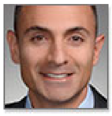
Alphabet Inc Class C GOOG

Alphabet Continues to Dominate the Online Ad Space



by
Ali Mogharabi

Senior Equity Analyst

Authors can be reached at Analyst Feedback

Morningstar's Editorial Policies

Analyst Note 02/04/2019

Alphabet reported better-than-expected fourth-quarter revenue as the firm continues to grow its advertising business impressively. With GDPR, and data security and privacy issues surrounding the firm and its online advertising peers, Alphabet, similar to Facebook, continues to monetize its users and attract more ad dollars to not only its search but also its YouTube video platform. In our view, this demonstrates the firm's strong network effect moat source. While Alphabet's operating margin was in line with our internal projection, it was slightly below the consensus. We expect the firm to continue its investments in R&D in order to stay ahead when it comes to innovative tools not just for consumers, but also for advertisers and enterprises, further pressuring margins in 2019. We did not make significant changes to our projections and continue to value Alphabet at $1,300 per share. While the share price of this wide-moat name has increased over 9% year-to-date, the stock remains attractive at current levels. We note that in reaction to slightly mixed results, Alphabet shares were down nearly 3% in after-hours trading.

Alphabet posted total revenue of $39.3 billion, up nearly 22% year over year. Advertising revenue grew 20% to $32.6 billion as mobile search and YouTube continue to attract the ad dollars. Other revenue, which primarily consists of revenue from Google's hardware products, its cloud offerings, and Google Play, came in at $6.5 billion, a 38% increase from last year. Waymo is not yet generating much revenue, but revenue from Fiber and Verily drove other bets revenue up 18% year over year to $154 million. While we continue to expect deceleration in ad revenue growth, we remain confident that search and YouTube ad sales, plus further growth in cloud and Google's hardware offerings will drive total top-line growth at a 17% CAGR through 2023.

Business Strategy and Outlook 02/02/2018

Alphabet dominates the online search market with Google's global share above 80%, via which it generates strong revenue growth and cash flow. We expect continuing growth in the firm's cash flow, as we remain confident that Google will maintain its leadership in the search market. We foresee YouTube gradually contributing more to the firm's top and bottom lines, and we view investments of some of that cash in moonshots as attractive. Whether they will generate positive returns remains to be seen, but they do present significant upside.

Google's ecosystem strengthens as its products are adopted by more users, making its online advertising services more attractive to advertisers and publishers and resulting in increased online ad revenue. The firm utilizes technological innovation to improve the user experience in nearly all its Google offerings, while making the sale and purchase of ads efficient for publishers and advertisers. Adoption of mobile devices has been increasing, as has usage time on these devices. The online advertising market has taken notice and is following its target audience onto the mobile platform. We have seen Google partake in this on the back of its Android mobile operating system's growing market share, helping it drive revenue growth and maintain its leadership in the space.

Morningstar's Take GOOG

Analyst

Price 02-06-2019 1,115.23 USD	**Fair Value Estimate** 1,300 USD	**Uncertainty** High
Consider Buy 780 USD	**Consider Sell** 2,015 USD	**Economic Moat** Wide
Stewardship Rating Standard		

Bulls Say

- As the number of online users and usage increases, so will digital ad spending, of which Google will remain one of the main beneficiaries.
- Android's dominant global market share of smartphones leaves Alphabet's Google well positioned to continue generating top-line growth as search traffic shifts from desktop to mobile.
- The significant cash generated from the Google search business allows Alphabet to remain focused on innovation and the long-term growth opportunities that new areas present.

Bears Say

- There is little revenue diversification within Alphabet, as it remains heavily dependent on Google and the state of the search ad space.
- Alphabet is allocating too much capital toward high-risk bets, which face a very low probability of generating returns.
- Google's dominant position in online search is not sustainable, as more companies and regulatory agencies are contesting the methods through which the company has been extending its leadership.

Competitors GOOG

More...

