

The Tech Titans - Will Past be Prologue?

October 2020

The largest five largest stocks in the S&P 500 have risen 33% this year while the rest of the index has declined. These five stocks – AAPL, MSFT, AMZN, GOOGL, and FB – now comprise 24% of the market capitalization of the S&P 500. However, many investors extrapolate forward these stocks' recent performance without understanding their current risks which include:

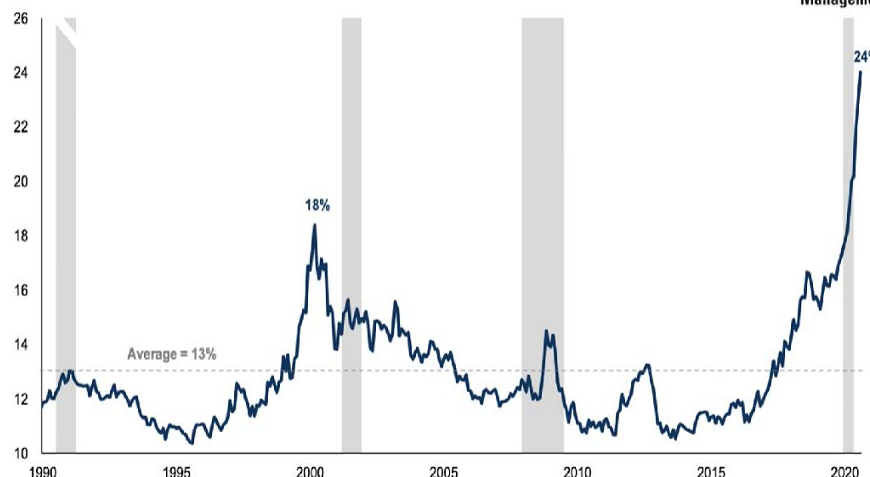
- The mega-cap market leaders have been outsized beneficiaries of declining interest rates, and their valuations will suffer more than most when the direction of interest rates reverses;
- A regulatory threat to the tech leaders has been building for years, and is now becoming reality;
- Despite superior profitability, tax rates of the tech market leaders have been well below average. Irrespective of the coming election's outcome, this pattern will likely end.

While the current mega-cap market leaders are great companies, the days for overweighting their stocks could be behind. For investors heavily exposed to these stocks, this could be a good time to review the benefits of diversification.

Next to COVID-19, the market story of 2020 has to be the ascent of the market's largest, mega-cap stocks relative to the rest of the equity universe. Since the COVID-19 bear market began on February 19, the five largest stocks in the S&P 500 have risen 33% (as of October 16) while the other 495 stocks in aggregate have declined. These five stocks – Apple (AAPL), Microsoft (MSFT), Amazon (AMZN), Alphabet (GOOGL), and Facebook (FB) now comprise

approximately 24% of the market capitalization of the S&P 500. This is a modern all-time high degree of market concentration, dwarfing the prior 18% peak near the 2000 market top.

Composition of the S&P 500 Comprised by its Five Largest Components.



Source: CompuStat, Goldman Sachs Global Investment Research, and GSAM as of September 8, 2020. Chart shows the market capitalization of the 5 largest companies in the S&P 500 Index as a percent of the total market cap. Past performance does not guarantee future results, which may vary.

These big five stocks have acquired a variety of acronyms, but we will call them the “Tech Titans,” leaving aside the fact that they fall into three different S&P 500 sectors. For many investors, the combination of a strong faith in these companies’ prospects and the tax hit that would ensue upon realization of large unrealized gains has turned the Tech Titans into “one-decision stocks”-holdings never to be sold. However, every era has its one-decision stocks, most of which do not become market leaders in succeeding eras. Of the five largest stocks in the S&P 500 in 2000, only Microsoft remains in that group today.

The Tech Titans are all great companies with proven business models and management teams, and they have been great stocks for extended periods. However, they face risks that could alter the forward trajectory of their share prices even if they continue to be great companies. While this group sailed through the COVID market sell-off better than most, they have not always done so in past market drawdowns. Given the significant exposure which most investors have to the Tech Titans, it is important that investors understand these risks.

