
CYBERSECURITY: TOO HOT TO HANDLE AFTER 2023?

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Investing is funny. If an investor posed the question, what was the best-performing exchange-traded Fund at [WisdomTree during 2023, the answer would be the WisdomTree Cyber security Fund \(WCBR\)](#), which returned 66.40% in [NAV](#) total return terms.¹

Current performance is historical and does not guarantee future results. Current performance may be lower or higher than quoted. Investment returns 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. For the most recent month-end and standardized performance, click [here](#).

Is that viewed positively? In my 20 years of experience in financial services, I see investors avoiding areas of the market that recently delivered particularly negative performance. But does that mean they favor what has gone up?

It is not so simple—and when you hear a market was up more than 60% for a single year, yes, investors tend to be impressed with the big number, but then they become worried they missed all of the return and need to wait for a [correction](#).

Thematic Equities—why Bother?

To me, any divergence from simply “owning the market”² has to be accompanied by a rationale as to why that divergence may generate stronger performance. Thematic equity strategies take the big ideas that many discuss all the time—[artificial intelligence](#), [cloud computing](#), renewable energy—and focus on companies in these specific areas.

If these areas “work” and transition from “cool idea” to full adoption, similar to how we currently have full adoption of smartphones, many of these companies can go from developing new ideas and concepts to having, in some cases, hundreds of millions of users.

There are two important layers in a given “thematic equity” decision.

- **Layer 1:** There are a lot of themes. WisdomTree does its own analysis of thematic equity ETFs listed in the United States, and we have found that month-to-month, there are 40–45 themes at present.³ *Selecting a given theme* is an important decision, without question.
- **Layer 2:** Themes are not sectors. Sectors have a fairly standardized and central authority that we all align against a given benchmark. In thematics—and take cybersecurity as an example—three different strategies can have three very different lists of companies. Determining what list best aligns with a particular view of an investor, in our opinion, is not necessarily about coming up with unassailable definitions of what is or isn't a cybersecurity company. Instead, we seek to unearth the pros and cons of different types of companies that approach cybersecurity in different ways.

Cybersecurity Funds in Three Charts, One Table

The two largest cybersecurity-focused ETFs by assets under management in the United

States are the [ETFMG Prime Cybersecurity ETF \(HACK\)](#) and the [First Trust NASDAQ Cybersecurity ETF \(CIBR\)](#). We can put a few simple statistics on the table to just get investors thinking about the pros and cons of the very different ways these strategies are constructed versus how WisdomTree’s strategy is constructed.

In table 1:

- We have indicated the required performance disclosure of the different ETFs in our analysis in both NAV total return and [market](#) price terms as of the most recent quarter-end, December 31, 2023.
- If we focus on the one-year time frame, since the WisdomTree Fund does not yet have three or five years of history, we can see that [WCBR](#) delivered better than 66% in NAV terms. HACK delivered 37.42%, and CIBR delivered 39.16%. This sets the table as one past period when there was very different performance. As we evolve in the future, the picture could look very different. However, what can we learn about the positioning of the strategies that led to this result?

Table 1: Standardized Performance

Fund Name	Fund Ticker	Fund Expense Ratio	Fund Inception Date	One-Year	Three-Year	Five-Year	Since Inception
WisdomTree Cybersecurity Fund (NAV)	WCBR	0.45%	Jan 28 2021	66.40%	N/A	N/A	1.81%
WisdomTree Cybersecurity Fund (MP)	WCBR	0.45%	Jan 28 2021	66.51%	N/A	N/A	1.81%
ETFMG Prime Cyber Security ETF (NAV)	HACK	0.60%	Nov 11 2014	37.42%	1.91%	12.92%	10.64%
ETFMG Prime Cyber Security ETF (MP)	HACK	0.60%	Nov 11 2014	37.44%	1.86%	13.00%	10.59%
First Trust NASDAQ Cybersecurity ETF (NAV)	CIBR	0.60%	Jul 6 2015	39.16%	7.02%	18.78%	13.00%
First Trust NASDAQ Cybersecurity ETF (MP)	CIBR	0.60%	Jul 6 2015	39.71%	7.13%	18.91%	13.04%

Source: WisdomTree; specifically, data is from the PATH Fund Comparison Tool, as of 12/31/23. Accessed 1/21/24. NAV denotes total return performance at net asset value. MP denotes market price performance.

