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Daily Observations

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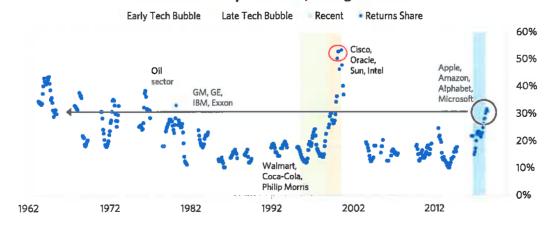
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Putting US Tech Sector Performance into Context

The US tech sector has accounted for half of the stock market's gains over the past year, with 30% being driven by just the top four tech giants (Apple, Amazon, Alphabet, Microsoft) as Apple became the first company to hit a \$1 trillion valuation. In these Observations, we provide some perspective on how we approach the question of concentration in the stock market. It is not uncommon for a small set of companies to drive a large share of performance during equity rallies. The performance of large oil companies was dominant in the inflationary 1970s; in the early 1980s, then-mega-cap companies IBM, Exxon, GE, GM, and Sears drove much of the recovery; and in the early 1990s, performance was concentrated in major consumer products companies like Philip Morris, Coca-Cola, and Walmart. Recent stock market performance concentration has been on the higher end of what we've experienced over time, though less concentrated than what was experienced at the height of the late 1990s tech bubble. Susceptibility to corrections tends to be higher when the companies dominating returns have outpaced their earnings performance. Today's tech giants have recently accounted for a larger share of price performance than earnings growth, such that their valuation has increasingly diverged from the rest of the market, but this dynamic is much less pronounced than what we experienced in past episodes such as the tech bubble. Tech sector valuations remain closer to the rest of the market than what we saw in that period. Stepping back, throughout the US stock market, we see strong recent earnings growth being priced in to continue, at a time when supports are fading. The picture is different for each sector depending on its own valuation and exposure to macro forces, but the range across the market seems about normal relative to history.

The chart below shows the share of 12-month US equity index gains coming from the five largest contributors at different points in time. As you can see, while today's degree of concentration is higher than average, it is within the range of what has happened historically. Note how much more concentrated the rally was at the very top of the stack during the tech bubble, when the likes of Cisco, Oracle, Sun, and Intel drove more than half of the 12-month US equity return during the blow-off period.

Contribution of Top Five Firms, Rolling 12 Months



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60%

50%

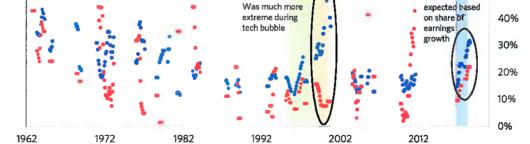
The picture is similar when we look at the top 20 companies through time.



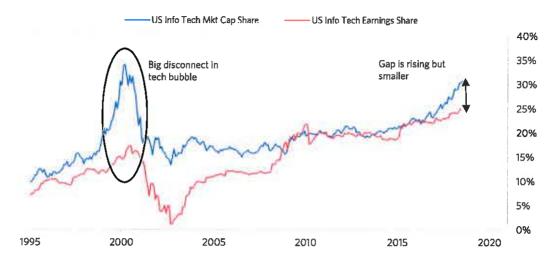
Investors are especially susceptible to corrections when the companies dominating returns have outpaced their earnings performance. The tech sector has recently accounted for a larger share of price performance than earnings growth, though this dynamic is much less pronounced than what we experienced during the tech bubble.

Contribution of Top Five Firms, Rolling 12 Months

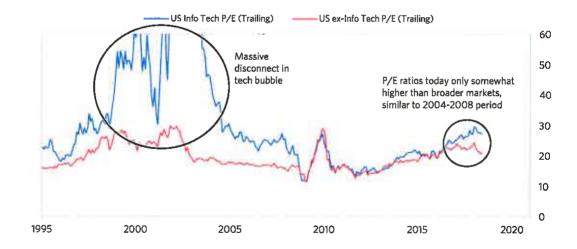
Early Tech Bubble Late Tech Bubble Recent • Returns Share • Earnings Growth Share Modestly higher than would be



As a result, while valuations have been rising relative to the market, they are not as stretched as what we saw in the tech bubble in the late 1990s. Below, we show tech companies' share of overall market cap and earnings through time. While the recent run-up in prices has outpaced tech companies' strong earnings expansion, the gap is nowhere near as large as it was during the tech bubble.



Overall, tech sector valuations remain much closer to the rest of the market. As shown below, while P/E multiples from tech are higher than the rest of the market, they are similar to what was the case for most of the pre-crisis period and are well below what we saw during the tech bubble.



Zooming into the valuations of the five largest drivers of recent returns, outside of Amazon the P/Es today of these companies are roughly in line with the overall stock market.

Largest Drivers of US Stock Market Returns, Last 12 Months

Rank	Сотрапу	Mkt Cap (USD, Min)	Fwd P/E		Trailing P/E
1	Amazon.com, Inc.	887,942		82	141
2	Microsoft Corporation	829,423		25	27
3	Apple Inc.	1,007,278		16	18
4	Alphabet Inc.	861,693		22	33
5	JPMorgan Chase & Co.	393,526		12	14
	Reference: US Stock Market	22,789,190		17	24

Valuations similar to the market as a whole

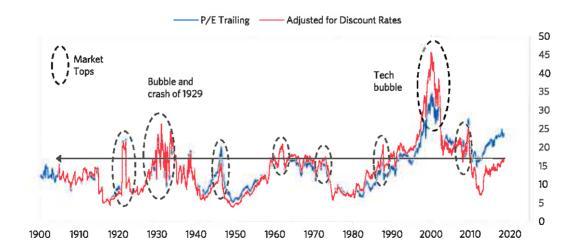
In contrast, the late 1990s bubble provides a good case study of how extreme pricing at the fringes can become.

Largest Drivers of US Stock Market Returns, Mar 99-Feb 00

Rank	Сотрапу	Mkt Cap (USD, Mln)	Fwc	IP/E	Trailing P/E
1	Cisco Systems, Inc.	462,722		111	149
2	Intel Corporation	378,437		38	47
3	Oracle Corporation	210,752		111	136
4	General Electric Company	436,062		35	40
5	Sun Microsystems	151,106		89	113
	Reference: US Stock Market	11,442,719		23	28

Much more elevated during tech bubble

Stepping back, throughout the US stock market, we see strong recent earnings growth being priced in to continue, at a time when the Fed is pulling back liquidity and raising discount rates, and when supports to growth are set to fade. Even when you adjust for the lower discount rates today (red line in the chart below), the P/E multiples on the market overall are about as high as they have been outside the tech bubble. The picture is different for each sector depending on its own valuation and exposure to macro forces, but the range across the market seems about normal relative to history.



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