

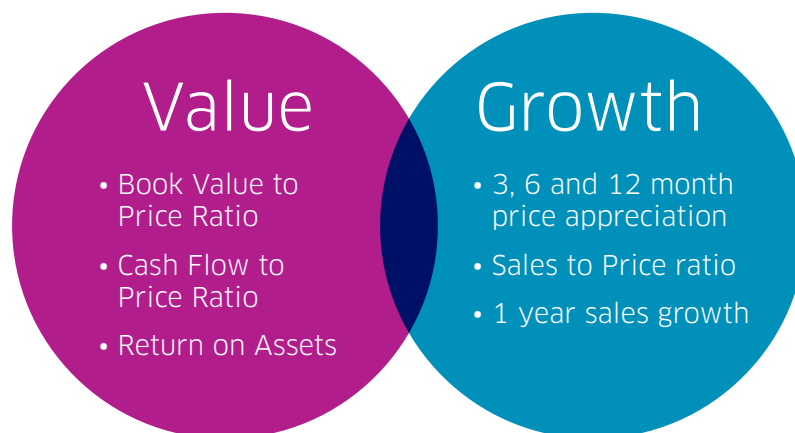
Nasdaq AlphaDEX Indexes

Beating their Benchmarks since Inception

AUTHOR: CHARLES COLEMAN, ASSOCIATE PORTFOLIO MANAGER, NASDAQ GLOBAL INFORMATION SERVICES

Indexing has become increasingly popular over the past decade as investors look to diversify away from high cost funds that have historically underperformed a broad benchmark. Each of the available indexes uses a different methodology to select and weight securities that are a broad representation of the countries or the specific areas of the global markets. While on the other side of the spectrum active fund managers select securities that meet a specific criteria based on the managers preference and market outlooks. The AlphaDEX index methodology blends the passive rules-based approach of index creation with specific factors to enhance the security selection of market cap-weighted benchmark indexes. AlphaDEX focuses on several factors that have been shown to have a positive portfolio impact over full market cycles.

AlphaDEX Portfolio Factors



The Nasdaq AlphaDEX Germany Index (NQDXDET) utilizes the AlphaDEX index methodology to select companies in Germany that demonstrate strong fundamentals based on the factors above. Each company is given a score based on both sets of criteria listed above and only those above a pre-set threshold are included in the index, with the majority of the index weight given to companies with the strongest scores via a tiered equal weighting process. This allows the index to have larger concentrations in smaller and more factor driven names than the traditional market capitalization weighted indexes. A new white paper that does a deeper dive into the Nasdaq non-US AlphaDEX Indexes was just released.

