Mind the Bottlenecks: How AI Infrastructure Exposure Separates Today's Technology Strategies

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Christopher Gannatti, CFA
Global Head of Research

Key Takeaways

- AI's biggest constraints have shifted from GPUs to memory bandwidth and optical networking, making these infrastructure bottlenecks some of the most important investment themes in 2026.
- AI strategies with greater exposure to memory, storage and networking have outperformed year-to-date as hyperscaler spending remains focused on AI infrastructure.
- Investors should distinguish between AI adoption and AI infrastructure strategies, with the WisdomTree Artificial Intelligence and Innovation Fund (WTAI) positioned more directly around the bottlenecks powering AI growth.

There is a phrase circulating with increasing frequency in conversations about AI infrastructure:

The bottleneck.

Compute—specifically graphics processing units (GPUs)—was the dominant variable in AI progress during the early years of AI, but it has become abundant enough that new constraints have moved to the foreground. The limitation today is less often whether a model can run and more often whether:

- Data can move fast enough to feed it
- Memory can store and retrieve at the speed the model demands
- The physical layer connecting servers across a data center can handle the bandwidth that frontier AI workloads require

These are engineering problems masquerading as investment themes, and identifying which strategies have oriented themselves toward the genuine constraints, as opposed to the general excitement around AI, is now one of the more meaningful distinctions in thematic investing.

Two bottlenecks dominate the current conversation:

2. Memory bandwidth and capacity

High-bandwidth memory, or HBM, has become the critical substrate for GPU performance. When Nvidia ships an H100, a Blackwell or a Rubin system, the memory that determines how fast it can operate typically comes from SK Hynix, Micron or Samsung. Storage more broadly, like the NAND flash from the companies that became SanDisk and Kioxia, feeds the data pipelines that AI training and inference consume continuously.

2. Optical networking

This represents the fiber, transceivers, and switching equipment that move data between GPUs at the speeds AI workloads require. Companies like Lumentum, Coherent, Corning, and Credo Technology are building the connective tissue of the AI data center, and the demand signal coming from hyperscalers has been among the strongest in the hardware ecosystem over the past two years.

Software?

Software, by contrast, is not a bottleneck in this sense. It is an opportunity, a competitive arena, and it could be a platform for monetization, but it is not the scarce resource. The observation is not a slight against software companies; it is simply a structural point about where AI's scaling constraints actually live in 2026.

Against this backdrop, three AI-oriented ETF strategies offer instructive contrasts.

- The Global X Artificial Intelligence & Technology ETF (AIQ) and the iShares A.I. Innovation and Tech Active ETF (BAI) are among the largest by assets under management, as of May 29, 2026. Both were above $10 billion, and BAI was actually above $16 billion.1
- The WisdomTree Artificial Intelligence and Innovation Fund (WTAI) is a strategy where we are seeking to directly think about the bottlenecks when we go through our quarterly rebalances of the WisdomTree Artificial Intelligence and Innovation Index. The Index Committee also evaluates four focal categories of exposure, namely Semiconductors, Other Hardware, Software and Innovation.

WTAI has positioned itself most explicitly around infrastructure and bottleneck exposure. As of May 29, 2026, major exposures included Micron (4.70%), Samsung Electronics (4.55%), Nvidia (4.23%), Broadcom (3.36%), SanDisk (3.19%), and Kioxia (3.18%). Together, the memory complex alone represents a substantial plurality of assets. The optical networking thesis also appears with names like Lumentum (2.02%), Coherent (1.69%), Corning (1.23%), Credo Technology (1.18%), and Ciena (0.63%), each of which derives meaningful revenue from AI data center buildout. The pattern across the fund is consistent, placing exposure in companies that supply the physical and semiconductor infrastructure that AI requires to actually function, rather than companies that build applications on top of it. Software and consumer-facing platforms are notably slimmed down in exposure to only the highest conviction names.

BAI, an actively managed strategy, takes an approach that recognizes the bottleneck thesis but holds it alongside a broader AI growth bet. SK Hynix led the fund at 7.4%, followed by Broadcom (5.48%), Micron (5.40%) and AMD (5.03%). The optical networking layer appeared through Lumentum (2.69%), Fabrinet (2.05%), and Credo (1.83%). BAI also carried allocations to Snowflake (1.64%) and Palantir (1.10%). Being

actively managed, BAI appears designed to capture both the infrastructure constraint narrative and the software monetization narrative simultaneously, accepting the tradeoff that might come with that breadth.

