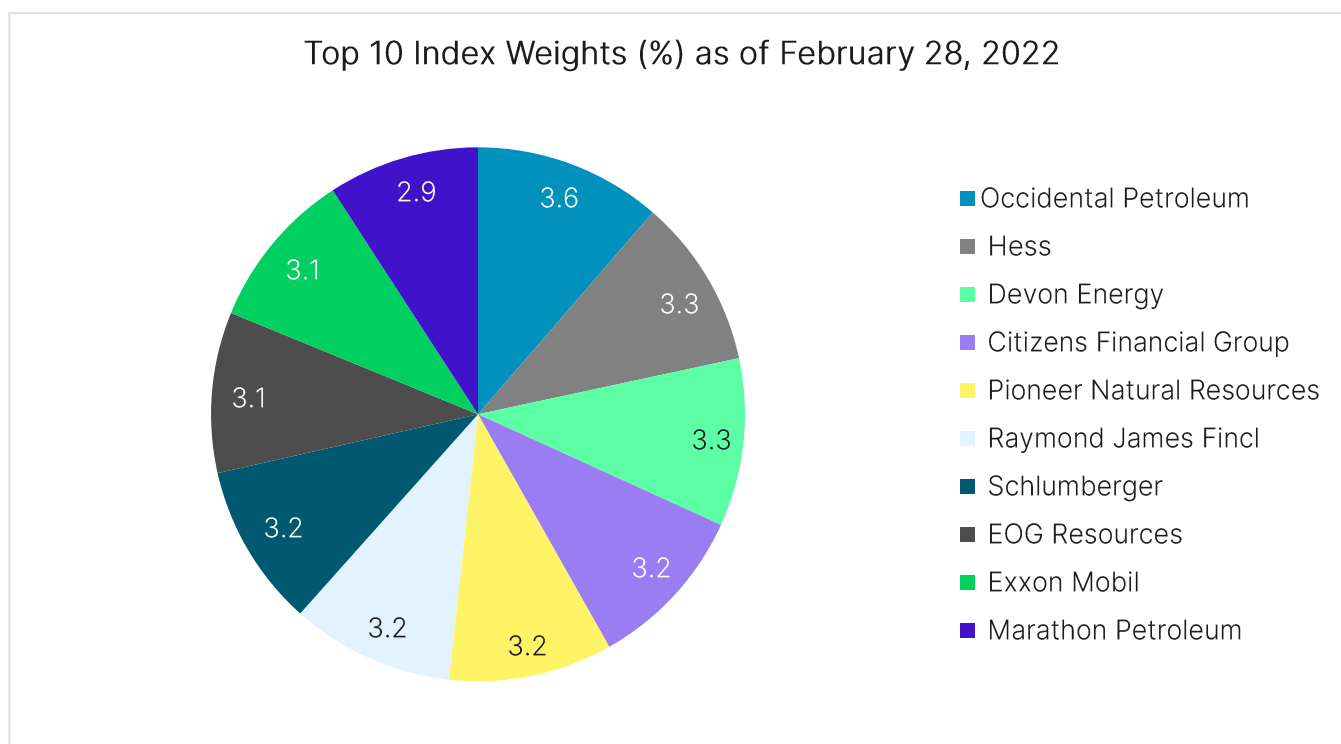


# Nasdaq US Large Cap Equities for Rising Rates Index™: Outperformance at the Exact Right Time

Mark Marex, Nasdaq Index R&D, Product Development Senior Specialist

The Nasdaq US Large Cap Equities for Rising Rates Index (NQERR™) was launched on June 29, 2017. Its constituent basket consists of 50 securities selected across 5 sectors, based on the strength of their correlations to the US 10-year Treasury yield (US10Y). Specifically, the index methodology evaluates the 11 Nasdaq US Large Cap ICB Industry indexes (Energy, Basic Materials, Industrials, Consumer Discretionary, Consumer Staples, Health Care, Telecommunications, Utilities, Financials, Real Estate, Technology), and ranks the correlations of their weekly returns over a trailing three-year period with the weekly change in the US10Y. The top 5 ranked Nasdaq US Large Industry Indexes comprise the initial pool of eligible constituents. Separately, each of the constituents in the Nasdaq US 500 Large Cap Index™ (NQUS500LC™) are similarly ranked vis-à-vis the US10Y. Finally, the top 10 ranked constituents within each of the 5 chosen sectors are selected, and equally-weighted within-sector. (In the event that fewer than 10 securities exist for a given Nasdaq US Large Cap ICB Industry index, an identical ranking of the Nasdaq US 600 Mid Cap Index™ would be used to fill the gap.) The process is repeated every quarter using market data as of quarter-end. Initial sector-level weights are set such that the top-ranked sector receives 30% of the index weight, while the next-ranked sectors receive 25%, 20%, 15%, and 10%, respectively. Let's review how NQERR has performed in the recent past and what its components look like today, before considering what makes its underlying strategy so compelling in the current macroeconomic environment.

