

Clients & Friends –

In this commentary, I will provide a high-level performance review, insight into strategy evolutions, and a review of what is on our research agenda for Q2.

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Performance Analysis

TL;DR: Equity beta was additive and Treasury beta was a drag (Figure 2). The tactical signals to overweight equities and underweight Treasury futures were additive. Structural equity tilts towards defensive and momentum styles were a drag (Figure 3). Our specific approach to defensive style tilts was a significant drag versus broader defensive definitions (Figure 5).

The Newfound Risk Managed U.S. Growth Fund (NFDIX) returned 0.36% in Q1 2021. The SPDR S&P 500 ETF returned 6.35% and a 50/50 portfolio of S&P 500 and 10-Year U.S. Treasury futures portfolio levered up 1.5x (“75/75”) returned 1.49%.

Fund Performance (Performance at NAV ^{1, 2, 3} , performance as of March 31, 2021)						
	3 Months	6 Months	1 Year	3 Year	5 Year	Inception
NFDIX NAV	0.36%	9.03%	18.28%	3.98%	6.72%	3.71%
S&P 500	6.17%	19.07%	56.35%	16.78%	16.29%	13.71%
50/50 S&P 500 / 1-3 Year U.S. Treasuries	3.05%	9.33%	25.90%	10.08%	9.10%	9.10%

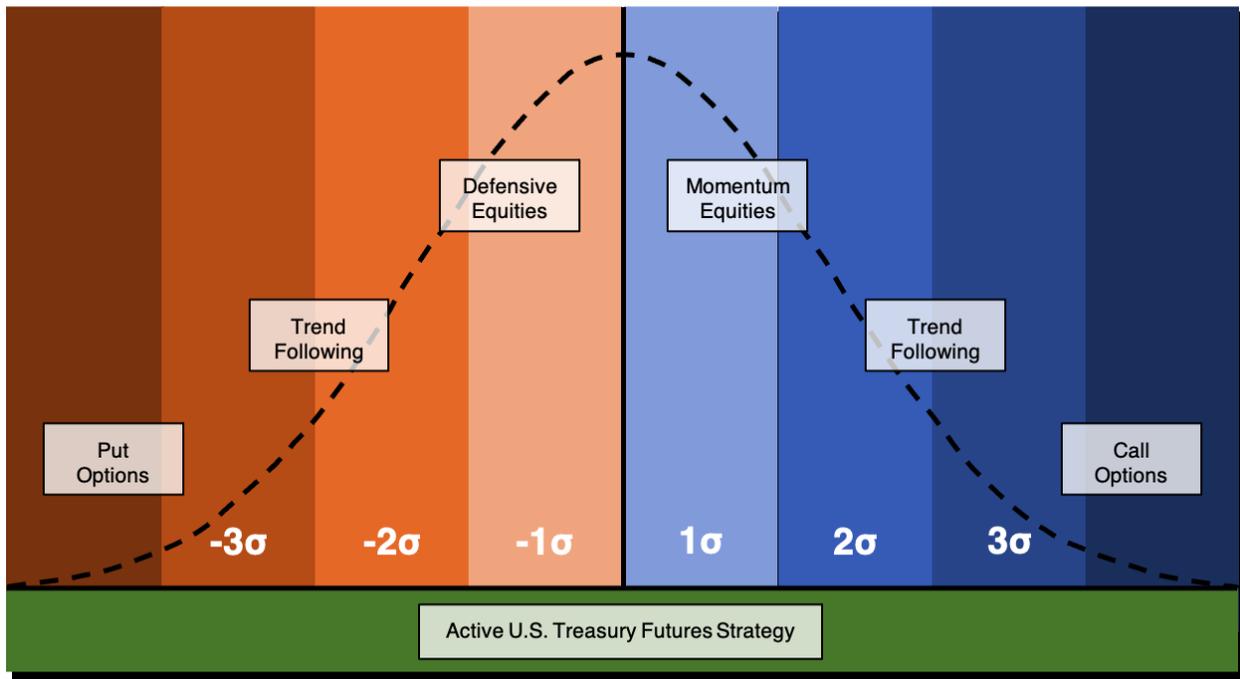
Inception for NFDIX is June 2, 2015. Inception for S&P 500 is calculated from June 2, 2015. The performance data quoted here represents past performance. For more current information, please call toll-free 1-855-394-9777 or visit our website, www.thinknewfoundfunds.com. Current performance may be lower or higher than the performance data quoted above. Past performance is no guarantee of future results. The investment return and principal value of an investment in the Fund will fluctuate so that investors' shares, when redeemed, may be worth more or less than their original cost. The Fund's investment advisor has contractually agreed to reduce its fees and/or absorb expenses until at least July 31, 2021. Without these waivers, the Class I Shares total annual operating expenses would be 1.50%. The fee waivers ensure that the net annual, operating expenses of the Class I Shares will not exceed 1.25%, subject to possible recoupment from the fund in future years. Please review the Fund's prospectus for more information regarding the Fund's fees and expenses.

