

Equity Research Report

Alphabet Inc. (GOOGL)

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Alphabet Inc. (NASDAQ: GOOGL) is a global technology conglomerate and the parent company of Google, leading in digital advertising, cloud computing, and artificial intelligence. With its dominant search engine, YouTube platform, and Google Cloud services, Alphabet maintains a strong market position with diverse revenue streams. However, while it has strong growth prospects for the near future, it will need to stay hungry and continue to invest in innovation to stay on top.

- My analysis indicates that Alphabet’s consistent Search segment growth, AI leadership, and rising Cloud segment support a **Buy** recommendation. I set a target price at \$186, reflecting a 13.8% upside from the current price.

Google Search and Cloud Growth

Since 2000, Google has been the number one internet access point worldwide. Its flagship search engine utilizes cutting-edge AI and massive data integration to deliver precise, real-time information. Meanwhile, the highly scalable, global, and flexible infrastructure of Google Cloud has become a favorite among enterprise customers. The companies continued focus on innovation through Google Gemini and increased AI and Cloud investments further position it for synergistic growth within AdTech.

- Search Growth:** Google Search has over 90% of global market share in this sector, with revenues increasing 14% YoY and over 10% for the past 6 quarters.
- Cloud Growth:** Cloud ranks third in the cloud computing industry, but revenue growth rate and margin growth rate remain above competitors.
- Free Cash Flow:** Achieved \$24B in FCF in 2024, up 9% from last year.

AI Competitiveness and Advantages

- AI Monetization Through Google Ecosystem:** Alphabet’s ability to monetize AI investments throughout their existing ecosystem weakens the argument that their capital expenditures are overbuilds.
- Increasing Operating Efficiency:** Synergy between flagship Alphabet products and AI allow for increased operational efficiency, increasing margins.
- Custom Chip Strategic Edge:** Trilium is a Tensor Processing Unit that decreases Alphabet’s reliance on Nvidia. While less powerful, it is more cost-effective, which can prove a significant advantage in the long run.

Alphabet

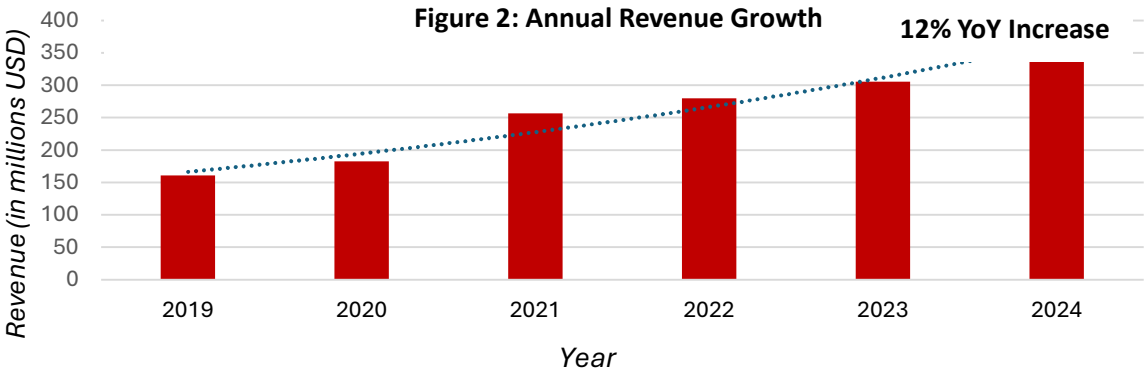
Target Price: \$186

Current Price: \$160.34

Recommendation: **Buy**

Figure 1: Market Data

52 – Week Price	\$208.70 – 142.66
Average volume	23,045,472
Market Cap	2.13T
Shares Outstanding	12.29B
Dividend Yield	0.46%
ROE	32.48
P/B	5.77
EV/EBITDA	17.0x
EV/Revenue	5.2x
P/E	18.78
EPS (USD TTM)	2.81
P/S	6.9
Beta	1.15
Debt/Equity	3.35%



Company Snapshot

Overview

Alphabet Inc. was formed in 2015 as part of Google's corporate restructuring, creating a parent company that oversees Google and various other subsidiaries. Headquartered in Mountain View, California, Alphabet is a global technology conglomerate that delivers a wide array of products and services—from its core Google Search engine and digital advertising to YouTube and Google Cloud—while also investing in emerging technologies like AI and autonomous vehicles. The company is led by CEO Sundar Pichai who has maintained a strong focus on growth and innovation during his tenure.