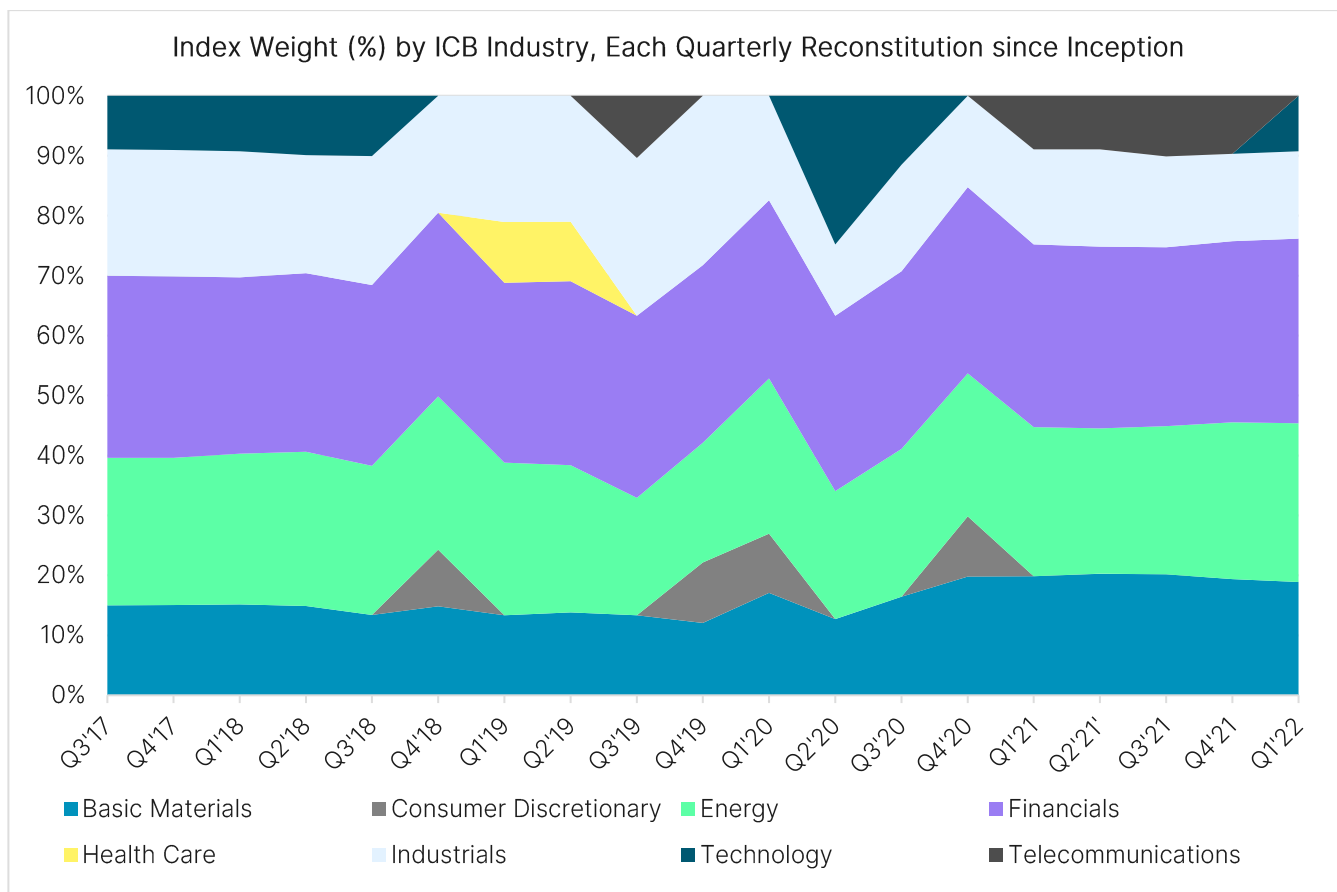
## Current Composition



As one can tell just by looking at the top 10 constituents, NQERR is currently overweight Energy and Financials, both of which have exhibited a historical tendency to outperform other sectors during periods of rising rates. The next two largest allocations are Basic Materials and Industrials, which are also solidly procyclical sectors. In fifth place is Technology – a somewhat surprising observation that deserves contextualization.

