RIDING THE AI REVOLUTION—PART 2

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The world is telling us that we are in the midst of an artificial intelligence (AI) revolution. Recently, we wrote about this topic from a higher vantage point , but in this piece, we wanted to drill down specifically into two of our Funds:

- The WisdomTree Artificial Intelligence and Innovation Fund (WTAI) is designed to track the returns, before fees, of the WisdomTree Artificial Intelligence and Innovation Index. The strategy is designed with recognition that AI represents a broad ecosystem of activities and companies, and that in any given year different parts of that ecosystem can outperform or underperform but over the long term, AI will tend to be bigger and more in use than it is today.
- The WisdomTree U.S. Quality Growth Fund (QGRW) is designed to track the returns, before fees, of the WisdomTree U.S. Quality Growth Index. Exposure to AI is not a specific focus of the methodology, but if we simply stop there with our thinking, we do investors a disservice. Even though AI is not a focus of the stock selection or weighting, a major area of AI in February 2024 would be companies that are running and developing large language models, which include, so far, the likes of Microsoft, Meta Platforms, Amazon and Alphabet, to name a few. When the strategy is focusing on growth and quality, these companies tend to score very highly and end up with significant weights in the exposure. Of course, we'll continue to monitor how this evolves and recognize it could change. For the time being, however, the AI topic could be an important driver of the return experience in QGRW.

Depending on whether QGRW or WTAI is leading or lagging at any given time, performance-wise, we believe can tell us important insights as to how investors are trading the AI topic. It can also allow us to monitor different types of performance attribution, meaning that in each strategy one can consider something like "the exposure to Nvidia" and see how much of a given time period's return is based just on that company. Similarly, one can do the same thing with the group of stocks that we now call the Magnificent 7.

Figure 1 provides a foundation, allowing us to see the top 10 holdings of WTAI, QGRW and QQQ. QQQ is the ticker for the Invesco QQQ Trust Series 1, which is designed to track the returns, before fees, of the Nasdaq 100 Index. We note that the Nasdaq 100, popular as it is, is representing solely the 100 largest stocks by market capitalization that are listed on the Nasdaq stock exchange. In the consciousness of the public, the Nasdaq exchange is associated with technology companies, but under the hood, the index methodology does not require that the entire exposure be defined solely by technology.

The path the world has taken has led to many of the largest stocks by market cap being focused on different areas of technology, running very large platforms with immense user bases, sometimes into the billions of people. The Nasdaq 100 is not making any judgement on this—it is merely picking up the result that all of us as market participants have decided, over time, to give these companies some of the largest market caps in the world. In figure 2:

- WTAI stands out with its highest weight at less than 2%. The investment process of selection and weighting within the WisdomTree Artificial Intelligence and Innovation Index is much closer to equal weighting and is therefore purposefully not making massive bets on any single AI area or company.

- QGRW is notable, in that Apple's weight in the Fund is actually higher than in QQQ—although not by a huge margin. The WisdomTree U.S. Quality Growth Index is selecting constituents on the basis of quality and growth fundamentals, but then weighting the qualifiers on the basis of market cap. When one compares this to QQQ, nine out of the top ten positions are represented, albeit with different precise weights. The one difference is Visa (in QGRW) and Costco (in the Nasdaq 100).
- QQQ is really a baseline, in that we recognize many investors are far more familiar with the Nasdaq 100 and like to be able to compare differentiated exposures back to a familiar concept. Clearly, QGRW is very similar, while WTAI is very different.

Figure 1: Top 10 Holdings of WTAI, QGRW and QQQ

WTAI		QGRW		QQQ	
NAVER Corp	1.96%	Apple, Inc.	11.49%	Apple, Inc.	10.69%
Alphabet, Inc.	1.82%	Microsoft Corp.	11.14%	Microsoft Corp.	9.89%
Arm Holdings Plc	1.80%	Alphabet, Inc.	6.05%	Alphabet, Inc.	5.72%
Meta Platforms, Inc.	1.80%	NVIDIA Corp.	5.71%	Amazon.com, Inc.	5.54%
QUALCOMM, Inc.	1.65%	Amazon.com, Inc.	5.28%	NVIDIA Corp.	4.21%
Synaptics, Inc.	1.63%	Meta Platforms, Inc.	4.99%	Meta Platforms, Inc.	3.84%
Microsoft Corp.	1.62%	Tesla, Inc.	4.28%	Broadcom Inc.	3.46%
ASML Holding NV	1.58%	Broadcom Inc.	2.99%	Tesla, Inc.	2.75%
GLOBALFOUNDRIES, Inc.	1.57%	Visa, Inc.	2.98%	Costco Wholesale Corp.	2.29%

Source: WisdomTree, data from the PATH Fund Comparison Tool, as of 12/31/23. Accessed as of 1/27/24. Holdings are subject to change.

