



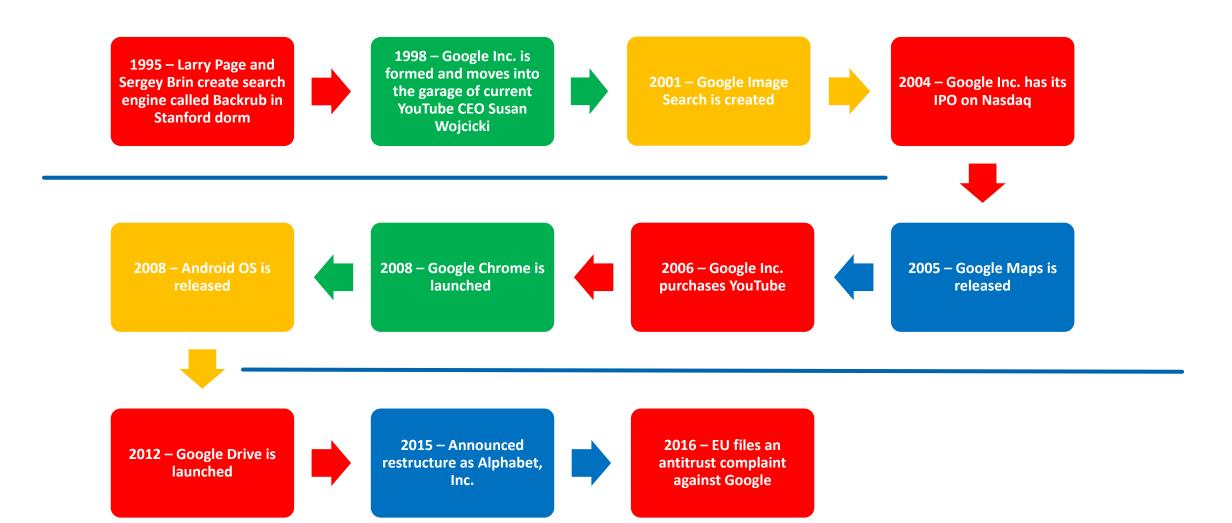
#### **Company Overview**



- Ticker: GOOGL Class A (Nasdaq)
  - GOOG Class C (Nasdaq)
- Headquarters: Mountain View, California
- Stock Price: \$1375.74
- Market Cap: \$948B
- Revenue: \$161.9B

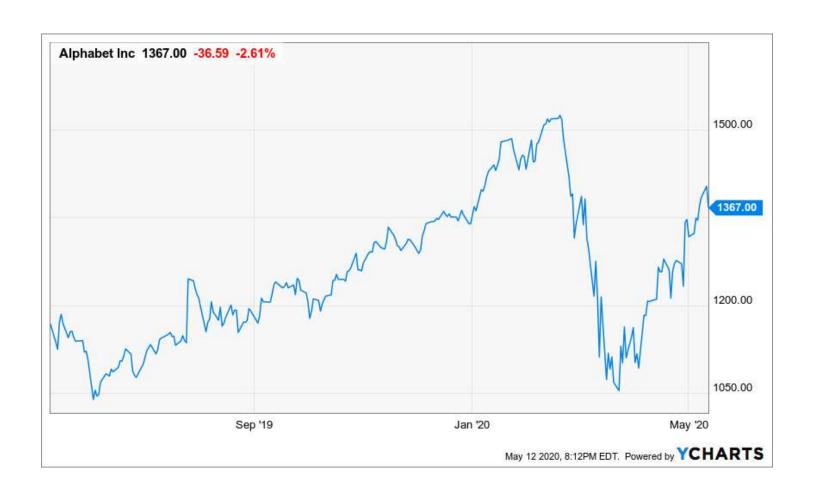


## **Company History**





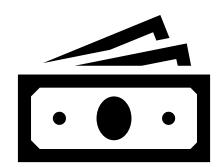
#### **52 Week Performance**



- February 2020 Google stock price begins to drop as COVID-19 impacts the market
- March 2020 Stock Price begins to rise



# Revenue





#### Revenue By Geography

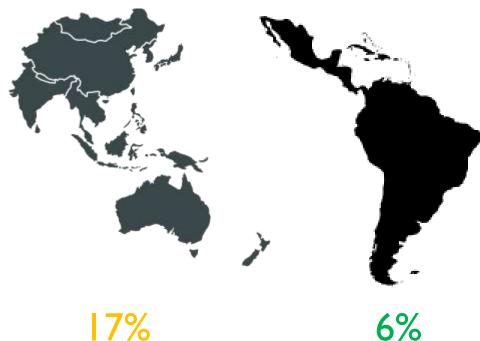
**United States** 

Europe, Middle East & Africa

Asia-Pacific Other Americas







46%

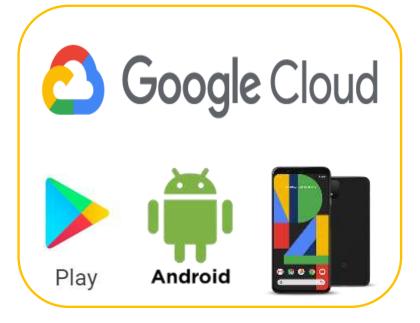
31%

17%



#### Revenue Segments







**Advertising** 

83.09%

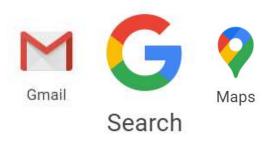
Cloud & Other

16.1%

Other Bets 0.4%



### **Advertising Revenue**



Search and Other

\$98.115B





Google Network

Member's Properties

\$21.547B



FY 2019: \$134.811 Billion



Youtube Advertising

\$15.149B





#### Performance Ad Business Model

Advertisement Fee



Consumer Purchase



#### **Brand Advertisement Business Model**



Consumer Purchase



#### Cloud and Other Segments Revenue





Cloud and G Suite Taskforce

\$8.918B











Google Play, Subscriptions, and Hardware

\$17.014B

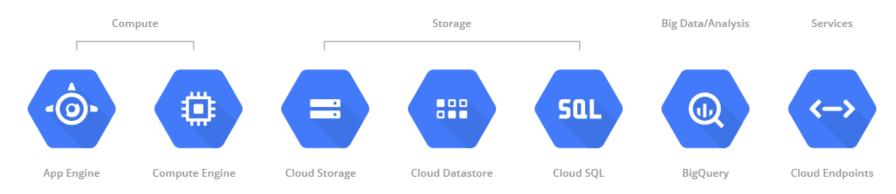


FY 2019: \$25.932 Billion



#### **Cloud Business Model**





#### Customer-friendly pricing



#### No up-front costs

Pay \$0 up front to benefit from Google Cloud Platform's great services at great prices.



#### Pay as you go

Building data centers is not your business. By paying for services as needed, you save money and can focus on innovating.



#### No termination fees

Stop paying for service the second you turn it off.<sup>2</sup>



#### **G-Suite Taskforce Business Model**

FILTER Product Suite	~	\$6 Basic	\$12 Business	\$25 Enterprise
Intelligent office suite		~	~	~
Secure cloud-based file storage per user		30 GB	Unlimited*	Unlimited*
Access across devices (computer, phone, or tablet)		~	~	~
Works without internet connection		~	~	~
Compatible with Microsoft Office		~	~	~
Centralized administration console		~	~	~
Vault for eDiscovery and archiving			~	~
Advanced enterprise controls and customization				~
Access Transparency				~
Cloud Identity Premium features				~



## App and Subscription Business Models



Claims 15% of every sale made



\$11.99/month subscription

YouTube and YouTube Music ad-free, offline, and in the background



Organizations can pay \$20-\$33/device/month and get a notebook, enterprise support, new devices every 3 years



\$9.99/month subscription

40 million songs in 64 countries



Free for Smartphone Developers

Must have google account to use & OS contains pre-loaded permanent google apps



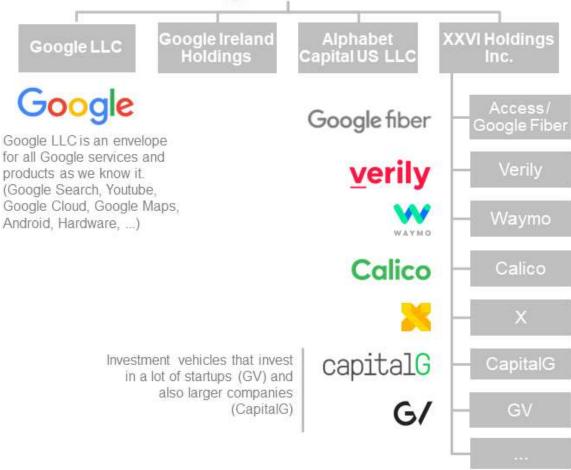


\$29-\$239 \$339-\$749



#### **Other Bets Revenue**

#### Alphabet





FY 2019: \$529 Million



#### **Other Bets Businesses**



Offers high-speed internet, TV, and phone service. It's billed as an alternative to traditional cable companies.



Focuses on healthcare and disease prevention research

#### Calico

Invested millions to develop drugs to fight age-related diseases like cancer or Alzheimer's



GV is Alphabet's early-stage venture arm. Has more than \$4.5 billion under management.



Alphabet's self-driving car project



Sidewalk Labs aims to find new ways to improve cities through technology



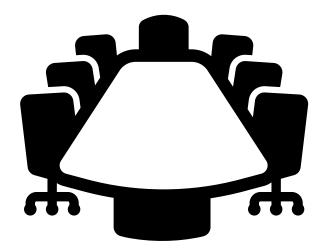
X is a secretive R&D lab, nicknamed Alphabet's moonshot factory



DeepMind has focused on adding artificial intelligence throughout Google products, including search



# Management &





#### Management



Sundar Pichai

CEO of Alphabet Inc. and its subsidiary Google LLC. Sundar took the position of CEO of Alphabet, Google's parent company, in late 2019.



Ruth Porat

CFO of Alphabet Inc. Since 2015.

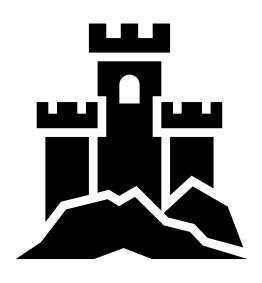


Larry Page & Sergey Brin

of Alphabet Inc.
Respectively; co-founded
Google back in 1998. Still
own a large portion of
Alphabet's voting shares
and remain on the Board.



# Economic Moat





#### **Economic Moat**

#### Intangible Assets

Brand – "Google it!"

Machine Learning + Algorithms

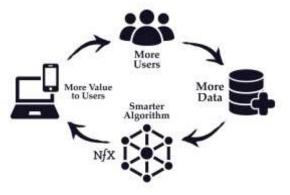


#### Network Effect

Google Search, Maps, Android phones, Gmail, and YouTube.

Technological advancements and machine learning are always improving user experience to encourage the likelihood of further usage.

The growing network of users becomes more and more valuable to advertisers as time goes on.





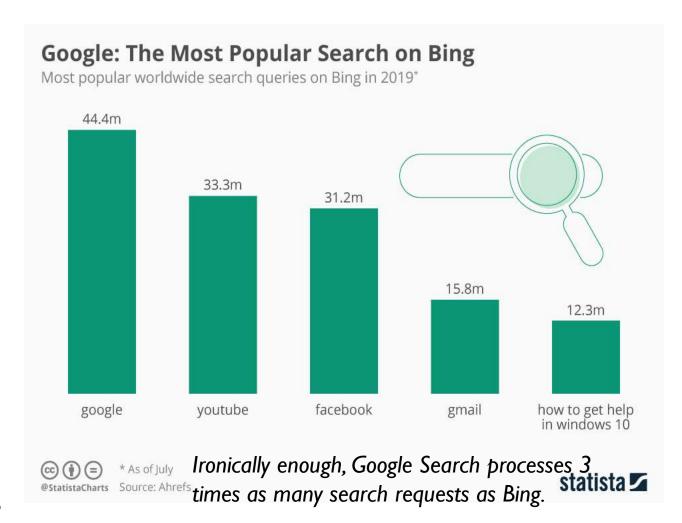
#### More on Intangible Assets

Google's brand virtually bred their network and their scalability.

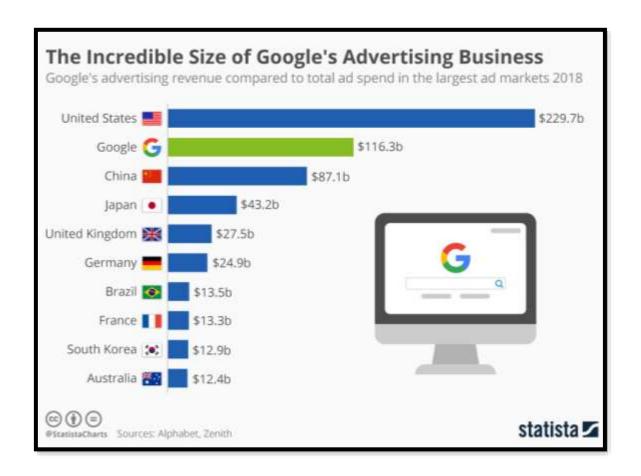
Overtime the company has ventured into different industries and done so successfully. Brand recognition plays a large role in their success with these ventures.

For example, Android OS on mobile devices containing standard Google Apps such as Maps, Chrome, and Gmail, reigns in at an estimated 85% or more of global smartphone market share.

"Google modernized and made a financial engine out of internet search. They created the mechanism that gave excellent economics to advertisers, created that trend (online advertising) themselves, and now they dominate it." – Jeff Mueller, Polen Capital



#### **More on Network Effect**



- •Google's network is nearly heterogeneous. A person using one of their platforms or products is incredibly likely to use another.
- Search algorithms and machine learning utilize user data to constantly improve the viability of results.
- As google tends to the user experience they strengthen the connection with their users while simultaneously growing their ad customer base.
- Double edged sword: Google products constantly improving to grow consumer network, more consumers means more data, more data and consumers on their network allows Google to provide the best return on investment for advertisers.

# Acquisitions 455





#### Keyhole, Where2, Zipdash

- Acquired in 2004
- Paved the way for Google Maps
- Makes money based on location-based ads
- Is the groundwork for Google Self Driving cars





#### Android

- Acquired in 2005 for \$50 million
- Led to the creation of the Android Operating System
- Today Android smartphones control 86.1% of mobile device market share globally (suck it Dillan)
- Generated around \$30 billion in Revenue (since 2005)





#### YouTube

- Acquired in 2006 for \$2.6 Billion
- Largest Online Video Sharing Platform
- \$11.1 Billion in ad revenue in 2018
- \$15.1 Billion in ad revenue in 2019





#### Double Click and AdMob



- Acquired Double Click in 2007 and AdMob in 2009
- Revolutionized advertisements
- Created new ways to bolster ad analysis and their targeting capabilities
- One of the largest acquisitions to date but also the most profitable.