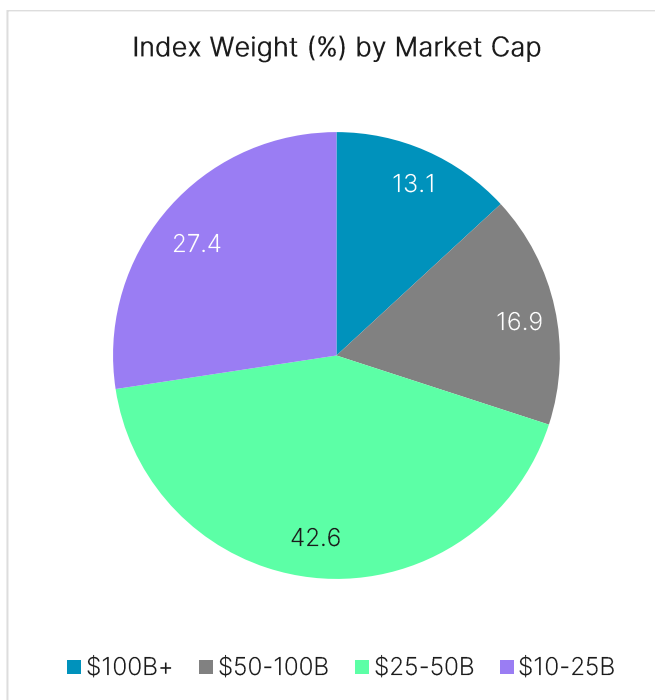
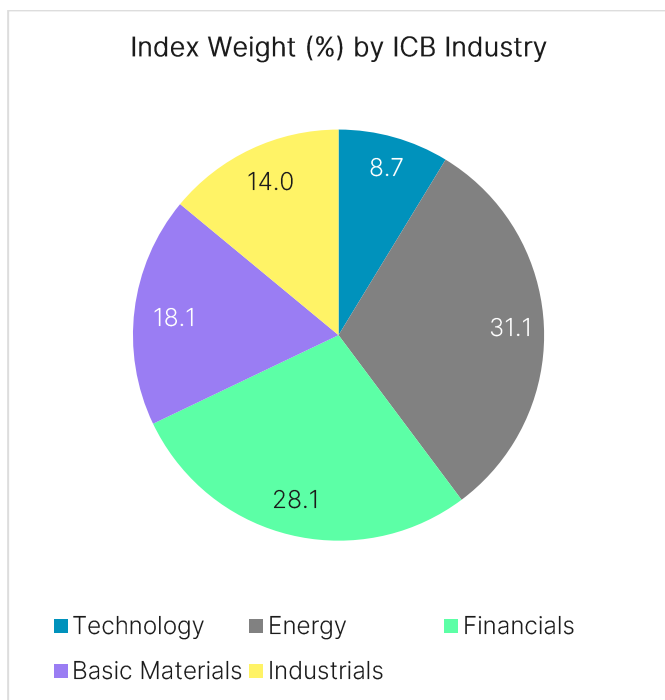
First and foremost, US10Y correlations across the 11 ICB Industry groups are not normally distributed – at least, not based on recent market data. The top tier of strongest-correlated sectors includes Energy, Financials, Basic Materials, and Industrials, which tended to produce correlation values of 0.3-0.5 during the last two years. The middle tier includes Consumer Discretionary, Telecoms, and Technology, which tended to all cluster around 0.2. The lowest tier includes Consumer Staples, Health Care, Real Estate, and Utilities (i.e., the “defensives”), with correlation values consistently around 0.1 or lower. From the historical chart shown below since the inception of the index, one can see that only 8 of the 11 industries have been represented, leaving out Consumer Staples, Real Estate and Utilities. Noted above, despite being in the lowest tier, Health Care made it into the index in late 2018 and early 2019.

In the most recent quarterly evaluation as of December 31, 2021, Technology's correlation was observed at 0.207 vs. Communications at 0.202 vs. Consumer Discretionary at 0.200; in other words, the margins separating the 5<sup>th</sup>-ranked sector from 6<sup>th</sup> (or even 7<sup>th</sup>-ranked) were razor-thin. One additional day's worth of market activity may have been enough to keep Technology out. Indeed, of the handful of times Technology has appeared in the index since inception, all but one instance was as the 5<sup>th</sup>-ranked sector. The exception was during the second quarter of 2020, immediately following the arrival of the Covid pandemic and its widespread market disruptions, including to major cross-asset correlations.