Name	Price	% Chg	TTM Sales $ mil
Alphabet Inc Class C	**$1,115.23**	**-2.68**	**136,819**
Alphabet Inc A	$1,122.89	-2.52	136,819
Facebook Inc A	$170.49	-0.39	55,838
Tencent Holdings Ltd	$45.10	-1.27	43,674
Tencent Holdings Ltd ADR	$44.82	-1.49	43,674
Naspers Ltd Class N	$229.00	1.37	6,899

Among the firm's investment areas, we particularly applaud the efforts to gain a stronger foothold in the public cloud market, which is expected to grow more than 25% annually through 2021. Google has quickly leveraged the technological expertise it applied to creating and maintaining its private cloud platform to increase its market share in this space, driving additional revenue growth, creating more operating leverage, and expanding its operating margin, which we expect will continue. Regarding Alphabet's more futuristic projects, although most are not yet generating revenue, the upside is attractive if they succeed, as the firm is targeting newer markets. Alphabet's autonomous car technology business, Waymo, is a good example: Based on various studies, it may tap into a market valued in the tens of billions of dollars within the next 10-15 years.

Economic Moat 02/02/2018

We assign Alphabet a wide moat rating, thanks to sustainable competitive advantages derived from the company's intangible assets, as well as the network effect.

We believe Alphabet holds significant intangible assets related to overall technological expertise in search algorithms and machine learning, as well as access to and accumulation of data that is deemed valuable to advertisers. We also believe that Google's brand is a significant asset, as "Google it" has become eponymous with searching, and regardless of actual technological competency, the firm's search engine is perceived as being the most advanced in the industry.

In our opinion, Alphabet's network effects are derived mainly through its Google products such as search, Android, Maps, Gmail, YouTube, and more. Ultimately, we view Google's network as heterogeneous. On the one side, all the aforementioned products have provided Google with a massive consumer base that allows the company to collect data. On the other side, via its rich collection of data and large user base, Google can offer the best return on investment for advertisers and build a growing network of advertising customers. The addition of each new ad and advertiser improves the efficiency of Google's programmatic advertising offerings, allowing the firm to better monetize the network.

In search, Google has successfully and consistently has monetized many of its technology-based intangible assets, from the original algorithms behind search to the current machine-learning ones, which are also being applied to nearly every product. The company was recognized first for its "extremely relevant results" by PC Magazine in December 1998. From that point, it grew into the world's most popular online search engine and has maintained its leadership. Google processes more than 3 times and 4 times as many search requests as Bing (Microsoft) and Yahoo, respectively. Google Search's success stems from the relevance of its results to its users and the likelihood that this relevance will improve as more data is gathered and analyzed, assumptions are generated, and predictions are created. Google has used machine-learning technology to improve the user experience.

The company has applied machine learning to its Google App (speech recognition), Gmail (Smart Reply), Google Photos, Maps, and many other products, including its cloud offerings. As technological advancements improve the user experience for each product, the likelihood of further usage increases. With more usage, more data about users' behavioral interests is gathered, analyzed, and applied to rank ads more accurately based on their relevance and click-through-rate probability. The monetization of, and higher ROI on, machine learning stems from the fact that the technology increases the volume and click-through rates of ads, resulting in more ad revenue. Google's continuing investment in machine learning should help increase the effectiveness of ad rankings and placements, resulting in higher ROI for advertisers and increased revenue for Google.

We believe Google's investment in machine-learning technology will also enhance the efficiency of its DoubleClick programmatic advertising offerings, which consist of not only real-time bidding that the technology adjusts in real time based on the various search trends it recognizes, but also programmatic direct, where ad impressions (or inventory) can be purchased in advance. Programmatic advertising, and more specifically programmatic video ad spending, is expected to grow at a healthy rate.

Based initially on its technology, Google has successfully increased its users' dependence on its products to keep transforming the usage of those products into something habitual. We have seen that with online search, as most people around the world continue to "Google it." It has strengthened its brand, which we think has longevity. We view the Google brand as a significant driver of user growth for YouTube, Maps, Gmail, and Chrome. Again, an expanding user base helps the company collect more data, which is monetized when applied to online ads.

