# **Technical Analysis Assistant**



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# Analysis for Alphabet Inc. as of 2025-09-29

#### **Key Takeaways**

Alphabet Inc. (GOOG) presents a strong investment case characterized by robust financial health, consistent revenue and profit growth, and a solid balance sheet, supported by overwhelmingly positive analyst recommendations.

Technically, the stock is in a strong long-term uptrend, with intermediate and short-term trends also indicating bullish momentum, despite a recent slight pullback from its peak. Key indicators show a mixed picture: while moving averages and bullish chart patterns like the "Cup with Handle" and "Price Channel" are positive, a bearish MACD crossover and an approaching cycle peak suggest potential for short-term volatility.

The stock exhibits moderate volatility, with defined support and resistance levels providing clear reference points. Market sentiment is currently cautiously neutral to slightly negative in the immediate short term, influenced by AI competition and evolving regulations, though the resolution of a lawsuit offers a minor positive.

Overall, Alphabet Inc. (GOOG) remains a compelling long-term investment opportunity due to its fundamental strength and prevailing bullish trend, though investors should be prepared for potential short-term price fluctuations.

Please refer to section **Recommendation** about recommended trading strategies.

# **Technical Analysis**

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## **Overlap Study**

Alphabet Inc. (GOOG) has demonstrated a remarkable performance over the past six months, with its price surging from approximately USD 167.83 at the beginning of the analysis period (2024-09-30) to USD 247.18 by the closing date (2025-09-26). This represents a total percentage increase of approximately 47.30 percent. The monthly progression of prices indicates a strong upward trend, with notable gains observed throughout the period. The stock experienced a recent price pullback from its peak of USD 255.24 on 2025-09-15, settling at USD 247.18 on 2025-09-26.

Short-Term Trend: Bullish. The closing price of USD 247.18 is above the 20-day SMA (USD 241.33). Intermediate-Term Trend: Bullish. The closing price of USD 247.18 is above the 50-day SMA (USD 215.93). Long-Term Trend: Strongly Bullish. The closing price of USD 247.18 is above the 200-day SMA (USD 186.05). The Bollinger Bands are currently in a squeeze, indicating a potential breakout or breakdown with definition support. The Hilbert Transform Instantaneous Trendline is showing a bullish signal with definition support.

## **Momentum Analysis**

Momentum Analysis:

- RSI (14-day): 68.95 (Neutral). Research data shows 2025-09-26, indicating the stock is approaching but not yet in oversold/overbought territory.
- MACD: 10.67 with Signal Line at 11.95. Bearish crossover.
- Stochastic Oscillator: %K at 59.86 and %D at 69.21. No crossover signal.
- Williams' %R: -40.82. (Neutral).
- Rate of Change (10-day): 2.4. (Positive).
- Momentum (10-day): 5.8. (Positive).
- Balance Of Power: -0.18. (Negative).

## **Volume Analysis**

On 2025-09-26, Alphabet Inc. (GOOG) traded a volume of 16,581,700 shares. This volume is significantly lower than its 3-month average volume, suggesting a decrease in trading activity. The volume on this particular day was lower than the average, indicating a potential lack of strong conviction from either buyers or sellers. The lower volume on a day with a slight price decrease suggests that the selling pressure was not particularly strong, and the price action is

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remaining within normal ranges. This subdued volume might indicate a period of consolidation or a pause before a potential future move.

## **Cycle Analysis**

- **Trend Mode:** Trending (1.0). This indicates that the price action is currently characterized by a clear direction, rather than oscillating within a range.
- **Dominant Cycle:** The dominant cycle period is approximately 38.14 days. This suggests that the market is influenced by cycles of this length.
- Current Phase: The current phase is 174.5 degrees. This phase is approaching a cycle peak (180 degrees), suggesting that the asset might be nearing a point where a reversal or consolidation could occur.
- **Sine Wave Signal:** A bullish crossover has occurred as HT\_SINE (0.1) is above HT\_LEADSINE (-0.64). This signal suggests a potential change in cycle direction, aligning with the current upward trend.

## **Volatility Analysis**

- Average True Range (ATR): The ATR14 value is 5.29. This indicates that the average daily trading range for Alphabet Inc. (GOOG) is approximately USD 5.29.
- Normalized Average True Range (NATR): The NATR14 value is 2.14 percent. This percentage represents the average daily trading range relative to the stock's price. A volatility of 2.14 percent is considered moderate for a stock of this nature.
- Typical Price: The Typical Price (TYPPRICE) is USD 247.98.

Overall, Alphabet Inc. (GOOG) is exhibiting moderate volatility. The ATR of USD 5.29 and NATR of 2.14 percent suggest that daily price fluctuations are within expected ranges, not indicating extreme over- or under-volatility. This level of volatility implies that while there are daily price movements, they are not excessively erratic, providing a relatively stable environment for trading and investment strategies.

