

The wrong lesson from the dot-com bubble

Insights
September 2026



Toby Warburton, CFA, PhD

Global Head of Active
Portfolio Management,
Systematic Equity

Every major technology wave tends to invite comparisons with the a previous one. Today, the obvious parallel is between the artificial intelligence boom and the dot-com era. The comparison is useful, but the lesson today is not that investors should avoid transformative technologies. It is that technological success does not necessarily determine which companies will capture the returns.

Concentration in stock markets often reflects a genuine transformative theme in economies and corporates. But while the theme itself may endure, market concentration tends to wane over time. The internet, for example, transformed communication, commerce, and the global economy and yet many of the companies that financed and built its early infrastructure ultimately proved poor investments. Technological success and investment success are not the same thing, and by the end of the following decade only a few of those internet titans could still be counted amongst the world's largest companies (see Figure 1).

During the telecom boom, enormous sums were invested in fiber-optic networks on the broadly correct assumptions that internet adoption would grow strongly. What proved much harder to forecast was the timing of demand, the pace of technological change, and where future profits would accrue. Rapid advances in fiber technology increased the capacity of existing networks, even as long-haul fiber deployment accelerated. By 2001, it was clear that substantial overinvestment had occurred. The infrastructure endured; many of the original financing assumptions did not.

Figure 1: World's largest companies at the turn of the decades

1989	1999	2009	2019	2026
Industrial Bank of Japan	Microsoft	Exxon Mobil	Apple	Nvidia
Sumitomo Bank	General Electric	Microsoft	Alphabet	Apple
Fuji Bank	Cisco	HSBC	Microsoft	Microsoft
Dai-Ichi Kangyo Bank	Wal-Mart	Apple	Amazon	Amazon
Exxon Corp	Exxon Mobil	BP	Facebook	TSMC
General Electric	Intel	Johnson & Johnson	JP Morgan Chase	Broadcom
Tokyo Electric Power	NTT	Proctor & Gamble	Johnson & Johnson	Alphabet
IBM Corp	Lucent Technologies	IBM	Alibaba	Micron
Toyota	Nokia	Nestle	Visa	Meta
AT&T	Deutsche Telekom	AT&T	Nestle	Tesla
Dominant theme	Dominant theme	Dominant theme	Dominant theme	Dominant theme
All things Japan	TMT bubble	Post-GFC normalization	Mega-cap platforms building out	AI - mania

Source: State Street Investment Management, FactSet, Axioma, MSCI, CNBC. As of August 10, 2026. World's largest companies as calculated by market capitalization at the end of each decade.

What makes the AI buildout different?

The AI buildout is frequently portrayed as another example of infrastructure being constructed ahead of demand. There is, however, an important difference. Data centers are not being constructed solely in anticipation of a hypothetical future application—cloud computing, digital services, and AI workloads already consume substantial capacity.

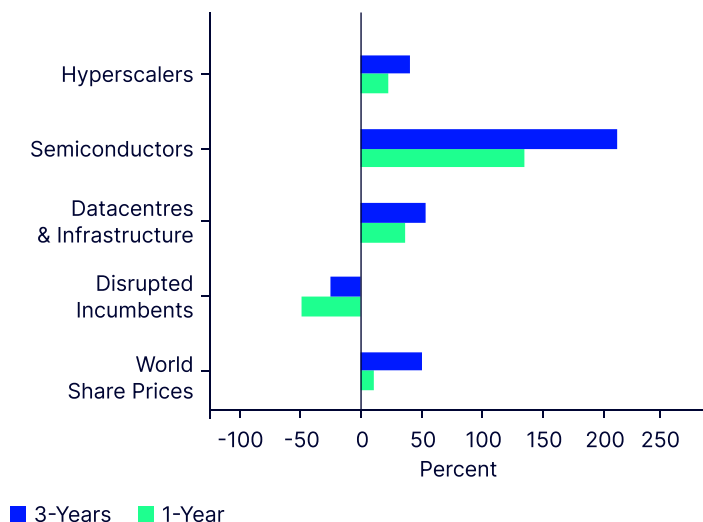
That distinction does not mean every investment will succeed. Efficiency gains in chips, models, and software could change the amount and type of computing capacity required. Power constraints may delay projects, while new capacity could eventually weaken pricing. It should also be noted that utilization alone does not guarantee a strong return on invested capital.

Where might AI value accrue?

For investors, the question is no longer whether AI will matter, but which companies can convert its adoption into robust returns for shareholders. Markets have so far rewarded businesses where AI-related growth is already visible. Semiconductors and physical infrastructure have benefited most directly from the initial buildout, while parts of the software industry have been treated more cautiously despite resilient earnings. This divergence is evident in the returns across the AI ecosystem as investors appear to be distinguishing between today's suppliers of capacity and tomorrow's owners of economic value. (See Figure 2).

History suggests that this becomes harder as a technology matures. Much of the value created by the internet accrued to businesses that exploited cheaper and more abundant connectivity, not necessarily to those that first financed it. AI could follow a similar path. The infrastructure may be essential and well used, while returns still vary sharply according to competition, pricing power, adoption, and capital discipline.

