

Earnings Growth and CapEx: Evidence from the Past Decade

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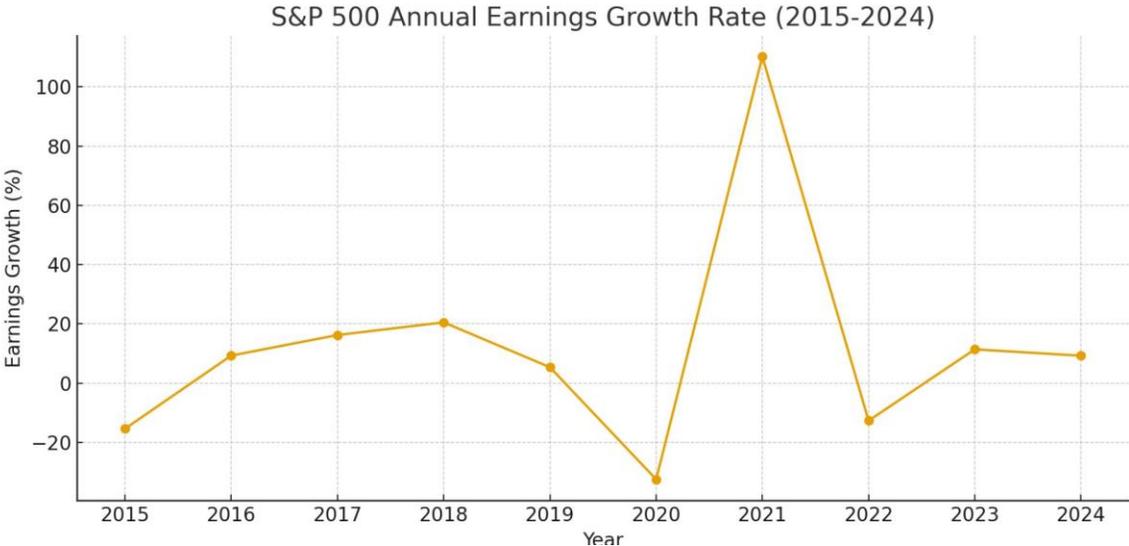
What is CapEx and Why It Matters

Capital expenditures (CapEx) represent long-term investments by companies in assets such as infrastructure, equipment, and technology. These expenditures expand productive capacity and enable firms to capture future revenue streams. In theory, CapEx supports earnings growth because investments create efficiency, scale, and innovation that translate into higher profits. However, timing, depreciation, and execution risks mean the relationship is not automatic (Reuters, 2025).

Empirical Patterns in the S&P 500

As shown in Figure 1, annual S&P 500 earnings growth shows sharp fluctuations over the past decade. According to Multpl data, earnings contracted in 2015 (-15.42%), 2020 (-32.51%), and 2022 (-12.70%), while they surged in 2017 (+16.21%), 2018 (+20.49%), and especially 2021 (+110.21%) during the post-pandemic rebound (Multpl, n.d.). These shifts reflect macroeconomic cycles, crises, and sectoral performance, with technology often driving aggregate trends.

Figure 1
S&P 500 Annual Earnings Growth Rate, 2015–2024



Note. Data represent year-over-year percentage change in S&P 500 earnings per share (EPS). Adapted from Multpl (n.d.).