For current Fund holdings, please click the respective ticker: WTAI, QGRW. Holdings are subject to risk and change.

2023 Performance

Writing in February 2024, the memory of 2023 is still fresh. We recognize two things:

1. Artificial intelligence was a hot topic. ChatGPT was released in late November 2022, and much of 2023 was spent admiring the "cool stuff" that we as a society might be able to do with it. Over the year, we shifted the discussion from ChatGPT and more and more used the term "generative AI." We can also note that it took until November 2023 for Microsoft, one of these giant companies with massive user bases, to offer a Copilot (its term for a generative AI assistant) within its Office 365 software, which includes such things as Word, Outlook, Excel and PowerPoint. The cost: $30 per user per month. We believe that investors will be closely following the adoption rate of this software as we move through 2024.
2. We, the collection of market participants, created yet another name for a small group of so-called tech stocks: The Magnificent 7: Tesla, Meta Platforms, Nvidia, Amazon, Alphabet, Microsoft and Apple. Why did we do this? Well, the primary story of 2023 was that, yes, equity markets were progressing higher, but that the reason was not broad-based, but mostly due to incredible returns across this short list of extremely large companies, when measured by market cap. Now, we did not create the name Magnificent 7 because these companies are magnificent in what they do within

the sphere of AI, BUT it just so happens these seven firms are making some of the most significant investments in the space. We believe the connection that each of these stocks has to AI was at least part of the reason why investors were driving share prices higher in 2023.

If we continue our analysis and look at how WTAI, QGRW and QQQ did in 2023, shown in figures 3a and 3b, we see:

- The similarity between QGRW and QQQ did not stop with the comparison of the top 10 positions in figure 2—we also see highly correlated and very similar performance between QGRW and QQQ in figure 3b. QGRW ended the year slightly ahead, but it was quite close all the way through.
- As one might have surmised from the very different look and feel of the top 10 positions in figure 2, WTAI's returns were very different from those of QGRW and QQQ in figure 3. One can start to see that if the primary idea is that the Magnificent 7 companies will be driving the returns of the market, QGRW and QQQ are well exposed. If a broader array of companies doing many different things to advance the AI theme will be driving the returns of the market—that is one way in which WTAI could look more interesting.

Figure 2a: Standardized Returns

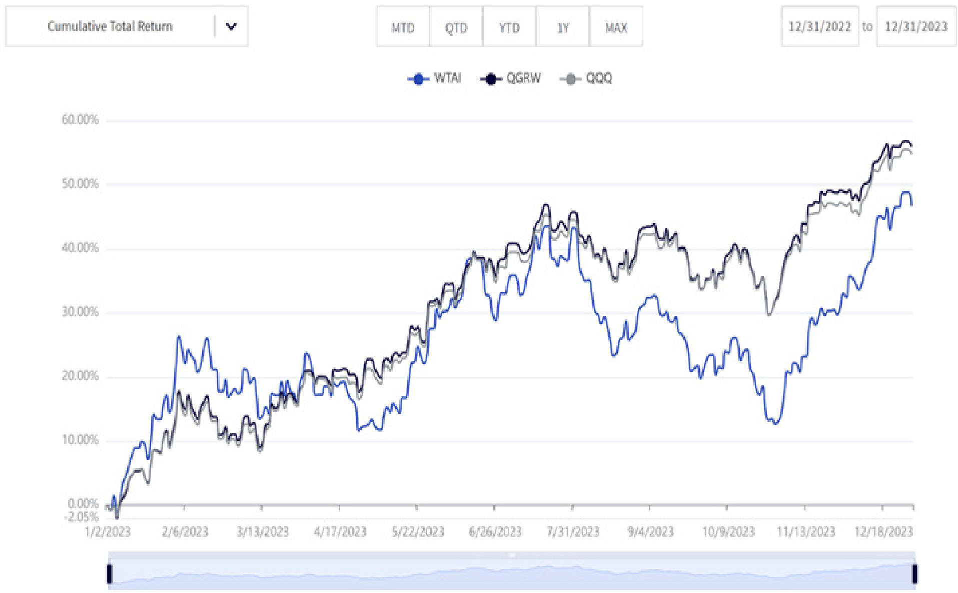
Fund Name	Fund Ticker	Fund Expense Ratio	Fund Inception Date	1-Year	3-Year	5-Year	10-Year	Since Fund Inception
WisdomTree Artificial Intelligence and Innovation Fund (NAV)	WTAI	0.45%	12/9/21	46.68%	N/A	N/A	N/A	-9.01%
WisdomTree Artificial Intelligence and Innovation Fund (MP)	WTAI	0.45%	12/9/21	46.12%	N/A	N/A	N/A	-8.99%
WisdomTree U.S. Quality Growth Fund (NAV)	QGRW	0.28%	12/15/22	55.94%	N/A	N/A	N/A	43.34%
WisdomTree U.S. Quality Growth Fund (MP)	QGRW	0.28%	12/15/22	56.01%	N/A	N/A	N/A	43.33%
Invesco QQQ Trust Series 1 (NAV)	QQQ	0.20%	3/10/99	54.76%	9.95%	22.41%	17.66%	9.45%
Invesco QQQ Trust Series 1 (MP)	QQQ	0.20%	3/10/99	54.85%	9.98%	22.40%	17.71%	9.44%

