

Looking for durable, needle-moving growth in the AI tech stack



From the Field November 2024

Key Insights

- The AI revolution is in its early stages. Bouts of volatility and uncertainty are inevitable as this technology wave unfolds over a decade or more.
- Being viewed as an "Al stock" probably won't be enough to sustain strong returns.
 Intense competition may erode the benefits enjoyed by some early Al winners.
- Focusing on business quality can help to identify the special companies that may be able to retain a significant share of the economic value created by Al.

or U.S. stocks and large-cap growth investors, the narrative surrounding advanced artificial intelligence (AI) matters a lot.

Hype, hope, and massive spending on data centers have lifted many boats offering exposure to Al. However, a handful of large companies have been benefiting from this technology in real ways. And these mega-caps have become an even bigger part of the Russell 1000 Growth Index, as well as key drivers of its returns this year (Figure 1).

The rapidity and magnitude of spending growth on Al-related infrastructure naturally raise concerns about its sustainability and the risk of overcapacity.

Bouts of volatility are inevitable. But when the market fixates on the near term, it's critical

for growth investors to focus on what creates value for shareholders over the long haul.

Al spending differs from past tech bubbles

Comparisons to the dot-com bubble and the telecom industry's overbuilding of fiber networks in the late 1990s and early 2000s strike me as off the mark, even if the exuberance seems familiar:

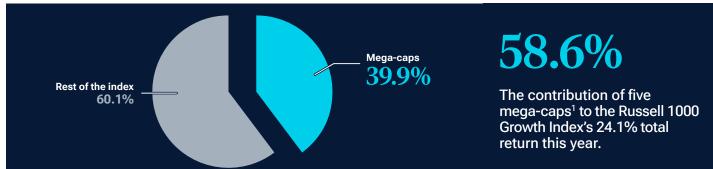
- Not debt fueled: The mega-cap companies funneling money into Al infrastructure have been pulling from the ample free cash flow generated by their core businesses.
- Early returns: All has reinvigorated large consumer internet companies' digital advertising businesses by boosting



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Two dimensions of concentration in the Russell 1000 Growth Index

(Fig. 1) Five mega-caps¹ and their outsized contributions to total returns



As of October 31, 2024.

Past performance is not a reliable indicator of future performance.

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Alphabet, Amazon.com, Meta Platforms, Microsoft, and NVIDIA.

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engagement, improving targeting, and making it easier for clients to create and test campaigns.

Competitive pressure: Innovating in
 Al could be key to the mega-cap cloud
 and consumer internet companies
 strengthening their core businesses,
 trying to fend off would-be disruptors,
 and creating new growth opportunities.

But mind the cycle when investing in Al

Whether Al-related infrastructure spending can continue to grow at such a torrid pace in the near term is a reasonable question:

- Returns matter: Could increases in Al-related spending moderate if it takes longer for data center investment to generate tangible returns?
- Pcyclicality: Demand for graphics processing units (GPUs) historically has fluctuated with the health of the economy, customers' inventories of these semiconductors, new chip launches, and product cycles for the applications that use them. For example, customers might slow their purchases when a more powerful GPU is on the horizon or if these chips become easier to obtain.

Timing these downcycles will be extraordinarily difficult, especially when the technology is evolving so fast. Sentiment can also shift quickly given the excitement around AI, with the market latching on to recent news or a data point and extrapolating it into a trend.

Mutually reinforcing drivers in Al infrastructure and the applications built on these models are important to watch because they should feed into one another.

The key is the extent to which connecting increasing numbers of increasingly powerful chips into a brain-like system can improve AI performance, helping to unlock new capabilities that benefit consumers and businesses.

The value of taking a long view on investing in Al

We are still in the early stages of the Al revolution. This innovation wave likely will unfold over a decade or more—like the rise of the internet, mobile connectivity, and cloud computing.