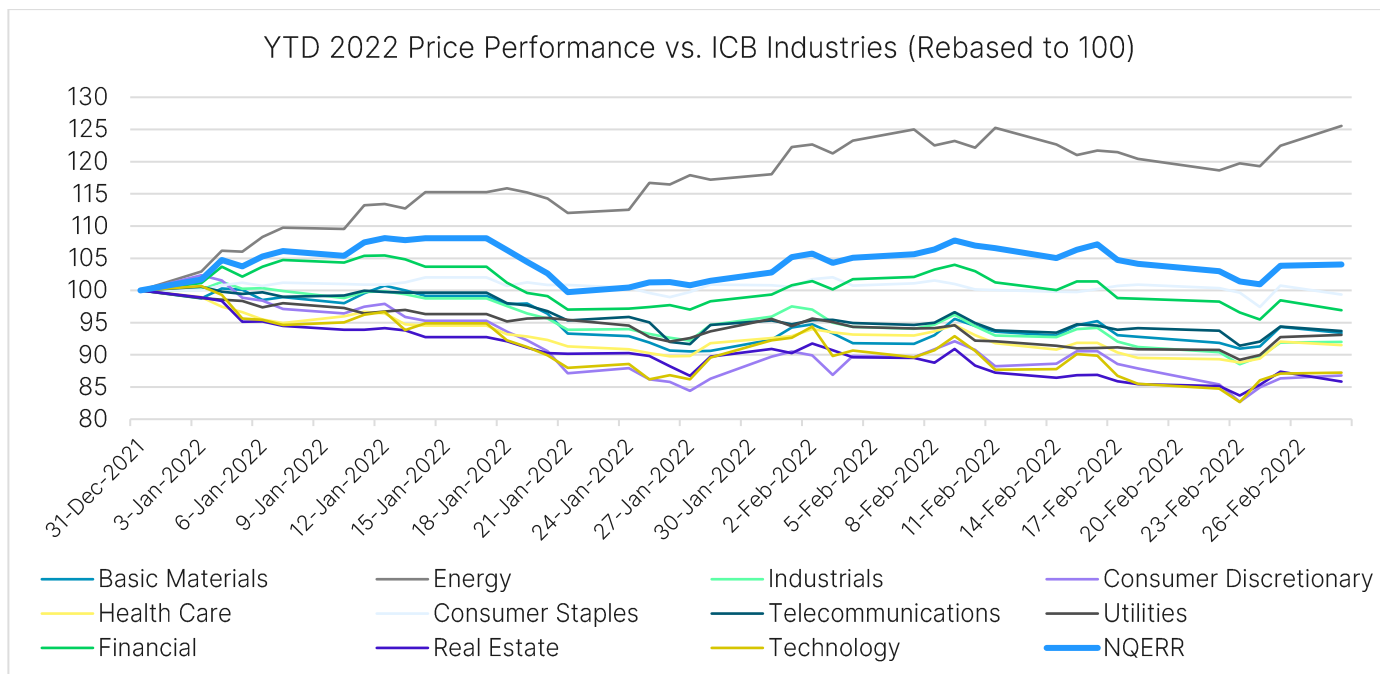
The other interesting context around Technology’s inclusion is the constituent-level and subsector-level makeup: it does not include any of the largest megacap Tech names, nor a single Software name. Five of the 10 companies are classified as Semiconductors, which tend to exhibit more cyclical behavior given their very high levels of capital expenditure and fixed costs at the industry level. The rest are Electronic Components or Computer Hardware, with the exception of Hewlett Packard Enterprise. Overall, this group of 10 Tech companies had an average market cap of around \$40B as of February 28, 2022 – hardly resembling the typical Tech portfolio. This illustrates how NQERR’s underlying strategy distinguishes from more simplistic sector-level screens that might select a market-cap-weighted Technology portfolio such as those underlying the XLK or IGV ETFs. Instead, here is an equally-weighted group of Tech companies selected for their *individual* strength in US10Y correlation, *in addition to* being present in a moderately-correlated sector.

In terms of market capitalization for the overall group of NQERR portfolio companies, the average was \$59.8B, while the weighted average was \$70.2B (as of February 28, 2022). The median was \$34.0B, and the range from largest to smallest was \$404.2B. As can be seen below, the size segmentation of NQERR skews to the lower end of large cap, with 70% of index weight coming from companies with market capitalizations below \$25B.



