WE JUST REBALANCED OUR AI STRATEGY-WHAT CHANGED?

Christopher Gannatti - Global Head of Research 06/05/2024

Every six months, we undertake a rebalance of the <u>WisdomTree Artificial Intelligence & I nnovation Index</u>. We seek to ensure that the Index maintains its exposure to the broadbased AI ecosystem and accounts for anything that has evolved that we can access in publicly listed equity markets.

The <u>WisdomTree Artificial Intelligence & Innovation Fund (WTAI)</u> is designed to track the total return performance of, before fees, the WisdomTree Artificial Intelligence & Innovation Index.

Also, we are seeking to pay attention to diversifying across the "innovation timeline." What we mean by this-certain innovations have very little certainty with regard to when they may bring something to a company that has the potential to influence business fundamentals, such as revenues, cash flows or profits. Other innovations have a greater probability of impacting these kinds of fundamentals over a shorter time horizon. While we never know anything about the future with certainty, we do not want a full portfolio of deeper technology plays where we cannot credibly build a case that they can bring much, if any, business value within the next two years. It is important to mix longer-term innovation time horizons (like commercially available quantum computing systems and fully personalized medicine) with shorter and more medium-term innovation time horizons (like AI models being run directly on smartphones and laptops).

With all of that said, the two primary theses that influenced this May 2024 rebalance are:

- The big platform companies are important for dispersing AI tools and agents.
- Devices capable of directly running AI could be widely available from the second half of 2024 into 2025.

The Two Main Theses Are Visible in the Top 10 Holdings

Thesis 1: The big platform companies are important for dispersing AI tools.

When viewing figure 1, it's clear that Alphabet and Meta are firmly within the top five positions. Meta is positioning itself as the leader in the "open source" movement. Alphabet just recently, through its I/O conference, announced many new AI functionalities across its different applications. As of this writing, people in the U.S. using Chrome may have already noticed a generative AI search summary to their queries. Microsoft, Amazon.com and Apple, while not in the top 10 on this date, also saw initial weights of 2.0% at the exact rebalance, but with small downward share price moves on the first full day of trading, market movement took them below the top 10.

We believe that many people, within the next year or so, will interact with AI through one of these platform players. They have an advantage in that they can deploy AI functionality across a very wide base of users quite quickly.

Thesis 2: Devices capable of directly running AI could be widely available from the second half of 2024 into 2025.

Yusuf Mehdi, who heads up consumer marketing for Microsoft, said the company expects



that 50 million AI PCs will be purchased over the next year. At the press event [for Microsoft Build 2024], he said faster AI assistants that run directly on a PC will be "the most compelling reason to upgrade your PC in a long time."²

It's also clear in figure 1 that semiconductors have retained their importance—but it's not all about Nvidia. Nvidia is a central player, but when we see Qualcomm as our second-largest semiconductor position, it's clear that we are focused on "AI on devices." In fact, when Microsoft was discussing its newly announced AI PCs, it emphasized partnerships with ARM, AMD and Qualcomm.

We think it is possible that people, through the second half of 2024 and into 2025, will get excited about the concept of "AI on devices" and refresh their laptops and smartphones. If we are correct in this thesis, an important step will be Apple's WWDC event in June 2024, where we expect an array of AI announcements.³ While not yet confirmed, we are excited to see what AI functionality may be in the iPhone 16, expected to come out later in 2024.

Comparison of the Top 10 to the Nasdaq 100 Index

When we look at figure 1, we can see, as of the close of May 20, 2024, the weights for the <u>WisdomTree Artificial Intelligence & Innovation Fund (WTAI)</u> and the <u>Nasdaq 100 Index</u>. Many have ridden the AI wave within the Nasdaq 100 Index, starting with the launch of ChatGPT in November 2022. Performance there has been strong.

- WTAI is less concentrated in terms of total weight in the top 10 positions (21.75% vs. 49.93%).
- The platform players are less dominant—we believe that the world's largest companies, those with market capitalizations well into the trillions of U.S. dollars, have been important leaders, but for the AI megatrend to really run, we believe that AI on devices is an important step. We recognize that a new iPhone 15 has nearly 30 underlying chips—if people get excited about the newest models, there could be a lot of semiconductor demand across a wide ecosystem, not just Nvidia. Blackwell chips, though exciting, are not in smartphones.