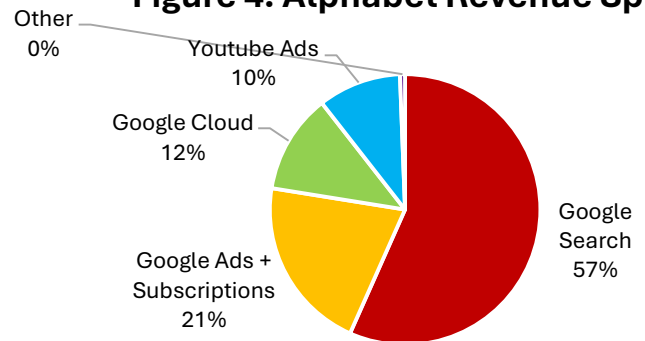
Figure 3: Sundar Pichai

Core Business Model

Alphabet has a diverse product portfolio all designed to organize information and empower users with innovative digital solutions.

- **Search:** Retaining 90% market share.
- **Cloud Services:** Secure and scalable for all business sizes.
- **Android:** Powering 71% of mobile device market share.
- **YouTube:** World's most popular video sharing platform.
- **Gemini:** Consistently ranked as top 5 AI platform.

Figure 4: Alphabet Revenue Split



Key Metrics

- **Global Workforce:** As of December 31, 2023, Alphabet Inc. employed approximately 183,000 individuals globally.
- **Customer Base:** The company's diverse products and services cater to billions of users worldwide.
- **Annual Recurring Revenue (ARR):** Achieved \$348B in revenue in 2024, with a 14% increase YoY.
- **Free Cash Flow (FCF):** Achieved \$24B in FCF in 2024, up 9% from last year.
- **Industry Recognition:** Alphabet has consistently ranked among the top global companies, securing the 15th spot on the Fortune 500 list in 2019.

