

A New, Longer-Term Approach to Free Cash Flow Investing with Differentiated Exposure

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Introduction

Investors may consider a wide array of fundamental metrics when deciding whether to invest in a company or a sector. Of all the fundamental metrics, free cash flow uniquely provides a concrete indication of whether a company has enough cash to repay debts, issue dividends and buy back shares. Additionally, as a fundamental metric, free cash flow is less sensitive to accounting adjustments that may impair profitability. It is also widely believed that strong free cash flow metrics provide a more reliable indicator of strong and sustainable profitability, enhancing the potential to outperform the market over the long-term¹.

In a high interest rate environment, companies with high free cash flow might gain favor among investors, as they may be better positioned to withstand higher interest rates. They may also become more favorable to investors in an environment of slowing economic growth, with greater capacity to execute their strategy versus their counterparts.

2024 saw stocks continue to climb despite geopolitical instability and uncertainty surrounding the US elections. Investors were encouraged by continued AI optimism, a strong economy and the announcement of rate cuts by the Federal Reserve. While the rally was concentrated among technology stocks in the first half, it broadened out in the second half. Nevertheless, concerns remain about the expected path of interest rates – with many expecting "higher for longer" – as well as the sustainability of economic growth.

The Nasdaq Free Cash Flow Achievers™ Index (NFCFA™) offers exposure to companies with a long track record of generating positive free cash flow, which may be attractive to investors in most economic environments, but especially when there are elevated expectations of higher rates and slower growth. While investors in recent years have been encouraged by the strong return profiles and stated goals of numerous free cash flow indexes in the marketplace, some approaches to index construction likely overemphasize point-in-time free cash flow metrics instead of prioritizing an extended track record of strong metrics.

Eligibility Criteria

The Nasdaq US Free Cash Flow Achievers Index was launched on October 25, 2023 at a base value of 1,000. It is designed to track the performance of U.S.-listed companies with continuous and stable growth in free cash flow. Companies are selected based on their demonstrated track record in producing

¹ https://www.investopedia.com/articles/fundamental/03/091703.asp

consistent positive free cash flow and stable year-over-year growth in free cash flow. It is rebalanced quarterly in March, June, September and December and reconstituted annually in June.

The index universe consists of all issuers from the Nasdaq US Benchmark™ Index (NQUSB™). The top 50 ranked securities are selected based on the highest count of positive year-over-year changes in free cash flow over the past 11 years. Should there be a tie, the trailing 3-year compound annual growth rate (CAGR) is used as a tiebreaker. Additionally, constituents are selected based on market capitalization data as of the Index Reconstitution Reference Date and free cash flow input data as of the last trading day from the end of the previous December.

The index is a modified full market capitalization-weighted index. Each index security's initial weight is determined by dividing its full market value by the aggregate full market value of all index's securities. Subsequently, weights are adjusted by an iterative process to determine the final weights².

Performance History



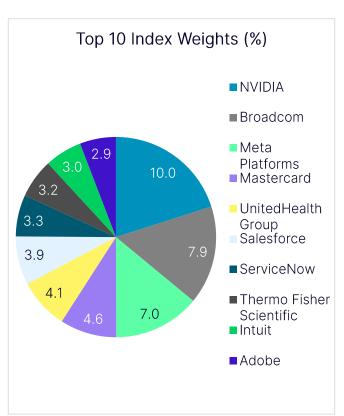
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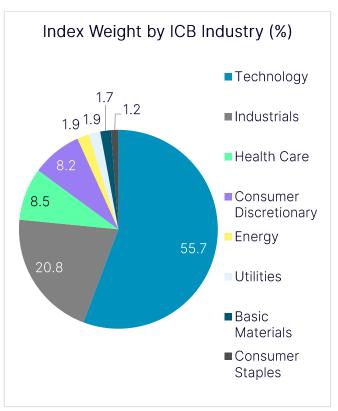
² Details on the index methodology can be found on https://indexes.nasdagomx.com/docs/NFCFA_Methodology.pdf

As seen in the chart above, NFCFA generated price returns of 159.5% during the period December 31st 2019 – December 31st 2024, based on a combination of live and backtested performance data. It has approximately doubled the performance of the S&P 500 as well as its starting universe, NQUSB; it also outperformed the Nasdaq-100® (NDX) by 19 percentage points during a historically strong stretch of performance for that index. The fundamentally strong nature of companies with high free cash flow suggests a degree of insulation from changes in market interest rates. As seen above, the strategy has generated impressive outperformance especially since late 2022 after an aggressive round of rate hikes from the Federal Reserve, which has held back the performance of certain sectors of the economy.