As of February 28, 2022

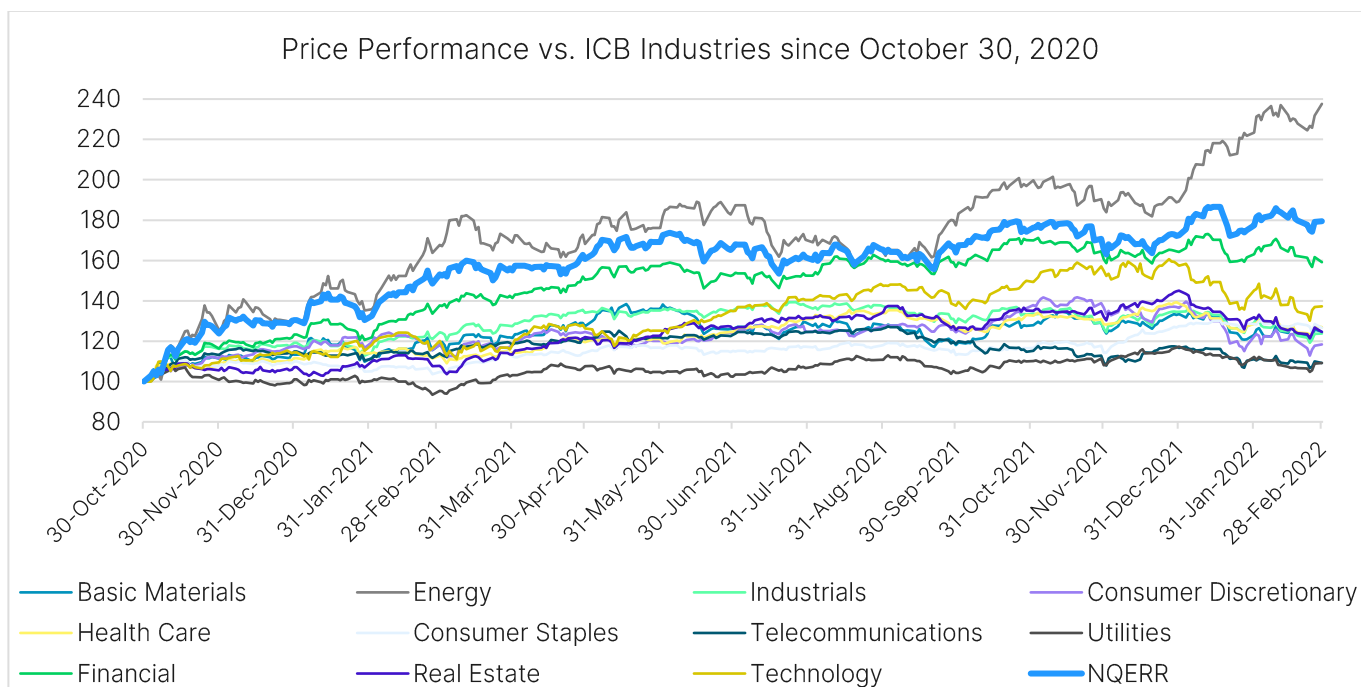
### Recent Performance



As of February 28, 2022

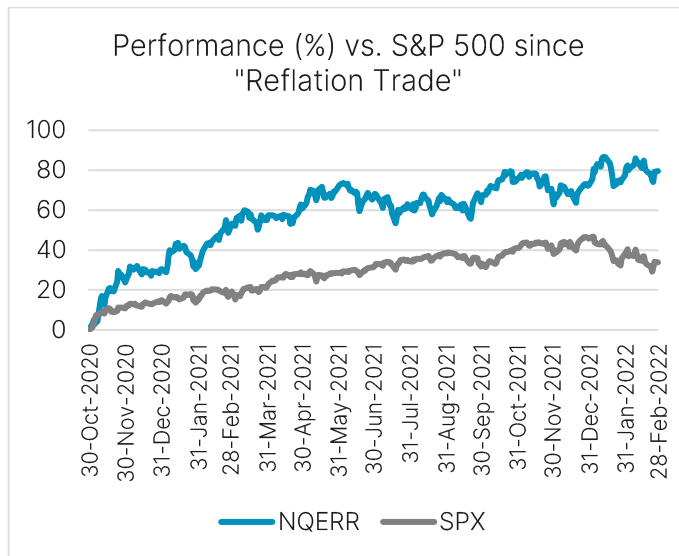
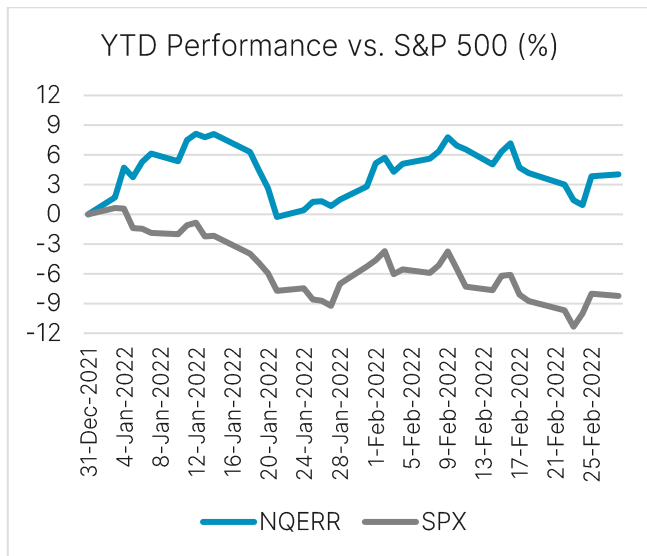
NQERR has outperformed 10 of the 11 ICB Industries in 2022 as of February month-end, up 4.05% on a price-return basis (4.47%, total return). Only the Nasdaq US Large Cap Energy Index has done better.

The post-Covid “reflation trade” emerged in full force at the end of October 2020 following the announcement of Pfizer’s highly effective vaccine and accompanying clinical trial data. Since then, NQERR has also outperformed all sectors except Energy, up 79.51% on a price return basis (85.87%, total return).