Google has the world's most widely used search engine, and such a large and growing user base has created a network difficult to replicate, in our view. We believe that an additional search on Google's search engine creates value for other users, as well as for advertisers and businesses. With Google's machine-learning technology, more requests made by current and/or new users improve relevancy of search results, creating value for users. More relevant results also decrease the likelihood of users jumping to another search engine, creating somewhat of a barrier to exit.

For advertisers, value is created mainly through growth of the large user base to target and from behavioral data compiled and analyzed. As users and search requests grow and more data is gathered, advertisers' demands for ads increase, helping Google to further monetize the network.

As with Google search, we see network effects from large and growing user bases of other products, such as Maps, Gmail, and Chrome, all of which create value for users and advertisers. As more consumers use Maps, more data regarding traffic, commuting tendencies, and so forth is gathered, helping Google generate more accurate results (in terms of locations, travel times, and route suggestions). Google also utilizes such data to provide faster routes (via Maps and the Waze app). All of this creates more value for users. As in search, increasing users and data create value for advertisers, which Google monetizes effectively. Businesses and advertisers pay Google to place their search ads, targeted based on users' locations and previous searches, within Maps' search results list and directly on the map.

Although an additional Gmail user does not necessarily create more value for other Gmail users, the growing network does become more valuable for advertisers, creating additional opportunities to place target ads, resulting in more revenue generated from the network.

Usage of Google's Chrome browser is also continuing to grow. According to Net Applications, Chrome browser usage on mobile devices nearly doubled year over year in 2015. It trailed only Apple's Safari, which declined in 2015. On desktops, Chrome usage was also ranked second in 2015, trailing Microsoft's Internet Explorer. However, Chrome was the only browser with higher year-over-year usage share. In our opinion, growth in Chrome browser usage helps increase the network effect for Google; again, the network is monetized via sales of various online ads. With more users, more data is gathered and analyzed, helping advertisers target the large user base more effectively with online ads.

By launching Android in 2007, Google positioned itself well in the faster-growing mobile ad market, maintaining its online search dominance and strengthening its network effect. With Google's Chrome browser on Android phones, more mobile searches are conducted using Google. In addition, more Google apps such as Maps, Gmail, and Google Play are used by consumers on Android-powered devices, further driving ad and other revenue growth. According to data from Gartner, the Android OS powers 75%-plus of smartphones around the world, compared with Apple iOS' 15%. We think it is likely that the two smartphone operating systems will power nearly every smartphone around the world in the long run, with Google's apps not only on Android devices, but also among the top apps used by iOS customers.

In the expanding mobile market, we believe Google will not only maintain but expand its user base, positively affecting the network effect as it becomes more valuable to advertisers, resulting in more digital mobile ad revenue growth. Similarly, Android's network effect also creates more value for users. As the number of Android-powered smartphones increases, more developers will create more apps to be made available on Google Play and run on those smartphones, creating additional value for Android smartphone users.

We think YouTube is also valuable, as it benefits from a network effect that creates value for users, content creators, and advertisers. With more viewers on the site today, more content creators will look to YouTube for content distribution. Continuing growth of YouTube's content library drives further viewer growth. YouTube's video platform has more viewers than other online video properties, making it attractive for advertisers. We believe growth in content library and in viewers on YouTube will drive growth in Google online video ad revenue, a market that is expected to grow at a strong double-digit compound annual growth rate. While Google has also begun to monetize YouTube via the subscription model (YouTube Red and YouTube TV), we expect the majority of YouTube revenue to remain generated through online ads on desktops and mobile devices.

We also expect Google to gain a foothold in the growing enterprise cloud market, but we do not think its cloud offerings create a network effect. Although Amazon is clearly the leader in this space, we expect Google to gain some traction and trail only Amazon's AWS and Microsoft's Azure in market share. Ultimately, we believe Google can leverage the technological expertise it applied to creating and maintaining its private cloud platform to build and maintain public cloud platforms for many businesses.