#### Nest Labs

- Acquired in 2014 for \$3.2 Billion
- Is the groundwork for a smart home
- Can control household items such as thermostats, security cameras, alarm systems and WiFi-routers
- Potential future growth when smart homes becomes more popular





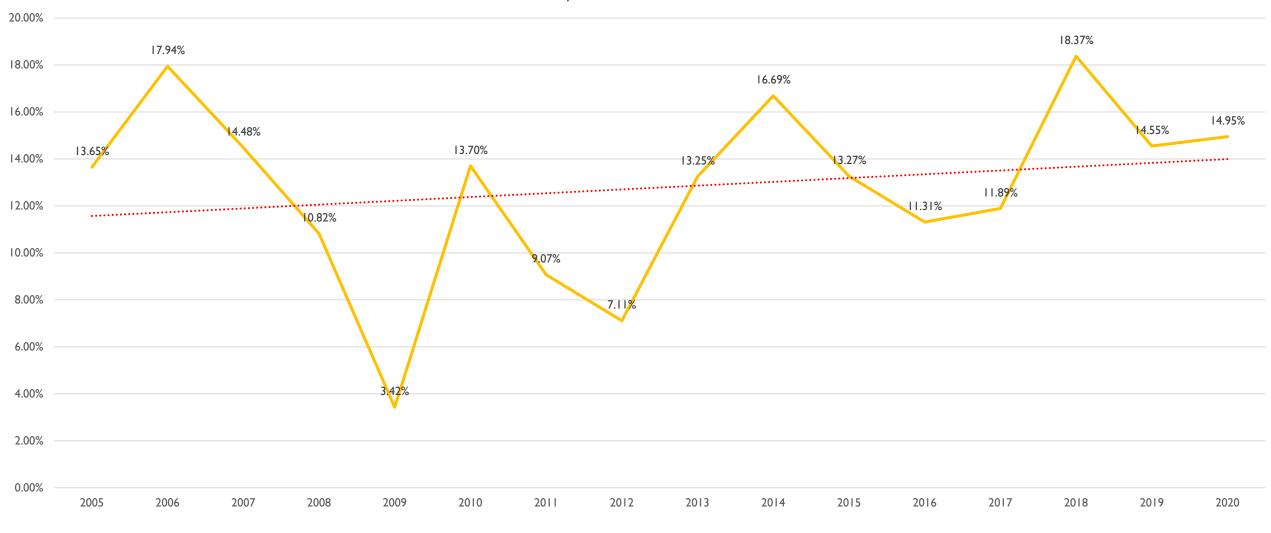
#### **Fitbit**



- Announced plans to acquire in 2019
- Plans to use Fitbit to join the wearables market
- Potential for a new smartwatch
- Totally won't use your information for health-related ads.
   (Trust me guys)

## Effective Acquisitions?

CapEx as a % of Revenue





# 





#### Reliance on Advertising

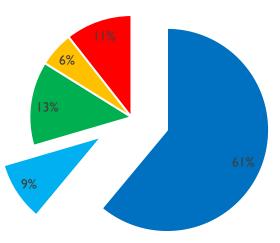


Google is a business that hoards information, and acquires it from every source that it can to make its advertising more effective, thus being more valuable



Whether it's home information via nest, location tracking through maps, search information logging through google search, or even your heart rate and exercise habits (Fitbit prospectively)
Google knows you, and how to monetize your information.

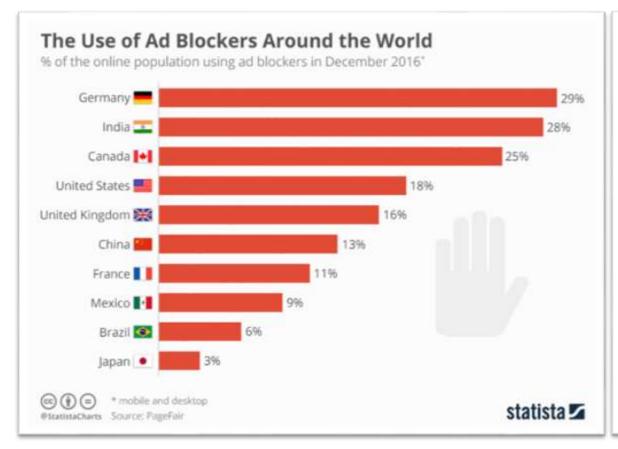
- Google Search & other
- YouTube ads
- Google Network Members' properties
- Google Cloud
- Google other

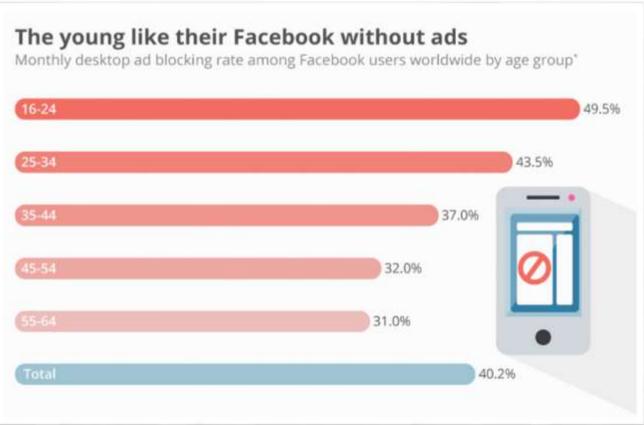


If Google's advertising revenue falls, the company will suffer



### Reliance on Advertising







# Coronavirus Impact

The virus has caused an increase in traffic on google platforms

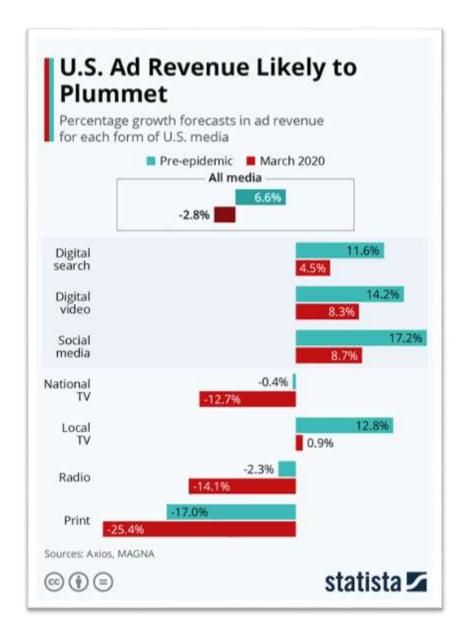
Slowdown of consumption and changing consumer habits negatively affected advertising revenues growth

Non-Advertising revenues weathered the virus better, such as Google Cloud growing at 52% YOY

Google's push for revenue diversification will help weather future uncertainty, but not negate it

Operating income only grew .7%, other bets operating loss grew 29% to \$1 billion

Management expects that things will likely be worse come Q2





### Coronavirus Response

#### Coronavirus Outbreak

New Verily and cloud partnerships with healthcare providers, and government agencies for virus information management, and responses

User expansion of Google classroom, record users of online conferencing platform "Meet," 400% increase in Chromebook 'demand'

New Cloud partnerships for companies like Loblaw and Vodafone help them scale to meet dramatic increases in demand



#### Rising Costs of Growth

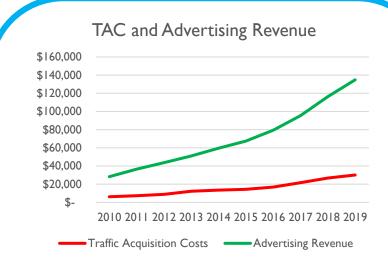
Google, despite its immense size, is a company that continues to grow at a rapid rate

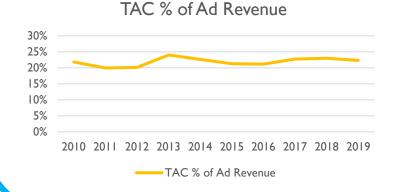
This growth is derived from different segments with different operating margins

If not effectively managed, these rising costs may make Google a less attractive investment

In the past Google has effectively kept their traffic acquisition costs at a steady percent of revenues

Management expressed belief that their operating margin will likely decline going forward







#### Competition

Google competes with extremely well-established, wide moat companies for both their advertising and cloud-based revenues

These businesses are fully capable of introducing, or scaling disruptive technological advancements that could make Google's services obsolete or significantly less valuable

Currently, the battle for cloud dominance between Google, Microsoft, Amazon, and Oracle is the most obvious example





### Consumer Privacy





Invasion of privacy, monetization of data, censorship, and data breaches all have, and will all continue to serve Google with litigation

Past incursions have already negatively impacted Google's reputation, such as the development of a censored search engine for China

Data breaches have occurred in the past.

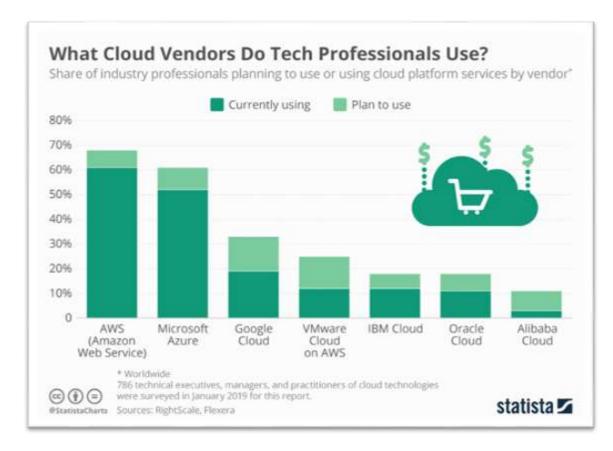
If Google's Cloud services develop a reputation as being unsecure, it could severely hamper the growth of their cloud offerings.

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#### Google Cloud



Google continues to expand its cloud offerings and grow revenue at significant rates

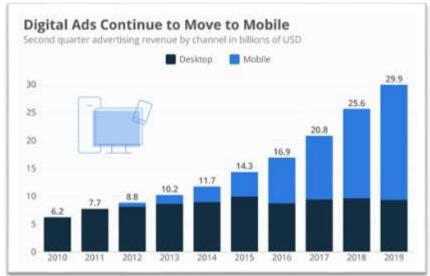
Google's experience with cloud computing was leveraged to expand to infrastructure, analytics, and their G Suit services

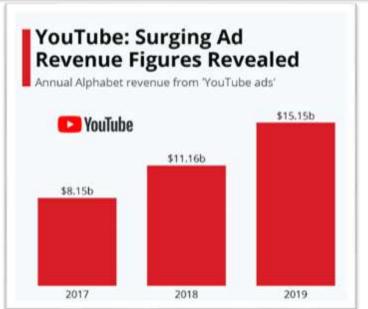
Revenue growth for this segment was 52% YOY

Google cloud is the largest non-advertising revenue stream



#### Ad Revenue Growth





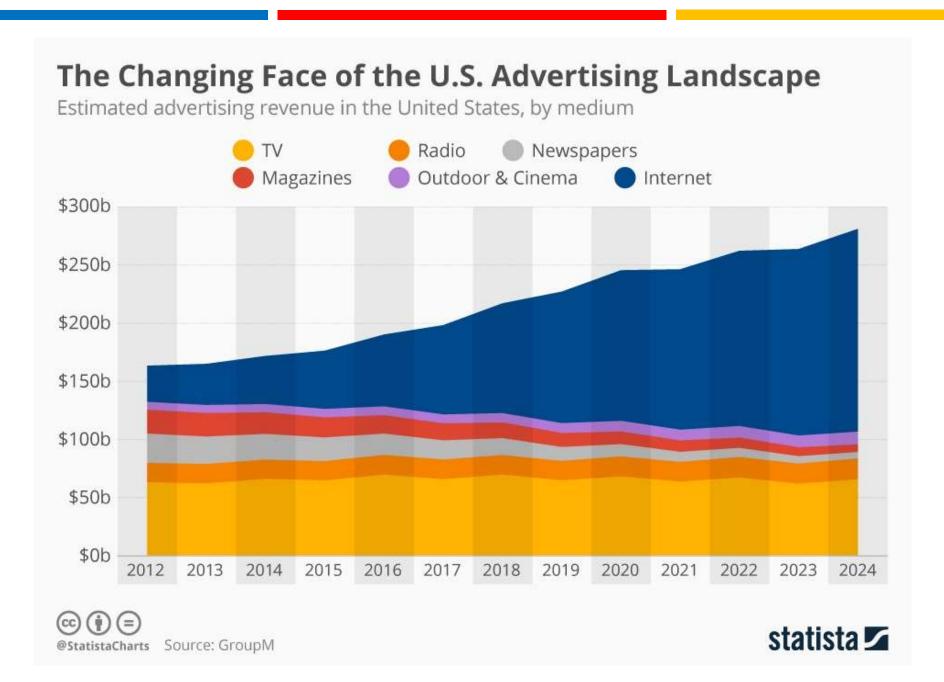
Despite being Google's most mature segment, advertising revenues continue to grow with google search and other and YouTube ad revenue growing at 15% and 35% respectively

Google's keen use of analytics, ad shifts and optimizations for mobile devices reach more people, and make more impressions day in and day out

Google ad revenue is increasingly coming from different channels, such as mobile and newer ad formats

Revenues from these new channels, though high in volume, have slightly lower margins than desktop search revenue





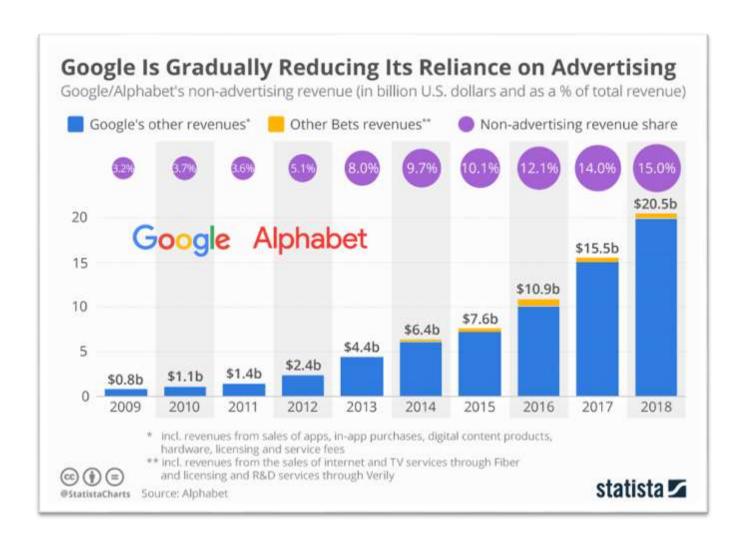


#### Other Bets

"We will not shy away from high-risk, high-reward projects that we believe in because they are the key to our long-term success."

Other bets are fully owned subsidiary operate independently, often at a loss, in the hopes of creating an innovative new product, service, or monetization scheme

In the past YouTube, was an "other bets" of Google, now being almost 10% of revenue





#### Other Bets

Consider Google's Other bets essentially like a scaled-up version of R&D, that does generate some income.