The bulk of the spending on high-performance computing so far has gone to training complex AI models on massive datasets. Developers are still honing the broad capabilities of the

foundation models that eventually could underpin applications for different users and end markets.

Over time, as AI applications improve and proliferate, trained models are likely to need even more computing power and always-on electricity to generate outputs in response to a flood of user requests.

Imaginations can run wild when thinking about Al-related stocks. After all, part of generative Al's appeal is its broad applicability, the prospect of creating efficiencies and new tools for many different industries.

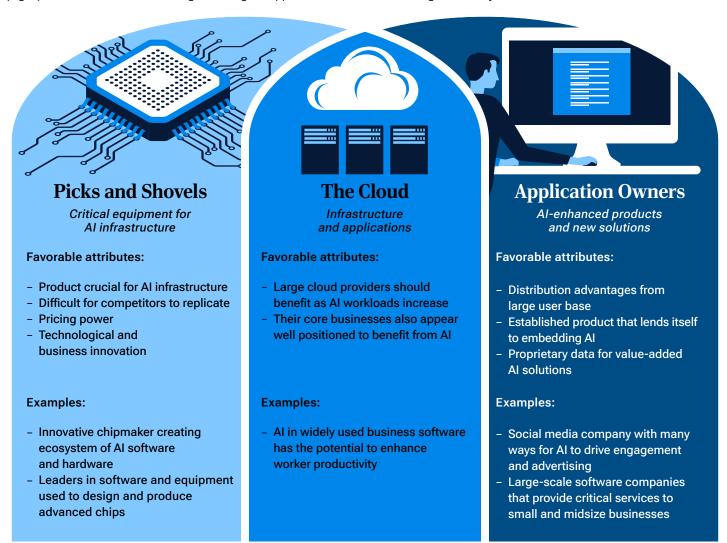
However, simply being thought of as an "AI stock" probably won't be enough to sustain strong returns for shareholders. As costs come down and the technology becomes widely accessible, intensifying competition may erode the benefits enjoyed by some early AI winners.

Focus on business fundamentals, not hype

How can growth investors identify the special companies that should be able to capture and retain a significant share of the economic value associated with such a large market?

A framework for investing in AI

(Fig. 2) Infrastructure has been the growth engine; applications are earlier in their growth story



For illustration purposes only.

The focus should be on business quality and the potential staying power of a company's competitive advantages.

Companies that assemble and sell AI servers, for example, have enjoyed strong revenue growth during the AI boom. But stiff competition and the risk of commoditization could challenge the long-term durability of their growth story.

In contrast, the competitive moats for certain companies involved in designing and producing bleeding-edge chips may have a better chance of holding up. The technological challenge of squeezing more transistors onto smaller chips to increase processing power limits competition at certain points in the supply chain for advanced digital semiconductors.

Of course, large profit pools and favorable margins naturally attract potential disruptors. Paying close attention to the risks to incumbents and early AI winners is critical, given the pace of innovation taking place in hardware and applications.

Pursuing AI stocks with potentially durable growth stories

Figure 2 shows one framework for thinking about investing in Al.

One bucket contains the "picks and shovels" companies that provide the critical components for building real-world AI infrastructure—home to many of the early winners in the AI boom. The other bucket houses "application owners" that are

embedding advanced AI into their existing products or using it to build new solutions.

Compelling long-term opportunities exist in both areas, but some companies with a foot firmly planted in each of these two worlds appear uniquely well positioned to benefit from Al-related growth.

There's more to growth investing than Al

Navigating the innovation and disruption stemming from the AI revolution will be critical to long-term returns, especially with

the winner-take-most dynamics that tend to occur in these technology waves.

Still, AI isn't the be-all and end-all for growth investing. A balanced approach to portfolio construction is important given that the sentiment and momentum around AI can shift quickly in the near term.

A thoughtful portfolio manager, backed by a global research team that has cultivated a deep understanding of industries and companies, may be well positioned to uncover these idiosyncratic growth opportunities in AI and beyond.

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