Ryan Farhab ECO 436 Alphabet, Inc. Memo

The Company

Alphabet, Inc. is a \$182.5 billion in revenue Fortune 100 company. Founded in September 1998 as Google and restructured in October 2015, Alphabet produces products in the computer hardware, software, artificial intelligence, autonomous vehicles, automation, biotechnology, cloud computing, corporate venture capital, healthcare, internet, and robotics industries. It operates in 219 countries and territories with international sales representing 53% of total revenue in 2020.

Financial Snapshot

Alphabet has a credit rating from S&P of AA+ and a credit rating of Aa2 from Moody's. Based on its most recent 10-Q, its debt-to-capital ratio is 6%, so it appears to be slightly leveraged. Over the last 5 fiscal years, its gross margin has ranged from 54% to 61% while its operating margins have been between 20% and 26%. Compared to its technology peers, Alphabet's gross margins compare favorably while its operating margins also compare favorably. Sales have increased in each of the past 5 years while its all-important cash flows from operations increased each year as well over the past 5 years.

Alphabet's capital allocation strategy has been to first invest in the organic growth of their business through capital expenditures (CAPEX), then grow through mergers and acquisitions, and finally, reward shareholders through significant share buybacks. Alphabet, however, is one of the few major technology companies that do not offer dividends to shareholders. In fact, over the last 5 years, Alphabet has repurchased \$65.16 billion in shares of their capital stock. (See Appendix 1 for detailed financial information).

Competitive Positioning

Alphabet produces primarily technology products for the low-end markets, with many of its products available for free or made open-source. It has several competitors within each of these markets including similarly large multi-billion dollars in sales international conglomerate companies as well as local country-specific firms. Its largest competitors in each end market are:

Market	Competitor(s)
Search	Microsoft's Bing, Yahoo! Search,
	DuckDuckGo
Cloud Computing	Microsoft's Azure, Amazon's AWS
Mobile Operating System	Apple's iOS
Autonomous Vehicles	Tesla, Ford, Rivian, Nio (China)
Advertising	Facebook Ads, Snapchat, Amazon
Web Browser	Apple's Safari, Mozilla's Firefox
Entertainment (Video)	Netflix, Tiktok

Alphabet expects growth in each end market to come from expanding its domestic market share, thereby decreasing the market share of its competition, and increasing its penetration in new international markets.

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Economic Moats

Alphabet has a durable competitive advantage due to several factors. Because of its strong worldwide brand recognition (Google has become the de facto word for looking something up), it has "share of mind". People recognize and trust its products. Its broad, global reach and diversity of products allows for economies of scale. I foresee four key products to provide an economic moat to Google for the next ten years. These four products are: Google Search, Android, YouTube, Google Chrome. All four products are market leaders in their respective industries and will continue to generate a significant portion of Alphabet's revenues.

Opportunities and Threats

Alphabet's dominant presence internationally provides a strong base from which it can continue to grow in emerging international markets, which include EMEA, APAC, and the Americas. Its dominant position domestically may allow it to increase prices despite inflationary pressures while maintaining or even increasing market share. Major threats to its growth include regulatory risk from the FTC, European Commission, and other global regulators potentially launching antitrust litigation against Alphabet, and Apple increasing its global market share.

Intrinsic Value

In determining the intrinsic value of Alphabet, I relied on a discounted cash flow model (See Appendix 3). Free Cash Flow (FCF) from year 2011 through 2020 has grown at a compounded annual growth rate of 14.4% and has grown from year 2016 through 2020 at a compounded annual growth rate of 10.5%. Because of its durable competitive advantage, I believe it can continue to grow into perpetuity at a conservative rate of 10.5%. That growth rate combined with my required return rate of greater than the overall historic S&P500 index return of 10% yields an intrinsic value per share of \$2,740.26. I foresee Alphabet to remain on the S&P500 for the next 10 years.

Conclusion

If I was required to purchase one stock and hold that equity for 10 years, I would choose Alphabet's Class A stock. Its strong economic moat and consistently growing free cash flows provide the confidence needed for my investment. Based upon my discounted cash flow model, I believe its intrinsic value is \$2,740.26 per share. Because DCF models are inherently imprecise, I would want to purchase Alphabet at a price below my intrinsic value to provide a margin of safety. I would buy Alphabet at \$2,550 per share.