The strategy underlying NFDIX was re-designed in 2H 2020 with the thesis that equity market extremes are becoming *more frequent and more severe*. For lack of a better word, things will remain “weird”; the Gamestop and Archegos sagas bookending the quarter seems supportive of this argument. To align with this thesis, NFDIX employs a barbell approach, seeking to marry positions that may out-perform in equity left tails with positions that may out-perform in the right.

At the core is a strategic equity position comprised of momentum and defensive style tilts (approximately 30% in both sleeves; 60% total). We complement the core equity position with a systematic trend-following strategy (approximately 30%) which has the flexibility to tilt from fully invested to fully divested into short-term U.S. Treasuries. We implement a ladder of out-of-the-money put and call options (approximately 2.5% each) in effort to maximize defense in extreme down markets and participation in extreme up markets. Finally, we use the remaining capital (approximately 5%) as collateral for

an active U.S. Treasury futures strategy, which seeks to provide a second, diversifying source of returns to the portfolio (varying between 0-to-100% notional exposure).

Figure 1. Diversifying our Diversifiers for Different Market Regimes

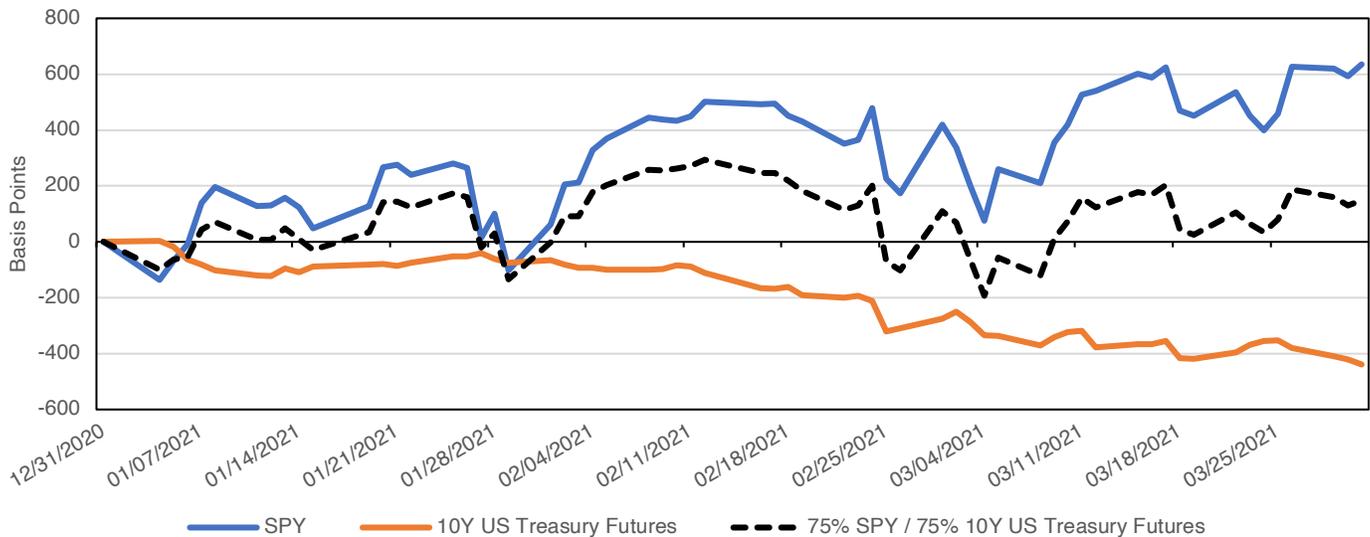


Momentum equity typically over-weights stocks that have recently out-performed their peers and under-weights stocks that have under-performed their peers. Call options give the purchaser the right to buy the underlying asset at a specific time. Trend-following is the systematic process of buying securities that are increasing in price and selling securities that are decreasing in price. Defensive equity is typically characterized as securities of