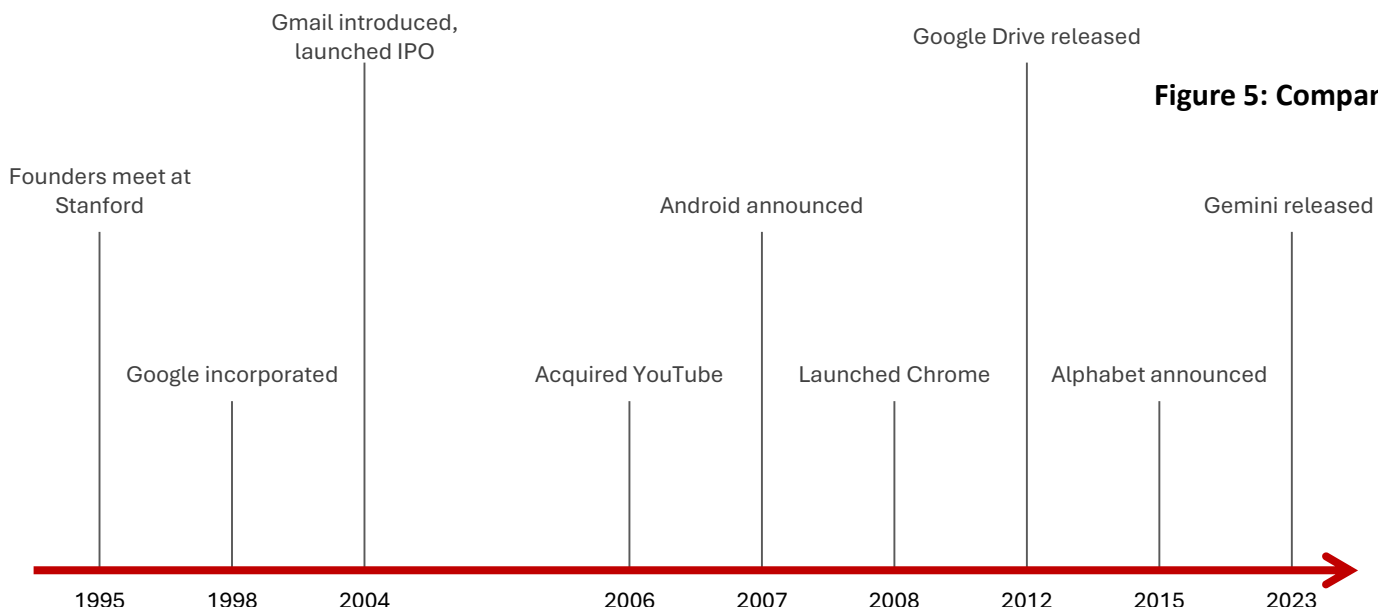


Figure 5: Company Timeline

Market Trends

The Communications Services Sector

Increasing Cloud Adoption: Benefits and Risks

- **Increased Scalability and Cost Efficiency**

Organizations with variable or unpredictable workloads benefit from the cloud's ability to scale resources up or down as needed. This flexibility allows businesses to avoid significant upfront investments in infrastructure, making it particularly advantageous for startups, SaaS companies, and e-commerce platforms. Additionally, cloud services facilitate global accessibility, support remote workforces, and offer advanced tools like AI/ML and analytics, further enhancing operational efficiency and contributing to the sectors 8.3% CAGR.

- **Regulatory and Compliance Considerations**

Conversely, organizations with strict regulatory requirements, highly predictable workloads, or reliance on deeply integrated legacy systems may find cloud infrastructure less suitable. These considerations can influence the pace and extent of cloud adoption, as businesses must balance the benefits of cloud computing with compliance obligations and operational needs. While more and more industries are going digital, there are still many companies and industries unsuitable for Cloud adoption.

Increasing Integration of Artificial Intelligence

- **Allows for Personalized User Experiences**

AI enables communication service providers to deliver more tailored and engaging experiences. Companies like Meta are developing advanced language models, such as Llama 4, to facilitate more natural and conversational user interactions, moving beyond traditional text-based formats. Similarly, AI-powered messaging apps like Daze allow users to send creatively designed messages using multimedia elements, including photos, stickers, GIFs, and drawings, enhancing user engagement and satisfaction. By integrating AI, communication service providers can optimize their operations and offer personalized experiences, leading to increased efficiency and customer satisfaction.

- **Operational Efficiency**

AI streamlines various operational aspects within communication services. For instance, companies like Amarra have utilized AI tools such as ChatGPT to generate product descriptions, reducing content creation time by 60%. AI-driven systems have also enabled businesses to analyze customer reviews and manage inventory more effectively, leading to a 40% reduction in overstock. Additionally, AI-powered chatbots and virtual assistants handle routine customer

Figure 6: Cloud Services Market Report 2025

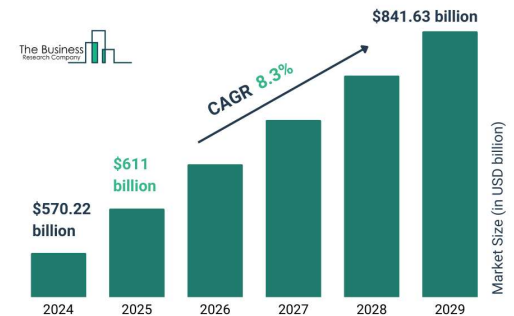


Figure 7: Cloud AI Global Market Report 2025

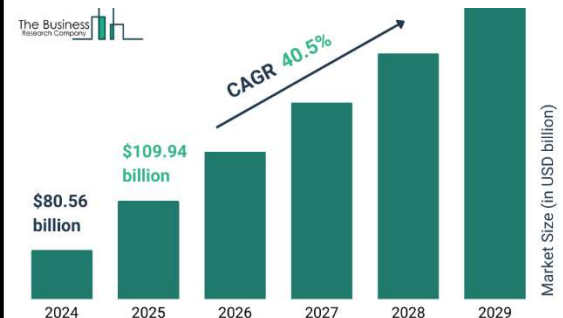
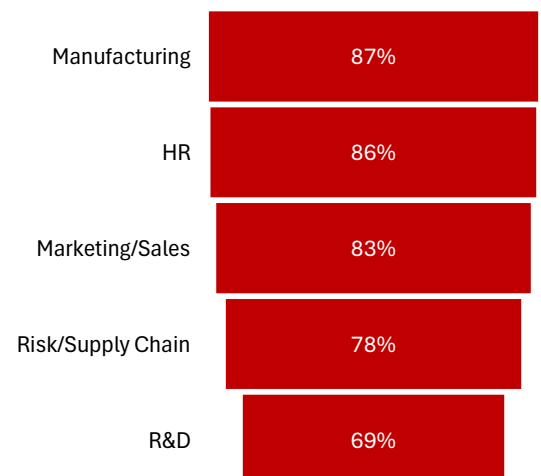