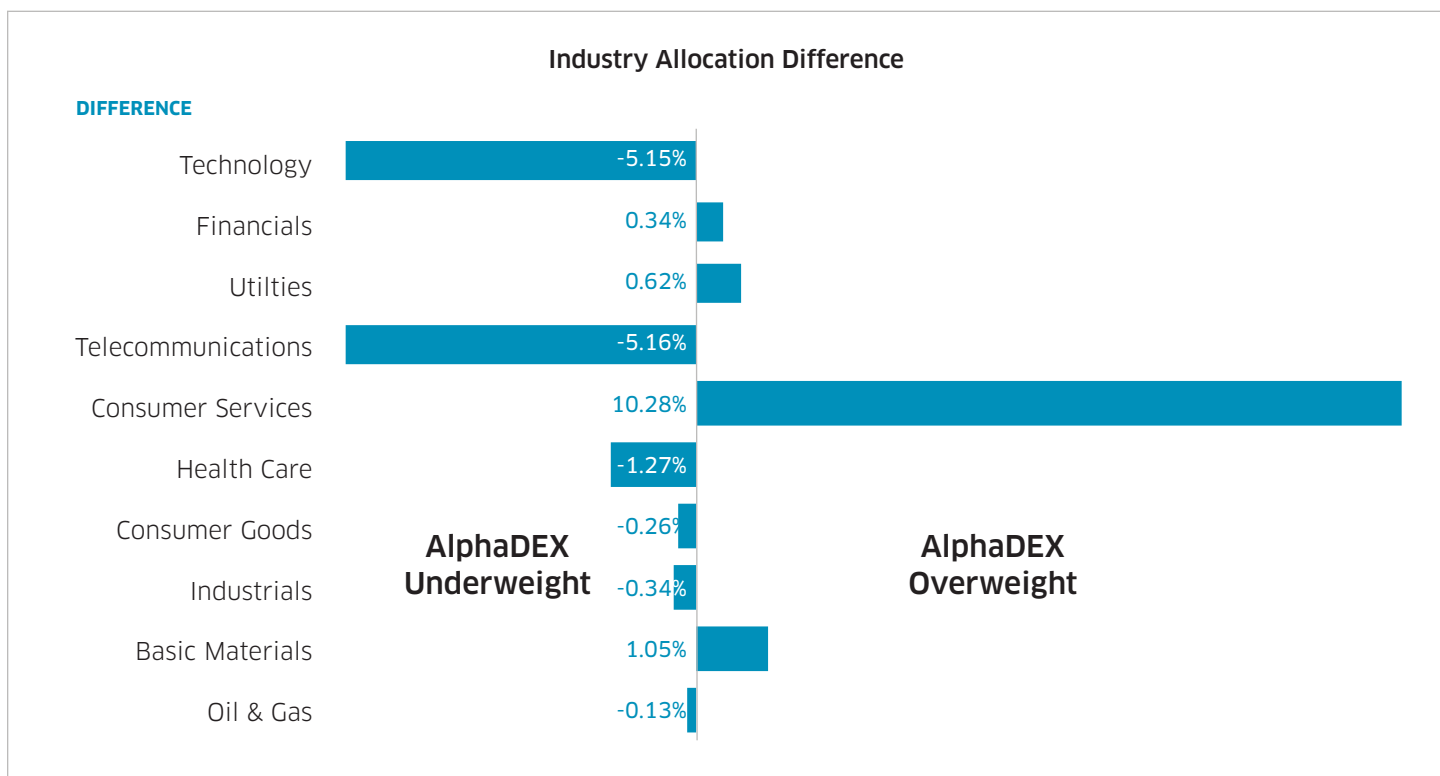
Over the past five years we have seen the AlphaDEX process add additional alpha outside the traditional market cap indexes. The Nasdaq AlphaDEX Germany Index (NQDXDET) has outperformed the Nasdaq Germany Index (NQDET) over the trailing 1-, 3-, and 5-year period ending [November 30, 2018].

INDEX NAME	INDEX TICKER	YTD	1 YEAR	ANNUALIZED		CUMULATIVE	
				3 YEAR	5 YEAR	3 YEAR	5 YEAR
Nasdaq AlphaDEX Germany Index	NQDXDET	-19.12%	-17.84%	6.57%	3.67%	21.04%	19.76%
Nasdaq Germany TR Index	NQDET	-18.01%	-18.36%	1.98%	0.30%	6.07%	1.50%