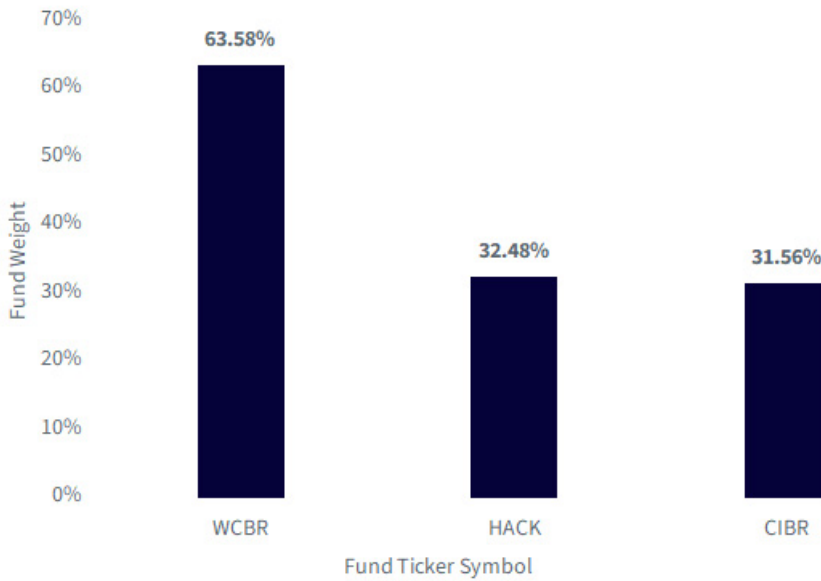
Past performance is not indicative of future results. Investment return and principal value of an investment will fluctuate so that an investor’s shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted.

For the most recent month-end and standardized performance and to download the respective Fund prospectuses, click the relevant ticker: [WCBR](#), [HACK](#), [CIBR](#).

In figure 1:

- We showcase the percentage weight of each Fund in companies with negative earnings. This is because, in the current market paradigm, there is a lot of focus on [profitability](#). Companies that are not profitable, in the current paradigm, tend to see their performance accelerating when interest rates, like the [U.S. 10-Year Treasury note](#), are trending down. Similarly, when interest rates are trending up, this has created a headwind for unprofitable [growth](#) companies.
- As of December 31, 2023, [WCBR](#) had nearly two-thirds of its weight in firms with negative earnings. HACK and CIBR were closer to one-third of their exposure in unprofitable firms. This tells us that if the market paradigm continues—and there is no guarantee it will—[WCBR](#) may behave with a greater degree of interest rate sensitivity than either HACK or CIBR.