Index Composition: Top 10 Holdings & Sector Allocations

As of December 31st 2024, the top 10 constituents comprised 49.8% of the index weight. Seven out of the top 10 constituents are Technology companies, with the rest coming from Healthcare and Industrials. Several of the index's biggest holdings in the Technology sector have been at the forefront of innovation for years, most recently leveraging the AI investment wave to substantially increase their free cash flow generation.

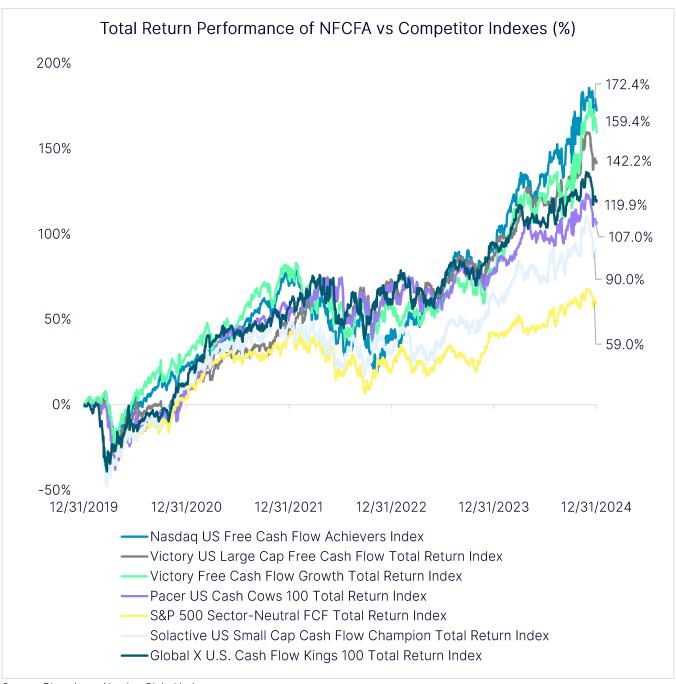




Source: Nasdaq Global Indexes as of December 31, 2024

Per ICB Industry, the index is largely made up of companies that specialize in Technology (55.7%) and Industrials (20.8%), followed by Healthcare (8.6%), and Consumer Discretionary (8.2%). The remainder of the index is comprised of several sectors including Basic Materials, Energy, Utilities and Consumer Staples. While it may be surprising to see Technology with the highest index weight – at least compared to competitor indexes – years of strong fundamental growth have buoyed free cash flow in the sector.

Competitor Performance Analysis



Source: Bloomberg, Nasdaq Global Indexes

As seen above, the Nasdaq US Free Cash Flow Achievers generated total returns of 172.7%, higher than competitor indexes including the Victory US Large Cap Free Cash Flow Total Return Index (VFLOT), Victory Free Cash Flow Growth Total Return Index (GFLWT), Pacer US Cash Cows 100 Total Return Index (COWZTR), S&P 500 Sector-Neutral FCF Total Return Index (SPNFCFUT), Solactive US Small Cap Cash Flow Champion Total Return Index (SOLSUCCT), and Global X U.S. Cash Flow Kings 100 Index (GXFLOWT). During the period December 31st, 2019 – December 31st 2024, it outperformed the above indexes by an average of approximately 50%. This substantial level of outperformance clearly illustrates the strength of

the strategy over other competitor benchmarks, as well as the wide range of potential outcomes in the free cash flow indexing space.

