

## Clients &amp; Friends –

In this commentary, we will provide a high-level performance update and review our outlook for the next quarter.

As a reminder, the strategy underlying the Newfound Risk Managed U.S. Growth Fund (NFDIX) is designed with the thesis that equity market extremes are becoming *more frequent and more severe*. For lack of a better word, things will remain “weird.” To align with this thesis, NFDIX employs a barbell approach, marrying a ladder of increasingly convex positions seeking to out-perform in equity left tails with a ladder of increasingly convex positions that seeks to out-perform in the right.

At its 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 an 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).

\* \* \* \* \*

## Performance Analysis

*Too Long, Didn't Read (“TL;DR”): U.S. equity was additive and U.S. Treasury beta was a detractor. Tactical signals to overweight equities and tactical signals to underweight Treasury futures were both additive. Structural defensive and equity tilts were slightly additive and structural momentum tilts were a detractor. Returns from call option positions outweighed the drag from put options.*

NFDIX returned 0.08% in Q3 2021. The S&P 500 Total Return Index (“S&P 500”) returned 0.58% and a 50/50 portfolio of S&P 500 and 10-Year U.S. Treasury futures portfolio levered up 1.5x (“75/75”) returned 0.24%. Year-to-date, NFDIX has returned 10.93%, the S&P 500 has returned 15.92%, and the 75/75 portfolio has returned 9.38%.

### Figure 1. Contribution to Portfolio Return

	Total Return (bps)	Average Weight (%)	Contribution to Return (bps)
Defensive Equity	58	31.11	18
Momentum Equity	29	31.01	9
Trend Equity	48	31.06	15
Put Options	-3,111	0.90	-28
Call Options	1,697	3.30	56
Treasury Futures	-36	61.26	-22
Cash (and Equivalents)	0	2.64	0
		161.28	48
<i>Residual</i>			-40
NFDIX			8

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*<sup>1</sup> left over in the analysis. One example of a residual contribution is fund fees<sup>2</sup>. 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.

\* \* \* \* \*

## Return Stacking and Capital Efficiency<sup>3</sup>

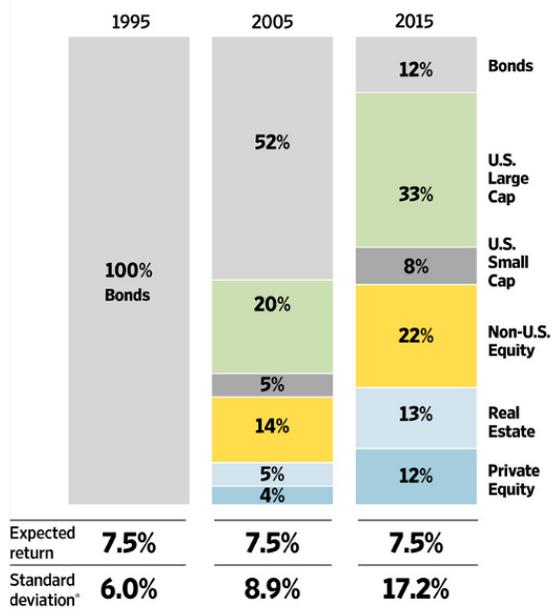
*TL;DR: Higher equity valuations and lower real interest rates mean that investors are having to take on more risk to achieve the same returns. Rather than pursue increasing exposure in pro-cyclical assets, we believe investors should consider how the prudent application of leverage may allow them to develop a more resilient portfolio.*

### Figure 2: Same Return, More Risk

#### Rolling the Dice

Investors grappling with lower interest rates have to take bigger risks if they want to equal returns of two decades ago.

Estimates of what investors needed to earn 7.5%



<sup>1</sup>Likely amount by which returns could vary  
Source: Callan Associates

THE WALL STREET JOURNAL.