AIQ, as of this moment in time, had taken the widest view. First, it is tracking the total return performance, before fees and expenses, of the Indxx Artificial Intelligence & Big Data Index, which selects companies from developed markets, plus China-domiciled ADRs/GDRs,2 that demonstrate direct, meaningful exposure to AI. Candidates are sorted into two buckets:

- AI developers and application companies (Category 1, up to 60 names)
- AI hardware and quantum computing companies (Category 2, up to 25 names)

Each company receives a proprietary "Exposure Score" based on how central AI is to its business, and only those clearing a positive score threshold are eligible. Weighting is modified market-cap with individual security caps of 3% (or 1% for lower-scoring names). The index is rules-based with no discretionary committee cited in the methodology.

SK Hynix (7.12%) and Micron (5.76%) were the largest holdings by weight, and Samsung Electronics (4.79%) was also significant. Alphabet (2.72%), Meta Platforms (2.30%), Microsoft (2.35%), Netflix (2.43%), Amazon (2.73%), Apple (2.97%), Salesforce (1.31%), Tesla (2.29%) and Palantir (2.23%) also constitute a substantial portion of the portfolio, and they represent something different from what we might think of as 'bottlenecks'. Fujikura (0.39%), the Japanese optical fiber manufacturer, and Marvell Technology (1.27%) did appear as less substantial positions. Of the three strategies in this piece, AIQ is effectively a broad technology strategy with an AI narrative, which may serve investors seeking wide exposure to how AI reshapes the economy, but it is a different bet than the infrastructure thesis.

The distinction matters because the bottleneck thesis and the AI adoption thesis can diverge sharply in performance over specific periods. When the market focuses on AI capex cycles and infrastructure spending, memory and optical names tend to lead. When attention shifts to monetization, software multiples could expand. Knowing which thesis a given fund is actually expressing is the starting point for any honest evaluation.

Conclusion: Who is Leading in Terms of Performance?

To be fair, we have to note that performance in this space can be volatile. We are looking at a snapshot as of May 29, 2026. The future is unknown. What's clear, particularly in the year-to-date 2026 period, is that WTAI and BAI are dramatically ahead of AIQ. We noted above their focus on what we term 'the bottlenecks'. AIQ doesn't ignore the bottlenecks by any means; it simply distributes its weight across a broader set of companies.

It is a short-term period in Figure 1a due to the short, live history of BAI, which only began October 21, 2024.