Sector Exposure vs. Competitors

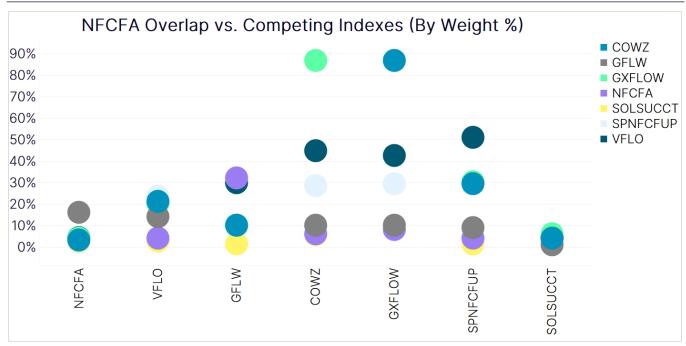
ICB Industry	NFCFA	VFLO	GFLW	COWZ	GXFLOW	SPNFCFUP	SOLSUCCP
Basic Materials	1.7	1.6	0.7	2.4	3.2	1.3	5.1
Consumer Discretionary	8.2	24.8	23.2	20.1	24.7	16.6	4.8
Consumer Staples	1.2	3.0	2.3	11.6	9.7	7.0	1.1
Energy	1.9	23.1	0.3	22.7	21.9	2.4	27.6
Financials						9.2	48.4
Health Care	8.6	27.5	6.0	14.2	13.1	9.7	3.7
Industrials	20.8	4.6	15.6	8.5	6.9	14.0	6.5
Real Estate					1.9	2.2	0.7
Technology	55.7	13.2	48.7	18.4	16.7	30.5	0.2
Telecommunications					2.0	3.7	
Utilities	1.9	2.0	3.3	2.0		2.6	
Other						0.9	

Source: Bloomberg

As seen above, the NFCFA Index is tilted heavily towards the fast-growing Technology sector, with 55.7% of the total index weight. The Victory Shares Free Cash Flow Growth Index (VFLO) is the only other competitor index with a similarly large allocation towards Technology. Industrials, with 20.8% of the exposure, is also relatively overweight in the NFCFA Index. Many of the competing indexes are tilted less heavily towards Technology and Industrials, with a mix of more substantial allocations towards Consumer Discretionary, Health Care, Energy, and in a couple outlier cases, Financials.

Minimum Overlap between NFCFA and Competing Indexes

As seen in the charts below, the Nasdaq US Free Cash Flow Achievers Index has limited overlap with five competing indexes and moderate overlap with one competing index. Four or fewer securities overlap between Nasdaq US Free Cash Flow Achievers Index and each of the Victory US Large Cap Free Cash Flow Index (VFLO), Pacer US Cash Cows 100 Index (COWZ), S&P 500 Sector-Neutral FCF Index (SPNFCFUP), Solactive US Small Cap Cash Flow Champion Index (SOLSUCCP) and Global X U.S. Cash Flow Kings 100 Index (GXFLOW), while 16 securities overlap with Victory Free Cash Flow Growth Index (GFLW). Only one other competing index (SOLSUCCP) has limited overlap with other indexes, because it is focused on the small cap space. The five remaining competing indexes have moderate to high degrees of overlap with at least two to three other competing indexes. This feature of NFCFA is likely to be attractive even to investors with preexisting exposure to one or more of these competitor products.



Source: Bloomberg

Key Differences in Methodology vs. Competitors

The NFCFA Index fundamentally differs from most competing indexes because of its methodology. While other indexes generally evaluate free cash flow metrics across a short time frame, NFCFA selects companies with a long track record of generating positive free cash flow. Specifically, companies are evaluated based on trailing 11 years of free cash flow³. Other indexes screen companies based on either trailing free cash flow or both trailing and expected free cash flow for a shorter period, typically 12 months.

For example, the Victory Shares Free Cash Flow Index selects the highest free cash flow yielding value stocks on both a trailing 12-month and next 12-month basis⁴. The Pacer US Cash Cows 100 Index screens the Russell 1000 for the top 100 free cash flow yielding securities over a trailing 12-month period⁵. The Global X U.S. Cash Flow Kings 100 Index (GXFLOW) also screens its base universe for the top 100 free cash flow yielding securities over a trailing 12-month period⁶. The Victory Free Cash Flow Growth Index screens companies based on the highest free cash flow over invested capital, and a growth score which factors in growth in sales, EPS and EBITDA⁷. The S&P 500 Sector Neutral FCF Index uses the S&P 500 as its base universe and ranks companies by FCF yield within their respective GICS sectors⁸. The Solactive US Small Cap Cash Flow Champion Index (SOLSUCCP) screens a small-cap index for positive cash flow yield in the last 3 years and then ranks the top 75 companies based on next year's estimated cash flow yield⁹. As seen across the dividend/yield indexing space, straightforward methodological differences centered around