Figure 1: Top 10 Positions in WTAI vs. the Nasdaq 100 Index



WisdomTree Artificial Intelligence & Innovation Fund		Nasdaq 100 Index	
Name	Weight	Name	Weight
Nvidia Corp	2.37%	Microsoft Corp	8.65%
Alphabet Inc-Cl A	2.31%	Apple Inc	8.07%
Qualcomm Inc	2.31%	NVIDIA Corp	6.49%
Meta Platforms Inc Cl A	2.19%	Alphabet Inc	5.62%
Marvell Technology Inc	2.12%	Amazon.com Inc	5.22%
SK Hynix Inc	2.11%	Broadcom Inc	4.63%
Micron Technology Inc	2.11%	Meta Platforms Inc	4.49%
Advanced Micro Devices	2.10%	Costco Wholesale Corp	2.49%
Broadcom Inc	2.09%	Tesla Inc	2.31%
Arm Holdings Plc	2.05%	Netflix Inc	1.96%
Total	21.75%	Total	49.93%

Source: Bloomberg. Holdings are subject to change. Data is as of the market's close on May 20, 2024, after the first full day of trading after the rebalance.

The Evolution of WisdomTree's Four AI Groupings

Within the WisdomTree Artificial Intelligence & Innovation Index, we use four groupings to organize the companies within the AI ecosystem. Those are: 1) Semiconductors, 2) Software, 3) Other Hardware and 4) Innovation. Figure 2 indicates the changes to these groupings from the May 2024 rebalance, and we explain some of the details behind them here:

- Semiconductors and Software were our biggest overall groupings before the May 2024 rebalance, and this remained the case, with these group weights changing only slightly. Together, they add up to almost three-quarters of the total strategy exposure. This reflects our belief that these areas represent the core companies driving AI forward.
- Other Hardware saw a 1.9% incremental increase in weight, going from 9.8% to 11.7%. The primary drivers for this were: 1) the additions of Dell, Hewlett Packard and Hewlett Packard Enterprise and 2) increased weight in Tesla to a total of 1.5%. The addition of the physical computer makers was aimed at capturing a "hardware refresh" cycle that we believe could be coming when people look at their old laptops and are inspired to grab new AI-enabled models. It was nice to see the emphasis that Microsoft placed on this at its 2024 Build Conference and also the focus that Dell placed on it at its conference, which both happened to be during the same week as our rebalance implementation. The increase in Tesla's weight recognized that this company had been performance-challenged in the earlier months of 2024, and we believe that, as far as AI fundamentals go, Tesla is a strong player-albeit not without a high risk of volatility.



• Innovation saw a 2.1% decrease in weight from 17.9% to 15.8%. The primary drivers of this decrease in weight were: 1) the removal of Lemonade, Illumina and CS Disco and 2) the trimming of weight in NAVER back to 1.0%. A key part of the thought process in this grouping also included the fact that we increased weight in Meta Platforms, Alphabet, Microsoft, Apple and Amazon, where we have a particularly high conviction. For instance, one of our theses for the second half of 2024 involves Apple announcing certain AI services becoming available on devices, which then further contributes to more people seeking to buy new laptops, new tablets or new smartphones. We are more excited about these prospects in the nearer term and less excited about what Lemonade, Illumina or CS Disco have the potential to do in the near term. Recursion Pharmaceuticals and Exscientia are examples of longer-term strategic positions in this group, as we believe the impact of success in drug discovery is one of the biggest potential impacts of AI that is currently known—it just is not known exactly when approved therapies will be on the market.

Figure 2: Evolution of Weight in the Four Primary Company Groupings within WTAI

Group	Existing Weight	New Weight	Change
Semiconductors	41.8%	42.0%	0.2%
Software	30.5%	30.6%	0.1%
Other Hardware	9.8%	11.7%	1.9%
Innovation	17.9%	15.8%	-2.1%

Sources: WisdomTree, FactSet, Bloomberg, Aiera. Rebalance implementation occurred after the close on 4/17/24. Subject to change.

Semiconductors: It's Not Just Nvidia

With the semiconductors group representing 42% of the total strategy weight as of the rebalance, we felt it important to show, for illustrative purposes, the top 20 individual company positions within that group. We believe that Nvidia is a historic business story; however, we think that a lot of excitement and growth is already "priced in," given the company's massive market capitalization gains in the past 18 months.