WHAT HAPPENS WHEN INTEREST RATES STOP DECLINING?

Most investors know that equity prices are strongly influenced by interest rates. Lower rates mean that a dollar of company earnings receives a higher valuation multiple, that companies enjoy a lower cost of capital, and that bonds are less competitive relative to stocks. However, many investors do not appreciate the extent to which low and declining long-term rates favor growth stocks over other stocks.

Growth stocks are “long duration” assets. Their ability to grow suggests a high likelihood that they will prosper for an extended period, with earnings rising faster than inflation. Hence, they tend to be valued based on the capitalization of a many year stream of earnings which makes their valuation quite sensitive to the long-term discount rate. If interest rates rise by 1% from the low levels of recent, the value of a 10-year bond would fall by about 9.4%, while the value of a 30-year bond would fall by about 23.8%. In comparison to the broad market, growth stocks are valued more like the 30-year bond.

We can see this point in the accompanying two charts. The first from BCA Research shows the declining global bond yield over the last 15 years as the green line. The black line shows the ratio of the global value stock index to the global growth stock index. This ratio has followed a path very similar to the decline in interest rates until this year when the move in growth stocks has overshot the decline in global yields. The second chart from ASR/Refinitiv makes the same point in a different way. This chart show that over the last six years, growth stock trades have performed similarly to the total returns on long duration German bunds and U.S. bonds.



The High Performing Equity Trades Have Also Been Duration Bets



Source: ASR Ltd, Refinitiv Datastream

To bring this relationship to the individual company level, over the four-year period ending 9-30-20, Apple's operating earnings increased 10%. However, earnings per share rose 56% and its market capitalization increased more than 200%. The progress that AAPL has made in growing the recurring revenue portion of their business during this period partially explains the rising valuation. However, this factor is arguably far exceeded by the role of declining interest rates which have expanded the multiple applied to AAPL's earnings and allowed AAPL to buy back stock with low-cost debt, decreasing the share count and boosting their EPS growth rate.

At the 2000 market peak, Microsoft and the other leading stocks sold for forward multiples of about 60. As shown in the table below, the current forward multiples for today's Tech Titans are less than half that. Relative to present interest rates and their growth rates, these multiples are quite reasonable, especially compared to

	Share Price (10/20/20)	2020e EPS	2021e EPS	2020e PE ex-cash	2021e PE ex-cash	PEG Ratio
AAPL	116.9	3.35	4.01	33.7	28.1	1.7
MSFT	214.8	6.10	6.83	34.0	30.4	2.8
AMZN	3184.9	31.75	44.37	100.3	71.8	2.5
GOOGL	1586.0	44.4	56.68	31.6	24.8	1.1
FB	278.7	8.05	10.19	32.2	25.4	1.2
<i>EPS estimates are calendar year</i>						

the valuations of many of today's much less mature growth companies, a number of whom are priced for spectacular success. The key point here is that if interest rates stop declining, the Tech Titans (along with other growth stocks) will lose a tailwind, and if rates start rising, these growth stocks will likely suffer more multiple compression than other areas of the market that have benefited less from the decline in rates.

Current consensus is that interest rates will stay low for an extended period, with the Federal Reserve stating that they are on hold until 2023. What could change this outlook? During the few brief periods in the last eight months in which COVID case counts were falling and there was good news as to vaccines or therapies, interest rates perked up on hopes for an improved economy, and there was a rotation from growth to value stocks.

This pattern likely presages what might occur when effective control of the pandemic is more clearly in view. A more aggressive fiscal policy in 2021 would also increase the likelihood of higher inflation and yields.

REGULATORY RISKS COULD OPEN THE DOOR TO GREATER COMPETITION

In April 2000, in the *United States vs. Microsoft Corp.*, the latter was found guilty of monopolistic behavior under the Sherman Antitrust Act. It is not a total coincidence that this ruling occurred less than a month following the peak of the 1994-2000 bull market, or that it took Microsoft 15 years to recover its pre-ruling stock price in spite of the fact that the case was ultimately settled with what many viewed as a slap on the wrist for Microsoft.