³ https://indexes.nasdagomx.com/docs/NFCFA_Methodology.pdf

⁴ https://www.vcm.com/assets/etf/factsheet-pdf/VS%20VFLO%20FS.pdf

⁵ https://www.paceretfs.com/products/COWZ

⁶ https://www.globalxetfs.com/content/files/FLOW-IM.pdf

⁷ https://vettafi-docs.b-cdn.net/Documents/3effe4e6-4748-4575-87a9-

⁷⁶²⁹afd5b7b3/Victory%20Free%20Cash%20Flow%20Growth%20Indices%20Methodology.pdf

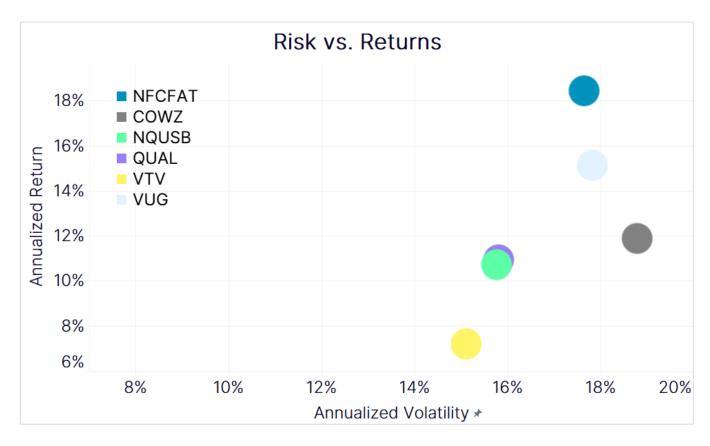
⁸ https://www.spglobal.com/spdji/en/documents/methodologies/methodology-sp-sector-neutral-fcf-indices.pdf

⁹ https://solactive.com/downloads/Guideline_Solactive_US_Small_Cap_Cash_Flow_Champions_Index.pdf

screening companies with longer track records of generating free cash flow may be more beneficial for investors compared to ranking on point-in-time or shorter periods of activity.

Other Differentiating Factors of NFCFA

We highlight below several competitive advantages that NFCFA demonstrates over other products.



Note: Based on monthly returns from December 31st 2014, through December 31st 2024. All returns based on Total Returns.

As seen in the chart above, the NFCFAT Index generated cumulative returns of 464.8% and annualized returns of 18.9% for the ten-year period December 31th 2014 through December 31st 2024, higher than a wide array of leading fundamental factor-based products which screen based on value, growth and quality characteristics, including QUAL (iShares MSCI USA Quality Factor ETF), VUG (Vanguard Growth ETF), VTV (Vanguard Value ETF), and COWZ (Pacer US Cash Cows 100 ETF); the Nasdaq US Benchmark Index (NQUSB) is also shown as a market proxy. These products generated annualized returns of 11.4%, 14.5%, 7.9%, 12.7%, and 11.0%, respectively. While its volatility profile appears to be mid-range, the NFCFA Index generated the highest Sharpe ratio – in fact, the only strategy with a higher annualized return than volatility – suggesting a superior risk/return tradeoff relative to the broader smart beta indexing space.

As seen in the table below, NFCFA differs from its biggest competitor product COWZ in several ways.

NFCFA is growth-oriented and screens companies by FCF growth, while COWZ is more value-oriented, screening companies by FCF yield. Additionally, NFCFA is market-cap weighted while COWZ is FCF yield weighted.

Methodological Differences between COWZ and NFCFA

Category	Pacer Cash Cows (COWZ)	Nasdaq US Free Cash Flow Achievers (NFCFA)		
Base Universe	Russell 1000	Nasdaq US Benchmark		
Sector Constraints	Excludes Financials Includes REITS	Excludes Financials Excludes REITS		
Selection	FCF Yield	FCF Growth		
Security Count	100	50		
FCF Yield Weighted Weighting Securities capped at 2% each		Market Cap Weighted Securities capped at 10% each Stocks > 4.75% weight capped at 45% as a group		

Source: Nasdaq

As seen in the table below, the Nasdaq US Free Cash Flow Achievers Total Return Index (NFCFAT Index) generated cumulative returns of 172.4%, higher than that of COWZ which generated returns of 107.0% at about the same level of risk. As a result, its Sharpe ratio is much more favorable than that of COWZ.