## **Statistic Functions Analysis**

- Relative Volatility (Beta): The Beta value is 0.89. This suggests that Alphabet Inc. (GOOG) is slightly less volatile than the overall market.
- Price Trends:

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Linear Regression Slope: The slope (LINEARREG\_SLOPE14) is 0.73. A positive slope indicates an uptrend, suggesting that the price has been increasing over the past 14 periods.

• **Time Series Forecast:** The TSF14 value is 253.25. This value is higher than the current closing price of 247.18, suggesting a potential short-term price increase based on the recent trend.

#### Internal Correlations & Volatility:

- High/Low Correlation: The CORREL\_HL14 value is 0.98. This high positive correlation indicates that the high and low price movements are closely linked, suggesting a strong trend and consistent price action within the daily range.
- Close/Volume Correlation: The CORREL\_CV14 value is 0.46. This positive correlation between price and volume suggests that volume is generally supporting price movements, which can help validate the trend.
- Standard Deviation: The STDDEV14 value is 5.19. This number signifies that the stock's
  price has a moderate dispersion around its average, indicating a typical level of volatility
  over the past 14 periods.

In summary, Alphabet Inc. (GOOG) exhibits characteristics of a stock that is slightly less volatile than the market, with a positive short-term trend indicated by its linear regression slope and time series forecast. The strong correlation between high/low prices and a positive correlation between price and volume suggest a well-supported trend. The standard deviation indicates a moderate level of price dispersion.

## **Candlestick Patterns Analysis**

Candlestick Patterns Analysis (Recent 10 Days):

- **CDL3INSIDE:** Detected on 2025-09-03, 2025-09-04, 2025-09-05, 2025-09-08, 2025-09-09. This pattern, consisting of three candles, can indicate a potential reversal or continuation depending on the preceding trend.
- **CDLMARUBOZU:** Detected on 2025-09-10, 2025-09-11. This pattern, a long white candle with no upper or lower shadow, signifies strong buying pressure.
- **CDLTAKURI:** Detected on 2025-09-26. This pattern, a dragonfly doji with a very long lower shadow, suggests strong selling pressure during the day, but a potential for a bullish reversal as buyers stepped in to push the price up from its lows.

## **Chart Formation Analysis**

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Chart Formation Analysis (Recent 10 Days):

• **CUP\_WITH\_HANDLE:** Detected on 2025-08-29, 2025-09-02, 2025-09-10, 2025-09-11. This bullish continuation pattern suggests that the stock may continue its upward trend after a period of consolidation.

- **PRICE\_CHANNEL:** Detected on 2025-09-26. This pattern indicates that the stock is trading within a defined upward channel, suggesting a continuation of the current trend.
- **RISING\_WEDGE:** Detected on 2025-09-05. This pattern, typically a bearish reversal pattern, suggests a potential downside breakout from the upward-sloping channel.

## **Support and Resistance Analysis**

ATR-Based Three-Tier Support/Resistance Levels for Alphabet Inc. (GOOG):

#### **Support Levels:**

#### Primary Support:

- Price: USD 241.89 (Close ATR14)
- Validation: This level is derived by subtracting the Average True Range (ATR14) from the current closing price, representing a potential immediate support zone.
- Risk Parameters: A break below this level could indicate increased selling pressure.

#### Secondary Support:

- Price: USD 236.60 (Close 2 \* ATR14)
- Validation: This level is two ATRs below the current closing price, indicating a more significant support zone where buying interest might emerge if the primary support fails.
- Risk Parameters: A sustained move below this level could signal a more substantial price correction.

#### Tertiary Support:

- Price: USD 231.31 (Close 3 \* ATR14)
- Validation: This represents a deeper support level, three ATRs below the closing price,
   often considered a strong floor in the event of a significant downturn.
- Risk Parameters: A breach of this level would suggest a severe bearish trend.

#### **Resistance Levels:**

#### • Primary Resistance:

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- Price: USD 252.47 (Close + ATR14)
- Validation: This level is calculated by adding the ATR14 to the current closing price, indicating the nearest resistance zone where selling pressure might increase.
- Risk Parameters: A failure to break above this level could lead to a price pullback.

#### Secondary Resistance:

- Price: USD 257.76 (Close + 2 \* ATR14)
- Validation: This level is two ATRs above the closing price, representing a more significant resistance area.
- Risk Parameters: A strong move above this level could signal further upward momentum.

#### Tertiary Resistance:

- Price: USD 263.05 (Close + 3 \* ATR14)
- Validation: This is a substantial resistance level, three ATRs above the closing price, which would need to be overcome for a strong bullish continuation.
- Risk Parameters: A rejection from this level could indicate a potential top.