companies with stronger balance sheets, higher quality earnings, or lower volatility stock prices than peers. Put options give the purchaser the right to sell the underlying asset at a specific time. U.S. Treasury futures contracts are an agreement to buy (or sell) a U.S. Treasury bond at a predetermined price at a specified time in the future.

For all the fancy attribution analysis in the world, we only really need two charts to break down the performance of NFDIX in Q1.

The first – Figure 2 – plots the total returns of the SPDR S&P 500 ETF (“SPY”) (+6.35%) and 10-year U.S Treasury futures (-4.39%) in Q1.

Structurally, NFDIX provides simultaneous access to both U.S. equities and U.S. Treasuries via Treasury futures to provide exposure in a capital efficient manner. As a baseline, we expect the long-term notional exposure of the Fund to be approximately 150% and split evenly between stocks and bonds. A 50/50 portfolio of stocks and bonds levered up 1.5x (“75/75”) was up 1.49% in Q1, with equity returns being dragged down by duration exposure as U.S. interest rates rallied from 0.93% to 1.74% over the quarter.

Figure 2. Total Return of Asset Classes in Q1


Source: Tiingo and Stevens Futures. Calculations by Newfound Research. Returns are gross of all fees and taxes. Returns assume the reinvestment of all distributions.

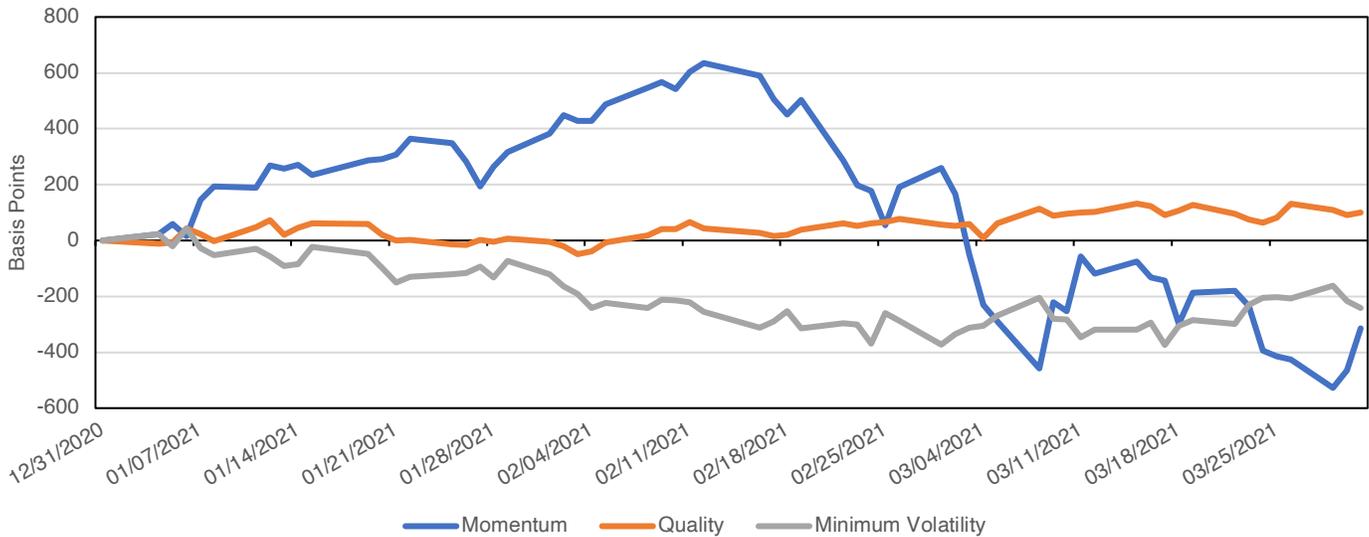
The second important graph – Figure 3 – plots the excess returns of long-only momentum and defensive (quality and minimum volatility) equity portfolios versus SPY. Figure 3 makes clear that both were relative losers in Q1, and momentum was particularly volatile mid-quarter. By quarter end, momentum trailed the broad market by -313 basis points (“bps”) and defensive (50% quality plus 50% minimum volatility) trailed by -70bps.