Summary Statistics of COWZ and NFCFAT

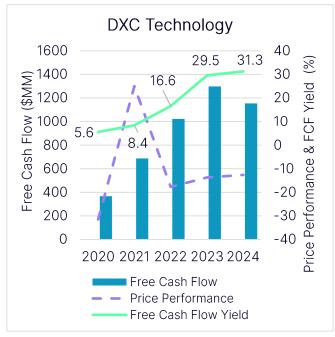
Metrics	COWZ	NFCFAT
Cumulative Return	107.0%	172.4%
Annualized Return	15.6%	22.2%
Annualized Volatility	21.4%	21.3%
Sharpe Ratio	0.64	0.95

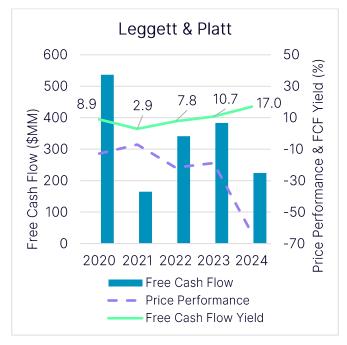
Source: Bloomberg

Note: Metrics based on an annual basis (using monthly returns). Calculations for the period December 31st 2019 – December 31st 2024.

NFCFA differs from other competing indexes in that it looks at long-term growth in free cash flow whereas others such as COWZ and VFLO focus primarily on free cash flow yield. The risk of focusing on FCF yield is that it may lead to the inclusion of companies whose yields have gone up simply due to recent price declines, without an associated improvement in cash flow. Two such constituents of COWZ, DXC Technology and Leggett & Platt, illustrate this risk, as seen in the charts below. With DXC, FCF yield has jumped from 5.6% at year-end 2020 to 31.3% at year-end 2024, but its free cash flow dipped in 2024 along with its price dropping by 12.6%; this was the third year in a row of negative price performance, artificially inflating the upward trend in its FCF yield. In the more extreme case of Leggett & Platt, the company has seen its FCF Yield steadily increase from a low of 2.9% at year-end 2021 to 17.0% as of year-end 2024, but in the meantime has logged four consecutive calendar years of negative performance with an eye-popping loss of 63.3% in 2024 alone; its free cash flow in 2024 was \$224 million, less than half of

what it was in 2020. Neither of these companies would remotely qualify for inclusion in an index that prioritized steady growth in cash flow over a long period of time, as NFCFA does.





Source: Factset

Conclusion

The methodology of the Nasdaq Free Cash Flow Achievers Index (NFCFA) focuses on screening companies with a long track record of generating free cash flow, leading to a differentiated, more sustainable tracking approach for free cash flow-oriented investors. In a similar vein to well-established dividend index suites that prioritize long-term growth in dividends over yield, NFCFA avoids the pitfalls of screening solely based on FCF yield, which could be biased upward by negative price performance. The recently launched index has demonstrated strong live and backtested performance, due in part to its Technology overweight which is simply a result of the outstanding FCF growth among many of the sector's constituents in recent years. NFCFA's dynamic methodology ensures that, if and when sector leadership in FCF growth evolves, its exposure will quickly adapt to capture whatever new sectors and companies rise up the ranks.

The Nasdaq US Free Cash Flow Achievers Index (NFCFA) provides investors exposure to companies with strong quality characteristics which may help position them to outperform during economic downturns, as well as during periods of elevated interest rates and/or inflation. Additionally, these companies typically have strong earnings which are likely to act as a buffer during periods of volatility and market stress. In the prevailing market environment with historically high levels of uncertainty around economic growth, interest rates, inflation trajectory, and government spending/policy, the NFCFA Index may offer a unique solution for investors looking to get defensive while maintaining some amount of an offensive posture as well.

ETFs currently tracking the NFCFA Index include the Invesco Nasdaq Free Cash Flow Achievers ETF (NFCFA Index).

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