Figure 8: Cost Decreases Attributable to AI Use



Growth Drivers and Opportunities

Google Cloud Poised as Key Growth Driver

- **Rapidly Expanding Cloud Market**

The overall cloud computing market is experiencing substantial growth, with sales from the segment growing 30% YoY. In addition, operating margins have steadily increased from AI synergies- up to 18% from 9% one year ago. This trend is expected to continue; businesses across many industries are increasingly adopting cloud solutions for their IT infrastructure, data storage, software, and various digital services. This expanding market provides a large and growing addressable market for Google Cloud.

- **Industry-Specific, Hybrid, and Multi-Cloud Solutions**

Google Cloud is increasingly tailoring its offerings to specific industries, such as retail, healthcare, or manufacturing, allowing deeper market penetration. At the same time, they continue to offer hybrid and multi-cloud solutions that seamlessly integrate with on-premises infrastructure and other cloud providers. This flexibility appeals to larger enterprises and sets the stage for future growth.

- **Synergies with Other Alphabet Segments**

GCP benefits from synergies with other parts of Alphabet, particularly Google Search and Google AI. These synergies, along with Alphabet's other leading AI/ML products like Vertex AI and BigQuery, provide a compelling value proposition for companies looking to leverage data and AI for a competitive advantage. This synergy in the AdTech space is part of why Alphabet was ruled a monopoly.

Google Gemini Continuing to Drive Innovation

- **Diversifying AI while Driving Margins with Trilium**

Alphabet's sixth generation Trilium TensorFlow Processor Units (TPUs) serve to decrease the Company's reliance on Nvidia while further driving growth. Built for cost savings, the most recent model has seen a 4x increase in training performance and a 67% energy efficiency increase over previous versions. These improvements will help Alphabet further increase margins and profitability.

- **Rapid AI Market Expansion**

The global artificial intelligence (AI) market is experiencing rapid expansion, with projections indicating a compound annual growth rate (CAGR) of 36.6% from 2024 to 2030, potentially reaching approximately \$1.8 trillion by 2030. This growth is driven by increasing investments in AI infrastructure and Google Gemini is positioned to benefit greatly as a global AI leader.

- **Gemini's Position in the AI Hierarchy**

Gemini 2.5 Pro was released on March 25, 2025, and was lauded as one of the most intelligent AI's yet, beating out competitors like DeepSeek and ChatGPT on AI IQ tests. This is mainly due to its DeepResearch feature, built to directly compete with GPT's reasoning mode. This has helped cement Google as a top competitor in the AI space, with most sources agreeing that Gemini exists as a top 5 AI. However, this market is volatile, and the only way to truly stay on top is to continually increase competitive advantages and investments.

Antitrust Case of April 2025

- **Google ruled to establish an illegal monopoly in digital advertising technology**

This case is unlikely to cause a significant restructuring or divestiture of the Search segment – it was primarily caused by Google's \$20B/year payments to Apple to keep Google as the default search engine on iPhone. The most likely outcome will be the ceasing of this business practice such that all consumers will be able to choose their own search engines. However, this could also be an opportunity for Alphabet, allowing them to find innovative and new ways to continue to drive ad revenue.

Figure 9: AI Market Report 2023 - 2030



Figure 10: Android XR



Competitive Positioning

Competitive Landscape

Alphabet Inc. operates in a highly competitive landscape, contending with major technology firms across various sectors. In search and advertising, Microsoft poses significant challenges with advanced AI capabilities integrated into the Bing search engine. In cloud computing, Amazon Web Services (AWS) leads the market, directly competing with Google Cloud. The intensifying competition in artificial intelligence (AI) has led to substantial investments from these "hyperscalers," with AI investment projections reaching \$1T by 2026.