We can put the results of these two figures together for some back-of-the-napkin estimates of portfolio return. The 75/75 portfolio was up 1.49% year-to-date. With one third of equity exposure allocated towards momentum and one third towards defensive, style tilts would create a -96bps performance drag. Combined, we’d expect a total return of around 0.53% for the quarter (gross of fees). This is not too far from the net-of-fee return of 0.36% for NFDIX.

This back-of-the-napkin analysis isn’t *quite right*, though, as we were tactically overweight equities and underweight Treasury futures this quarter. A more detailed attribution analysis can be seen in Figure 4, where we can see two very meaningful differences.

First, on the positive side, while 10-year U.S. Treasury futures were down -4.39% for the quarter, the contribution to NFDIX’s return was just -191bps. The difference is due to a tactical underweight taken in our portfolio, driven by systematic trend, valuation, and carry signals (each signal governs a third of the position size). Entering the quarter, trend signals had largely turned negative and valuation still leaned “expensive”; only carry was positive and improving. These signals remained largely consistent throughout the quarter, and we held just north of a 40% gross notional position, well below the potential high of 100%.

On the negative side, the defensive equity sleeve implementation dramatically underperformed the naïve quality and minimum volatility combination discussed above. Rather than underperforming the S&P 500 by just -70bps, it underperformed by -661bps.

Figure 3. Excess Return of Style Tilts versus SPDR S&P 500 ETF (“SPY”)


Source: Tiingo. Calculations by Newfound Research. Returns are gross of all fees and taxes. Returns assume the reinvestment of all distributions. Momentum is an equal-weight portfolio of MTUM, FDMO, JMOM, and VFMO; Quality is an equal-weight portfolio of QUAL, FQAL, JQUA, and VFQY; Minimum Volatility is an equal-weight portfolio of USMV, FDLO, JMIN, and VFMV.

Figure 4. Contribution to Portfolio Return

	Total Return (bps)	Average Weight (%)	Contribution to Return (bps)
Defensive Equity	-26	30.73	-8
Momentum Equity	291	31.64	92
Trend Equity	654	31.8	208
Put Options	-10,521	0.96	-101
Call Options	4,353	2.55	111
Treasury Futures	-446	42.78	-191
		140.46	111
<i>Residual</i>			-75
NFDIX			36

Source: Bloomberg.

As a quick technical aside, it should be noted that contribution analysis is fraught with imprecision, and hence there is a *residual contribution* left over in the analysis. One example of a residual contribution is fund fees. Another is cash flow in

and out of the fund, which can make the fund appear to hold excess cash for the day (inflow) or levered (outflow). As such, contribution analysis should be considered directionally accurate rather than precisely correct.

Back to the question at hand: why did *our* defensive style tilts dramatically underperform broader defensive style definitions? Our particular implementation seeks to identify companies with strong balance sheets by ranking on a metric known as Merton's distance-to-default, which integrates both balance sheet leverage and equity volatility characteristics.