## **Fundamental Analysis**

Alphabet Inc., headquartered in Mountain View, California, is a major player in the Internet Content & Information industry within the Communication Services sector. Founded in 1998, it operates through segments like Google Services, Google Cloud, and Other Bets, offering a wide range of products and services including search, advertising, cloud computing, and consumer devices. The company has a large workforce of 187,103 employees and is led by CEO Sundar Pichai. Financially, Alphabet exhibits strong performance with a significant market capitalization of \$2.95 trillion. Its stock shows a beta of 1.011, indicating it moves largely in line with the market. The company has a trailing P/E ratio of 26.08 and a forward P/E of 27.30, with a dividend yield of 0.34%. Key financial metrics include a high profit margin of 31.118%, substantial free cash flow, and a strong return on equity of 34.829%. Analyst recommendations lean towards "buy" with a mean rating of 1.52308.

Alphabet Inc.'s balance sheet demonstrates robust financial health and consistent growth. Over the period from 2020 to 2024, the company has seen a significant increase in Total Assets, growing from \$359.27 billion to \$450.26 billion. This growth is driven by increases in both Current Assets and Non-Current Assets. Notably, Net PPE has more than doubled, indicating substantial investment in property, plant, and equipment. The company maintains a strong equity position, with Stockholders' Equity growing from \$251.64 billion in 2020 to \$325.08 billion in 2024. Total

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Debt has seen a slight decrease, contributing to a healthy debt-to-equity ratio. Working capital has fluctuated but remains substantial, indicating good short-term liquidity. Cash and cash equivalents, while showing a slight decrease in the most recent period, remain at a very healthy level, providing significant financial flexibility.

Alphabet Inc. has demonstrated impressive and growing profitability. Total Revenue has shown consistent year-over-year growth, increasing from \$257.64 billion in 2021 to \$350.02 billion in 2024. Gross Profit has also grown substantially, reflecting strong operational efficiency. Operating Income and Net Income have followed a similar upward trend, indicating effective cost management and strong market positioning. The company's Net Income has surged from \$59.97 billion in 2022 to \$100.12 billion in 2024. Diluted EPS has also seen a significant increase, rising from \$4.56 in 2022 to \$8.04 in 2024, showcasing enhanced shareholder value. Profit margins, including gross margins (58.94%) and operating margins (32.43%), remain strong, underscoring the company's competitive advantage.

Alphabet Inc. exhibits a very strong and consistently growing cash flow generation capability. Operating Cash Flow has seen a significant increase, rising from \$91.65 billion in 2021 to \$125.30 billion in 2024, demonstrating the core business's ability to generate substantial cash. Free Cash Flow has also remained robust, fluctuating between \$60.01 billion and \$72.76 billion over the same period, indicating ample cash available after capital expenditures. The company actively engages in capital expenditures, investing heavily in its infrastructure and growth initiatives. Financing activities show significant outflows primarily due to share repurchases, which have been substantial, alongside debt repayments and issuances. The company maintains a healthy cash position, with end cash balances consistently above \$20 billion.

# **Market Sentiment Analysis**

Alphabet Inc. (GOOG) experienced a slight negative price movement on the latest trading day, closing at \$244.36, down -1.14 percent. This dip appears to be influenced by a few key news items.

A significant development is the settlement of a long-running lawsuit filed by Donald Trump against Google's YouTube. The \$24.5 million settlement, with a substantial portion allocated to a White House ballroom project, addresses Trump's challenge to an account suspension. While the financial impact of this settlement is relatively minor for a company of Alphabet's size, the resolution of a protracted legal issue could be viewed positively by some investors, removing a lingering overhang.

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In the broader AI landscape, Alphabet's competitors are making moves. OpenAI is reportedly planning to release a new version of its Sora video generator with an opt-out system for copyright material, a move that could raise intellectual property concerns and potentially impact content creation platforms like YouTube. Additionally, new regulations are emerging, with California's SB 53 requiring large AI labs, including Google DeepMind, to be transparent about safety protocols and offer whistleblower protections. These regulatory developments, while not directly negative, indicate an evolving and potentially more scrutinized environment for AI development.

The context also mentions a new startup offering a real-time index as an alternative to Google and Bing, suggesting ongoing competition in the search engine space. However, this appears to be an early-stage development and its immediate impact on Alphabet's market sentiment is likely minimal.

Overall, the market sentiment for GOOG appears to be cautiously neutral to slightly negative in the immediate short term, primarily due to the recent price drop and the ongoing developments in the competitive AI and search landscape. The resolution of the Trump lawsuit is a minor positive, but it is overshadowed by broader industry trends and regulatory considerations.