In collaboration with ReSolve Asset Management, we recently published a paper titled *Return Stacking: Strategies for Overcoming a Low Return Environment* to address one of the more difficult conundrums facing allocators and investors today. Specifically, with equities at historically high valuations and real interest rates near historic lows, how can investors meet their required rates of return without simply taking on more risk?

This question is made more difficult when we acknowledge the behavioral and regulatory realities of investing. Alternatives may be attractive as diversifiers, but they can introduce significant tracking error into a portfolio and invite “line-item risk” (where investors overly scrutinize their holdings versus analyzing their portfolio holistically). Furthermore, regulatory limits on leverage constraints often leave mutual fund and ETF implementations under-powered.

Evidence suggests that when investors are faced with decreasing yields in risk-free assets, their exposure to risky assets climbs non-linearly (see Figure 3). While many investors might balk at increasing their equity exposure outright, we have watched investors increase credit risk (e.g. high yield bonds), reduce liquidity (e.g. real estate,

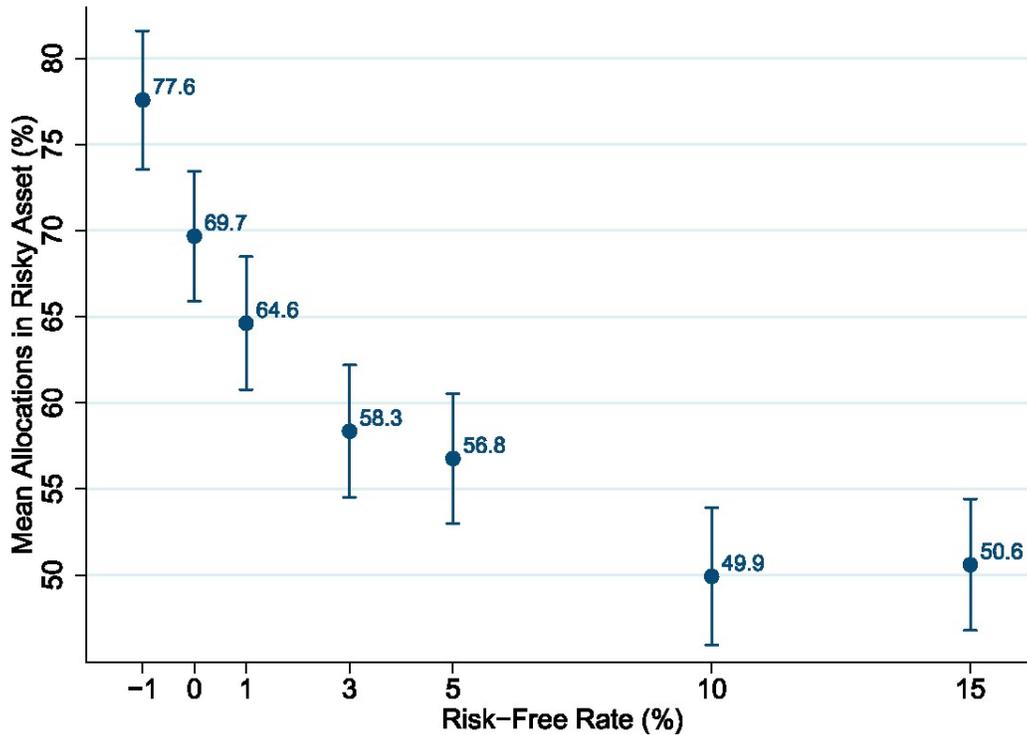
<sup>1</sup> Residual contribution refers to the difference in total return between the generated contribution analysis and the actual fund return.

<sup>2</sup> *The Fund's investment advisor has contractually agreed to reduce its fees and/or absorb expenses until at least July 31, 2023. Without these waivers, the Class I Shares total annual operating expenses would be 1.58% as of the August 2021 prospectus update. 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.*

<sup>3</sup> Capital Efficiency, in this context, refers to the ratio between dollars spent to exposure gained. Through the use of prudent leverage, an investor can gain access to greater than one dollar of exposure, for one dollar purchased.

private equity, and private credit) and sell volatility (e.g. put-write strategies) in pursuit of higher returns.