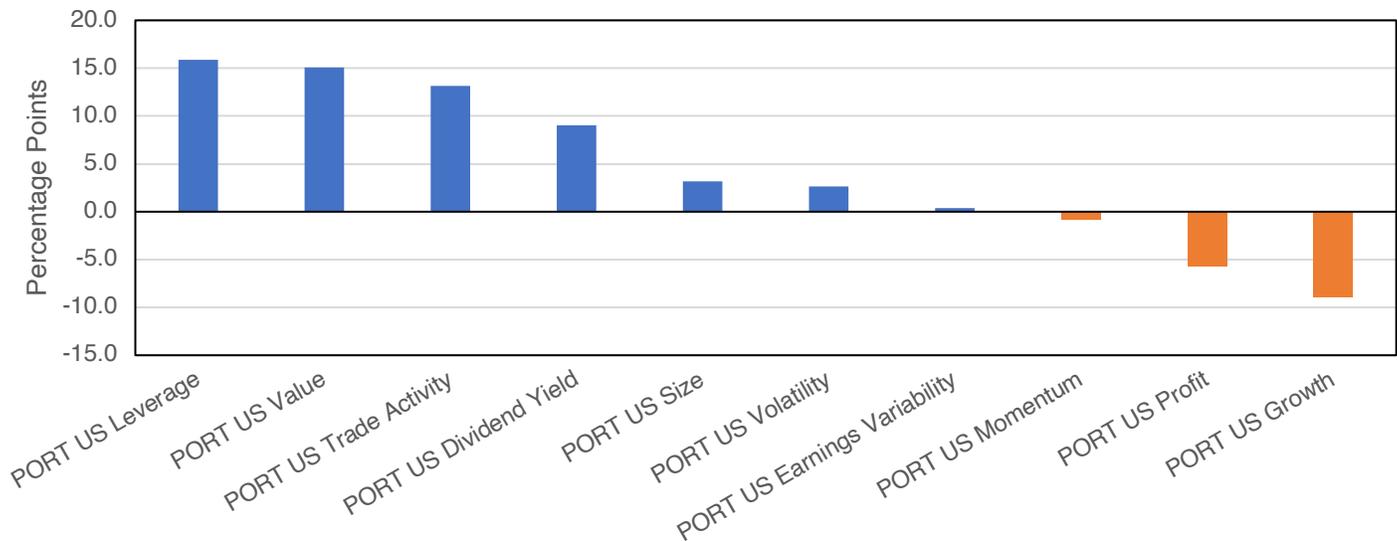
We prefer the strong balance sheets approach for two reasons. First, it integrates measures of quality (leverage) with statistical measures of safety (volatility) in one metric. Secondly, it has historically exhibited greater sensitivity to changes in credit conditions than other defensive characteristics.

Unfortunately, this worked against us in Q1 as high yield credit spreads continued to decline and the re-opening/reflation trade saw a meaningful, positive repricing of highly levered businesses. In fact, one of the best performing equity factors year-to-date was to go long highly levered companies and short low leverage companies (see Figure 6).

Figure 5. Excess Return of Defensive Style Tilts versus SPDR S&P 500 ETF ("SPY")



Source: Tiingo and Sharadar. Calculations by Newfound Research. Returns are gross of all fees and taxes. Returns assume the reinvestment of all distributions. The Strong Balance Sheets portfolio is constructed by: (1) selecting the top 500 U.S. securities by market cap; (2) removing Financials; (3) ranking stocks on Merton's distance-to-default; (4) picking the top 100 and equally-weighting them. The portfolio is rebalanced monthly using six overlapping tranches.

Figure 6. Bloomberg PORT Factor Returns for Q1 2021 – Net Long-Short (Q1-Q5)%


Source: Bloomberg.

While it is easy to construct a narrative in hindsight as to why this factor under-performed, when analyzing the history of the strong balance sheet approach, we find that 500-800bps relative performance drawdowns are not uncommon. In fact, they've occurred approximately every other year for the last twenty years.

Nevertheless, given the speed of the reversion, increasing factor volatility, and increasing autocorrelation in the factor's returns, we elected to pare back the position and add a complement of quality and low volatility ETFs. This ensemble approach allows us to maintain our overall defensive style posture while reducing idiosyncratic process risk, providing us the time to review our strong balance sheet methodology further for unintended structural risks.

To date, our review has mostly centered upon balance sheet leverage, which is a key input to the process. Our hypothesis is that an overly naïve measure will favor low leverage, expensive Technology companies over more reasonably valued, manageably-levered Consumer Staples or Industrials. As such, we have spent time exploring means of adjusting the leverage characteristic, such as adjusting debt for cash and future free cash flow and adjusting market capitalization for reasonable valuation reversion. This research is still on-going.

