trade shares of Capital Stock. The Participant will be asked to agree on separate terms and data processing practices with the service provider, which is a condition to the Participant's ability to participate in the Plan.***

(d) ***<u>International Data Transfers</u>. The Company and its service providers are based in the United States. If the Participant is outside the United States, the Participant should note that his or her country may have enacted data privacy laws that are different from those of the United States. The Company's legal basis for the transfer of personal data is the Participant's consent.***

(e) ***<u>Data Retention</u>. The Company will use the Participant's personal data only as long as is necessary to implement, administer and manage the Participant's participation in the Plan or as required to comply with legal or regulatory obligations, including under applicable tax and securities laws. When the Company no longer needs the personal data, the Company will remove it from its systems. If the Company keeps data longer, it would be to satisfy legal, tax or regulatory obligations and the Company's legal basis would be relevant laws or regulations.***

(f) ***<u>Voluntariness and Consequences of Consent Denial or Withdrawal</u>. The Participant's participation in the Plan and grant of consent is purely voluntary. The Participant may deny or withdraw his or her consent at any time. If the Participant does not consent, or if the Participant withdraws his or her consent, the Participant may not be able to participate in the Plan. This would not affect the Participant's salary from or employment with the Participant's employer; the Participant would merely forfeit the opportunities associated with the Plan.***

(g) ***<u>Data Subject Rights</u>. The Participant may have a number of rights under data privacy laws in his or her country. Depending on where the Participant is based, the Participant's rights may include the right to (a) request access to or copies of personal data the Company processes, (b) rectification of incorrect data, (c) deletion of data, (d) restrictions on processing, (e) portability of data, (f) lodge complaints with competent authorities in the Participant's country, and/or (g) request a list with the names and addresses of any potential recipients of personal data. To receive clarification regarding the Participant's rights or to exercise your rights, please contact <u>gem-help@google.com</u>.***

(h) ***<u>Additional Consents</u>. Upon request of the Company or the Participant's employer, the Participant agrees to provide a separate executed data privacy consent form (or any other agreements or consents that may be required by the Company and/or the Participant's employer) that the Company and/or the Participant's employer may deem necessary to obtain from the Participant for the purpose of administering the Participant's***

participation in the Plan in compliance with the data privacy laws in the Participant's country, either now or in the future. The Participant understands and agrees that the Participant may not be able to participate in the Plan if he or she fails to provide any such consent or agreement requested by the Company and/or the Participant's employer.

(i) ***Supplemental Notice at Collection for California Residents. The following additional disclosures are addressed and only apply to a Participant who resides in California. The categories of personal information that the Company collects from the Participant correspond with the following categories of "personal information" as defined in the California Consumer Privacy Act ("CCPA"): identifiers; any information that identifies, relates to, describes, or is capable of being associated with, a particular individual; characteristics of protected classifications under California or federal law (namely, age); commercial information; and professional or employment related information. The Company collects from the Participant the following category of "sensitive personal information" as defined in the CCPA: social security, driver's license, state identification card and/or passport number. The Company does not use such sensitive personal information to infer characteristics about the Participant and only uses such sensitive personal information for the purposes referenced in subsection 1798.121(a) of the CCPA. The Company does not "sell" or "share" the Participant's "personal information" as the CCPA defines these terms. The Company's CCPA Privacy Policy is available at go/epp.***

19. Appendix. Notwithstanding any provisions in this Agreement, if the Participant resides outside of the United States, certain additional general terms and conditions as set forth in the Appendix will apply to the Participant. In addition, the GSUs shall be subject to any special terms and conditions set forth in the Appendix for the jurisdiction in which the Participant resides. If the Participant relocates from the United States to a country outside the United States or relocates between the jurisdictions specified in the Appendix, the additional general and special terms and conditions, as applicable, will apply to the Participant, to the extent that Alphabet determines that the application of such terms and conditions is necessary or advisable in order to comply with local law or facilitate the administration of the Plan. The Appendix constitutes part of this Agreement.

20. Acceptance. The Participant must accept the GSUs and agree to the terms and conditions of the GSUs as set forth in the Plan and this Agreement (including the GSU Details and the Appendix), by electronically accepting this Agreement immediately following the Grant Date.

Exhibit 31.01

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO
EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a),
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Sundar Pichai, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Alphabet Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 25, 2023

/s/ SUNDAR PICHAI
Sundar Pichai
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.02

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO
EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a),
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Ruth Porat, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Alphabet Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 25, 2023

/S/ RUTH PORAT
Ruth Porat
Senior Vice President and
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.01

CERTIFICATIONS OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Sundar Pichai, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report on Form 10-Q of Alphabet Inc. for the quarterly period ended June 30, 2023, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Alphabet Inc.

Date: July 25, 2023	By:	/S/ SUNDAR PICHAI
	Name:	Sundar Pichai
	Title:	Chief Executive Officer (Principal Executive Officer)

I, Ruth Porat, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report on Form 10-Q of Alphabet Inc. for the quarterly period ended June 30, 2023, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Alphabet Inc.

Date: July 25, 2023	By:	/S/ RUTH PORAT
	Name:	Ruth Porat
	Title:	Senior Vice President and Chief Financial Officer (Principal Financial Officer)

The foregoing certifications are not deemed filed with the Securities and Exchange Commission for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (Exchange Act), and are not to be incorporated by reference into any filing of Alphabet Inc. under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof, regardless of any general incorporation language in such filing.