**Figure 3: Mean Allocations Across Interest Rate Conditions**



Source: *The Review of Financial Studies*, Volume 32, Issue 6, June 2019, Pages 2107–2148, <https://doi.org/10.1093/rfs/hhy111>

Unfortunately, this is faux diversification, seemingly selected so that investors do not have to explicitly recognize that they are walking out along the risk plank, particularly during equity market crashes. In Figure 4 we calculate the monthly return correlation between some such strategies to the S&P 500 conditioned on the direction of monthly equity returns.

**Figure 4: Monthly Return Correlations to the S&P 500**

	iShares iBoxx \$ High Yield Corporate Bond ETF	Vanguard Real Estate ETF	WisdomTree CBOE S&P 500 PutWrite Strategy ETF
Positive Equity Returns	45.3%	45.6%	77.5%
Negative Equity Returns	78.5%	73.0%	94.3%

Source: Tiingo. Calculations by Newfound Research.

We should acknowledge that many institutions have been banging on this “lower expected returns” drum since the mid-2010’s. Yet since December 31<sup>st</sup>, 2014, the S&P 500 has returned over 14% annualized. Are the forecasts wrong? Possibly. It is important to recognize, however, that a long-term expected return forecast in the low single digits does not mean we expect a low single digit return *every year*. A more realistic expectation is that years of boom are eventually offset by years of bust.

Furthermore, one interpretation of the high realized returns in equities over the last half decade is that it is a manifestation of investors increasing risk within their portfolios. Recent research on the inelastic market hypothesis (see Kojien and Gabaix (2020)<sup>4</sup> and Bouchard (2021)<sup>5</sup>) suggests that when an investor sells \$1 of bonds to buy \$1 of broad equity exposure, the aggregate market capitalization of equities goes up \$5. If central banks are keeping nominal interest rates suppressed through quantitative easing programs, selling bonds to buy equities may leave rates largely unchanged yet drive equity prices upward. As equities continue to outperform, it might invite over-confidence among investors, creating a self-fulfilling, procyclical spiral until the marginal dollar loses its impact.

Without re-hashing the contents of our entire paper on return stacking, we argue that rather than increasing procyclical asset risk, investors can pursue higher returns through the thoughtful application of leverage. Specifically, by utilizing funds like NFDIX which can provide more than \$1 of exposure for each \$1 invested, investors can seek to maintain their strategic asset allocation while “stacking” alternatives on top. After all, a non-correlated alternative fund returning just 1% a year may not be attractive when we must sell stocks and bonds to allocate to it but may be *very* attractive if we can stack it on top of our existing portfolio.

As an extreme example, consider a portfolio that allocates 2/3<sup>rds</sup> of its capital to NFDIX. With the expectation that the long-term average allocation within NFDIX is 75% U.S. equities and 75% intermediate-term U.S. Treasuries, the *implied* exposure of a 2/3<sup>rds</sup> allocation is 50% U.S. equities ( $2/3 \times 75\% = 50\%$ ) and 50% intermediate-term U.S. Treasuries. Despite already achieving 100% notional exposure, we have now freed up 1/3<sup>rd</sup> of our capital to do with as we please!

We could, for example, take this capital and allocate it to an uncorrelated alternative strategy, such as managed futures. The resulting total portfolio exposure would be 50% U.S. Equities, 50% intermediate-term U.S. Treasuries, and 33.3% managed futures, for a total portfolio exposure of 133.3%. While many investors may feel uncomfortable with leverage, we believe this style of portfolio is significantly less risky than an investor who is taking increasingly concentrated, equity-like risk within their portfolio.

While we would not expect any investor to allocate 2/3<sup>rds</sup> of their capital to a single fund, there now exists a number of funds spanning a variety of asset classes (e.g. stocks, bonds, managed futures, global macro, et cetera) which can create capital efficiency for investors and can be mixed-and-matched to achieve target exposures.