For the last decade, the Tech Titans (Microsoft excluded) have periodically been the subject of investigations, public hearings, and litigation on both sides of the Atlantic. These unwelcome attentions have generally focused on three areas: anti-competitive practices, data privacy, and taxation issues. In the last few years, the pace and intensity of the attacks have increased both in the U.S. and abroad. A Congressional House antitrust subcommittee recently released a report following a 16-month inquiry concluding that GOOGL, AMZN, AAPL, & FB exercised monopoly power via anti-competitive practices, and recommended congressional action.

U.S. vs. Google LLC. On October 20, the assault on the Tech Titans advanced to a new level with the filing of the *United States vs. Google, LLC*, with 11 states joining the U.S. in its complaint. This long-expected suit accuses Google of “unlawfully maintaining monopolies” in the markets of internet search and advertising. GOOGL makes for an easy target, given that it powers 92% of the world’s internet search activity (Statcounter). No specific remedies were spelled out, though a call for some sort of breakup seems likely given the scope of the complaint.

Arguably, this litigation may be priced in as Alphabet’s shares are the cheapest of the four likely tech targets. As of this writing, GOOGL is up 14% for the year, while FB, its closest rival in the online ad business, is up 29%, and AAPL and AMZN are up 58% and 73%. But regulatory action won’t stop with GOOGL, and investors in FB, AAPL and AMZN could be too complacent as to challenges coming their ways. Plus, Google’s partnership with Apple is at the heart of the lawsuit, potentially threatening a major revenue stream for both companies.

Amazon. After GOOGL, the recent congressional House committee devoted the most time to Amazon, focusing mostly on its conduct in ecommerce where it sells products that compete with independent merchants who use its platform. About 37% of the 2.3 million third-party sellers who the report said do business on the Amazon marketplace relied on the site as their sole source of income, making them hostage to Amazon’s tactics. Rep. Pramila Jayapal, a vocal critic of Amazon stated “With no restrictions of tech companies to own and compete on their own platforms which are the only options for so many small businesses, it takes away any real sense of competition.”

Facebook. Facebook (FB) has faced considerable adverse publicity in the last couple years, much of it focused on their failure to restrain use of their platform by various bad actors. However, a much bigger risk to FB’s business model are the expanding restrictions on its use of various data.

FB derives premium pricing for their ad inventory based on their exceptional ability to precisely target ad recipients. This ability derives not only from data collected on FB's platform, but from integration with data derived from other sources. As the restrictions increase, FB will be challenged to maintain their premium ad pricing. In addition to data privacy, FB is also under scrutiny by the Federal Trade Commission as to whether its acquisition strategy has been anti-competitive.

Apple. Payments to AAPL from GOOGL for placement of the latter's search app in AAPL's devices are at the heart of the GOOGL anti-trust action and are at some risk. These payments are a significant part of AAPL's services revenue. The House report concluded that Apple has a monopoly on the app marketplace for iPhones and iPads, forcing developers to use its App Store, where it takes a 30 percent cut of sales. Subcommittee chairman Cicilline has argued he believes a separation is needed because an inherent conflict is created when "you're both a platform and a manufacturer of goods."

Compared to GOOGL, FB, and AMZN, APPL has arguably less regulatory risk than the others. App sales are a small part of APPL's revenue, and the company still has a relatively small share of the global smartphone market. However, APPL has by far the most risk relative to the U.S. conflict with China.

Microsoft. Given that MSFT is not really a platform company like its rival Tech Titans, it is much less exposed to regulatory threats. It may even be helped given the regulatory scrutiny the others face which may make them less able to compete in acquiring strategic assets out of fear their deals would be blocked by regulators.

Obstacles to Regulation. Amid all the above challenges, the Tech Titans remain broadly popular. They deliver value to consumers at attractive or no cost, while their societal costs remain mostly inapparent. Some detractors have called for break ups of the Tech Titans, but courts have indicated such actions should be a last resort. Biden supports greater antitrust enforcement but has stopped short of saying that big tech companies should be broken up. And as to regulatory threats from abroad, the Tech Titans have to date had success in obtaining support from the U.S. government in fending off those attacks.