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Placid Surface, Violent Undercurrents

TL;DR: Despite calm market-level volatility, there were violent rotations in underlying equity factors and cross-factor volatility remains elevated.

The SPDR S&P 500 ETF (“SPY”) returned 6.35% for the quarter with a quarterly volatility of just 7.85% and a maximum drawdown of just -4.1%. Despite these calm waters, according to Goldman Sachs:

- Their Hedge Fund VIP basket (GSTHHVIP) underperformed a basket of widely held shorts (GSCBMSAL) by 30%.
- Growth stocks (GSXUMFGL) underperformed value stocks (GSXUMFVL) by 28%.
- Momentum winners (GSCBHMOM) underperformed momentum losers (GSCBLMOM) by 18%.

Using Bloomberg’s PORT factor definitions:

- Highly levered companies outperformed low leverage companies by 15%.
- High volatility companies outperformed low volatility companies by 15%.

In other words, there were *massive* rotations under the market’s surface.

I find the crash in the momentum factor particularly interesting because momentum is a chameleon: it owes allegiance to no other characteristic. When the loser basket begins to outperform the winner basket, then by the factor’s own rules, it is likely to flip-flop its holdings. And that is exactly what we are beginning to see in Q1. After migrating heavily into high quality, strong-balance sheet names during the COVID crisis, momentum has migrated the other way.

In Figure 7 we plot the universe overlap in strong balance sheet (“SBS”) and momentum (“MOM”) quintiles. We can see that as of April 30th, 2020, strong balance sheet names had strong momentum and weak balance sheet names had weak momentum. Narratively, this makes sense as the economic shutdown implied that companies with weaker balance sheets may be more likely to go out of business.

Figure 7. Universe Overlap in Strong Balance Sheet (“SBS”) and Momentum (“MOM”) Quintiles

4/30/20						3/31/21							
		MOM							MOM				
		LO	Q2	Q3	Q4	HI			LO	Q2	Q3	Q4	HI
SBS	LO	12.6%	3.8%	1.8%	1.0%	0.8%	SBS	LO	1.7%	2.7%	2.0%	4.7%	8.6%
	Q1	4.9%	4.6%	4.6%	3.6%	2.3%		Q1	4.2%	2.5%	4.2%	5.2%	4.2%
	Q2	2.1%	6.7%	4.4%	4.6%	2.6%		Q2	2.2%	4.2%	3.4%	4.9%	5.2%
	Q3	0.8%	3.8%	5.1%	4.9%	5.4%		Q3	4.9%	6.4%	5.9%	1.2%	1.7%
	HI	0.0%	0.5%	3.8%	6.4%	9.0%		HI	7.1%	4.4%	3.7%	4.4%	0.2%

Source: Sharadar. Calculations by Newfound Research.

We can contrast that table with one from 3/31/2021, where we see the opposite scenario: weak balance sheets are now the high momentum names and strong balance sheets are now the weak momentum names. This means that the quality/momentum convergence we wrote about in our Q4 2020 commentary has, largely, unwound.

Momentum funds, and funds that use momentum as an explicit or implicit input to their process, will be allocating capital away from higher quality, low volatility companies in favor of smaller, junkier, higher volatility value plays. Or, at least, they would be if they were implemented continuously.

Investors expressing a momentum bet via ETFs are beholden to stricter rebalance schedules. For example, the iShares MSCI USA Momentum Factor ETF (“MTUM”), JPMorgan US Momentum Factor ETF (“JMOM”), and Fidelity Momentum Factor ETF have the following rebalance schedules:

- MTUM – Last business day of May and November (and, potentially, ad hoc based upon triggers).
- FDMO – 3rd Friday of February, May, August, and November based upon data 10 days prior to rebalance date.
- JMOM – Monday following the 3rd Friday of March, June, September, and December based upon price data from the 1st Friday of the month.