\* \* \* \* \*

## Yes, but why Bonds?!

*TL;DR: We “stack” U.S. Treasury returns on top of equity returns within NFDIX. Despite low real interest rates, we believe that U.S. Treasuries remain attractive as a diversifying, secondary source of returns. Nevertheless, we actively manage*

---

<sup>4</sup> <https://www.nber.org/papers/w28967>

<sup>5</sup> [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3896981](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3896981)

*the position in effort to reduce drawdown risk. Even at unattractive valuations, we believe the return stacking employed within our funds provides valuable capital efficiency to investors within the context of portfolio construction.*

A common refrain we hear from prospective investors is that they, “don’t like bonds at these levels.” The underlying implication, at least in the context of our discussions, is that they do not particularly care for the U.S. Treasury exposure we have stacked on top of our equity portfolio. To this we would make three points: (1) expected returns are more attractive than we might think; (2) “return stacking” increases expected portfolio returns an additional 1.9% above equities; and (3) the U.S. Treasury overlay is driven by active quantitative signals designed to mitigate downside risk.

First, we must recognize that there are (at least) two other important sources of return beyond yield that we need to account for when discussing the return of a fixed income position that we plan on rolling. The first is *shift*, which is the re-pricing that occurs due to changes in interest rates.

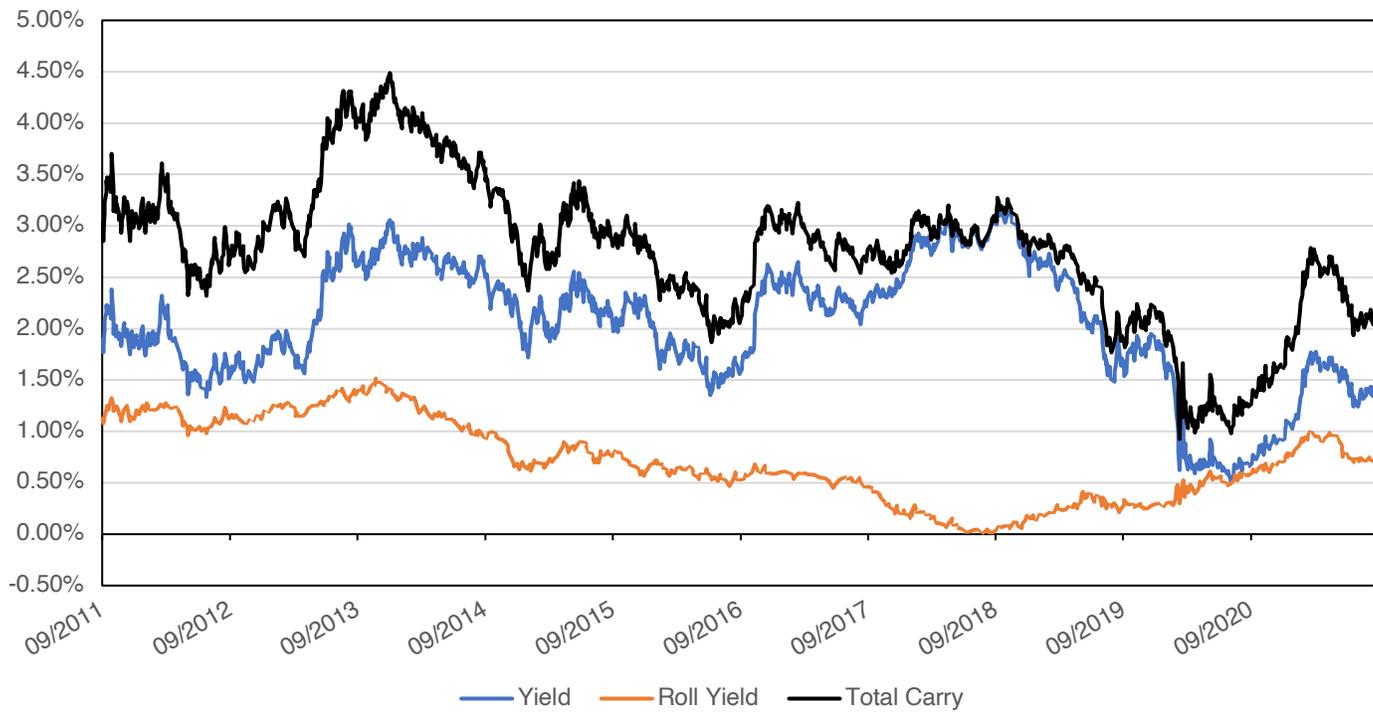
Let’s say we buy a 10-year U.S. Treasury and intend to sell it in a year, buying a new 10-year U.S. Treasury to keep our maturity approximately constant. Over the year, however, 10-year rates climb 100 basis points, and so the bond we’re selling is now worth less. This profit and loss, driven by the change in rates, is called *shift*. From an expected return perspective, unless we can forecast the movement of rates, *shift* largely becomes a noise factor. Furthermore, since the bond we’re rolling into now has a *higher* yield (by 100 basis points in our example), over time these short-term fluctuations in price return largely average out by offsetting changes in yield. Changes in interest rates simply pull and push returns forward and backward through time, trading price return today for yield in the future.