Source: WisdomTree, data from the PATH Fund Comparison Tool, as of 12/31/23. Accessed as of 1/27/24. NAV denotes total return performance at net asset value. MP denotes market price performance.

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 the relevant ticker: WTAI, QGRW, QQQ

Figure 2b: 2023's Performance



Source: WisdomTree, data from the PATH Fund Comparison Tool, for the period 12/31/22–12/31/23, as of 1/27/24. NAV denotes total return performance at net asset value.

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 the relevant ticker: WTAI, QGRW, QQQ

The Intersection of AI and the Macroeconomy in 2023

Unfortunately, the market is not so simple as to allow us to focus our attention on any single thing, like the degree of AI exposure or the type of AI activity, and have that drive the full performance experience of a given investment. All of these things are operating against the current, and evolving, macroeconomic backdrop. The primary focus in 2023 was on the policy of the U.S. Federal Reserve relative to inflation. There were periods when the collection of market expectations were coalescing around views of possibly tighter policy and then there were other periods when the collection of market expectations were considering less tight policy expectations. Even though the focus of the Fed is on what they are doing with the Federal Funds Rate, many times forward looking expectations are expressed through movements in the U.S. 10-Year Treasury note interest rate.

We can use the example of the months of October 2023 and November 2023 in figure 3 to illustrate the point.

- On the last trading day of September 2023, the U.S. 10-Year Treasury note had an interest rate of 4.59%, which shifted up to 4.88% on the last trading day of October 2023. We can see that over this period, QGRW and QQQ were both down roughly 4%, but WTAI was down more than 8%.
- From the 4.88% observed at the end of October 2023, this rate dropped to 4.37% by the end of November 2023. We can see that WTAI was up nearly 18%, while QGRW and QQQ were up in the 11%–12% range.

Figure 3: A Tale of Two Periods: October 2023 (Rising U.S. 10-Year) and November 2023 (Falling U.S. 10-Year)

Source: WisdomTree, data from the PATH Fund Comparison Tool, accessed as of 1/27/24. NAV denotes total return performance at net asset value.

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 the relevant ticker: WTAI, QGRW, QQQ

Unprofitable/Speculative vs. Profitable/Established

There is a current pattern of trading, at least in technology-oriented equities, where when interest rates are trending down, more speculative companies have tended to rally. In our opinion, we believe it is first important to just recognize that the market seems to be trading this way and that there is no guarantee that it continues. If we try to rationalize it, we could say that investors are thinking about riskier, unprofitable companies generating potential profits further into the future, so higher rates lower the value of these future cash flows. These explanations—even if correct—are tricky, in that there is an entire industry (financial services) that is built on seeing what happens and coming up with a possible story. What is intuitively tricky is that we know most investors are not continuously updating discounted cash flow models to account for day-by-day changes in the U.S. 10-Year interest rate.

However, we can make use of this thinking to note, if we compare WTAI, QGRW and QQQ on the basis of their exposure to unprofitable companies, what do we see? In figure 4:

- QQQ has a long history, having been incepted in March 1999. QGRW is much newer, having begun trading on December 15, 2022. WTAI was launched in December 2021.
- Both QQQ and QGRW—though they take different paths to get there—invest in some of the world's largest and most established companies. We don't expect many of them to be unprofitable, and we see that in figure 5. QGRW was slightly less exposed to unprofitable firms, and we just remind people here that the WisdomTree U.S. Quality Growth Index is looking at fundamental quality and growth metrics as it is rebalanced. The Nasdaq 100 is not focusing on fundamentals, BUT when you include many of the world's largest firms, there does tend to be a low exposure to those that might not be profitable.
- WTAI has been roughly 30%-40% exposed to companies that are not profitable over its history so far. The WisdomTree Artificial Intelligence and Innovation Index is seeking out companies of many types that are doing interesting things in AI. Some of these firms are newer to public markets and not, currently, carrying their revenues through to bottom line earnings. The approach is designed to find some of these firms, earlier in their life cycles, before they become much larger and more established industry giants—if they do in fact make it there.

Figure 4: Weight in Companies without Profits

Source: WisdomTree, data from the PATH Fund Comparison Tool, as of 12/31/23. Accessed as of 1/27/24.