Regarding other potential sources of moat, we do not believe Alphabet has a sustainable cost advantage when compared with its peers. Alphabet's size allows the firm to invest heavily in Maps and YouTube, and perhaps in more capital-intensive businesses like enterprise cloud or Google Fiber. However, we don't see an inherent cost advantage in Alphabet that other tech titans like Apple and Amazon can't replicate, especially since cloud hardware is becoming increasingly commodified.

We also believe that customer switching costs provide Alphabet with only a negligible competitive advantage. Alphabet's Google offerings, such as search, YouTube, Android, Maps, and Gmail, have some switching costs associated with time and effort needed to learn a new user interface, move content to another platform (YouTube) and notify contacts of an email change (Gmail), but such costs are not so prohibitive that these customers are locked in forever.

Our narrow-moat thesis for Apple is based on modest, but not insurmountable, switching costs around the iOS ecosystem. Android may also benefit from switching costs, as apps purchased on Google Play would have to be replicated on iOS, but we also do not see such costs as overwhelming.

Finally, while Alphabet generates economic profit through Google, which we think will continue, this profit would be higher were it not for Alphabet's strategy of remaining a step ahead in terms of innovation. In its other bets segment, Alphabet is betting on (or investing in) smart homes (Nest), using technology to enhance health (Verily), providing significantly faster Internet access to homes (Google Fiber), self-driving cars (Waymo), and much more.

Some of these wagers may not bring in any winnings, and we believe it is too early to consider these businesses as contributors to Alphabet's economic moat, either in terms of intangible assets or network effects. However, the assets and continuing investments may give Alphabet an early edge as a first mover, although the sustainability of that competitive advantage will be determined over time. In our opinion, these bets demonstrate the company's objective of remaining a leader and one of the main players in the Internet technology space. A hit with any of these bets could put Alphabet further ahead of the technology pack.

Fair Value and Profit Drivers 02/04/2019

Our fair value estimate is $1,300 per share, equivalent to a 2019 enterprise value/EBITDA ratio of 14. We expect continuing double-digit-revenue growth through 2023, helped by greater revenue contribution from YouTube. While there will be some pressure on gross margin, we look for operating leverage improvement beginning in 2020 mainly from revenue growth and deceleration in the growth of other operating expenses. Our model represents a five-year compound annual growth rate of 17% for total revenue and a five-year average operating margin of 22%. We expect advertising revenue to consistently represent around 80% of Alphabet's total revenue, driven by continuing growth in overall digital ad spending, more specifically in search, video, and mobile. We model 18% and 17% year-over-year Google ad revenue growth for 2019 and 2020, representing $137.7 billion and $161.5 billion, respectively. We think YouTube will contribute about $18 billion and $21 billion to Google advertising revenue in 2019 and 2020, respectively. We believe Google will continue to gain traction in the cloud market, and when combined with Google Play and sales of Google's hardware products (including Nest), we see Google's other revenue growing 30% to nearly $26 billion in 2019. For 2020, we expect 25% growth in other revenue. Although Alphabet does not break out revenue for its other bets segment, we are assuming that most of this revenue is generated through Fiber subscribers and Verily. Our total other bets revenue estimates for 2019 and 2020 are $786 million and $1 billion, representing 32% and 27% annual growth rates. Commercialization of Waymo while in its very early stages could drive additional growth starting in 2020. We model 54% gross margin for 2019 and 2020, compared with 56.5% in 2018, due to higher traffic acquisition costs. Higher cost of content on YouTube TV is also likely to affect gross margin. Based on our projections, we expect the average gross margin through 2023 to be more than 220 basis points lower than 2018. Combined with strong revenue growth, we expect slight deceleration of growth in other operating expenses to create operating leverage for Alphabet starting in 2020.

Risk and Uncertainty 02/02/2018

Our uncertainty rating for Alphabet is high, the result of high dependency on continuing growth in the online advertising space, along with questions as to whether the company's moonshot investments will bear fruit. While we remain confident that Google will maintain its dominant position in the search market, a big downturn in online ad spending could have a negative impact on Alphabet's revenue and cash flow, resulting in a significantly lower fair value estimate. On the other hand, positive returns on Alphabet's investments in moonshots could increase the company's fair value estimate considerably. These two factors support our high uncertainty rating.