Figure 1: Percentage Weight in Companies with Negative Earnings

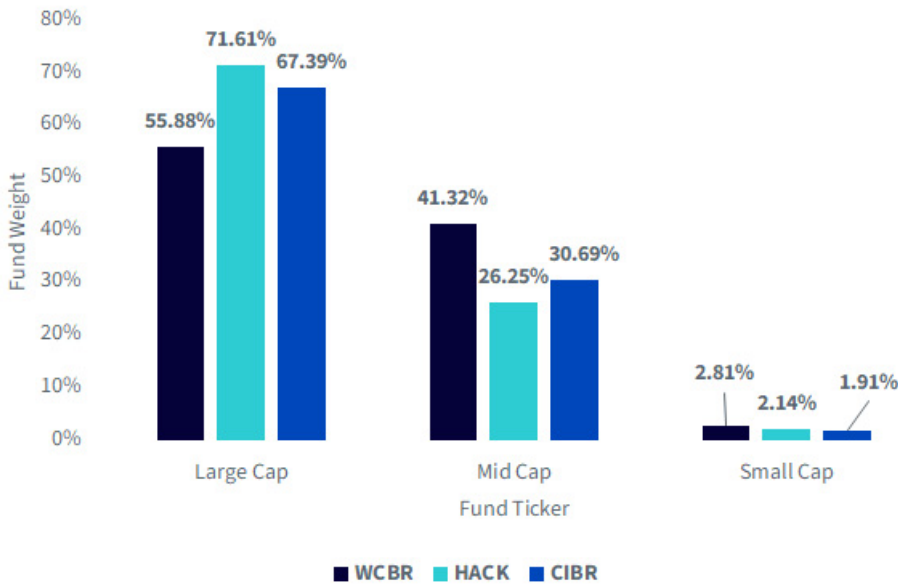


Source: WisdomTree; specifically, data is from the PATH Fund Comparison Tool, as of 12/31/23. Accessed 1/21/24, with data updated through 12/31/23. Holdings are subject to change.

In figure 2:

- 2023 was “the year of [large-cap](#) tech.” How do we know this? We created yet another name for a group of firms—in this case, the “[Magnificent 7](#),” to help give investors a snappy way to quickly reference an important engine of the U.S. equity market.
- If investors are thinking that 2024 might be different, meaning that large caps may not show the same leadership, it could benefit to have exposure to more [mid-caps](#) or [small caps](#).
- If investors have a thesis that the U.S. Federal Reserve could be more likely to cut interest rates, that might benefit small-cap or mid-cap growth companies, if history is any guide. Specifically, when the U.S. Federal Reserve has lowered its policy rate in the past, mid-cap and small-cap growth companies have performed well.⁴
- [WCBR](#) had less exposure to large caps and more exposure to mid-caps than HACK and CIBR. None of the three Funds had significant small-cap exposure, so the differentiation, at least by market cap, would come in the mid-cap size segment, at least with respect to the December 31, 2023 data.

Figure 2: Exposure to Companies outside of Large Caps

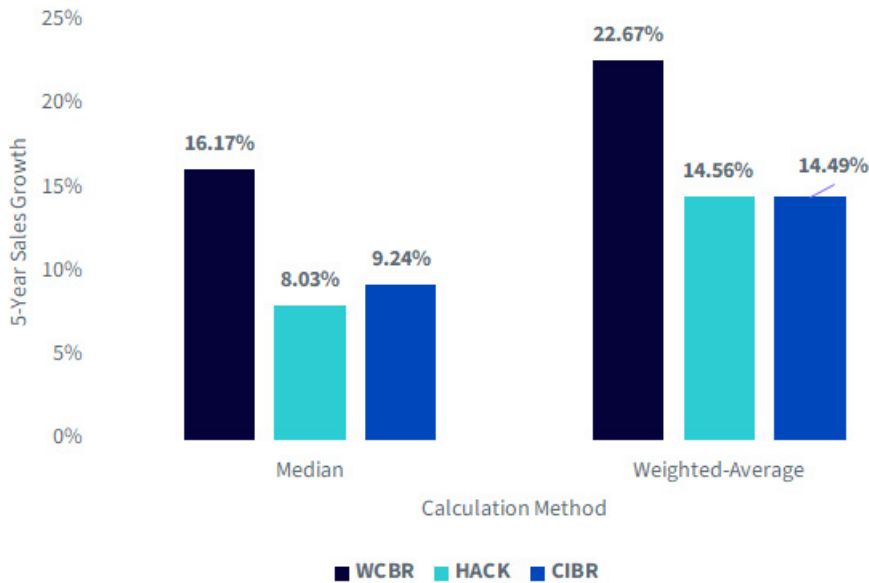


Source: WisdomTree; specifically, data is from the PATH Fund Comparison Tool, accessed 1/21/24, with data updated through 12/31/23. Holdings are subject to change. Large cap refers to companies with market capitalization above \$10 billion. Mid-cap refer to companies with market capitalization between \$2 billion and \$10 billion. Small cap refers to companies with market capitalization below \$2 billion.