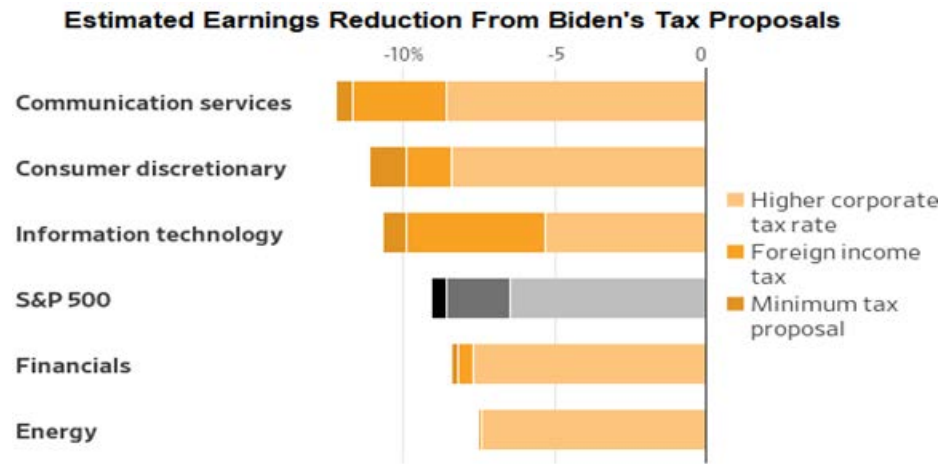
TAX POLICY RISKS

Despite being among the most profitable U.S. companies, the Tech Titans have managed to achieve tax rates both for the U.S. and globally that are significantly below the average rates paid by S&P 100 companies as shown in the adjoining table. It is a pretty safe assumption that these rates will rise in the years ahead.

While no past administration in memory has ever managed to have all of its tax proposals succeed, the Bank of America Global Research team has estimated the

	2019 Global Tax Rate	2019 Overall U.S. Tax Rate
AAPL	15.9%	18.0%
MSFT	10.2%	-8.1%
AMZN	17.0%	10.2%
GOOGL	13.3%	16.5%
FB*	25.5%*	<i>n/m</i>
S&P 100 Average	19.0%	22.3%
*FB 2018 Overall tax rate was 12.8%		

earnings reduction for companies in each of the S&P 500 GICS sectors in the event that all of Biden's tax proposals are implemented. As shown in the adjoining chart, the three sectors facing the greatest impact would be Communication Services (Google and Facebook), Consumer Discretionary (Amazon), and Tech (Apple and Microsoft).



Source: BofA Global Research

The attack on the taxes faced by the Tech Titans is not coming simply from the U.S. Apple is enmeshed in a long-running battle with the European Union over its tax arrangement with Ireland, and the legal contest over this \$15 billion tax bill now heads to Europe's highest court. Working under the umbrella of the OECD, 137 nations are negotiating for an arrangement for taxing digital companies. Most of these countries now see no tax revenue from the targeted digital companies.

TAKE-AWAY THOUGHTS

2020 was truly an annus mirabilis for these companies as their businesses were largely unscathed by the pandemic, and in many areas were actually boosted by pandemic-induced changes such as working from home and ecommerce. And furthermore, massive monetary and fiscal stimulus acted as rocket fuel to their stocks.

In recent months we have heard some investors say things along the lines of "I wish I had just put all my money in Apple/Amazon/Facebook/etc." However even these investors realize that this rear-view mirror assessment is not a good plan for where things are today. And many investors may now have more exposure to the Tech Titans than they realize. Besides direct holdings, these five stocks comprise 24% of an S&P 500 index fund holds, and 46% of the popular QQQ ETF.

When companies grow as dominant as have the Tech Titans, they get a target on their back for regulators, politicians, and competitors to aim at. That is the case now, making it unwise to extrapolate their recent performance forward. Selling these great companies can be difficult both emotionally and tax-wise. However, investors should review their exposure to these stocks in view of their strengths, risks, and valuations, keeping in mind the words of Nobel Laureate Harry Markowitz: "Diversification is the only free-lunch in investing."