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The Fed vs. Secular Growth: A Technology Conundrum

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Matthew Ward Investment Manager, Global Equities—Technology



Colin Moar Investment Manager, Global Equities—Technology

While the recent market turbulence has been characterized by a rotation out of highly valued growth stocks, the high and sustainable growth offered by tech companies will likely return to favor.



The recent turbulence across equity markets has been characterized by a rotation out of highly valued growth stocks, such as technology firms, and into companies benefitting explicitly from the backdrop of rising inflation and interest rates, including banks and energy names (Figure 1). This rotation has raised a key question: was the initial demand surge that technology companies enjoyed at the start of the pandemic just a one-off? Or was it in fact the launching pad for a more permanent migration of economic activity into the digital domain?

We believe it's the latter. Once the market has absorbed the shock of higher rates, the focus will likely return to companies that offer long-term, structural growth. In our opinion, the recent weakness in technology names, and the heightened market volatility driven by geopolitical developments in Ukraine, provide an opportunity for investors to build positions in likely long-term winners. Specifically, we believe tech companies that can pass on cost inflation and offer solutions to improve efficiency, and that have exposure to the secular growth in cloud computing and the digitalization of traditional industries, look well-positioned going forward.

The Opportunity After the Storm

During periods of market stress, large flows of capital make for the exit at the same time, which tends to result in high stock correlations. For instance, toward the end of January, the market was suddenly unable to ignore the impact of central bank tightening measures. This resulted in a widespread sell-off across growth stocks, and an increase in implied correlations between Nasdaq companies to levels not seen since the pandemic hit in the first quarter of 2020 (Figure 2). In our view, such periods of indiscriminate selling are a great time for long-term stock pickers to sharpen their pencils and update their funnel of ideas.

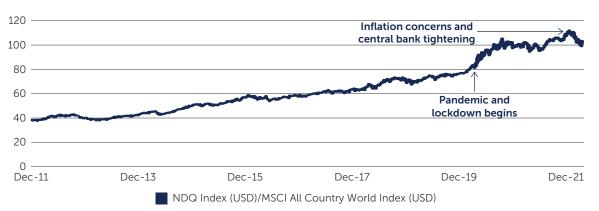


Figure 1: Performance of Growth-Focused NASDAQ 100 Index vs. MSCI All Country World Index

Source: Bloomberg. As of March 1, 2022. MSCI All Country World Index is MSCI's flagship global equity index.

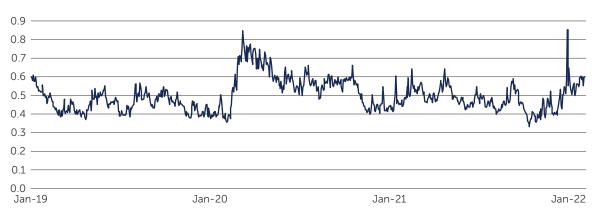
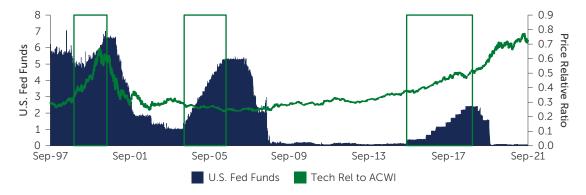


Figure 2: NASDAQ 100—Three-Month Implied Correlations

Source: Bloomberg. As of February 28, 2022.



Indeed, what triggered the selling of growth companies was the rise in interest rates—and therefore the discount rates used to value future cash flows. As a greater proportion of growth companies' cash flows are generated further into the future, there is a disproportionate impact of higher rates on growth company valuations. But this simplistic narrative linking rising interest rates to the selling of growth stocks only tells part of the story. In fact, history offers a more balanced picture for how investors may frame their thoughts on investing in technology from here—as ultimately, once the initial shock of the change in direction of inflation and interest rates has been absorbed, the high growth that tech companies offer will likely return to favor. As an example, the last three tightening cycles from the Federal Reserve (Fed) coincided with one period of mild underperformance of technology companies relative to the MSCI All Country World index¹, and two periods of strong outperformance (Figure 3).





Source: Bloomberg. As of February 28, 2022.

Going Back to Fundamentals

The standout growth trend we see today is in cloud computing services. In fact, and even as the market is questioning the sustainability of some of the digitization trends that were accelerated by the pandemic, public cloud revenue growth reaccelerated in the second half of 2021.

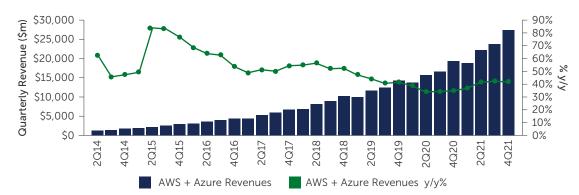


Figure 4: Public Cloud—Growth of the Two Leading Clouds

Source: Company reports, Barings estimates. As of December 31, 2021.

1. The 2004–2006 cycle was characterized by the commodity "super cycle" and growth in U.S. financial services that saw strong performance by the energy, materials and financials sectors, leaving technology as a laggard.

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"Zoom is a great example that underlines the need to focus on stock picking rather than simply investing in the 'lockdown' theme."

The strong results from the two clear leaders in public cloud services, Amazon Web Services (AWS) and Microsoft Azure, came after what was also a strong 2020 when enterprise customers had rushed to invest in the infrastructure capacity and laptops to enable work-from-home (WFH) through the lockdowns. Gartner estimates that the shift of existing enterprise IT spending into the cloud only reached 29% by 2021, which of course does not take account of net new spending that comes from the cloud opening up access to affordable enterprise grade IT for small businesses that were previously excluded. Additionally, to paraphrase one IT Consultancy CEO, the move to the public cloud is just the first stage of an enterprise's digital transformation journey.² In other words, the runway for high and sustainable growth rates is still very long.