Figure 3:

- The primary reason to even consider thematic equities over a broad market portfolio is that one believes the growth of the specific thematic equities should be faster than that of the broad market.
- Cybersecurity risks are omnipresent, and few believe this trend reverses. We have certain geopolitical risks, be it with respect to Russia/Ukraine, the Middle East or places in Asia, whether related to North Korea or Taiwan. We also have criminal actors taking in new generative AI tools and considering how to deploy them for nefarious purposes. So, everyone needs cybersecurity tools. But is there revenue growth in the actual companies that different funds define as focused on cybersecurity?
- If we look at the current companies in [WCBR](#), [HACK](#) and [CIBR](#) and note both the median and weighted average sales growth figures, we see that [WCBR](#) stands out. The [WisdomTree Team8 Cybersecurity Index](#), which [WCBR](#) is tracking after fees and expenses, does have a revenue growth metric included within its selection and weighting methodology. Specifically, companies that have been able to indicate two- to three-year revenue growth rates above 20% on an annualized basis tend to see higher weight than those companies that have not been able to generate such growth.

Figure 3: Five-Year Sales Growth as of December 31, 2023



Source: WisdomTree; specifically, data is from the PATH Fund Comparison Tool, as of 12/31/23. accessed 1/21/24, with data updated through 12/31/23. Holdings are subject to change.

Conclusion: Can the Demand for Cybersecurity Solutions Go Down?

At the 2024 Davos conference, artificial intelligence was a central topic, but we certainly caught the reference from JP Morgan about the amount of money it spends on cyber defense. The bank spends \$15 billion on technology every year and employs 62,000 technologists, with many of them focused directly on cybersecurity.⁵

As I put my hands on the keys to write this blog post, I saw a different headline: “Microsoft Reports Hack by Nation-State Actor.”⁶

We see the demand for cybersecurity tools increasing. Every firm requires it. Newer companies that focus on many different types of cybersecurity defense could be the most interesting, but we think it’s important that people realize the word “cybersecurity” in a fund’s name does not tell you much in terms of how that fund is focused on the topic.

Figure 4: Further Information Supporting the Comparison of Different Funds

Fundamentals	WisdomTree Cybersecurity Fund	ETFMG Prime Cyber Security ETF	First Trust NASDAQ Cybersecurity ETF
Objective	The WisdomTree Cybersecurity Fund is designed to track, before fees and expenses, the total return performance of the WisdomTree Team8 Cybersecurity Index. Team8 is a financial venture firm with expertise in cybersecurity meant to evaluate the cybersecurity focus of each constituent, and WisdomTree is applying its financial acumen from building indices for many years.	The ETFMG Prime Cyber Security ETF (HACK) is an exchange-traded fund (ETF) that tracks a portfolio of companies providing cyber security solutions that include hardware, software and services. It is tracking the total return performance of The Prime Cyber Defense Index ("the Index") provides a benchmark for investors interested in tracking companies actively involved in providing cyber security technology and services. The Index uses a market capitalization-weighted allocation across the infrastructure provider and service provider categorizations as well as an equal-weighted allocation methodology for all components within each sector allocation.	The First Trust NASDAQ Cybersecurity ETF is designed to track the total return performance of the NASDAQ CTA Cybersecurity Index. This index is comprised of companies engaged in the cybersecurity segment of the technology and industrials sectors. It includes companies primarily involved in the building, implementation, and management of security protocols applied to private and public networks, computers, and mobile devices in order to provide protection of the integrity of data and network operations.
Price-to-Sales Ratio	8.25x	3.39x	3.99x
Price-to-Book Ratio	9.13x	6.28x	6.62x
Price-to-Cash-Flow Ratio	40.44x	23.10x	24.27x
Est. Price-to-Earnings Ratio	49.82x	25.79x	26.31x
Est. Price-to-Earnings Ratio (excludes firms with negative earnings)	44.14x	24.71x	24.59x
% of Firms with Negative Earnings	63.58%	32.48%	31.56%
Total Expense Ratio	0.45%	0.60%	0.60%
Total Assets Under Management (USD, millions)	\$55.21	\$1,693.16	\$6,147.79