## Recommendation

Overall, Alphabet Inc. (GOOG) presents a compelling investment opportunity with strong long-term fundamentals and a prevailing bullish trend, despite some short-term technical headwinds and cautious market sentiment. The stock has demonstrated consistent growth and profitability, supported by a healthy balance sheet and positive analyst outlook. While a bearish MACD crossover and the approach of a cycle peak warrant attention, the presence of bullish chart formations like the "Cup with Handle" and "Price Channel," along with a positive "Takuri" candlestick pattern, suggests potential for continued upward momentum. We recommend a buy for long-term investors, with a focus on managing short-term volatility.

## **Convervative Trading Strategy**

Strategy: Long-Term Accumulation with Hedging

#### **Entry Strategy:**

- **Phased Entry:** Initiate a long position by buying GOOG in tranches. Allocate 50% of the intended investment capital at the current market price of \$247.18.
- DCA (Dollar-Cost Averaging): Set aside the remaining 50% of capital to be deployed over the next 3-6 months, averaging the purchase price. This strategy mitigates the risk of buying at a

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short-term peak.

• **Confirmation Buy:** Consider adding to the position if the price breaks decisively above the primary resistance level of \$252.47 with increased volume, confirming upward momentum.

#### **Exit Strategy:**

- Trailing Stop-Loss: Implement a trailing stop-loss order set at 10% below the highest price reached since the initial purchase. This protects profits while allowing for continued upside.
- **Fundamental Review:** Re-evaluate the position if there are significant negative changes in Alphabet's fundamental outlook, such as a sustained decline in revenue growth, a major regulatory setback, or a significant shift in competitive landscape that impacts its core business.
- Long-Term Hold: For investors with a multi-year horizon, consider holding the position as long as the long-term bullish trend and fundamental strength remain intact, adjusting the trailing stop-loss to capture gains.

## **Moderate Trading Strategy**

Strategy: Trend Following with Volatility Management

#### **Entry Strategy:**

- **Breakout Confirmation:** Enter a long position when GOOG closes above the primary resistance level of \$252.47, ideally on increased volume, confirming a continuation of the upward trend.
- Pullback Entry: Alternatively, consider entering a long position on a pullback to the 20-day Simple Moving Average (SMA), which is currently around \$241.33, provided that support holds.
- Candlestick Pattern Confirmation: Look for bullish candlestick patterns (e.g., bullish engulfing, hammer) forming near support levels or after a breakout as an additional entry signal.

#### **Exit Strategy:**

- **Primary Exit:** Set a take-profit target at the secondary resistance level of \$257.76.
- **Continuation Target:** If the price breaks above \$257.76, consider extending the target to the tertiary resistance level of \$263.05.
- Stop-Loss: Place an initial stop-loss order just below the primary support level of \$241.89.

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• **Trailing Stop:** Once the price moves favorably, trail the stop-loss upwards to lock in profits, potentially moving it to just below the 50-day SMA (\$215.93) if the trend remains strong.

• MACD Crossover: Exit the position or reduce exposure if a significant bearish MACD crossover occurs, indicating a potential trend reversal.

## **Aggressive Trading Strategy**

Strategy: Short-Term Momentum Trading with Risk Control

#### **Entry Strategy:**

- **Breakout Play:** Enter a long position immediately upon a confirmed breakout above the recent high of \$255.24, especially if accompanied by a surge in trading volume and bullish candlestick patterns.
- Bollinger Band Squeeze Breakout: Monitor the Bollinger Bands for a significant breakout. Enter a long position on a strong upward move out of the squeeze, targeting the upper band of the expanded Bollinger Bands.
- Intraday Momentum: Utilize intraday charts to identify short-term momentum bursts, entering on strong intraday rallies that show conviction, potentially targeting the next significant resistance level.

#### **Exit Strategy:**

- **Tight Stop-Loss:** Place a very tight stop-loss order just below the entry price or the immediate support level (e.g., \$241.89), to limit potential losses on rapid reversals.
- **Profit-Taking:** Aim for quick profits by targeting the nearest resistance levels (\$252.47, \$257.76). Consider taking partial profits at each resistance level.
- Momentum Fade: Exit the position if the momentum starts to fade, indicated by decreasing volume on upward moves, bearish intraday reversal patterns (e.g., shooting star, bearish engulfing), or a failure to make new highs.
- MACD Bearish Crossover: Exit aggressively on a confirmed bearish MACD crossover, especially if it occurs above the signal line and the histogram turns negative.
- **Rising Wedge Breakout:** Be prepared to exit quickly if the "Rising Wedge" pattern leads to a downside breakout, as this is a bearish reversal signal.

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