Even if one allocates across all three of these ETFs, there may still a meaningful rebalance gap if the momentum tides shift swiftly enough. For example, if a continuously rebalanced momentum basket saw significant turnover in mid-March, it would take MTUM, FDMO, and JMOM approximately 2.5, 2.5, and 3 months respectively to pick up on the change.

Long-time readers of ours will now be wondering, “is it possible for Corey to get through a commentary *without* mentioning rebalance timing luck?” The answer is, “unlikely.”

Given that we allocate to an ensemble of momentum ETFs within NFDIX, this rebalance gap was a risk we identified this quarter. The largest risk vector was a sector mismatch: a continuously rebalanced momentum strategy would have started decreasing exposure to Technology in favor of Financials, Energy, Materials and Industrials. As a corrective effort, we ran our own continuously rebalanced momentum process and compared the resulting sector weights versus the effective weights provided by the momentum ETFs. We then reduced our momentum ETF exposure and introduced select sector ETF positions as needed to achieve the target sector weights.

We expect to continue running this process until ETFs rebalance and sector differentials are neutralized.

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We began recording Season 4 of our podcast [Flirting with Models](#) in Q1 and we plan to begin releasing episodes in May. As a small firm, one of the greatest benefits of the podcast is it allows us to expand our network of experts and learn from them. Often, that learning has direct implications for how we think about our portfolios.

For example, last season I spoke with Jeffrey Baird of Merritt Point Partners. Merritt Point specializes in building diversified portfolios of convexity exposure in the commodities space. Ostensibly, this could not be more different than the equity-driven portfolio we manage, but a few lessons from that episode have come full circle for us.

For example, at 55:20 I ask Jeffrey about the risks introduced to a portfolio when a directional bet made with a convex instrument (e.g. an option) is correct. In such a case, the position loses its convexity and becomes much more linear as it moves from out-of-the-money towards in-the-money.

Jeffrey operates in a risk framework that is driven by “drawdown from peak.” With a blank slate, this is easily achieved in a long options portfolio because you need only consider the premium spent on the positions.

However, once the underlying assets begin to move and the option positions begin to gain value, the portfolio can now lose both the value accrued *and* the original premium. Somewhat ironically, the more correct you are in a convex trade, the riskier your position can become because the sensitivity turns linear.

This conversation came full circle for us in Q1 as the S&P 500 marched upward and many of the positions in our call option ladder rapidly picked up increasing sensitivity. We estimate that our portfolio beta had moved from 1.1 to 1.35 and risked climbing to 1.8 if the move went parabolic (like January 2018).

One answer is to ignore the extra sensitivity, as it only represents risk in the profit earned on the position. In other words, we're playing with "house money."

We think this is the wrong answer, particularly for an open-end mutual fund. Consider that an investor who allocated mid-January, after the run-up in exposure, would not be playing with house money: they're simply buying in at a higher beta! Maintaining a "drawdown from peak" mentality corrects for this.

More philosophically, if the current portfolio is not the portfolio we'd build if given a blank slate, then why would it be the appropriate portfolio to hold going forward?

In the episode, Jeffrey discusses a few tactics he takes to manage this risk, including simple de-risking the trade or restructuring to "re-convexify" the position. As we evaluated our position, we elected to convert our calls into call spreads, monetizing some of the gains and reducing our overall delta to bring equity beta back down towards 1.1.

When you combine the various degrees of freedom embedded in option positions (e.g. tenor, strike, and structure) with the convexity of their payoff, path dependency leads to potentially explosive dispersion in results. This makes it very difficult to fully systematize any risk management process. Nevertheless, this area remains a key focus of our research agenda going forward, and we believe that "drawdown from peak" must be the north star of that process.