SWOT

Strengths	Weaknesses
Large user base / large market share	Over-dependence on Ad revenue
Strong brand recognition	Concerns about privacy
Culture of innovation and product development	Low control on consumer electronics
Android and chrome OS used by billions	Spammers and bots manipulate algorithms
Opportunities	Threats
AI, machine learning, and other emerging tech	Emerging technologies
Cloud computing	Intense competition
Virtual reality	Lawsuits and privacy issues
Wearables market	Cybersecurity threats

Microsoft Corporation



Overview: Founded in 1975 by Bill Gates and Paul Allen,

Microsoft is a leading American multinational technology company headquartered in Redmond, Washington.

Products and Services: The company is renowned for its Windows operating system, Microsoft Office suite, Azure cloud computing services, Surface hardware line, and Xbox gaming consoles.

Market Position: Microsoft holds a dominant market position as a global leader in enterprise software, cloud computing (Azure), and AI, while also maintaining strong footholds in personal computing, gaming (Xbox), and productivity tools (Office, Teams, LinkedIn).

Amazon.com, Inc.



Overview: Established in 1994 by Jeff Bezos, Amazon began as an online bookstore and has evolved into a multinational technology company based in Seattle, Washington.

Products and Services: Amazon offers e-commerce services, cloud computing through Amazon Web Services (AWS), digital streaming, and artificial intelligence solutions.

Market Position: AWS has positioned Amazon as a leader in the cloud computing industry. In addition, they are a large competitor in AdTech.

Competitive Comparison

Metrics	Alphabet	Microsoft	Amazon
ARR Growth (YoY)	16.40%	15.04%	10.99%
Market Capitalization	2.14T	2.92T	2.10T
# of Employees	183,323	228,000	1,556,000

Investment Thesis and Risks

Thesis

Given Alphabet's continued domination in their Search segment, strong FCF and revenue growth, AI investments and diverse product stream the Company is positioned to stay profitable and grow to new heights in the coming years. Alphabet's average annual growth rate of 12% YoY and continued focus on staying at the forefront of tech companies provide confidence in the Company's performance even with heavy competition from other Big Tech competitors.

Search and Cloud Providing Revenue Floor

- **Search Remaining Undisputed Leader:** Search is expected to continue its 90% market dominance with a 14% revenue growth rate
- **Google Cloud Growing Faster Than Competitors:** Cloud's integration with Google's ecosystem provides a qualitative advantage, allowing for a 30% YoY revenue growth rate (leading among Cloud industry) and doubling operating margin from 9% to 18% in the last year.

AI Driving Increasing Value and Efficiency

- **AI Integration Provides Enhanced Personalization:** Google Gemini allow users to find information faster and more accurately improving Alphabet's existing product suite.
- **AI Integration Driving Efficiency:** AI Algorithms improve advertising efficiency, data center and energy efficiency, product development and customer service.
- **Trilium Chips:** Decreasing reliance on Nvidia and providing Alphabet a cost-advantage over competitors in the AI space.



Bull Case

Continued Search Segment Domination

Cloud/AI Growth

Diversification



Bear Case

Alphabet Loses AI Race

BATMMAAN stocks face premium valuations and adjustments

Increasing regulatory scrutiny over market position

Tailwinds Driving Growth

- **Dominant Search and Advertising Segment:** Google Search continues to remain core revenue engine and grow 14% YoY.
- **Explosive Cloud Computing Growth:** Google Cloud is rapidly expanding in a booming market.
- **Artificial Intelligence Leadership:** Alphabets maintains a leader position in AI through competitive data and investment advantages.

Headwinds and Challenges

- **Restructuring from Antitrust Case:** Could force divestitures and loss of revenues.
- **Fierce Competition:** The Search, Cloud, Advertising, and AI segments maintain intense competition from other tech giants.
- **Reliance on Search Revenue:** Search accounts for most of the total revenue, 57% in 2024.

Valuation Analysis

Discounted Cash Flow Analysis

Alphabet Inc is a global technology conglomerate, with dominant market shares in multiple industries, and an average YoY growth rate in double digits (12%). Their recent investments in AI and synergy with Google Gemini allows them to maintain a competitive advantage in these areas through innovation and new technologies. In addition, the Company has diversified into new long-term, high-potential ventures like AR/VR and autonomous vehicles that could continue to propel its high growth in the future. For these reasons, a DCF model using growth rates was chosen to calculate the Company's future financials and \$186 share price target.