This income is overshadowed by operating losses though

Instead of distributing dividends, Google prefers to reinvest in itself and new ideas

	Year Ended December 31,					
		2017		2018		2019
Operating income (loss):						
Google	\$	32,456	\$	36,655	\$	41,673
Other Bets		( <del>2,734</del> )		(3,358)		(4,824)
Reconciling items(1)		(3,544)		(5,773)		(2,618)
Total income from operations	\$	26,178	\$	27,524	\$	34,231



#### Hardware

"Hardware is still in the early stages of delivering on our vision for ambient computing."- Q4 Call

Fledgling portion of Google's other bets Chromebook, Pixel phones, Nest Smart homes, ect.

Highly competitive industry, with short product life cycles, historically lag against major competitors

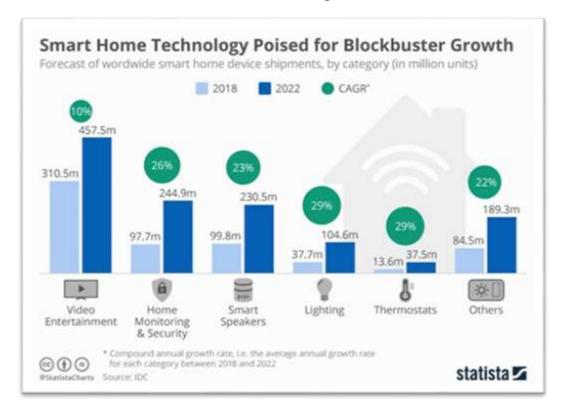
Allows Google to collect more and more data about its users and also drives their strategy for ambient computing





#### Hardware

Ambient computing and the internet of things (smart homes) are Google's vision for their hardware segment





"Ambient computing" is the combination of hardware software that allows users to interface with Google devices wherever they are



#### Moonshots

This is the "F it, why not?" segment

That theory of reinvestment in ideas that might not yield much is further, and much more bombastically, played out here.

Waymo and Verily are some of the graduated moonshot ideas that are further expanding

#### **Graduated**

Self-Driving Cars



**Delivery Drones** 

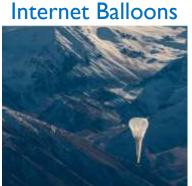


Geo-thermal Home Heating



Salt-based Energy Storage Life sciences (Verily)









#### **Moonshots**

An example of a moonshot soon to move on to the other bets segment is Waymo

The business just raised 2.25 billion in its first round of external investment

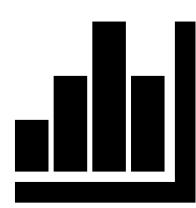
This portion of debt represents roughly half of Google's total debt obligations



WAYMO ONE

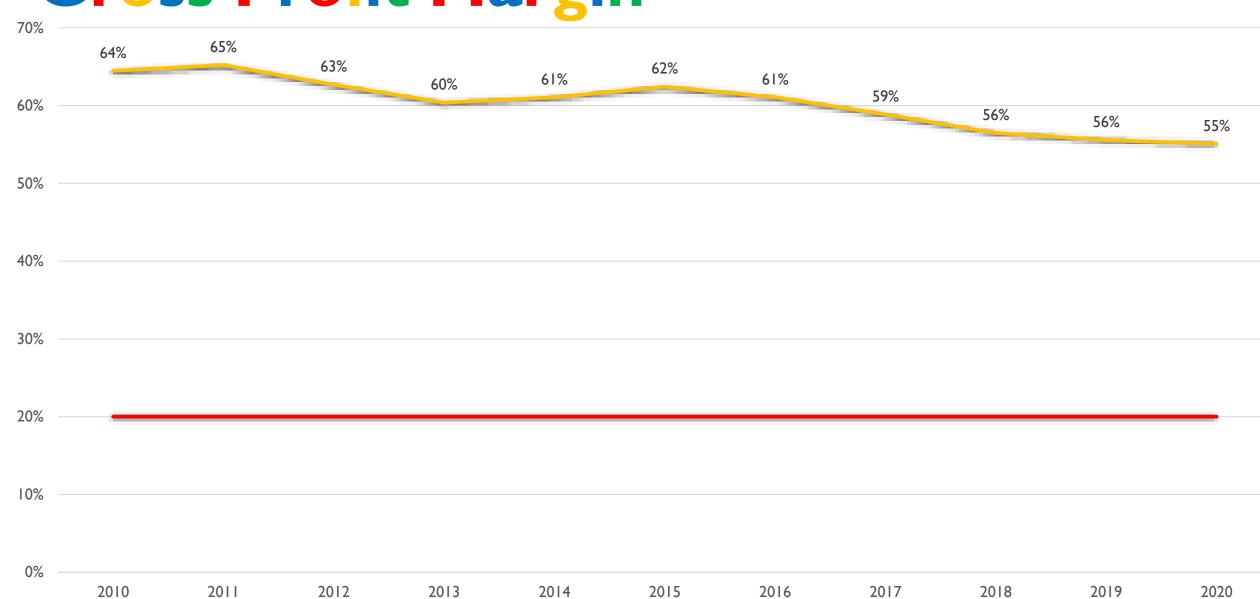
WAYMO VIA

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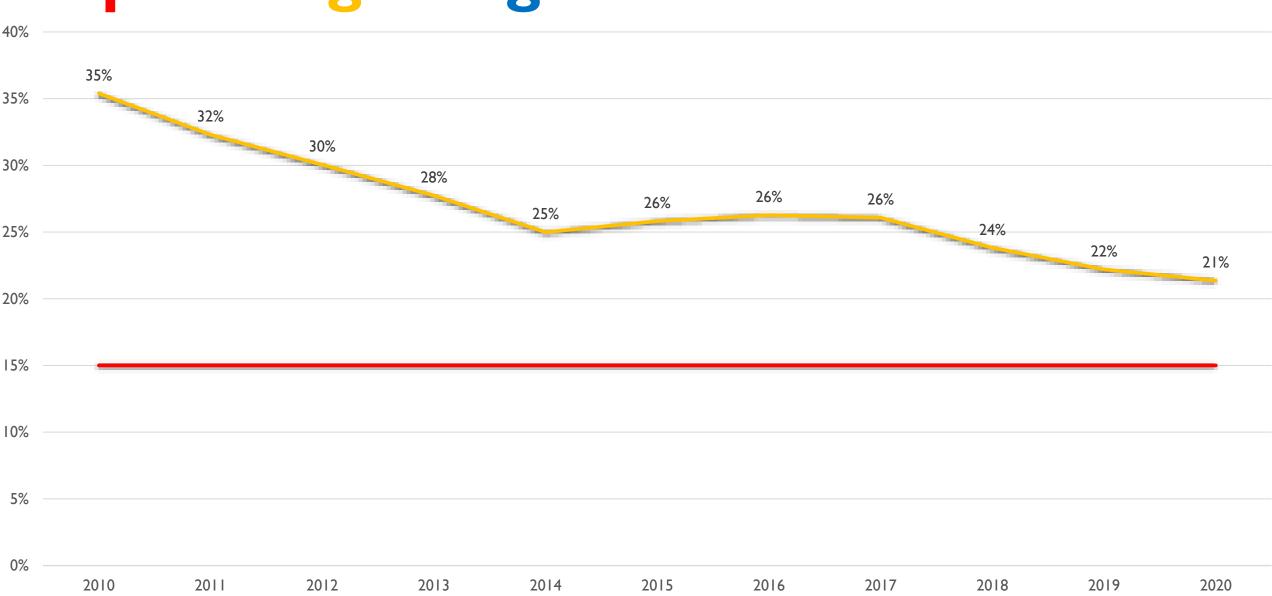