Sources: WisdomTree; specifically, the Fund Compare Tool, with data quoted the most recently available as of 1/21/24. Due to certain complexities of fundamental aggregation, the price-to-sales, price-to-book, price-to-cash-flow, est. price-to-earnings, and est. price-to-earnings (excludes firms with negative earnings) ratios and % of firms with negative earnings statistics are as of 12/31/23. Total expense ratio and total assets under management are current as of 1/21/24, with these measures taken from the specific Fund websites.

If you are interested in diving more into the comparison of these Funds, please check out our [Fund Comparison Tool](#).

¹ Source: [WisdomTree December 2023 Performance Report](#)

² In this context, “the market” refers to the global equity portfolio weighted by market capitalization, which could look like a strategy built to track the returns of the MSCI ACWI IMI Index.

³ Source: [WisdomTree U.S. Thematic Update](#)

⁴ Will Daniel, “The Wall Street bull who called this year’s stock market rally says small-cap stocks could surge 50% over the next year,” Fortune, 12/15/23.

⁵ Source: Owen Walker, “JPMorgan suffers wave of cyber attacks as fraudsters get ‘more devious,’” Financial Times, 1/17/24.

⁶ Source: Dean Seal, “Microsoft Reports Hack by Nation-State Actor,” Wall Street Journal, 1/19/24.

Important Risks Related to this Article

There are risks associated with investing, including the possible loss of principal. The Fund invests in cybersecurity companies, which generate a meaningful part of their revenue from security protocols that prevent intrusion and attacks to systems, networks, applications, computers and mobile devices. Cybersecurity companies are particularly vulnerable to rapid changes in technology, rapid obsolescence of products and services, the loss of patent, copyright and trademark protections, government regulation and competition, both domestically and internationally. Cybersecurity company stocks, especially those that are internet-related, have experienced extreme price and volume fluctuations in the past that have often been unrelated to their operating performance. These companies may also be smaller and less experienced, with limited product or service lines, markets or financial resources and fewer experienced management or marketing personnel. 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 heavily dependent on quantitative and qualitative information and data from one or more third parties, 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 WCBR please visit the Fund's fund detail page at <https://www.wisdomtree.com/investments/etfs/megatrends/wcbr>

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 Funds

+ [WisdomTree Cybersecurity Fund](#)

For more investing insights, check out our [Economic & Market Outlook](#)

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U.S. investors only: Click [here](#) to obtain a WisdomTree ETF prospectus which contains investment objectives, risks, charges, expenses, and other information; read and consider carefully before investing.

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DEFINITIONS

Net Asset Value (NAV): The calculated assets minus liabilities divided by shares outstanding. NAV is the straightforward account of the actual assets in the fund.

Correction: A drop of 10% or greater in an Index or stock from a recent high.

Artificial intelligence: machine analysis and decision-making.

Cloud computing: computing capabilities deployed via internet connection in form of applications, platform services, or infrastructure.

Market: A bid and an offer on a particular ETF.

Profitability metrics: financial identities and ratios that assess how effectively a company is able generate revenue in excess of its expenses.

10-Year Treasury: a debt obligation of the U.S. government with an original maturity of ten years.

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.

Large-Capitalization (Large-Cap): A term used by the investment community to refer to companies with a market capitalization value of more than \$10 billion. Large cap is an abbreviation of the term "large market capitalization". Market capitalization is calculated by multiplying the number of a company's shares outstanding by its stock price per share.

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)

Small caps: new or relatively young companies that typically have a market capitalization between \$200 million to \$2 billion.