- Nvidia is in the top company position within our Semiconductors group, but we have limited its total weight to 2.3%.
- Within Semiconductors, we are more excited about the concept of "AI on devices," and when we say "devices," we mean smartphones, tablets and laptops, in particular. Nvidia chips may not be as central to this component of the AI story, but Qualcomm's chips would be very central, accounting for our 2.20% weight in this company.
- We are also very excited about the trend toward "application-specific integrated circuits," or ASICs. When one of the largest companies in the world announces its own customized chip, as in the case of Google's Tensor Processing Units (TPUs), these are ASICs designed by the company with their specific compute workloads in mind. Meta Platforms, Microsoft, Apple, Alphabet, Amazon.com, Tesla—these are examples of large companies that have all embarked on the journey to design custom chips. Broadcom and Marvell are significant players in this space since when we say that companies are designing chips, that does not mean those companies are fabricating the physical chips end-to-end.
- One thing that we would remind investors is that designing semiconductors is not easy, and it requires very specialized software. Cadence Design Systems and Synopsys are two of the world's largest providers of this software. If Broadcom and Marvell are involved in making the chips, Cadence and Synopsys are involved in the design.



Figure 3: WTAI's Diverse Exposure to the AI Semiconductors Ecosystem

Company Name	Group	Subgroup	New Weight
NVIDIA Corporation	Semiconductors	Logic and Compute Semiconductors	2.30%
QUALCOMM Incorporated	Semiconductors	Networking & Communications Semiconductors	2.20%
Broadcom	Semiconductors	Logic and Compute Semiconductors	2.00%
Marvell	Semiconductors	Networking & Communications Semiconductors	2.00%
ARM Holdings PLC ADR	Semiconductors	Logic and Compute Semiconductors	2.00%
Taiwan Semiconductor Manufacturing Co., Ltd. Sponsored ADR	Semiconductors	Semiconductor Foundry	2.00%
Advanced Micro Devices, Inc.	Semiconductors	Logic and Compute Semiconductors	2.00%
SK hynix Inc.	Semiconductors	Memory Semiconductors	2.00%
Cadence Design Systems, Inc.	Semiconductors	Semiconductor Design	2.00%
Samsung Electronics Co., Ltd.	Semiconductors	Semiconductor Foundry	2.00%
Synopsys, Inc.	Semiconductors	Semiconductor Design	2.00%
Micron Technology, Inc.	Semiconductors	Memory Semiconductors	2.00%
ASML Holding NV ADR	Semiconductors	Semi Manufacturing & Equipment	2.00%
Teradyne, Inc.	Semiconductors	Semiconductor Packaging, Test and Assembly	1.50%
Alchip Technologies Ltd.	Semiconductors	Logic and Compute Semiconductors	1.12%
Faraday Technology Corp.	Semiconductors	Logic and Compute Semiconductors	1.12%
Ambarella, Inc.	Semiconductors	Logic and Compute Semiconductors	1.06%
Mediatek	Semiconductors	Logic and Compute Semiconductors	1.00%
GlobalFoundries Inc.	Semiconductors	Semiconductor Foundry	1.00%
eMemory Technology, Inc.	Semiconductors	Memory Semiconductors	1.00%

Sources: WisdomTree, FactSet, Bloomberg, Aiera. Rebalance implementation occurred after the close on May 17, 2024. Subject to change.

Conclusion: Will AI Catalyze a Broad-Based Semiconductor Rally?

This is the core question, and we admit that we do not know what the uptake of AI-enabled devices will be. We believe it represents something tangible and something that can potentially impact company revenues, cash flows and earnings in the second half of 2024. It is also something that users would be able to engage directly with. The big ideas like AI-assisted drug discovery or fully autonomous vehicles are still there, but we are unsure as to when these types of things will have a chance to impact financial fundamentals. WTAI has maintained a diversified exposure to AI, with a tilt toward areas that could benefit if people are inspired to refresh some of their hardware.

For more on AI, join Christopher Gannatti (Global Head of Research) and Mobeen Tahir (Director of Research, Europe) for a discussion about the megatrends shifting the way we live and invest. Register here.



¹ Source: https://io.google/2024/

Important Risks Related to this Article

For current holdings of WTAI, please click $\underline{\text{here}}$. Holdings are subject to risk and change.

There are risks associated with investing, including the 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 in 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 or take defensive positions in declining markets. 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.