#### **Gross Profit Margin**



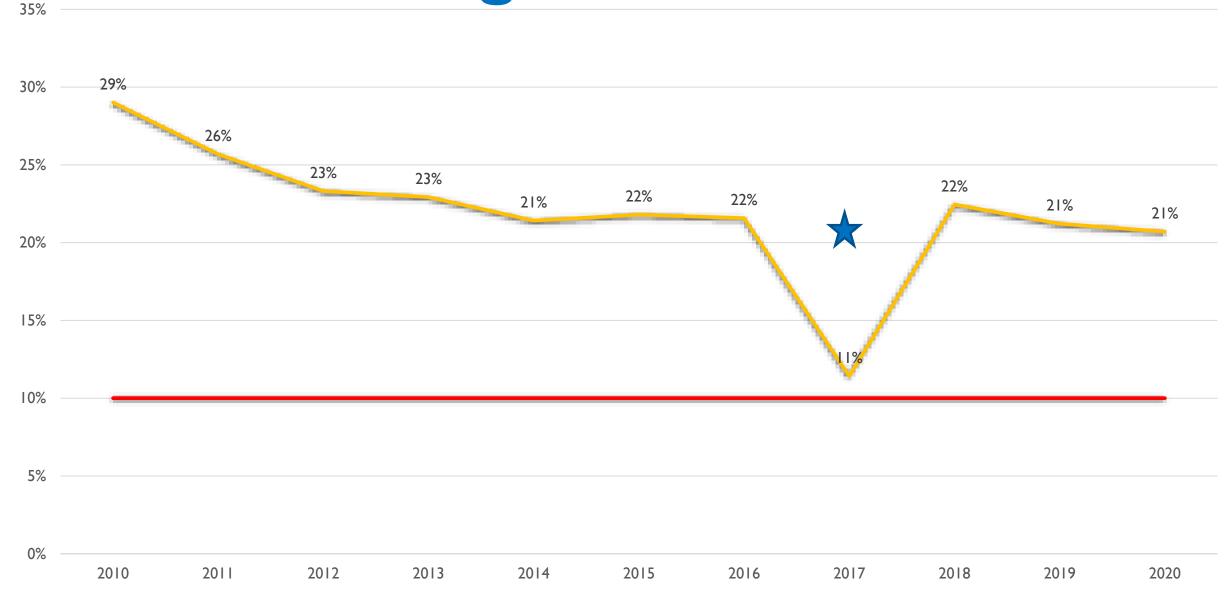


#### **Operating Margin**



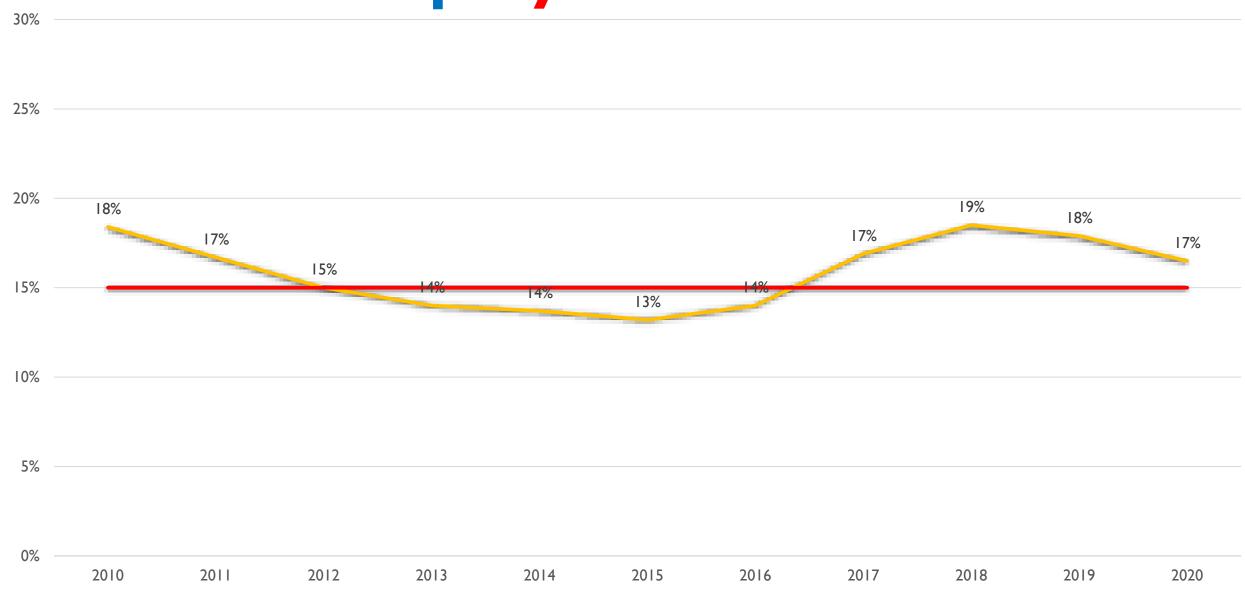


#### Net Profit Margin



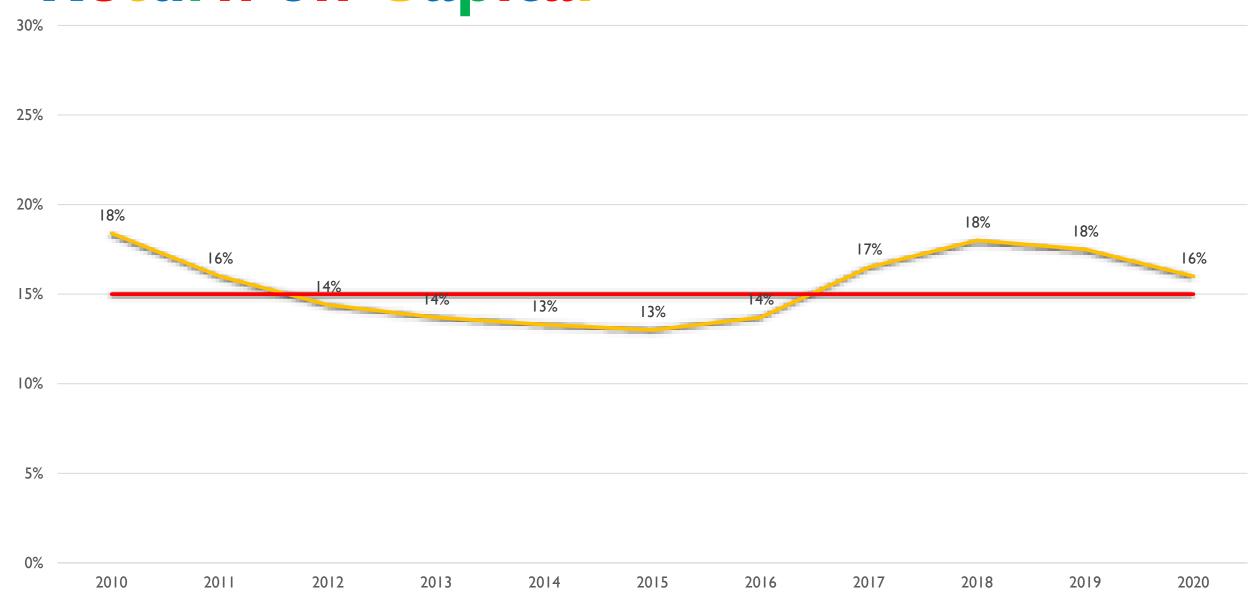


#### Return on Equity



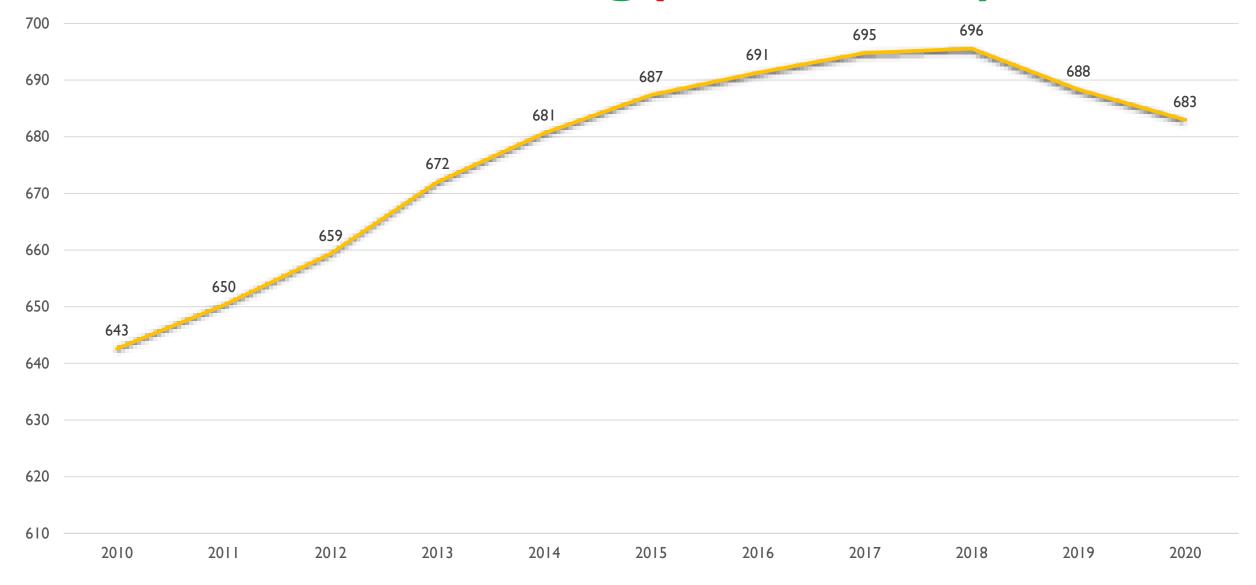


#### Return on Capital





#### **Shares Outstanding(in Millions)**





#### Revenue (in Millions)



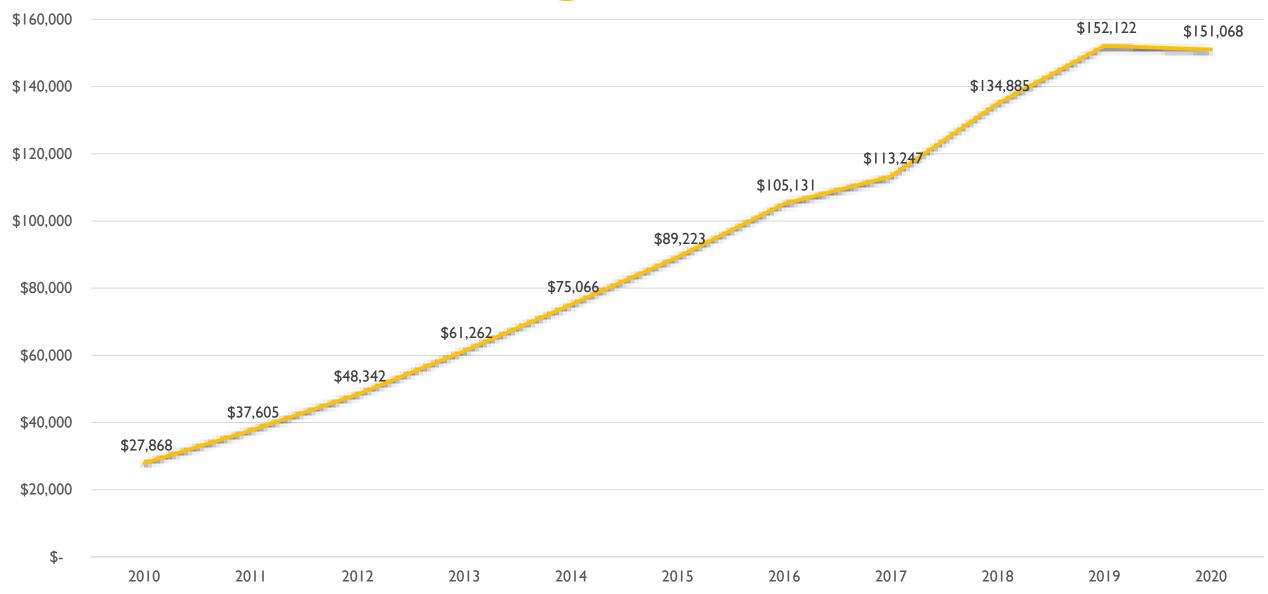


#### Net Income (in Millions)





### Retained Earnings





#### Free Cash Flow





#### Long Term Debt (in Millions)





# DuPont Analysis

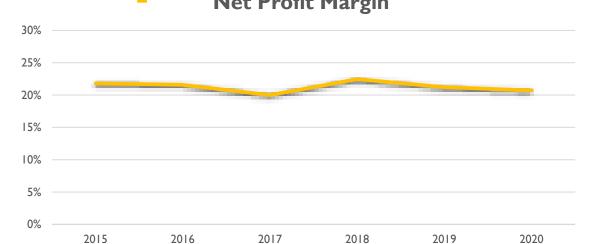


#### **Dupont Historical**

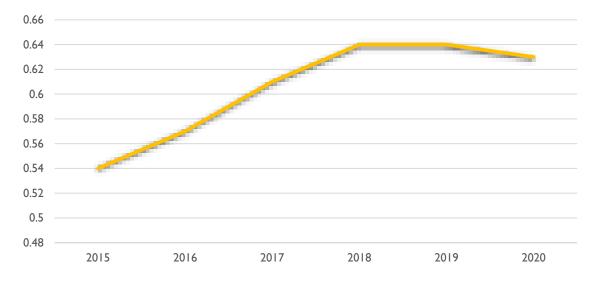
	Net Profit Margin	Total Asset Turnover	Financial Leverage Multiplier	Return on Equity
2015	22%	0.54	1.23	14.43%
2016	22%	0.57	1.20	14.82%
2017	20%*	0.61	1.29	15.78%
2018	22%	0.64	1.31	18.84%
2019	21%	0.64	1.37	18.60%
2020	21%	0.63	1.34	17.52%



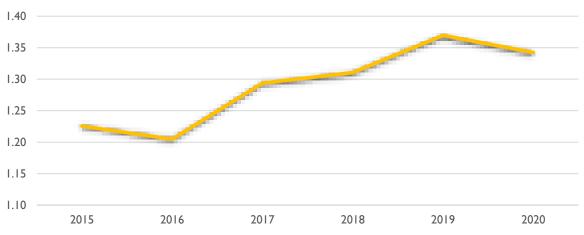
## Dupont Historical Trends Net Profit Margin Finan



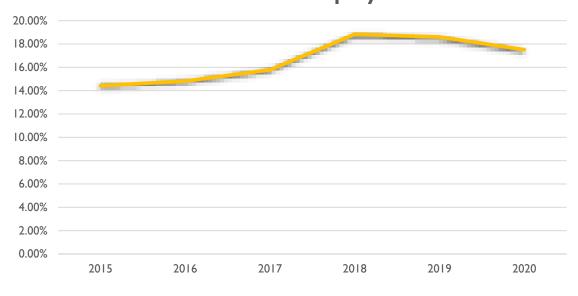
#### **Total Asset Turnover**



#### Financial Leverage Multiplier



#### **Return on Equity**





#### **Dupont (Competition)**

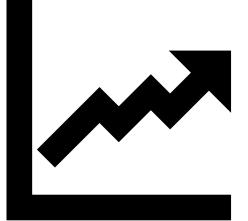
	G	Ć	Microsoft
Financial Leverage Multiplier	1.34	3.74	2.80
Total Asset Turnover	0.63	0.74	0.46
Net Margin	21.22%	21.24%	31.18%



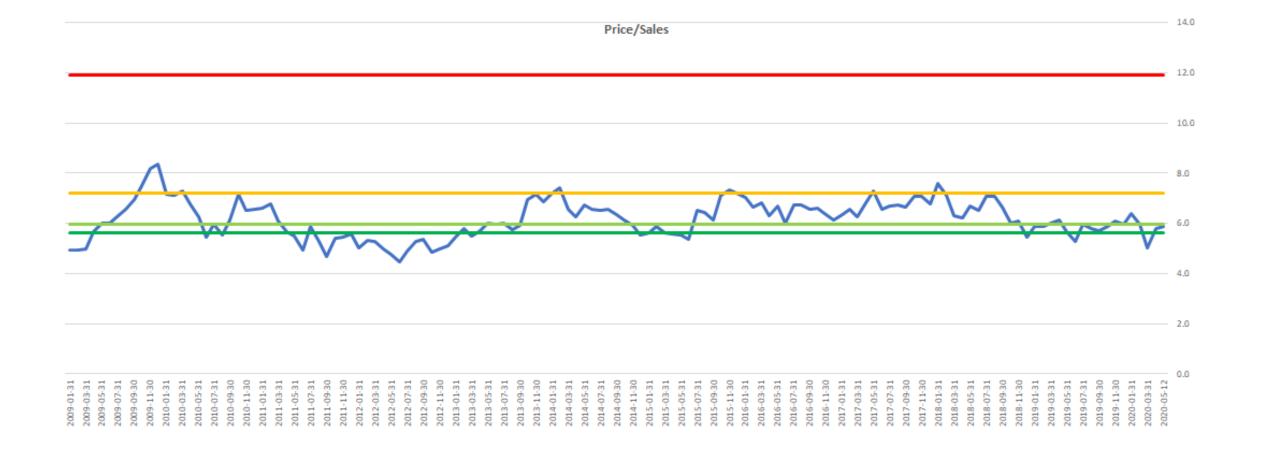
#### Industry Breakdown

	G	Ć	Microsoft
Market Cap	\$948B	\$1.3T	\$1.4B
Revenue	\$161.9B	\$260.2B	\$125.8B
Price to Earnings	27.23	18.9	26.42
Price to Sales	5.94	4.01	8.25
Price to Book	4.57	11.00	10.01
EV/EBIT	20.6	14.47	20.88
Return on Assets	13.50%	15.69%	14.39%
Return on Equity	18.12%	55.92%	42.41%
ROE% Adj. to Book Value	3.96%	5.08%	4.24%
Operating Margin	22.20%	24.57%	34.14%
Net Margin	21.22%	21.24%	31.18%