As of November 30, 2018 Source: Nasdaq

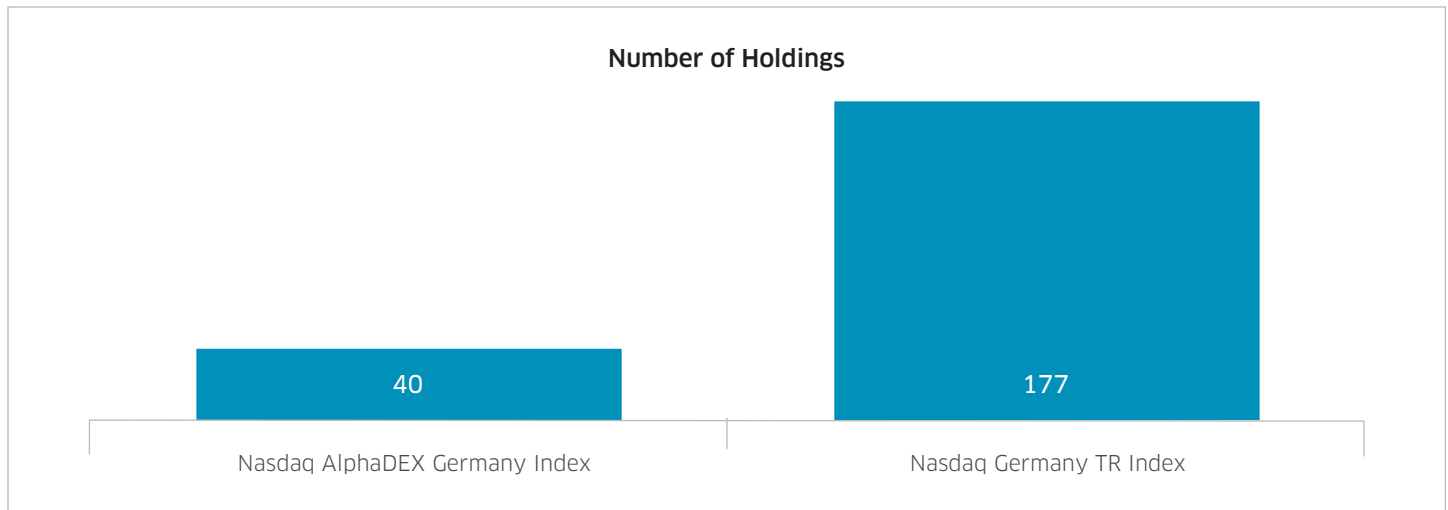
Past performance is no guarantee of future results. Potential for profits is accompanied by possibility of loss.

AlphaDEX's alternative weighting scheme produces a portfolio that retains the diversity benefits of a traditional index with a portfolio that is more concentrated in companies with higher factor scores. By weighting the factor scores rather than market cap, the allocation to industries changes. While exposure to Financials, Industrials and Consumer Goods is less than half a percent different in the indexes, the NASDAQ AlphaDEX Germany Index clearly favors Consumer and Basic Materials over Telecommunications and Technology, which have a much higher allocation in the Nasdaq Germany Index.



Data as of November 30, 2018 Source: Nasdaq ...

Another byproduct of the AlphaDEX weighting process is the focused security selection over a traditional market cap index such as the Nasdaq Germany Index. Rather than holding 177 names in the broad index, the AlphaDEX index focuses on 40 names that show strong factor scoring. Portfolio concentration allows for the portfolios factors, which have shown to provide alpha over time, to steer the index's performance rather than diluting the returns across a larger number of holdings.



Data as of November 30, 2018 Source: Nasdaq

Accessing the Strategy

The AlphaDEX index methodology can be accessed through First Trust, one of the largest providers of ETFs. Listed in the US, the First Trust AlphaDEX ETF product line includes nine sector funds, 13 size/style funds and 18 global/international funds. Of the 18 global/international funds, four are broad-based Emerging or Developed funds, 10 have single country exposure and four are regionally focused.

In 2012, First Trust launched the First Trust Germany AlphaDEX ETF (Ticker: FGM) in the US to track the Nasdaq AlphaDEX Germany Index and, similar to the index, FGM has outperformed its benchmark since inception by utilizing the structured, yet flexible, AlphaDEX index methodology.

Nasdaq® is a registered trademark of Nasdaq, Inc. The information contained above is provided for informational and educational purposes only, and nothing contained herein should be construed as investment advice, either on behalf of a particular security or an overall investment strategy. Neither Nasdaq, Inc. nor any of its affiliates makes any recommendation to buy or sell any security or any representation about the financial condition of any company. Statements regarding Nasdaq-listed companies or Nasdaq proprietary indexes are not guarantees of future performance. Actual results may differ materially from those expressed or implied. Past performance is not indicative of future results. Investors should undertake their own due diligence and carefully evaluate companies before investing. **ADVICE FROM A SECURITIES PROFESSIONAL IS STRONGLY ADVISED.**

© 2019. Nasdaq, Inc. All Rights Reserved. 0005-Q19