As of February 28, 2022

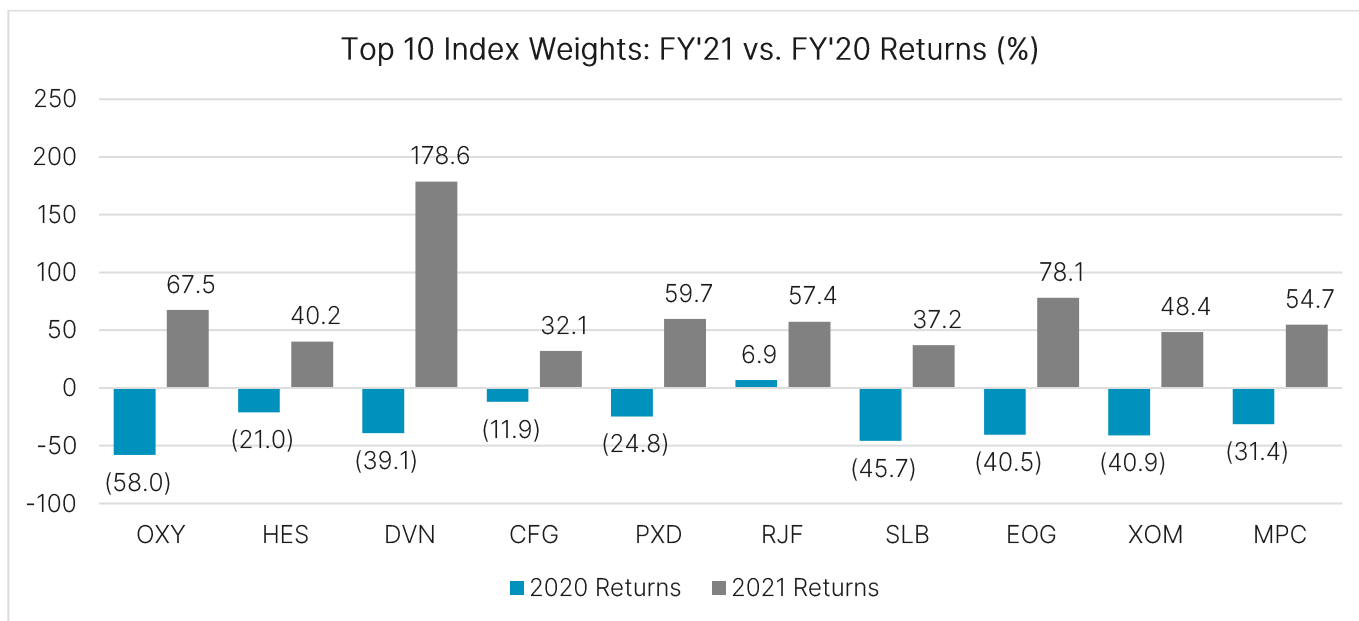
Unsurprisingly, NQERR's strong performance against most individual sectors has translated into solid outperformance against the broader US large cap equity market. The S&P 500 was down 8.23% YTD as of February 28, 2022, a return differential of -12.28% vs. NQERR in just two short months. Since the dawn of the reflation trade, NQERR has outperformed SPX by 45.75% on a price return basis, and by almost 50% on a total return basis.



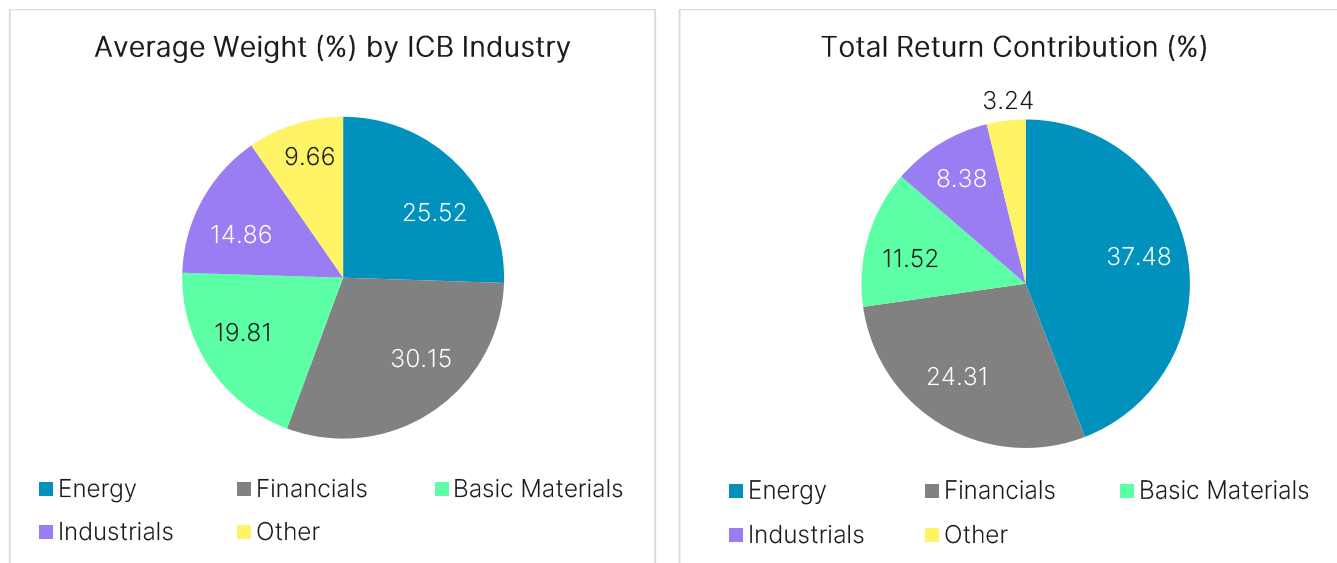
As of February 28, 2022

### Individual and Industry Drivers of Performance

Among the top 10 largest constituents of NQERR, 2021 returns almost uniformly manifested as mirror images of 2020 losses. The average price decline in 2020 among this group was 30.6%; in 2021, their average gain was 65.4%. As noted previously, all 10 of the largest current constituents are either Energy or Financials, per ICB industry. Devon Energy (DVN) was the top performer in 2021, up 178.6%, while Occidental Petroleum (OXY) has been the strongest overall since the onset of the reflation trade in late October 2020, up a stunning 380% as of February 28, 2022.