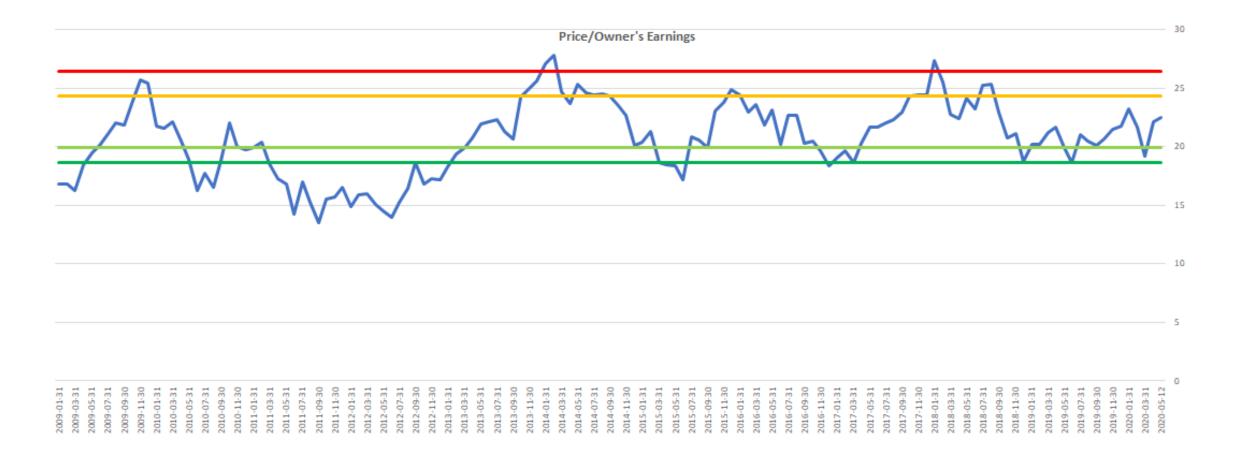
# Value Bands



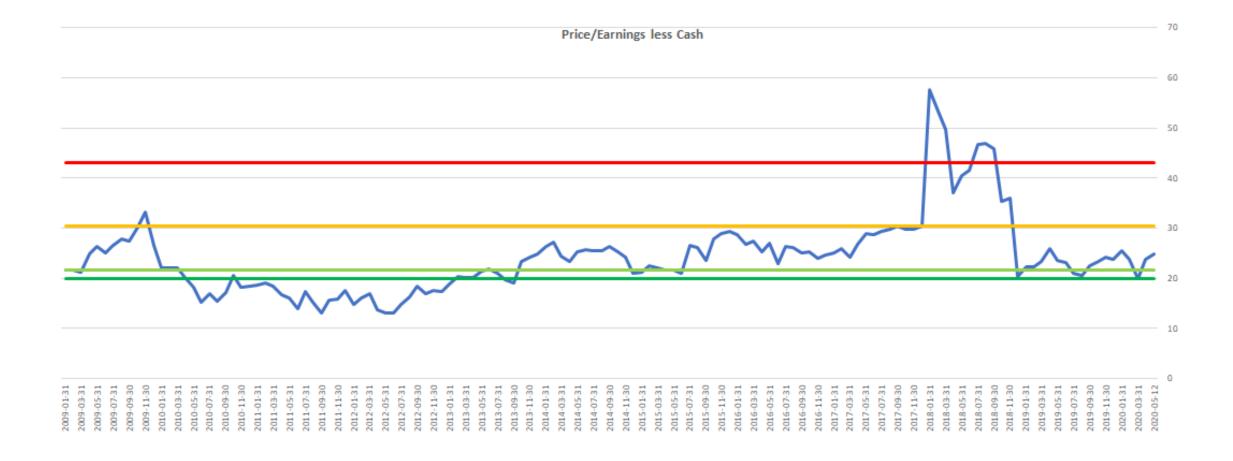




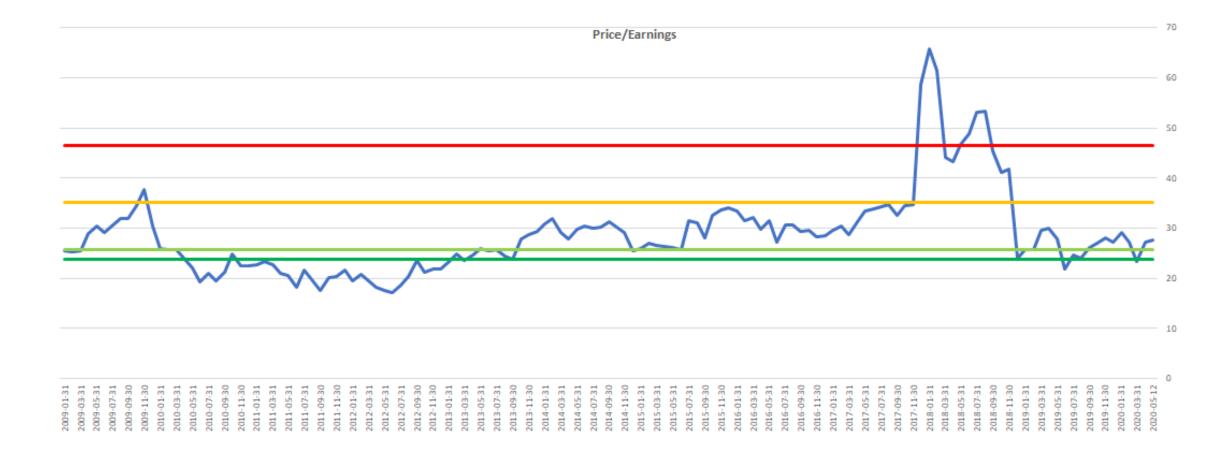




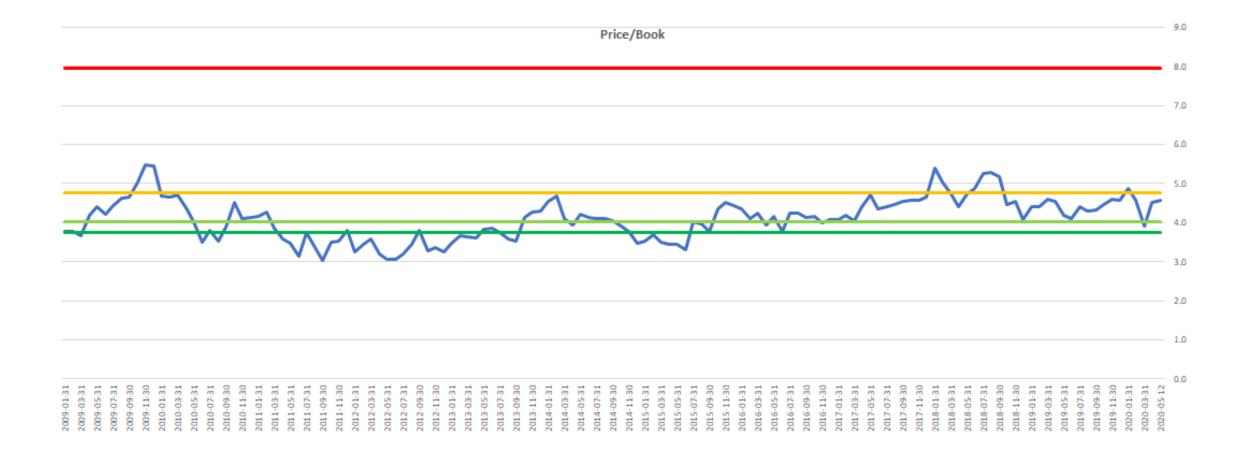








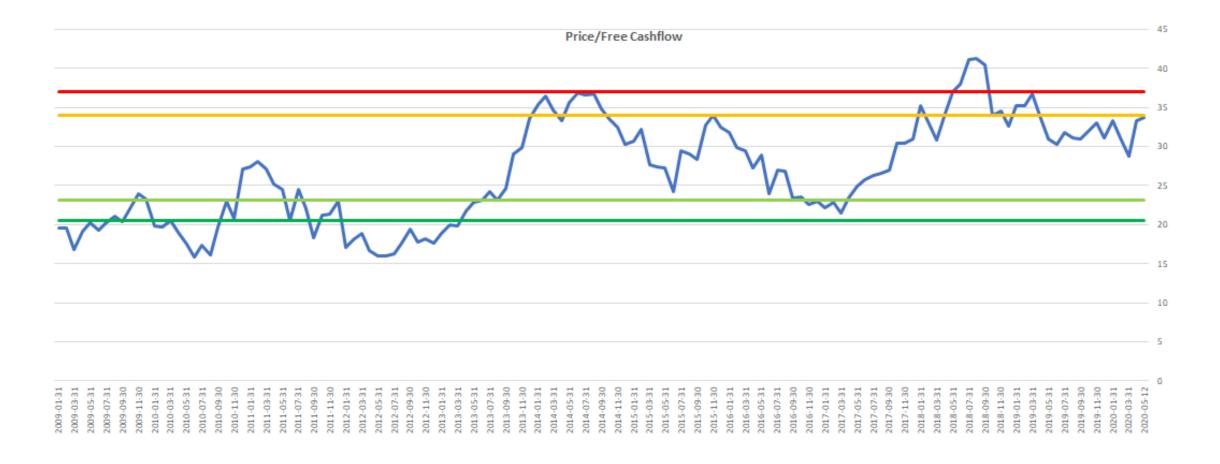




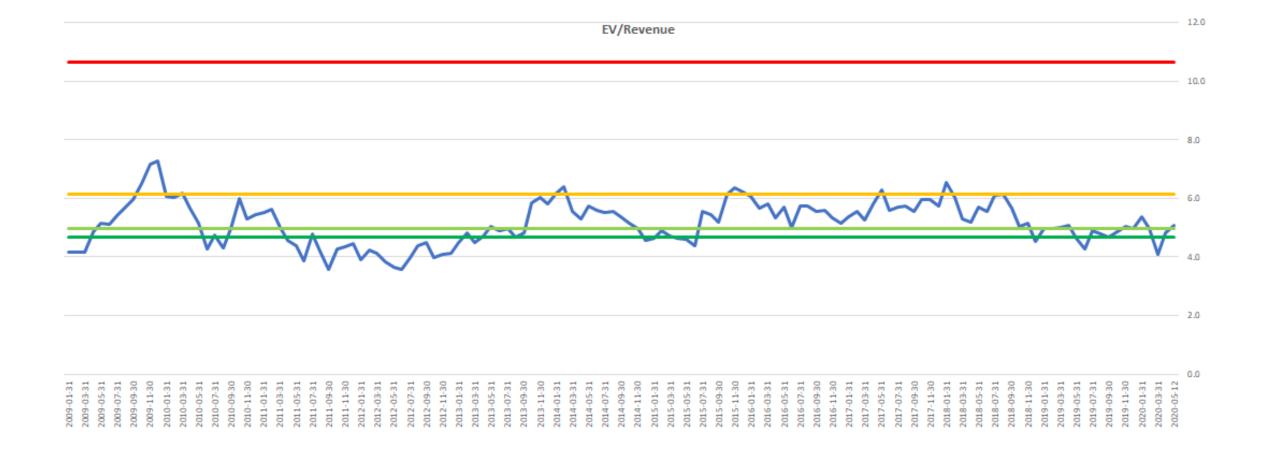




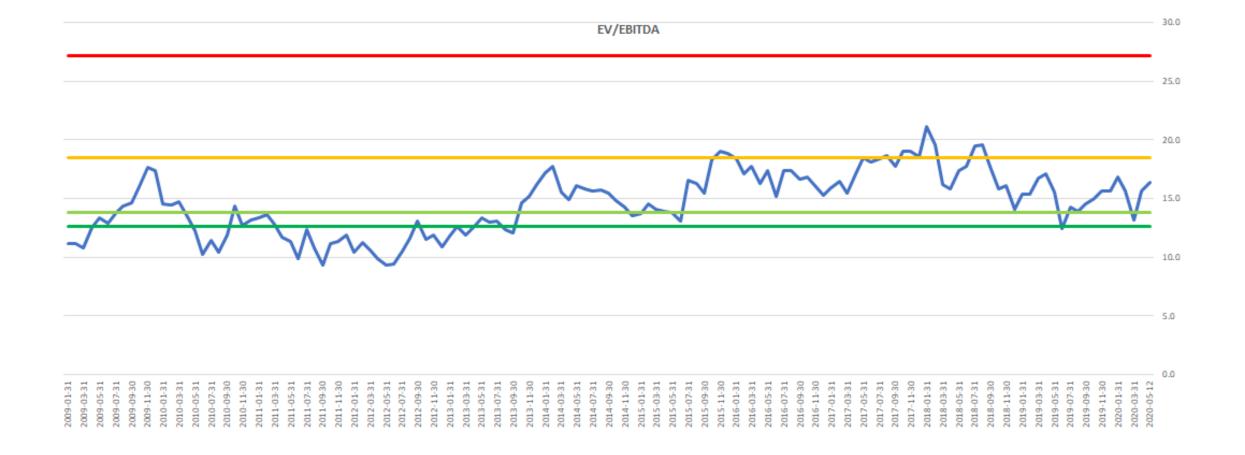




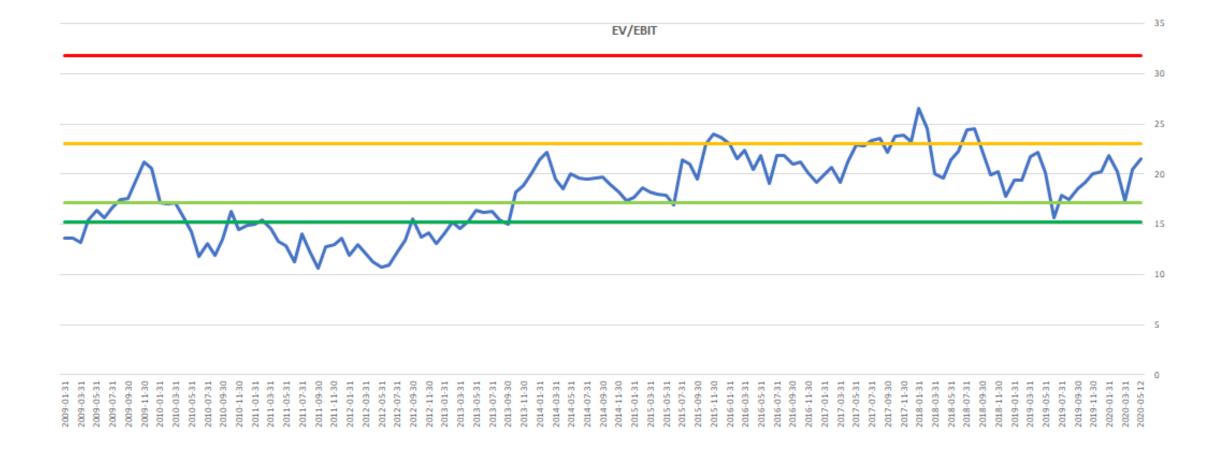












### Obligation Ratio

Total Debt: \$5,016

+Leases (x7): \$12,299

+No Preferred Stock

+No Pensions

Less Cash: -\$117,229

Divided by Net Profit: \$40,755

Ratio: -2.45 Years

#### Contractual Obligations as of December 31, 2019

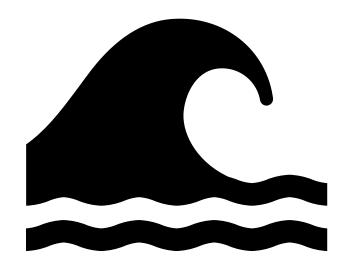
The following summarizes our contractual obligations as of December 31, 2019 (in millions):

Payments Due By Period

	r dynients but by r enou									
		Total	L	ess than 1 year	72	1-3 years	00	3-5 years		More than 5 years
Operating lease obligations(1)	\$	13,854	\$	1,757	\$	3,525	\$	2,809	\$	5,763
Obligations for leases that have not yet commenced(1)		7,418		249		850		1,314		5,005
Purchase obligations(2)		5,660		4,212		933		202		313
Long-term debt obligations (3)		5,288		227		1,258		1,224		2,579
Tax payable <sup>(4)</sup>		7,315		0		1,166		3,661		2,488
Other long-term liabilities reflected on our balance sheet(5)		1,484		245		643		367		229
Total contractual obligations	\$	41,019	\$	6,690	\$	8,375	\$	9,577	\$	16,377
			all	2 1217			) i -		Jan 1	



# Discounted Cash Flow





#### **DCF:** Base Case

Earnings Per Share	\$49.55
Growth Rate in 10 Years	14%
Terminal Growth Rate	4%
Years of Terminal Growth	10
Discount Rate	9%
Tangible Book Value	\$171.64

Fair Value \$1415.83 Margin of Safety 2.86%



#### DCF: Bear Case

Earnings Per Share	\$49.55
Growth Rate in 10 Years	9%
Terminal Growth Rate	4%
Years of Terminal Growth	10
Discount Rate	9%
Tangible Book Value	\$171.64

Fair Value \$1053.35 Margin of Safety -30.56%

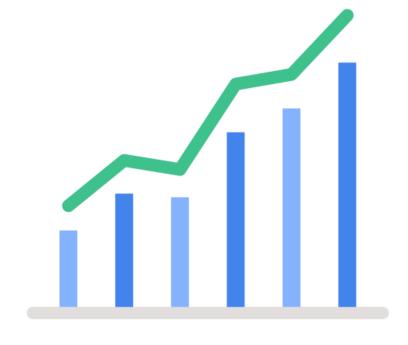


### **DCF: Bull Case**

Earnings Per Share	\$49.55
Growth Rate in 10 Years	17%
Terminal Growth Rate	4%
Years of Terminal Growth	10
Discount Rate	9%
Tangible Book Value	\$171.64