Key Assumptions

- **Weighted Average Cost of Capital (WAAC):** 8.7%.
- **Terminal FCF Growth Rate:** 3% (decreased 1% due to greater market uncertainty).
- **Revenue Growth:** 12% YoY increasing 25bp per year after two years.
- **EBITDA Margin:** 33% increasing 50bp YoY due to AI enhancements.
- **Capital Expenditures:** 15% of revenue (current all time high) due to projected increased AI and Cloud investments.
- **Operating Expenditures**
 - **Research and Development:** Increasing 10% YoY reflecting increased investments in AI and the Cloud.
 - **Sales and Marketing:** Increasing 2% YoY – with their strong brand recognition, this is not a priority.
 - **General and Administrative:** Decreasing 6% YoY, representing AI enhancements and Alphabet's current cost-cutting strategies to stay ahead in the market.

Illustrative Calculation:

- **Enterprise Value from Present Value of FCF:** \$2.614T
- **Debt and Cash on Hand:** \$50.54B
- **Implied Market Capitalization:** \$2.665T
- **Number of Shares Outstanding:** 12,290,000,000
- **Implied Share Price:** \$186 per share

Figure 11: Sensitivity Analysis

		Terminal FCF Growth Rate						
Discount Rate (WAAC)	217	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%
	7.2%	184	198	214	235	261	296	343
	7.7%	173	185	198	215	236	262	297
	8.2%	164	174	185	199	216	237	264
	8.7%	156	164	174	186	200	217	238
	9.2%	149	156	165	175	187	201	218
	9.7%	142	149	157	165	175	187	201
	10.2%	137	143	150	157	166	176	188

Summary and Final Recommendation

Investment Highlights

1. **Google Search Growth and Dominance:** Google Search has 90% market share and revenues have continued to rise at a high pace- averaging a 14% growth rate YoY and over 10% for the past 6 quarters. Their only competitors in search revenues are Amazon and Tiktok thanks to their respective shops.
2. **Google Cloud as a Driver of Future Growth:** Google Cloud, while currently a challenger in the cloud computing segment, has the highest revenue growth rate (30% last year) and operating margin growth rate (18% last year) of all companies in the industry.
3. **AI Introducing Synergies to the Company and the User:** Google Gemini provides more value to users by enhancing the existing Google ecosystem with more personalization and accurate information. In addition, AI will increase Company efficiency decreasing costs and raising margins. Finally, Alphabet's Trilium chips provide a cost-advantage over AI competitors allowing them to stay relevant even with a slow start to AI investments.
4. **Diversifying Revenue Streams and New Products:** Alphabet continued their focus on diversifying their product line. Products like AR/VR and autonomous vehicles can provide new growth opportunities in the future and decrease reliance on Search revenue.

Risks and Considerations

- **Premium Valuation:** As a BATTMAAN company, Alphabet trades at a high valuation multiple which can increase the risk of downside.
- **Overspending on AI Investments:** Massive investments in AI may take years to generate significant returns.
- **Antitrust Case Hurting Search Revenue:** Over 50% of revenue comes from their Search segment- regulatory or anti-trust changes can hurt Alphabet's position substantially.

Valuation and Price Target

- **Methodology: Discounted Cash Flow**
 - Reflects the Alphabet's strong stable growth over time. This focuses on the Company's intrinsic value rather than comparative company multiples.
 - DCFs provides a sensitivity analysis which can test how changes in growth rate and WAAC can affect the stock price. In today's volatile political landscape, this is a useful tool to extend beyond short term market fluctuations.
- **Forecast**

Our analysis estimates \$800B in revenue by 2030, with potential to hit \$1T in revenue by 2030 or even sooner with the divestiture of revenue streams such as Alphabet's Waymo.
- **Implied Share Price**

Applying an 8.7% WAAC and a 3% terminal growth rate plus net debt and cash to the DCF implies a \$186 share price within the next 12 – 18 months. This represents a 13.8% upside from the current share price.

Final Recommendation: Buy

*I maintain a **Buy** rating with a \$186 target price, representing 13.8% upside. While the valuation is slightly lower than comparative analyst valuations, with their dominant position in the Search segment, projected future Cloud segment growth, and potential upside from AI investments, I believe this is a conservative price for Alphabet.*

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