For the top 10 holdings of WTAI please visit the Fund's fund detail page at https://www.wisdomtree.com/investments/etfs/megatrends/wtai

For standardized performance and the most recent month-end performance click here NOTE, this material is intended for electronic use only. Individuals who intend to print and physically deliver to an investor must print the monthly performance report to accompany this blog.

Related Blogs

- + Behind the Markets: A Conversation with Daniel Rock
- + AlphaFold 3: The Future of AI in Biotechnology Is Here
- + Anatomy of an AI Correction

For more investing insights, check out our <a>Economic & Market Outlook

View the online version of this article here.



 $^{^2}$ Source: Max A. Cherney, "Microsoft debuts 'Copilot+' PCs with AI features," Reuters, 5/21/24.

³ Source: https://developer.apple.com/wwdc24/

⁴ Source: https://www.linkedin.com/posts/rajeev-chandrasekhar-971203257_q-how-many-semico nductor-chips-go-into-a-activity-7120765549571129344-mayd

⁵ Sources: https://www.dell.com/en-us/dt/events/delltechnologiesworld/2024/index.htm#accordion0; Implementation of the WisdomTree Artificial Intelligence & Innovation Index rebalancing for May 2024 occurred after the close on May 17, 2024, with the new positions opening for their first day of trading on Monday, May 20, 2024.

IMPORTANT INFORMATION

U.S. investors only: Click <u>here</u> to obtain a WisdomTree ETF prospectus which contains investment objectives, risks, charges, expenses, and other information; read and consider carefully before investing.

There are risks involved with investing, including possible loss of principal. Foreign investing involves currency, political and economic risk. Funds focusing on a single country, sector and/or funds that emphasize investments in smaller companies may experience greater price volatility. Investments in emerging markets, currency, fixed income and alternative investments include additional risks. Please see prospectus for discussion of risks.

Past performance is not indicative of future results. This material contains the opinions of the author, which are subject to change, and should not to be considered or interpreted as a recommendation to participate in any particular trading strategy, or deemed to be an offer or sale of any investment product and it should not be relied on as such. There is no guarantee that any strategies discussed will work under all market conditions. This material represents an assessment of the market environment at a specific time and is not intended to be a forecast of future events or a guarantee of future results. This material should not be relied upon as research or investment advice regarding any security in particular. The user of this information assumes the entire risk of any use made of the information provided herein. Neither WisdomTree nor its affiliates, nor Foreside Fund Services, LLC, or its affiliates provide tax or legal advice. Investors seeking tax or legal advice should consult their tax or legal advisor. Unless expressly stated otherwise the opinions, interpretations or findings expressed herein do not necessarily represent the views of WisdomTree or any of its affiliates.

The MSCI information may only be used for your internal use, may not be reproduced or re-disseminated in any form and may not be used as a basis for or component of any financial instruments or products or indexes. None of the MSCI information is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Historical data and analysis should not be taken as an indication or guarantee of any future performance analysis, forecast or prediction. The MSCI information is provided on an "as is" basis and the user of this information assumes the entire risk of any use made of this information. MSCI, each of its affiliates and each entity involved in compiling, computing or creating any MSCI information (collectively, the "MSCI Parties") expressly disclaims all warranties. With respect to this information, in no event shall any MSCI Party have any liability for any direct, indirect, special, incidental, punitive, consequential (including loss profits) or any other damages (www.msci.com)

Jonathan Steinberg, Jeremy Schwartz, Rick Harper, Christopher Gannatti, Bradley Krom, Tripp Zimmerman, Michael Barrer, Anita Rausch, Kevin Flanagan, Brendan Loftus, Joseph Tenaglia, Jeff Weniger, Matt Wagner, Alejandro Saltiel, Ryan Krystopowicz, Jianing Wu, and Brian Manby are registered representatives of Foreside Fund Services, LLC.

WisdomTree Funds are distributed by Foreside Fund Services, LLC, in the U.S. only. You cannot invest directly in an index.



DEFINITIONS

<u>Nasdag 100 Index</u>: Includes 100 of the largest domestic and international non-financial companies listed on The Nasdaq Stock Market based on market capitalization. The Index reflects companies across major industry groups including computer hardware and software, telecommunications, retail/wholesale trade and biotechnology. It does not contain securities of financial companies, including investment companies.