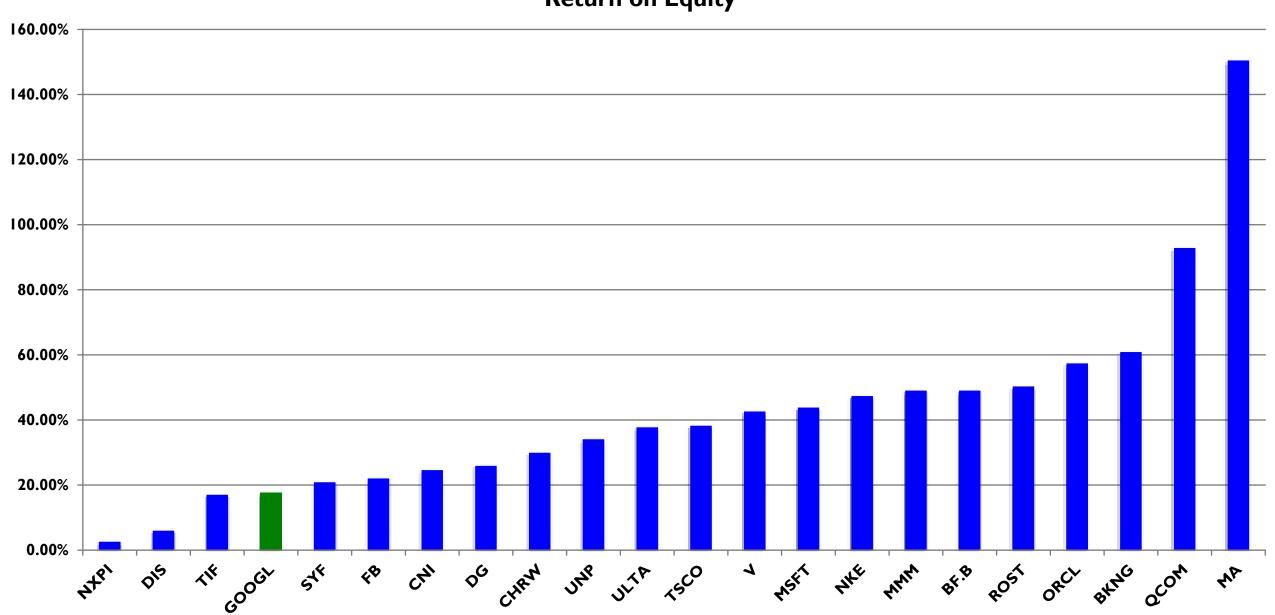
Fair Value \$1702.56 Margin of Safety 19.22%