Figure 2: Returns across selected AI ecosystem cohorts
Markets have rewarded visible AI-related growth



Source: State Street Investment Management, FactSet, MSCI, and Microsoft. Data to 30 June 2026. Selected-company proxies; for illustrative purposes only. The performance data quoted represents past performance. Past performance does not guarantee future results.

Why portfolio construction matters

This is precisely where disciplined, risk-controlled portfolio construction matters. When the range of plausible outcomes is wide, confidence in a single forecast is a weak substitute for portfolio resilience.

The objective is to participate in the important AI-related theme, but without allowing it to dominate the portfolio. That means broadening the opportunity set across infrastructure providers, enablers, adopters, and potential disruptors; combining complementary stock-level insights; and constraining unintended exposures to companies, sectors, factors, and narratives.

A systematic process can compound many modest views while continuously reallocating risk as the evidence changes. Importantly, diversification begins long before securities enter the portfolio. A broad alpha model can bring together multiple complementary perspectives, from fundamentals and valuation to earnings, sentiment, catalysts and macro context, reducing reliance on any single dataset, narrative, or analytical technique. The portfolio then extends that diversification through explicit risk controls and position sizing.

The enduring lesson from the dot-com era is not to avoid transformative infrastructure. It is to separate useful capacity from profitable capacity, and technological conviction from portfolio concentration. Investors do not need to predict one definitive AI winner. In uncertain markets, diversification of insight, diversification of holdings, and explicit risk controls are not a retreat from active investing. They are what make active insight investable. Our investment process is designed to participate in value creation across several possible paths, while aiming to limit the cost of being wrong about any one of them.

To learn more about the views and investment capabilities of the Systematic Equity—Active team, please visit our [website](#).

statestreet.com/investment-management

Marketing communication

State Street Global Advisors (SSGA) is now State Street Investment Management. Please [click here](#) for more information.

State Street Global Advisors Worldwide Entities

The information contained in this communication is not a research recommendation or 'investment research' and is classified as a 'Marketing Communication' in accordance with the applicable regional regulation. This means that this marketing communication (a) has not been prepared in accordance with legal requirements designed to promote the independence of investment research (b) is not subject to any prohibition on dealing ahead of the dissemination of investment research.

This communication is directed at professional clients (this includes eligible counterparties as defined by the appropriate EU regulator) who are deemed both knowledgeable and experienced in matters relating to investments. The products and services to which this communication relates are only available to such persons, and persons of any other description (including retail clients) should not rely on this communication.

The information provided does not constitute investment advice and it should not be relied on as such. It should not be considered solicitation to buy or an offer to sell a security. It does not take into account any investor's particular investment objectives, strategies, tax status or investment horizon. You should consult your tax and financial advisor.

All information is from State Street Investment Management unless otherwise noted and has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy, reliability or completeness of, nor liability for, decisions based on such information and it should not be relied on as such.

This document contains certain statements that may be deemed forward-looking statements. Please note that any such statements are not guarantees of any future performance and actual results or developments may differ materially from those projected. Investing involves risk including the risk of loss of principal.

The trademarks and service marks referenced herein are the property of their respective owners. Third party data providers make no warranties or representations of any kind relating to the accuracy, completeness or timeliness of the data and have no liability for damages of any kind relating to the use of such data.

The views expressed are the views of the Systematic Equity—Active team through September 8, 2026, and are subject to change based on market and other conditions.

Quantitative investing assumes that future performance of a security relative to other securities may be predicted based on historical economic and financial factors, however, any errors in a model used might not be detected until the fund has sustained a loss or reduced performance related to such errors.

State Street Investment Management uses quantitative models in an effort to enhance returns and manage risk. While State Street Investment Management expects these models to perform as expected, deviation between the forecasts and the actual events can result in either no advantage or in results opposite to those desired by State Street Investment Management. In particular, these models may draw from unique historical data that may not predict future trades or market performance adequately. There can be no assurance that the models will behave as expected in all market conditions. In addition, computer programming used to create quantitative models, or the data on which such models operate, might contain one or more errors. Such errors might never be detected, or might be detected only after the Portfolio has sustained a loss (or reduced performance) related to such errors. Availability of third-party models could be reduced or eliminated in the future.

Investing in foreign domiciled securities may involve risk of capital loss from unfavorable fluctuation in currency values, withholding taxes, from differences in generally accepted accounting principles or from economic or political instability in other nations.

Investments in emerging or developing markets may be more volatile and less liquid than investing in developed markets and may involve exposure to economic structures that are generally less diverse and mature and to political systems which have less stability than those of more developed countries.

This information should not be considered a recommendation to invest in a particular sector or to buy or sell any security shown. It is not known whether the sectors or securities shown will be profitable in the future.

Investments in small-sized companies may involve greater risks than in those of larger, better known companies.

The past performance data quoted represents past performance. Past performance does not guarantee future results.

Investing involves risk including the risk of loss of principal.

Equity securities may fluctuate in value and can decline significantly in response to the activities of individual companies and general market and economic conditions.

© 2026 State Street Corporation. All Rights Reserved.
ID4828900-5806250.36.2.GBL.RTL 0926 Exp. Date: 09/30/2027