The second source – *roll yield* – does *not* necessarily average out. In the above example, we overlooked the fact that when we are selling our 10-year U.S. Treasury, it is no longer actually a 10-year bond, but rather a 9-year bond. Unless the shape of the yield curve is completely flat, the going yield for 9-year bonds may not be equal to that of the 10-year bond we bought.

In a positively sloped yield curve environment, it will be less, which means that our bond will have to *appreciate* in price such that it has an equivalent yield-to-maturity to the lower-yielding 9-year bonds. If the yield curve stays constant over time, we can buy a 10-year bond, wait a year, sell it at a higher price, and use the proceeds to repurchase a 10-year with the identical yield we held before. The expected profit (or loss, if the yield curve is inverted) we make in this trade is called the *roll yield*.

When yield and roll yield are added together, we get a more complete picture of our expected return. For reasons I will not bother going into in this commentary, at present when we discuss the 10-year U.S. Treasury futures contract, the appropriate bond to reference is closer to a 6.5-year U.S. Treasury.

Figure 5 shows the estimated yield and roll yield of such a bond over time. We can see that today’s level sits about 30 basis points below the prior decade average of 2.40%.

**Figure 5: Expected Return Decomposition of 6.5-Year U.S. Treasuries**


Source: Federal Reserve of St. Louis. Calculations by Newfound Research.

Over the long-term, we know that current yield-to-maturity is a strong predictor of annualized constant maturity bond portfolio returns over “two times duration minus one” years.<sup>6</sup> If we estimate the current duration of a 6.5-year U.S. Treasury bond as about 6.3, our rule tells us that the current 1.2% yield is a strong predictor of annualized returns over the next 11.6 years ( $2 \times 6.3 - 1$ ). If we add the average roll yield from the last 30 years (0.7%), we end up with a long-term total carry estimate closer to 1.9%.

For long term investors, equity returns *plus* 1.9% annualized over the next 12 years may be a very attractive proposition.

Hopefully it is clear that this is not a riskless proposition. Nevertheless, for those looking to outperform the market, return stacking Treasuries seems like a reasonably high confidence approach when evaluated versus the alternative of trying to identify a manager that can earn 1.9% annualized excess return for the next 12 years.

What are the risks?

We hope the “return stacking” nomenclature is clarifying here. Since we are stacking U.S. Treasury returns on top of U.S. equity returns, the greatest risks occur when equities and Treasuries fall simultaneously. Historically, equities and Treasuries have exhibited negative correlation during periods in which the market is most concerned about economic growth shocks, but *positive* correlation during periods in which the market is most concerned about inflation shocks (e.g. the 1970s).