Conclusion: Beware of Comparisons!

There is an expression: "the opposite of contentment is comparison." As investors, we are always comparing, basically everything, to everything else. There is nothing necessarily wrong with that, as long as it is done with an appreciation of the context.

QQQ and QGRW, as shown at least through the metrics here, have a higher degree of similarity than do QQQ and WTAI. The primary way this happens is through exposure to what we term the Magnificent 7. If investors believe in large exposures to the largest firms, QGRW could be more interesting than WTAI. If, on the other hand, investors believe in AI as a theme and agree with us that different topics in AI will ebb and flow all the time, WTAI could be of greater interest.

Figure 5: Further Information Supporting the Comparison of Different Funds

Fundamentals	WisdomTree Artificial Intelligence and Innovation Fund	WisdomTree U.S. Quality Growth Fund	Invesco QQQ Trust, Series 1
Objective	The WisdomTree Artificial Intelligence & Innovation Fund is designed to track, before fees, the returns of the WisdomTree Artificial Intelligence & Innovation Index. This index seeks to generate an exposure to the broad AI ecosystem, which includes semiconductors, companies focused on AI innovations, software companies, and companies involved in other sorts of hardware. The Index weighting approach would be characterized as a modified equal-weighted approach.	The WisdomTree U.S. Quality Growth Fund is designed to track, before fees, the returns of the WisdomTree U.S. Quality Growth Index. This index seeks to generate exposure to companies with strong growth and quality fundamental metrics. The index weights qualifying constituents based on market capitalization, so it does tilt toward larger capitalization, qualifying firms.	The Invesco QQQ Trust, Series 1, is designed to track, before fees, the returns of the Nasdaq 100 Index. The Nasdaq 100 Index represents the largest 100 companies, measured by market capitalization, that list on the Nasdaq exchange.
Price-to-Sales Ratio	6.35x	6.34x	4.69x
Price-to-Book Ratio	5.03x	11.43x	7.77x
Price-to-Cash Flow Ratio	61.90x	24.80x	21.85x
Est. Price-to-Earnings Ratio	76.03x	29.46x	26.21x
Est. Price-to-Earnings Ratio (excludes firms with negative earnings)	36.05x	28.68x	25.70x
% of Firms with Negative Earnings	42.14%	3.66%	4.66%
Total Expense Ratio	0.45%	0.28%	0.20%
SEC 30-Day Yield	0.17%	0.22%	0.62%
Total Assets under Management (USD, millions)	$215.29	$139.80	$244,820.00

Source: WisdomTree, specifically the Fund Comparison Tool, with data quoted as the most recently available as of 1/27/24. Assets under management are current as of the close of business on 1/26/24, with all other fundamental data as of the most recent month-end, 12/31/23.

If you're interested in diving more into the comparison of these Funds, please check out our Fund Comparison Tool.

Important Risks Related to this Article

For current Fund holdings, please click the respective ticker: WTAI, QGRW. Holdings are subject to risk and change.

There are risks associated with investing, including the possible loss of principal.

WTAI: 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 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.

QGRW: Growth stocks, as a group, may be out of favor with the market and underperform value stocks or the overall equity market. Growth stocks are generally more sensitive to market movements than other types of stocks. The Fund is non-diversified and, as a result, changes in the market value of a single security could cause greater fluctuations in the value of Fund shares than would occur in a diversified fund. The Fund invests in the securities included in, or representative of, its Index regardless of their investment merit. The Fund does not attempt to outperform its Index or take defensive positions in declining markets 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 the top 10 holdings of QGRW please visit the Fund's fund detail page at https://www.wisdomtree.com/investments/etfs/equity/qgrw

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.

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DEFINITIONS

Artificial intelligence : machine analysis and decision-making.

Growth : Characterized by higher price levels relative to fundamentals, such as dividends or earnings. Price levels are higher because investors are willing to pay more due to their expectations of future improvements in these fundamentals.

Quality : Characterized by higher efficiency and profitability. Typical measures include earnings, return on equity, return on assets, operating profitability as well as others. This term is also related to the Quality Factor, which associates these stock characteristics with excess returns vs the market over tim.

Magnificent 7 : Refers to a group of high-performing U.S. stocks including Microsoft (MSFT), Amazon (AMZN), Meta (META), Apple (AAPL), Google parent Alphabet (GOOGL), Nvidia (NVDA), and Tesla (TSLA)

Nasdaq 100 Index : 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.

Market Capitalization : Market cap = share prices x number of shares outstanding. Firms with the highest values receive the highest weights in approaches designed to weight firms by market cap.

Macro : Focused on issues impacting the overall economic landscape as opposed to those only impacting individual companies.

Inflation : Characterized by rising price levels.

Cash flows : a measure of how much cash a business generates after taking into account all the necessary expenses, including net capital expenditures.