# Intraportfolio Analysis



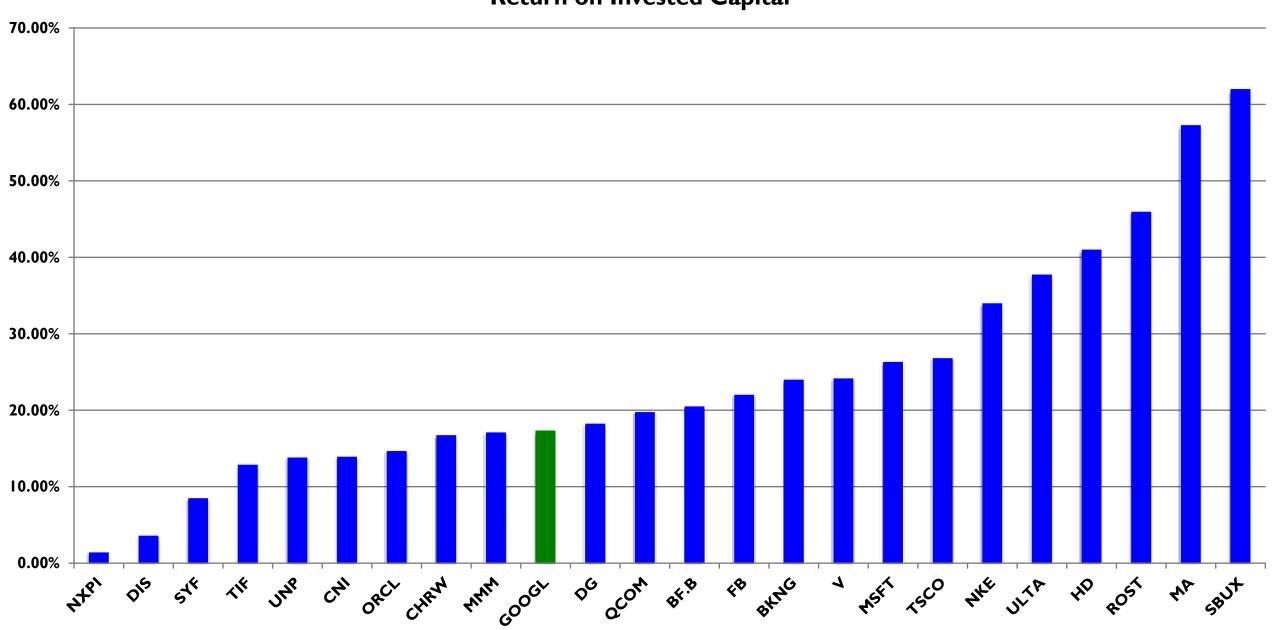


#### **Return on Equity**



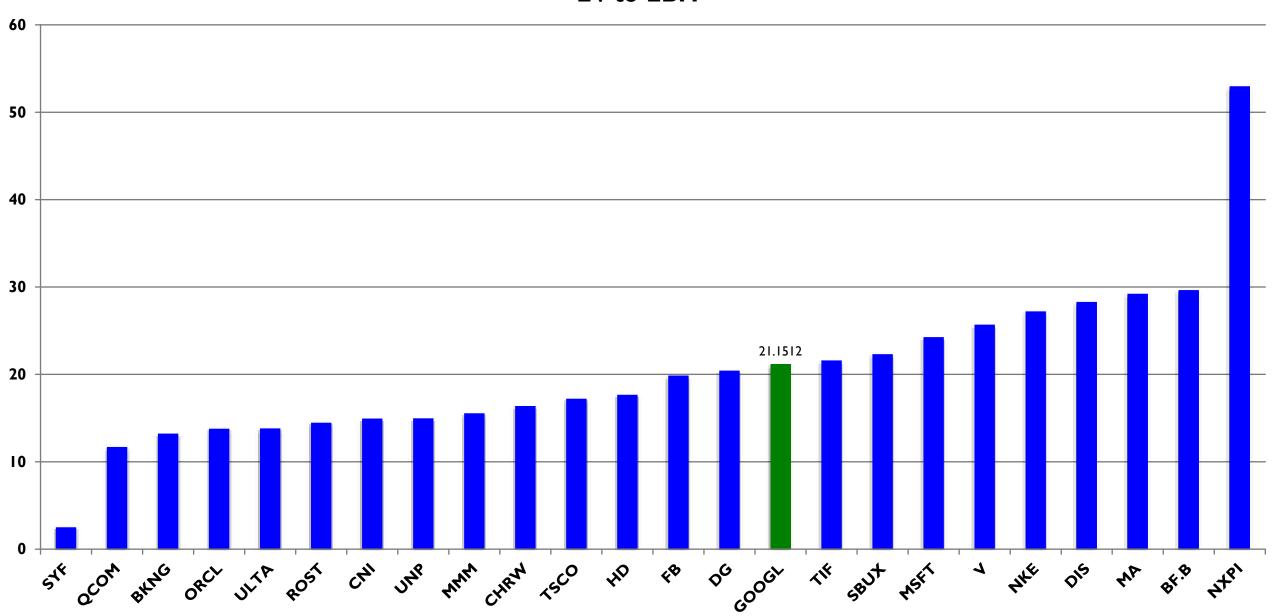


#### **Return on Invested Capital**



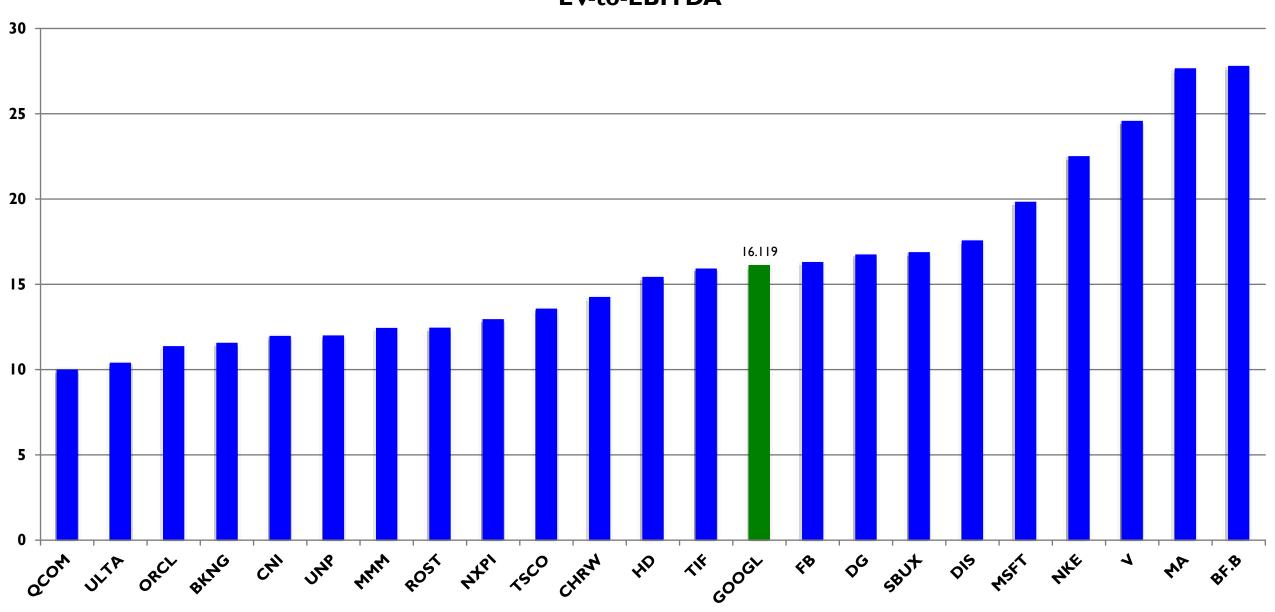






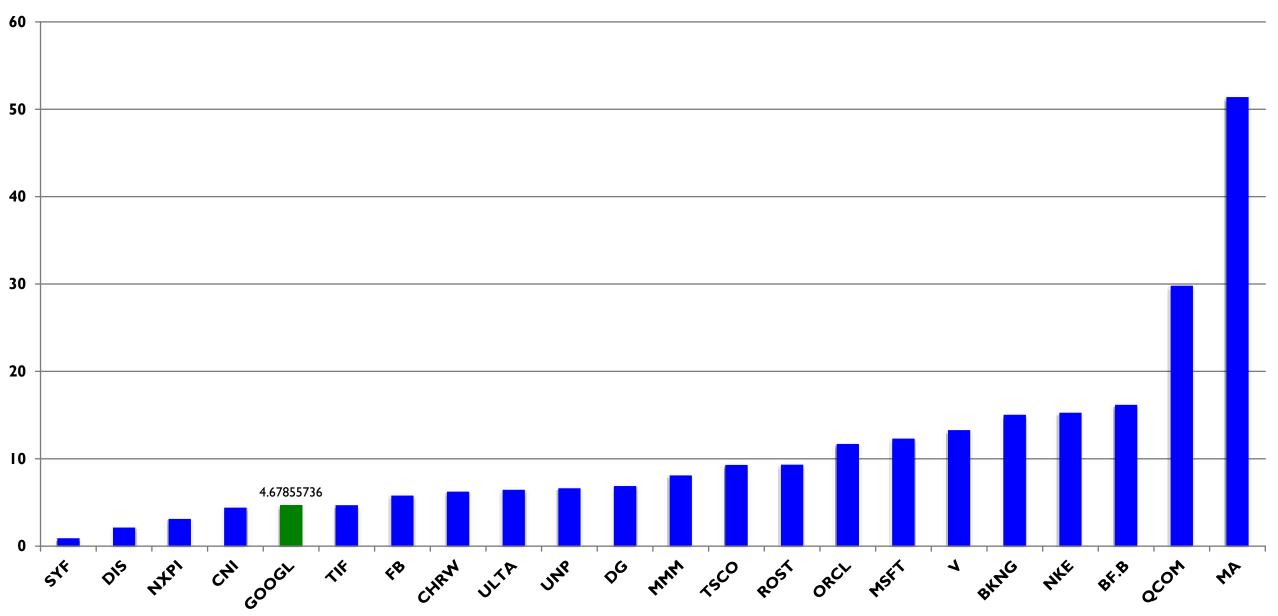


#### **EV-to-EBITDA**



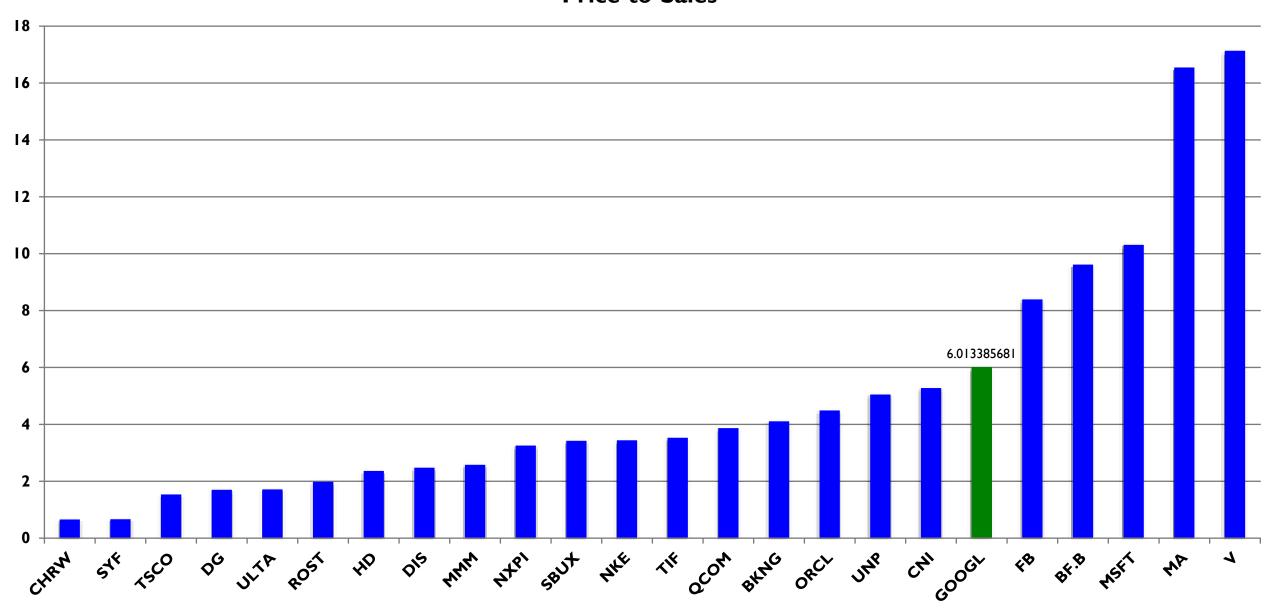


#### Price-to-Book Value



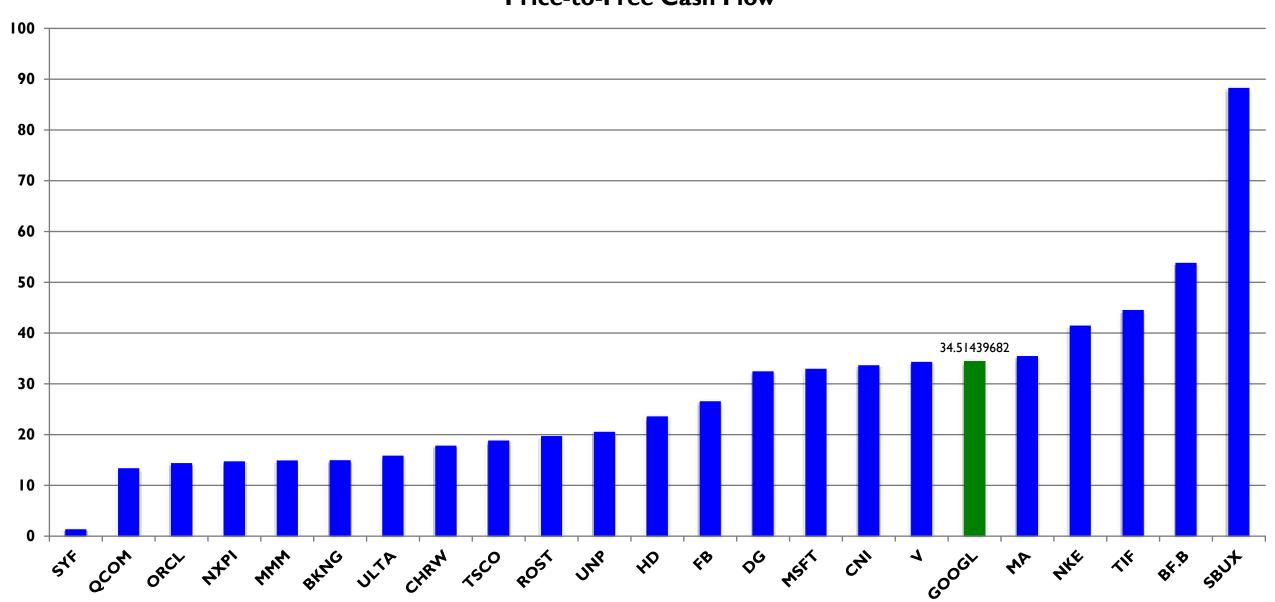


#### **Price-to-Sales**



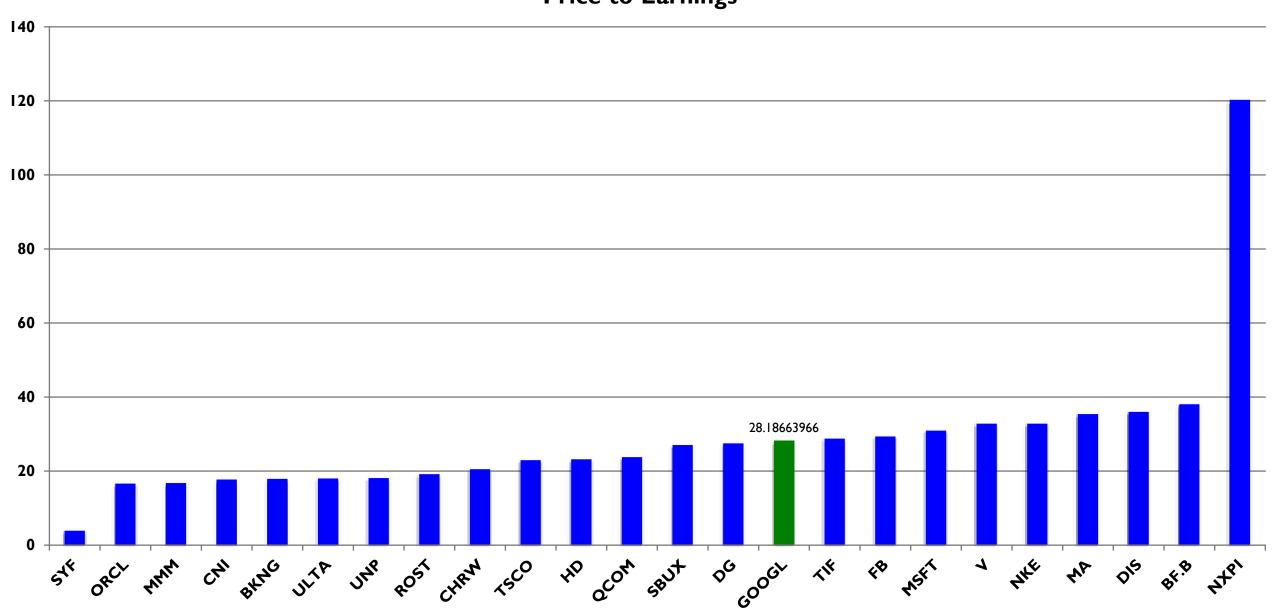


#### **Price-to-Free Cash Flow**





#### **Price-to-Earnings**





# Conscious Investor





	Price	EPSttm	P/E Ratio	HGROWTH	Payout	STRETD
Default	1.38k	\$49.53	32.95	18.33%	0%	22.22%
Safety	1.38k	\$49.53	22.34	12.99%	0%	7.98%
Kill It	1.38k	\$49.53	18.00	9.13%	0%	0%





	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	TTM
EPS (\$)	13.17	14.89	16.17	19.08	21.02	22.84	27.85	18.00	43.70	49.16	49.53
SPS (\$)	45.67	58.93	72.53	81.75	86.71	98.04	114.83	137.27	195.85	233.52	

#### **EPS**

HGROWTH: 18.33%

STAEGR: 81.97%

#### SPS

HGROWTH: 22.95%

STAEGR: 95.08%



### 3-Year

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	TTM
EPS (\$)	13.17	14.89	16.17	19.08	21.02	22.84	27.85	18.00	43.70	49.16	49.53
SPS (\$)	45.67	58.93	72.53	81.75	86.71	98.04	114.83	137.27	195.85	233.52	

#### **EPS**

HGROWTH: 65.63%

STAEGR: 82.64%

#### SPS

**HGROWTH: 30.43%** 

STAEGR: 96.73%

# Conclusion





## "You Guys Know We Already Own Google Right?"



"These guys from the CFA institute care a lot about diversification, sectors and weighting, your goal is to maximize a rate of return" - Mystery Investor, TIPS



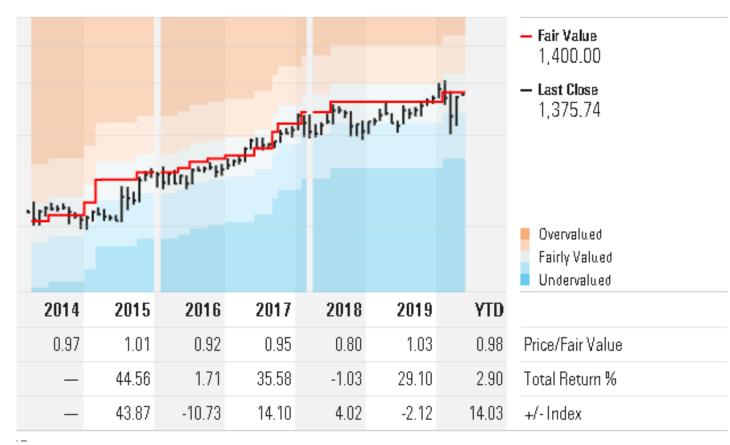
"However, when that is not available to you as much, holding quality companies allows you to find a trade-off between diversification and a large margin of safety." – CT Fitzpatrick, Balkan Value Partners

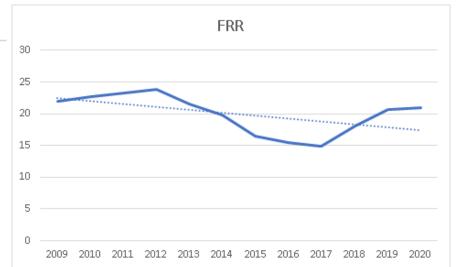


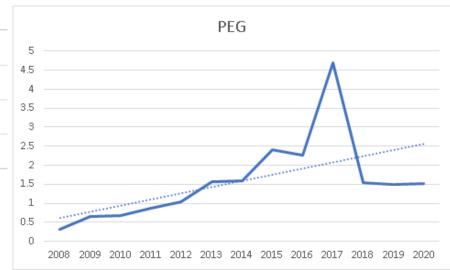
What the hell you care if you own three securities and JPMorgan Chase owns a hundred. You know, what's wrong with only a few securities.- Charlie Munger



## You Guys Know We Already Own Google Right?





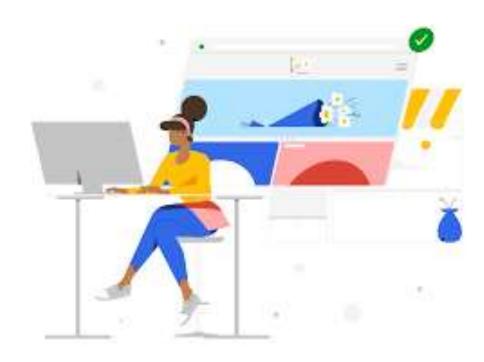




#### Conclusion

Wide moat business with growing revenue streams, interesting growth prospects, and a fortress balance sheet

One of our best ideas, and its asset light nature is positioned to manage the Beerflu much better than other companies in our portfolio



Limit order at \$1,100

Uncertainty about future earnings and the accuracy of DCF's directly affect our price target, this value is open to change



# Index

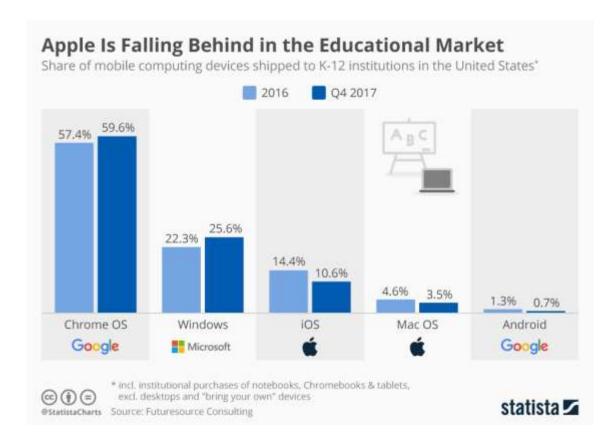
# Google Education

In the space of just five years, Google has helped upend the sales methods companies use to place their products in classrooms. It has enlisted teachers and administrators to promote Google's products to other schools. It has directly reached out to educators to test its products — effectively bypassing senior district officials.

And it has outmaneuvered Apple and Microsoft with a powerful combination of low-cost laptops, called Chromebooks, and free classroom apps.

Today, more than half the nation's primary- and secondary-school students — more than 30 million children — use Google education apps like Gmail and Docs, the company said. And Chromebooks,

Google-powered laptops that initially struggled to find a purpose, are now a powerhouse in America's schools. Today they account for more than half the mobile devices shipped to schools.



million views. It was truly beautiful. One hundred million students and educators are using Google Classroom, double the number from the beginning of March. We've seen a massive increase in demand for Chromebooks; analysts have reported a 400% increase during the week of March 21st year-over-year. And schools and businesses in particular are using our secure video conferencing platform Meet. Last week, we surpassed a significant milestone and are now adding roughly 3 million new users each day, and have seen a thirty fold increase in usage since January. There are now over 100 million daily Meet meeting participants. Stay tuned for much more!

# "Overweighting"

The S&P 500 is technically "overweighting" by having tech companies make up a very large part of the index. They do this for a reason. They know that tech companies will be some of the best performers not only in this year, but in years to come as well.

# Tech Companies Dominate S&P 500 Index

Market valuation of S&P 500 top five tech companies relative to all others (in billion U.S. dollars)