In terms of sector-level contributions, Energy has been punching well above its weight since late October 2020. Its index weight has averaged 25.52%, but it has contributed 37.48% of the total returns for NQERR. Every other sector has punched below its weight, but Financials' return contribution has also been impressive, at 24.31% vs. an average index weight of 30.15%.



For the period from October 30, 2020 thru February 28, 2022

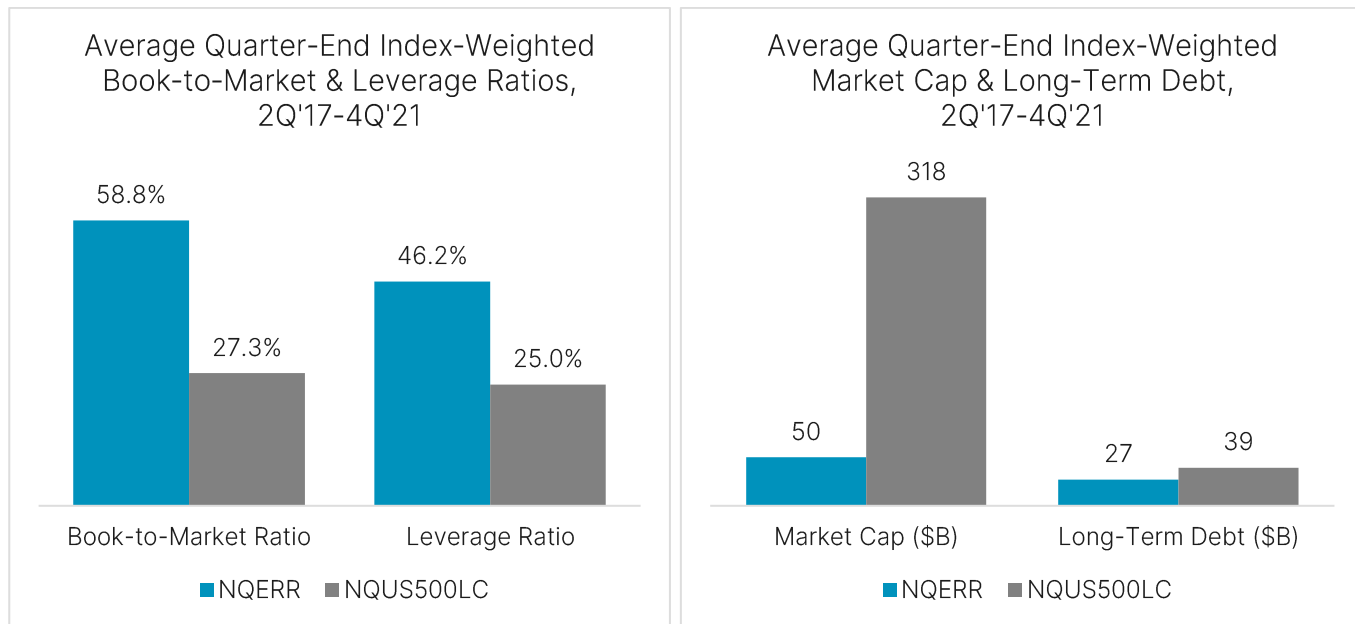
### Fundamental Attributes since Inception

Since the launch of NQERR, the index has exhibited a clear factor bias towards Value, as indicated by the index-weighted average book-to-market ratios measured at each quarter end through 2021. Otherwise known as the inverse of the price-to-book (P/B) ratio, book-to-market measures the percentage of a company's market capitalization attributable to its book value of equity. The higher the ratio, the "cheaper" the valuation of a given company, all else equal. For NQERR, this ratio averaged nearly 59% vs. only 27.3% for the Nasdaq US 500 Large Cap Index. In other words, NQERR's typical portfolio of constituents is considered approximately half as expensive compared to the broader US large cap equity market.

NQERR's average leverage ratio displays a similar pattern, at 46.2% vs. only 25% for NQUS500LC. Measured as the percentage of a company's market capitalization against its long-term debt obligations, a higher leverage ratio usually indicates greater financial stress and goes hand-in-hand with lower valuations. However, given the increasing earnings potential of cyclical industries operating in the backdrop of a rising rate regime, the wide gap in leverage ratios vs. the broader equity market is likely to shrink – not only as cyclicals' equity valuations recover on their own, but also as high-growth and defensives' valuations are pressured lower thanks to elevated discount rates. This is a key macroeconomic theory underpinning the outperformance of Financials during periods of rising rates, and – in the event of elevated inflation – extends to Energy, Materials, and certain Industrials companies as well.