CapEx Trends in Technology

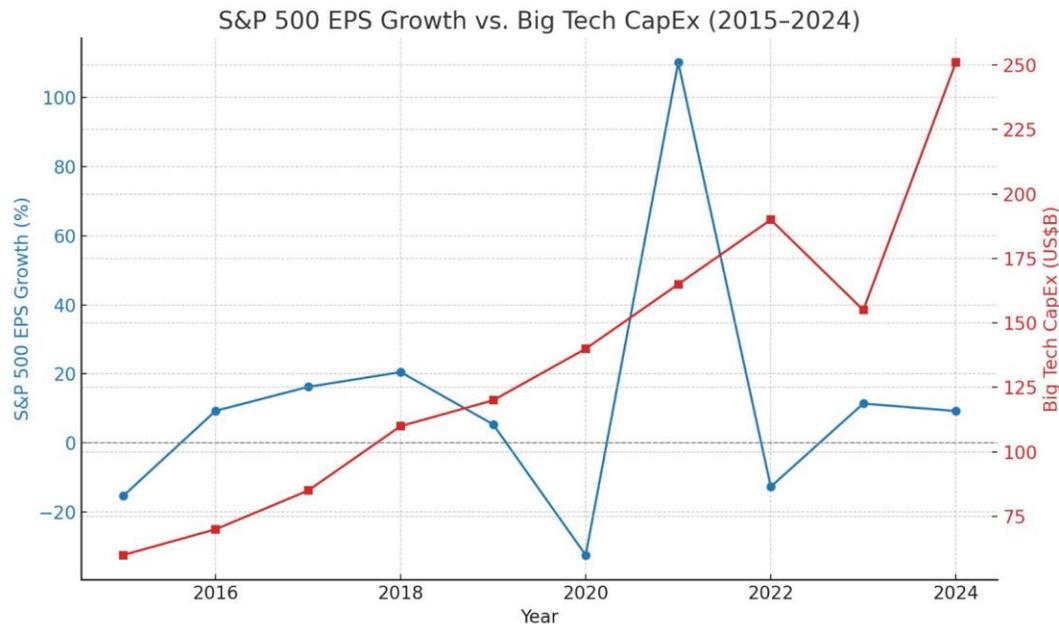
Technology firms, particularly the “hyperscale” players (Amazon, Microsoft, Alphabet, and Meta), have dramatically increased CapEx in the past decade. Combined spending exceeded \$251 billion in 2024, up 62% from 2023, with much directed toward data centers and AI infrastructure (Platformonomics, 2025). Analysts forecast further increases to roughly \$280 billion in 2025, as AI and cloud investments accelerate (CFO Dive, 2025). Rising capital intensity, CapEx as a percentage of revenue, has redefined the cost structure of Big Tech (Reuters, 2025).

Linking CapEx and Earnings Growth

As illustrated in Figure 2, increased capital expenditures (CapEx) by technology firms are positively associated with periods of stronger S&P 500 earnings growth. Substantial investment often precedes or coincides with earnings gains. For example, prior digital infrastructure spending positioned technology companies to capture pandemic-driven demand, which contributed to the S&P 500’s sharp rebound in 2021 (+110.21%) (Multpl, n.d.). More recently, heightened CapEx in 2023–2024 aligned with earnings growth of +11.39% in 2023 and +9.22% in 2024 (Multpl, n.d.; Platformonomics, 2025). Analysts further anticipate that ongoing investment, particularly in AI-related infrastructure, will support continued earnings expansion for technology firms in the years ahead (CFO Dive, 2025).

Figure 2

S&P 500 Earnings Growth and Big Tech Capital Expenditures, 2015–2024



Note. S&P 500 annual EPS growth data from Multpl (n.d.); Big Tech CapEx estimates compiled from Platformonomics (2025), CFO Dive (2025), and related sources.

Caveats

While the association is positive, several caveats remain. First, CapEx impacts earnings with a lag, benefits accrue after infrastructure is built and monetized. Second, not all CapEx yields strong returns; misallocation reduces profitability (Bloomberg, 2025). Finally, macroeconomic conditions, such as interest rates and demand shocks, can amplify or mask the relationship between CapEx and earnings.

Conclusion

Over the past decade, a positive relationship between CapEx and earnings growth has been evident, particularly in the technology sector. Heavy investment in digital infrastructure, cloud services, and AI has supported periods of rapid earnings expansion in the S&P 500. While timing and efficiency matter, the broader evidence suggests that CapEx remains a leading indicator of earnings potential, especially in capital-intensive technology markets.

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