<sup>6</sup> <https://content.csbs.utah.edu/~lozada/Research/IniYld.pdf>

To address this risk, we actively manage the U.S. Treasury overlay using an ensemble of quantitative signals, including price trend, valuation, and carry. During a period like the 1970s, not only would we expect to see negative price trends, but we would expect valuation (measured as deviation from forecasted real yield) to measure as expensive and carry as thin (particularly with an inverted yield curve), ultimately leading to a systematic reduction in the notional size of our overlay.

Yet even if the overlay were static and the portfolio bore the full brunt of a simultaneous drawdown in equities and bonds, if NFDIX were being used for its capital efficiency, the risk really only applies optically at the line-item level and not necessarily to the portfolio as a whole. As a simple example, let us assume we are a 60% equity / 40% bond investor and we want to allocate 5% of our portfolio to an alternative fund but cannot decide whether to sell equities or bonds to make room.

Given the long-term expected allocation of 75% equities and 75% U.S. Treasuries within NFDIX, one solution is to sell 7.5% of our stocks and 7.5% of our bonds, freeing up 15% of our capital. If we then take 10% and allocate it to NFDIX, we achieve the same exposure as before in both stocks and bonds ( $10\% \times 75\% = 7.5\%$ ), but now have 5% free for our alternative allocation!

While NFDIX may, as a line item, be more sensitive to a *stock down, bond down* environment, if used for its capital efficiency to introduce an alternative that can do well in such an environment, it may help make the portfolio more resilient overall.

\* \* \* \* \*

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

<b>Fund Performance</b> (Performance at NAV <sup>1, 2, 3</sup> , performance as of September 30, 2021)						
	3 Months	6 Months	1 Year	3 Year	5 Year	Inception
NFDIX NAV	0.08%	10.53%	20.50%	4.89%	8.06%	5.06%
S&P 500	0.58%	9.18%	30.00%	15.99%	16.90%	14.14%
50/50 S&P 500 / 1-3 Year U.S. Treasuries	0.37%	4.59%	14.35%	9.66%	9.36%	7.96%

*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](http://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. 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](http://www.thinknewfoundfunds.com). 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 1.42% as of the August 2020 prospectus update. 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.*

**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.*
- 4) *As of 6/30/21, the Fund maintained a 7.7% allocation to the iShares MSCI USA Momentum Factor ETF ("MTUM").*
- 5) *Northern Lights Distributors is in no way affiliated with the Innovator's Buffer ETFs, First Trust's Cboe Vest ETFs, or the JP Morgan Hedged Equity Fund.*

### **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.*

*Options Risk: There are risks associated with the sale and purchase of call and put options. As the seller (writer) of a put option, the Fund will tend to lose money if the value of the reference index or security falls below the strike price. As the seller (writer) of a call option, the Fund will tend to lose money if the value of the reference index or security rises above the strike price. The Fund may lose the entire put option premium paid if the reference index or underlying security does not decrease in value. The Fund may lose the entire call option premium paid if the reference index or underlying security does not increase in value.*

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

### **Definitions**

**Beta:** Beta is a measure of a security's or portfolio's volatility relative to the market as a whole. A security or portfolio whose beta is greater than one has historically experienced a greater change in price than overall market prices; while, a security or portfolio with a beta of less than one has historically experienced a price change which is less than the price changes realized by the market as a whole.

**Basis Points (BPS, bps):** Basis points are used to refer to an increment of 0.01%, or 1/100<sup>th</sup> of 1%. For example, an investment that has increased in value by 0.50% would be said to have "increased by 50 basis points."

**Roll Yield:** Roll yield is the amount of return generated by selling a bond as the bond approaches maturity and its par value. This roll yield is dependent on the shape of the yield curve whereby an upward sloping yield curve generates a positive roll yield, while a downward sloping yield curve generates a negative roll yield, all else equal.

NLD Review Code: 9184-NLD-10012021  
Newfound Case #13636853