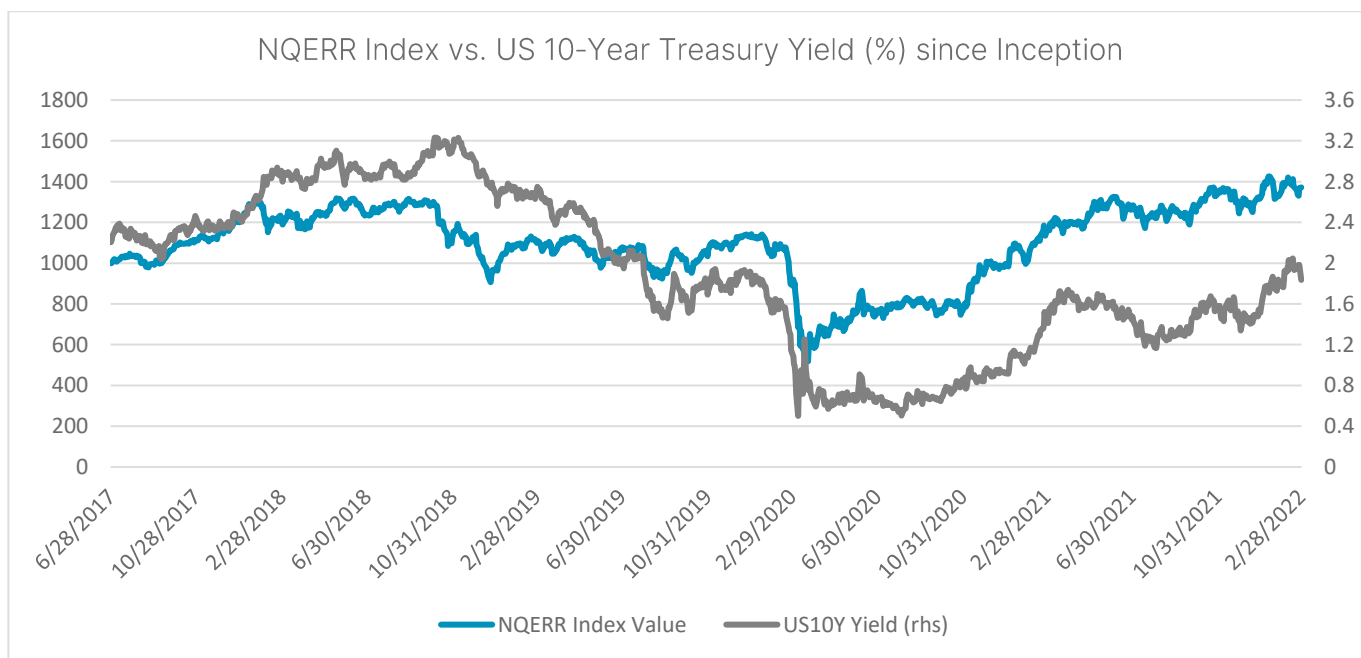
Finally, as was pointed out in the earlier discussion about size segmentation, the bias of the index tilts much smaller than the overall large cap equity space, with an average weighted market capitalization of only \$50B vs. \$318B for NQUS500LC; at the most recent quarter-end, the gap was even more dramatic at \$75B vs. \$643B, respectively. All else equal, Value firms have tended to be much smaller than Growth during recent equity market cycles, and NQERR is no exception. Most recently, its overlap with the Nasdaq US Large Cap Value Index was

67% (and even that represents an underestimate, given recent movements of some Energy and Financials names into Growth as a function of strong price and revenue growth momentum).



### Summary

NQERR has clearly demonstrated its utility as a tactical strategy for equity investment during the current rising interest rate regime. As of February 28, 2022, the US 10-year yield had risen to 1.84%, almost 100 bps above where it was on October 30, 2020. Earlier in February, it touched 2.05% on the 16<sup>th</sup>, which corresponded to a closing index value of NQERR at 1,412.33 – less than 1% off its all-time high. Since inception, NQERR has generated a correlation of 0.575 with the level of the US10Y, validating its in-sample theory of outperformance with robust out-of-sample results. Even a simple visual analysis of their pathways suggests a strong, persistent relationship.



With the rise in popularity of various inflation-geared thematic funds, it is worth considering the underlying methodology of any associated index in the context of its track record and simplicity. With a transparent, practical methodology and live index history of nearly 5 years, the Nasdaq US Large Cap Equities for Rising Rates Index (NQERR) offers investors the ability to track a portfolio of stocks that are empirically proven to respond favorably to a rise in interest rates. While much uncertainty remains about the future path of inflation in the US and globally, one strong certainty is the Federal Reserve's determination to tame inflation via interest rate policy, as its mandate requires. As rates continue to rise in 2022 and potentially beyond, NQERR may provide an effective solution for investors to tactically adjust their level of investment exposure as required.

ETFs currently tracking NQERR include the ProShares Equities for Rising Rates ETF (Ticker: EQRR).

Sources: FactSet, Bloomberg, Nasdaq Global Indexes.

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