Market values as of Feb. 11, 2020 Sources: Macrotrends, CNN



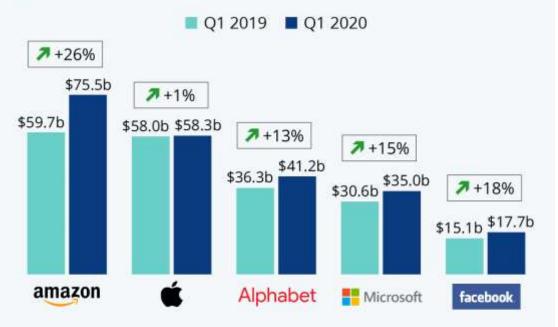






# Tech Giants Shrug Off COVID-19 Crisis in Q1

Revenue of selected tech companies in the first three months of 2020 vs. 2019



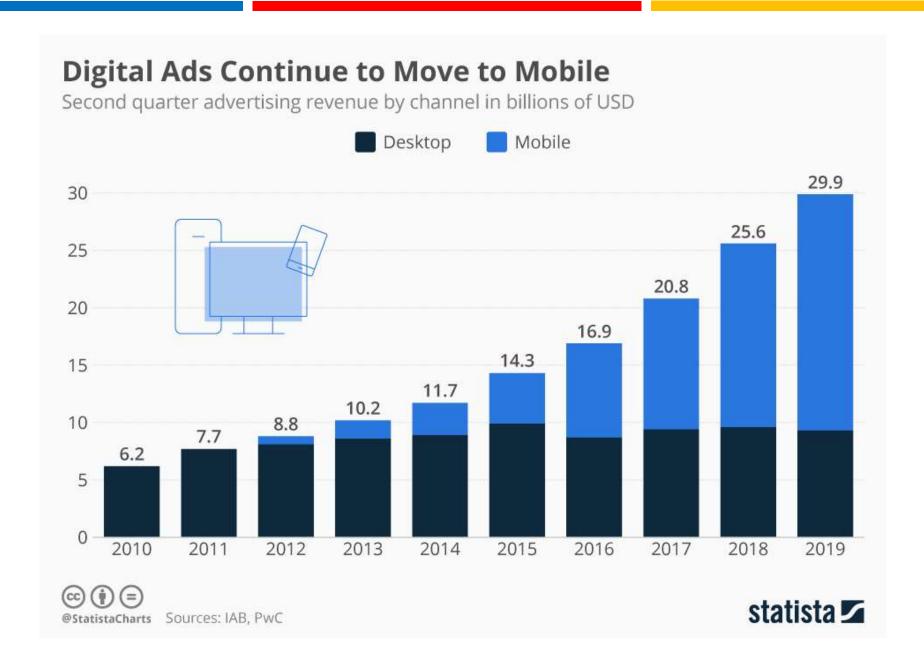
Source: Company filings

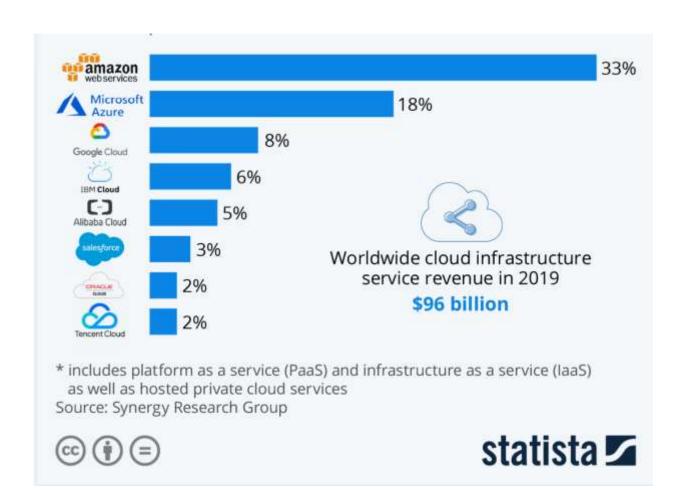


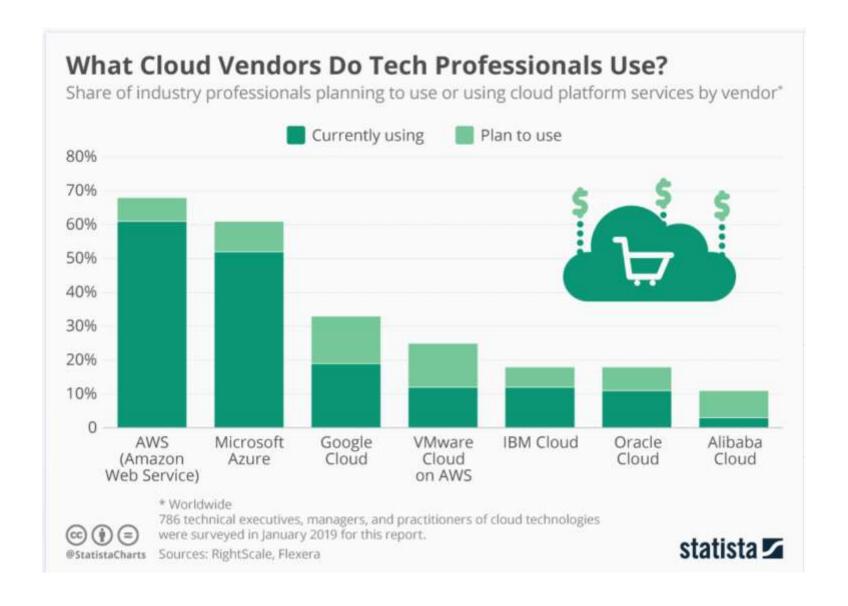


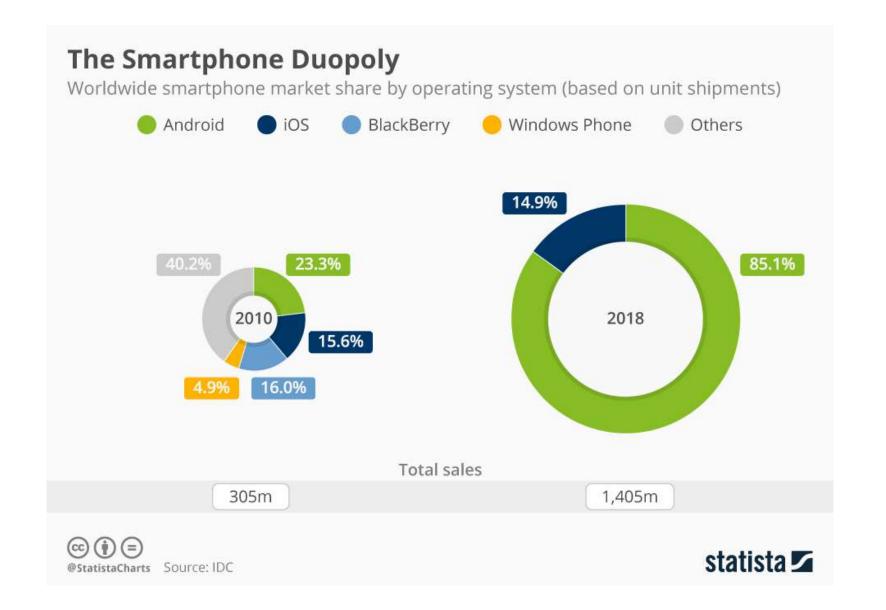


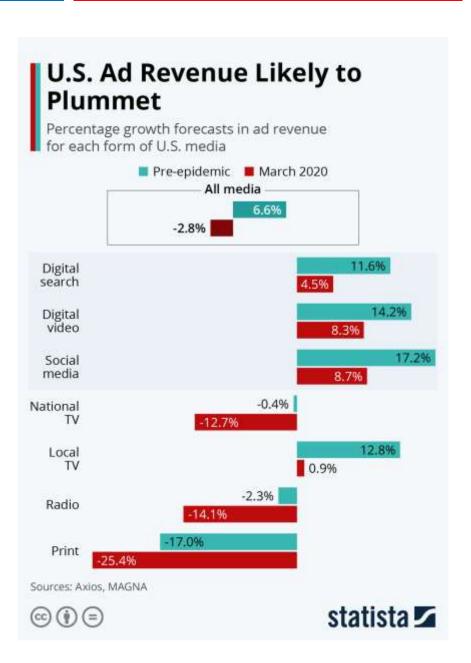






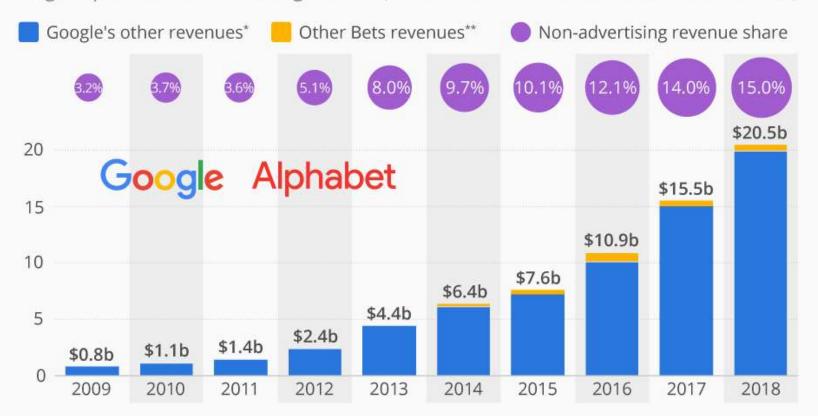






### **Google Is Gradually Reducing Its Reliance on Advertising**

Google/Alphabet's non-advertising revenue (in billion U.S. dollars and as a % of total revenue)



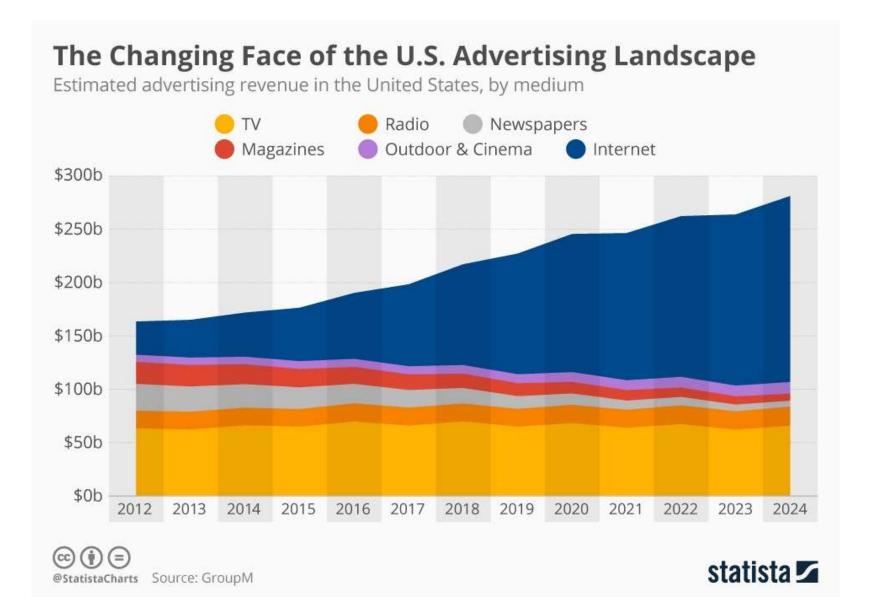
incl. revenues from sales of apps, in-app purchases, digital content products, hardware, licensing and service fees

<sup>\*\*</sup> incl. revenues from the sales of internet and TV services through Fiber and licensing and R&D services through Verily



@StatistaCharts Source: Alphabet

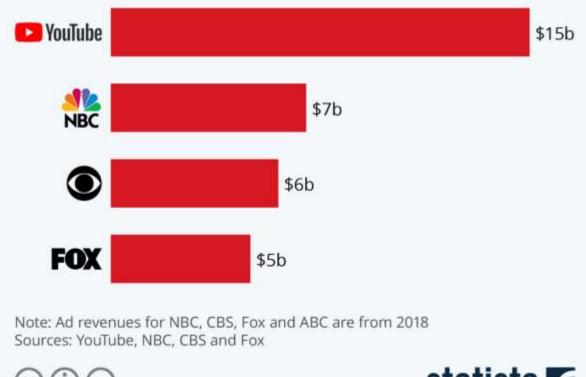






# YouTube Beats Cable TV in Ad Revenue

How YouTube's ad revenue compares to major TV networks





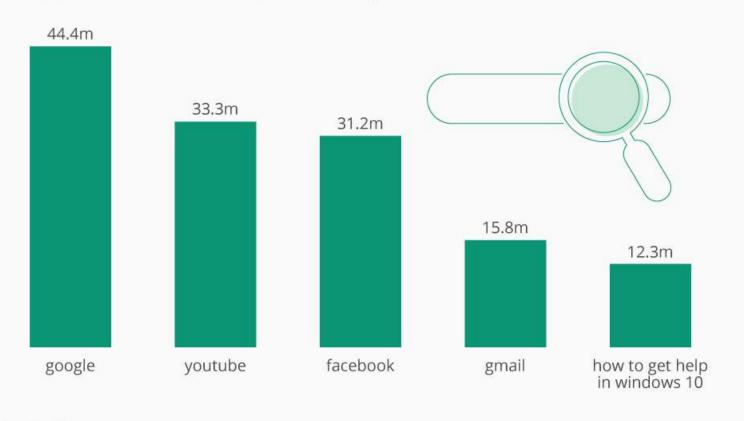






## **Google: The Most Popular Search on Bing**

Most popular worldwide search queries on Bing in 2019\*



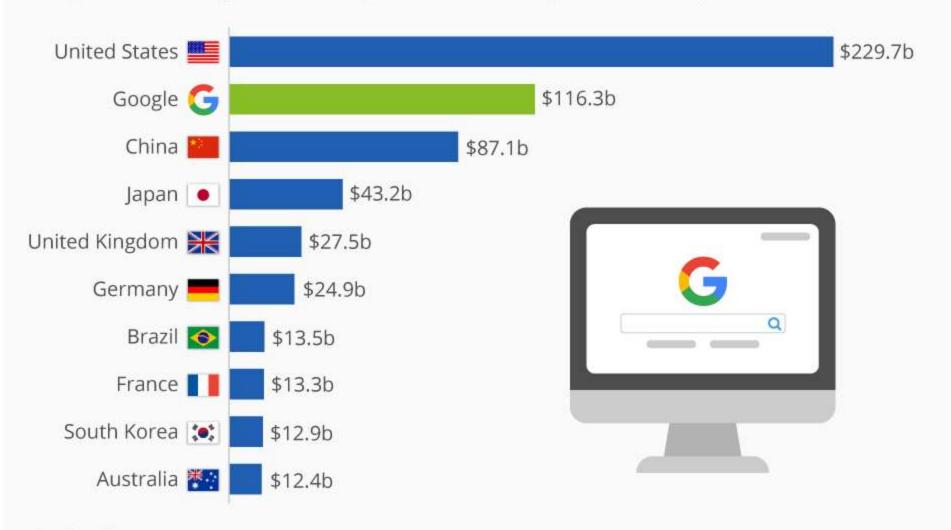


\* As of July @StatistaCharts Source: Ahrefs



## The Incredible Size of Google's Advertising Business

Google's advertising revenue compared to total ad spend in the largest ad markets 2018

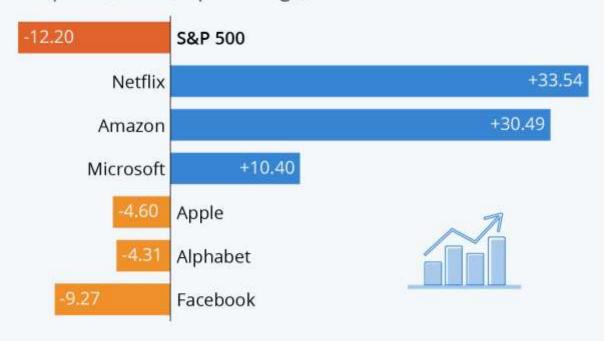




statista 🗹

## Top Tech Stocks Weather the Storm

Index and share-price of select tech companies through April 23, 2020 (in percentage)



Sources: Wall Street Journal, FactSet









"Our definition of value is not just finding companies at a discount to their intrinsic value, but that there is a permanence to their businesses. The margin of safety attached to those businesses is tied to their financials, (balance sheet) a massive competitive advantage, and a secular tailwind that allows them to have long-term growth" – Polen Capital

"The market itself and its short-term investors have a hard time discounting great growth companies. They have a hard time valuing companies as they put a short-term P/E multiple on a company that can grow earnings at 15-20% for many years." – Polen Capital

"Alphabet has \$120 billion in net cash, and people often ask: "What are they going to do with that?" In times like these, not only can they go on the offensive by deploying that cash, but also a they also don't have to worry about avoiding debt covenants like some of their competitors. Not only are they advantaged because of the cash that they have, they are also advantaged because they are competing with people who have become less disciplined with their balance sheet" – Polen Capital

"What you tend to see in our portfolio through periods of volatility is that we become more concentrated. Our goal in managing the portfolio is to drive our weighted-average price to value ratio as low as we can. A company that is an eighty-cent dollar might be a smaller position than a company that is a sixty-cent dollar"

- CT Fitzpatrick from Balkan Value Partners

"When you get into periods like these and we tend to become more concentrated, we would normally have around twenty names in our portfolio. From December to now, we've gone from twenty-seven to twenty-two names."

- CT Fitzpatrick from Balkan Value Partners

"We think that the margin of safety is the most important single risk metric that we have, however, when that is not available to you as much, holding quality companies allows you to find a trade-off between diversification and a large margin of safety." – CT Fitzpatrick from Balkan Value Partners

#### **Smart Home Technology Poised for Blockbuster Growth** Forecast of wordwide smart home device shipments, by category (in million units) 2018 2022 CAGR\* 457.5m 26% 23% 310.5m 22% 244.9m 230.5m 29% 189.3m 29% 104.6m 97.7m 99.8m 84.5m 37.7m 37.5m 13.6m Video Lighting Others Home Smart Thermostats Entertainment Monitoring Speakers & Security \* Compound annual growth rate, i.e. the average annual growth rate for each category between 2018 and 2022 statista 🔽 @StatistaCharts Source: IDC

#### Google Nest Revenue and Loss

https://www.vox.com/2018/4/23/17272756/google-alphabet-nest-q1-earnings-2018-revenue-operating-loss