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We are incredibly grateful to all the allocators and advisors who have reached out to learn more about the process changes we implemented in Q4 2020. These conversations provided a breadth of perspective into the various use-cases for the Fund inside a broader portfolio allocation. A few examples we wanted to highlight:

- One firm's value proposition to their clients is the development and use of internally managed, tactical portfolios. Recognizing their concentrated process risk, they introduced NFDIX as a strategic complement to their in-house process.
- Several advisors already held exposure to factor ETFs that shared overlapping characteristics with our investment process (e.g. quality, low volatility, and momentum exposures). Introducing NFDIX allowed them to increase internal factor diversification and reduce rebalance timing risks while maintaining the same stylistic tilts.
- One advisor saw an opportunity to use the embedded leverage within NFDIX to free up capital in client portfolios while maintaining overall market exposure. The freed-up capital could then be used to satisfy capital calls from private investments or opportunistically to "buy the dip" without having to find something to sell first.
- One advisor group is completely re-working their allocation framework from the bottom up, asking the question, "how do we manage risk in a zero-yield world?" This question has been the most prevalent theme of our meetings this quarter. The group had begun to introduce a number of diversifying elements (e.g. CTAs and long volatility positions) along-side their existing stock and bond exposure. The aim is to create a portfolio that is diversified

across several risk mitigation techniques and less dependent upon historical correlation assumptions between stocks and bonds holding true going forward.

While the conversations spanned a surprising breadth of topics – including process risk, rebalance timing risk, style tilts, capital efficiency, convexity, and long volatility exposure – they all had a common theme: finding diversification. And we strongly believe that holistic diversification means going beyond just *what* we invest in, but must also consider *how* and *when* we make those decisions.

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We appreciate the trust you place in having Newfound Research oversee your capital; helping to manage these assets is a responsibility we do not take lightly. We firmly believe that the process we have in place provides our Fund the best opportunity to meet its objective going forward, seeking to capture a significant portion of market growth while reducing the impact of severe and prolonged market declines. If you have any questions, please do not hesitate to reach out.

Sincerely,



Corey M. Hoffstein
Chief Investment Officer
Newfound Research

Current performance may be lower or higher than the performance data quoted above. Past performance is no guarantee of future results. The investment return and principal value of an investment in the Fund will fluctuate so that investors' shares, when redeemed, may be worth more or less than their original cost. For performance data current to the most recent month-end, please call toll-free 1-855-394-9777 or visit our website, www.thinknewfoundfunds.com.

Investors should carefully consider the investment objectives, risks, charges and expenses of the Newfound Risk Managed U.S. Growth Fund. This and other important information about the Fund is contained in the prospectus, which can be obtained by calling 1-855-394-9777. The prospectus should be read carefully before investing. The Newfound Risk Managed U.S. Growth Fund is distributed by Northern Lights Distributors, LLC, Member FINRA/SIPC. Newfound Research LLC is not affiliated with Northern Lights Distributors, LLC.

- 1) *Performance at net asset value ("NAV") does not include the effect of sales charges.*
- 2) *The S&P 500 Index is widely regarded as the best single gauge of large cap U.S. equities. The index includes 500 leading companies listed in the United States and captures approximately 80% of available market capitalization. The 50/50 S&P 500 / Barclays US 1-3 Year Treasury Bond benchmark consists of a hypothetical portfolio that is 50% allocated to the S&P 500 Total Return Index and 50% allocated to the Barclays US 1-3 Year Treasury Bond index, rebalanced monthly.*
- 3) *Performance results include the effect of expense reduction arrangements for some or all of the periods shown. If those arrangements had not been in place, the performance results for those periods would have been lower.*

Risk Factors

There is no assurance that any Fund will achieve its investment objectives.

Mutual Funds involve risk including the possible loss of principal. ETFs are subject to specific risks, depending on the nature of the underlying strategy of the fund. These risks could include liquidity risk, sector risk, as well as risks associated with fixed income securities, real estate investments, and commodities, to name a few. Typically, a rise in interest rates causes a decline in the value of fixed income securities. A higher Fund turnover will result in higher transactional and brokerage costs.

Like all quantitative analysis, the adviser's investment model carries a risk that the mathematical model used might be based on one or more incorrect assumptions. No assurance can be given that the fund will be successful under all or any market conditions. Overall equity and fixed income securities market risks affect the value of the Fund. Factors such as domestic economic growth and market conditions, interest rate levels, and political events affect the securities markets. The earnings prospects of small and medium sized companies are more volatile than larger companies and may experience higher failure rates than larger companies.

Click [HERE](#) for the current NFDIX prospectus.

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