Figure 1a: The Performance Picture So Far

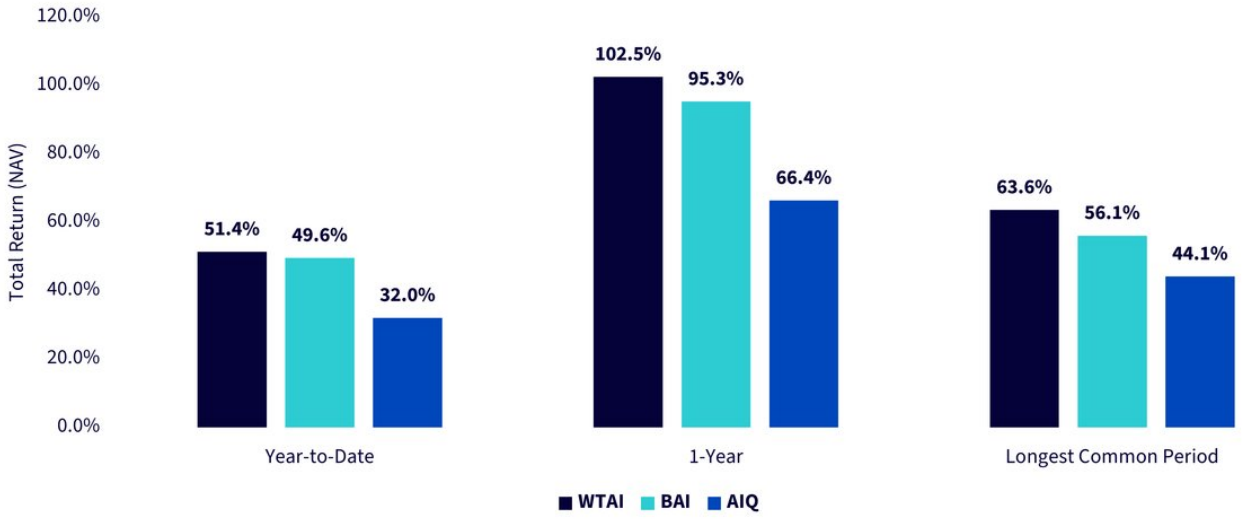

Figure 1b: Standardized Performance

Fund Name	Fund Ticker Symbol	Fund Inception Date	Fund Expense Ratio	Fund 30-Day SEC Yield	Year-to-Date	1-Year	3-Year	5-Year	10-Year	Since Fund Inception
WisdomTree Artificial Intelligence and Innovation Fund (NAV)	WTAI	12/9/21	0.45%	-0.05%	-4.49%	49.07%	17.71%	N/A	N/A	2.92%
WisdomTree Artificial Intelligence and Innovation Fund (MP)	WTAI	12/9/21	0.45%	-0.05%	-3.26%	50.81%	17.96%	N/A	N/A	3.21%
iShares A.I. Innovation and Tech Active ETF (NAV)	BAI	10/21/24	0.55%	-0.26%	-2.89%	50.66%	N/A	N/A	N/A	21.05%
iShares A.I. Innovation and Tech Active ETF (MP)	BAI	10/21/24	0.55%	-0.26%	-2.49%	51.06%	N/A	N/A	N/A	21.40%
Global X Artificial Intelligence & Technology ETF (NAV)	AIQ	5/11/18	0.68%	-0.14%	-8.97%	27.87%	23.82%	10.61%	N/A	15.78%
Global X Artificial Intelligence & Technology ETF (MP)	AIQ	5/11/18	0.68%	-0.14%	-8.59%	28.05%	23.87%	10.58%	N/A	15.79%

Sources: WisdomTree, FactSet specifically data from the Fund Comparison Tool in the PATH suite of tools, accessed June 1, 2026 with returns as of May 29, 2026 for Figure 1a and March 31, 2026 for Figure 1b. Fund SEC 30-Day Yield as of March 31, 2026. NAV denotes total return performance at net asset value. MP denotes market price performance. Longest Common Period in Figure 1a is governed by the BAI inception date, 10/21/2024. **Past performance is not indicative of future results. Investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted. For the most recent month-end and standardized performance and to download the respective Fund prospectuses, click here.**

Our bottom line is this—if investors are looking for AI strategies that are 'minding the bottlenecks,' we believe the evidence is clear, as of this point in time, regarding where those exposures may be found. If people are focusing on other areas, that is also clear.

Figure 2: Additional Information

Fundamentals	WisdomTree Artificial Intelligence & Innovation Fund (WTAI)	iShares A.I. Innovation & Tech Active ETF (BAI)	Global X Artificial Intelligence & Technology ETF (AIQ)
Inception Date	12/9/21	10/21/24	5/11/18
Objective	The WisdomTree Artificial Intelligence & Innovation Fund is designed to track the total return performance of, before fees and expenses, the WisdomTree Artificial Intelligence & Innovation Index. There is a committee that contributes to each of the quarterly rebalances of this index, and the committee is thinking broadly about artificial intelligence from within Semiconductors, Software, Other Hardware and Innovation categories.	The iShares A.I. Innovation and Tech Active ETF seeks active exposure to companies enabling, developing, and deploying today's most advanced AI technologies across the "AI tech stack," which includes infrastructure, intelligence, and apps & services. The fund offers targeted and actively managed exposure to the potential growth of the AI and technology revolution.	The Global X Artificial Intelligence & Technology ETF (AIQ) seeks to invest in companies that potentially stand to benefit from the further development and utilization of artificial intelligence (AI) technology in their products and services, as well as in companies that provide hardware facilitating the use of AI for the analysis of big data. The Global X Artificial Intelligence & Technology ETF (AIQ) seeks to provide investment results that correspond generally to the price and yield performance, before fees and expenses, of the Indxx Artificial Intelligence & Big Data Index.
SEC 30-Day Yield	-0.05%	-0.26%	-0.14%
Total Expense Ratio	0.45%	0.55%	0.68%
Underlying Index Name	WisdomTree Artificial Intelligence & Innovation Index	N/A	Indxx Artificial Intelligence & Big Data Index
Total Assets Under Management (millions)	$622.81	$16,266.60	$10,850.00

Sources: WisdomTree, iShares and Global X, with data from each respective fund page as of May 29, 2026. **Subject to change.**

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1 Sources: iShares and Global X, specific BAI and AIQ fund pages. Assets under management as of May 29, 2026. **Subject to change.**

2 ADR stands for American Depository Receipt. GDR stands for Global Depository Receipt.

Important Risks Related to this Article

There are risks associated with investing, including possible loss of principal. The Fund invests in companies primarily involved in the investment theme of Artificial Intelligence (AI) and Innovation. Companies engaged in AI typically face intense competition and potentially rapid product obsolescence. These companies are also heavily dependent on intellectual property rights and may be adversely affected by loss or impairment of those rights. Additionally, AI companies typically invest significant amounts of spending on research and development, and there is no guarantee that the products or services produced by these companies will be successful. Companies that are capitalizing on Innovation and developing technologies to displace older technologies or create new markets may not be successful. The Fund invests in the securities included in, or representative of, its Index regardless of their investment merit and the Fund does not attempt to outperform its Index. The composition of the Index is governed by an Index Committee and

the Index may not perform as intended. Please read the Fund’s prospectus for specific details regarding the Fund’s risk profile.