Adjacent markets that benefit from this growth include Software-as-a-Service (SaaS) applications delivered from the cloud, as well as the semiconductors needed in both the servers to run the cloud applications and the laptops that consume them. In particular, the pandemic shock drove home the advantages of SaaS given that it enables businesses to be more flexible and agile in how, and from where, the applications are consumed. Even with the pandemic easing today, there is still an ongoing need for greater operational resilience—as a result, there is an ongoing and permanent migration toward SaaS applications and away from inflexible and expensive on-premise applications.

However, it should be noted that the SaaS moniker on its own is not enough. While Zoom Video Communications was the poster child of the WFH surge, the company's shares have actually underperformed the MSCI All Country World Index in the period since the onset of the pandemic. Microsoft's success with their Teams collaboration software, with the integrations into many other productivity tools and resulting success in becoming a focal point for day-to-day work, has proven to be far more valuable than easy-to-use video conferencing. Zoom is a great example that underlines the need to focus on stock picking rather than simply investing in the "lockdown" theme.

Semiconductors and the Wall of Worry

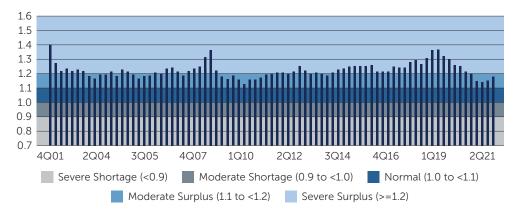
Having initially taken aim at the traditional growth segments, software and internet, the market has more recently turned its attention to semiconductors with news of rising capital spending by the industry inevitably raising the specter of future over supply. Nevertheless, any assessment of the outlook for semiconductor stocks needs to first address the unprecedented breadth and depth of the capacity shortages today. The new fast growth markets of automated cars and factories have added to the already rapid growth in cloud-driven demand for semiconductors, at a time when the industry was already running low levels of inventory.

2. Stated by Aiman Ezzat, CEO of Capgemini, at a group investor meeting on February 15, 2022.

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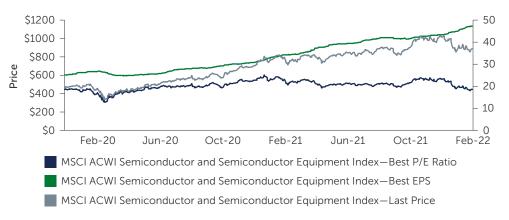
The ability of production tool makers to deliver the tools required to add the capacity being announced by companies such as Taiwan Semiconductor Manufacturing Company (TSMC), Intel, Samsung and Texas Instruments is another factor that needs to be considered. While we do see reports that inventories are being rebuilt from very low levels, the entire supply chain for automotive and many other consumers of semiconductors remains incredibly lean and far from the target ranges that companies require in order to meet their customers' demand.

Figure 5: Semiconductor Inventory Index Trend (4Q01–4Q21)



Source: Gartner. As of December 31, 2021.

Figure 6: World Semiconductor Price, Forecast Earnings and P/E



Source: Bloomberg. As of February 28, 2022. "Best" refers to the Bloomberg Consensus Estimate.

Adding new capacity is often a valid red flag for the performance of semiconductor stocks and their suppliers. However, the constraints on deliveries of the tools required to grow semiconductor wafer output are also at extremes. Companies that sell raw silicon wafers struggle to source the crucibles required to grow the wafers. Many of the chips used in industrial and automotive functions are produced in older fabrication plants, which tend to use refurbished leading edge tools—but these have run out, so the "lagging edge" tools need to be built from scratch instead.



Ironically, one of the key productivity enhancements built into production tools today is the addition of more sensors and other semiconductors to monitor and manage the operations of the tools, but with the ongoing shortages of chips, tool makers can't produce the tools needed by their customers to make the chips that they themselves need. Hence, just as Intel, TSMC, Texas Instruments and others have made grand announcements about investing several billions of dollars into new semiconductor fabrication plants, it will likely take around one to two years for that capacity to become productive. The rising EPS estimate line in **Figure 7** is in part due to a realization that even in the face of increases in input costs, these companies have significant pricing power. The past decades of consolidation and rising costs of production have created an unprecedented amount of concentrated market power in many of the semiconductor segments, evidenced by the structural increase in profit margins enjoyed by the sector (**Figure 7**).



Figure 7: MSCI MSCI All Country World Index Semiconductor and Semiconductor Equipment Index: Gross Margin

Source: Bloomberg. As of February 28, 2022.

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Key Takeaway

The confluence of rising inflation expectations—and the Russia-Ukraine conflict and developments in China that also contribute to inflation fears—as well as central banks' moves to tighten financial conditions, have led markets to test the appetite for investing in growth companies. However, history tells us that, while these periods can be volatile, ultimately the high and sustainable growth offered by tech companies will likely return to favor.

Observing how correlated the moves in stocks are can help signal when the market is becoming more discerning about which companies are the winners and which are the losers. As we see the stock correlations retreat from extreme levels not seen since the panic-selling at the start of the pandemic, confidence is building that the fundamental strength seen in companies with exposure to the secular growth in cloud computing and digitizing traditional industries will ultimately be rewarded. Barings is a \$391+ billion* global investment manager sourcing differentiated opportunities and building long-term portfolios across public and private fixed income, real estate and specialist equity markets. With investment professionals based in North America, Europe and Asia Pacific, the firm, a subsidiary of MassMutual, aims to serve its clients, communities and employees, and is committed to sustainable practices and responsible investment.

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