Alphabet's investments in moonshots have yet to generate positive returns. Given the lack of any sustainable competitive advantages in those businesses, continuing investments in them could affect the company's overall return on invested capital adversely.

Although the moat sources of intangible assets and network effect will help Alphabet's Google retain its competitive advantages, minimal switching cost to utilize a rival search engine remains a risk for the company. A large transfer of users and/or usage to competitors would hurt Alphabet's revenue and cash flow, significantly reducing ROIC and our fair value estimate for the company. This risk is discounted as Microsoft's Bing, the nearest competitor to Google's search engine, currently does not have significant presence in the mobile market, which is one of the main growth drivers of the search ad market.

The rapid adoption rate of additional online ad platforms, such as Facebook's social network, could lower Alphabet's revenue growth, eliminating operating leverage and creating pressure on operating margin.

In addition, Alphabet's Google faces various claims and investigations brought on by different companies and regulatory agencies regarding search bias.

Stewardship 09/25/2018

We assign a Standard stewardship rating to Alphabet's management. It appears that management aims to remain ahead of the pack by acquiring valuable assets to utilize and build upon, as it did with Android, YouTube, DoubleClick, and Motorola Mobility. In addition, Alphabet continues to invest in research and development and various high-risk and high-reward projects, which if successful could generate significant returns for the company. Investment in autonomous vehicle technology, which the firm's Waymo, is just one example. Given the large amount of cash and cash equivalents and low debt on Alphabet's balance sheet, it appears that management continues to make the right decisions regarding capital allocation, as it is more likely to continue making acquisitions and investments in futuristic projects.

In late 2015, Alphabet became a holding company, with Google one of its wholly owned subsidiaries. Alphabet is also the parent company of other businesses, mostly moonshots, which are grouped into the other bets segment that includes Waymo. This structure provides more transparency to shareholders, as the company's mature cash-generating business, Google, will be managed separately. In our opinion, this move also could indicate that management is considering some form of redistribution of cash generated by Google to shareholders a few years down the road.

Under this structure, Larry Page, who cofounded Google, is a director and the CEO of parent company Alphabet. Sergey Brin, the other cofounder of Google, is also a director of Alphabet. Sundar Pichai is the CEO of Google. Pichai joined Google in 2004 and was its product chief before becoming CEO in 2015. Susan Wojcicki, who has been with Google since 1999 and convinced Google to acquire YouTube, became CEO of YouTube in 2014. Ruth Porat is CFO of Alphabet and Google. She was CFO at Morgan Stanley before coming to Alphabet in 2015.

Although management's decisions have generated exceptional returns for shareholders in the past, and are likely to continue doing so, we remain watchful regarding the high concentration of voting power. Cofounders Page and Brin and former CEO and former executive chairman Eric E. Schmidt have nearly 60% voting power. In addition, given Alphabet's multiclass share structure, it appears that this high concentration of power will remain intact in the long run, which could result in significant conflict of interest if the cofounders and Schmidt, who remains as a board member of the firm, make too many high-risk wagers on futuristic projects. However, we have not seen any indications of this.

Overview

Profile:

Alphabet is a holding company, with Google, the Internet media giant, as a wholly owned subsidiary. Google generates 99% of Alphabet revenue, of which more than 85% is from online ads. Google's other revenue is from sales of apps and content on Google Play and YouTube, as well as cloud service fees and other licensing revenue. Sales of hardware such as Chromebooks, the Pixel smartphone, and smart homes products, which include Nest and Google Home, also contribute to other revenue. Alphabet's moonshot investments are in its other bets segment, where it bets on technology to enhance health (Verily), faster Internet access to homes (Google Fiber), self-driving cars (Waymo), and more. Alphabet's operating margin has been 25%-30%, with Google at 30% and other bets operating at a loss.