

# **Risk Managed Global Sectors**

## **NFGAX | NFGIX**

### **A Strategy For Dialing Global Equity Exposure**

June 2019

# About Newfound Research

Newfound Research was founded in August 2008 to offer quantitative investment research.

Over time, our capabilities evolved to include the design of custom mandate portfolios, the development of tactical overlay solutions, and sub-advisory services.

In December 2013, we began offering discretionary asset management services with portfolios directly advised by Newfound.

In all of our capabilities, we are dedicated to helping clients achieve their long-term goals with research-driven, quantitatively-managed portfolios, while simultaneously acknowledging that the quality of the journey is just as important as the destination.

# Fundamental Elements of our Process

While there are many elements necessary for successful investing, Quantitative and Behavioral are our foundational elements.



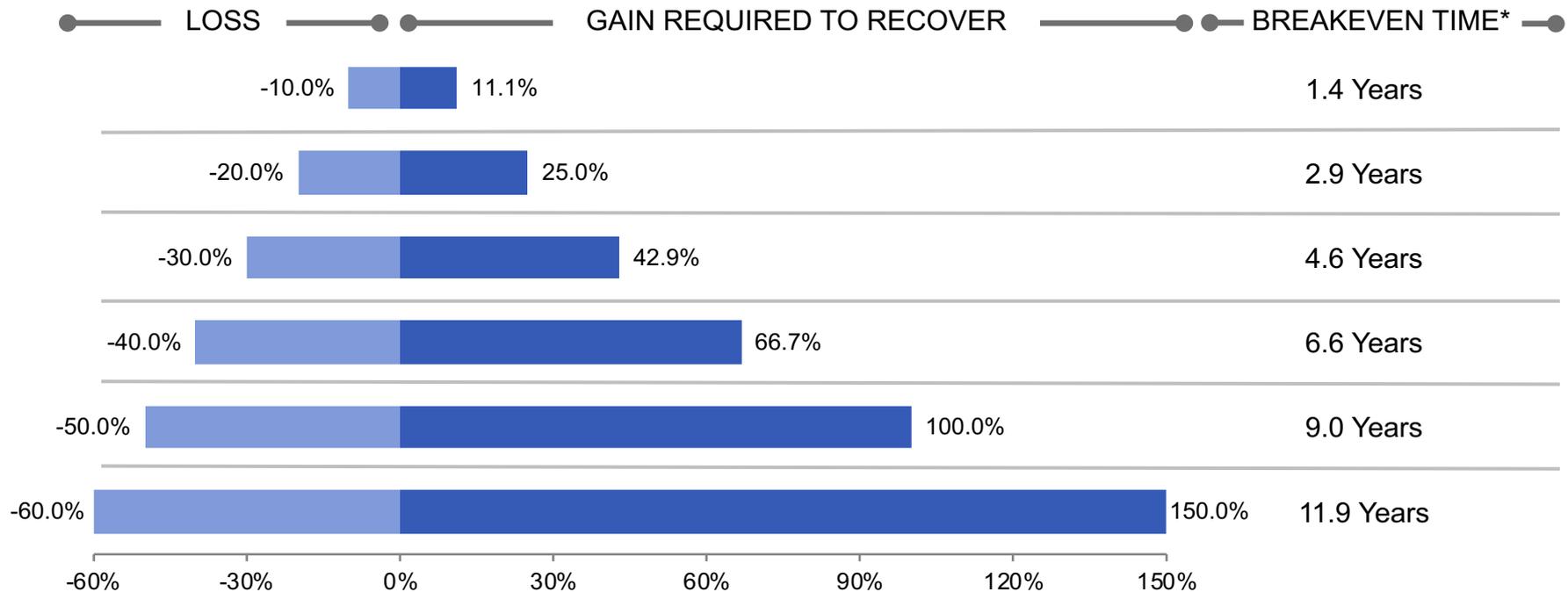
We believe in a research-driven, systematic approach to investing.



We believe the optimal investment plan is first and foremost the one we can stick with.

# The Asymmetric Math of Losses

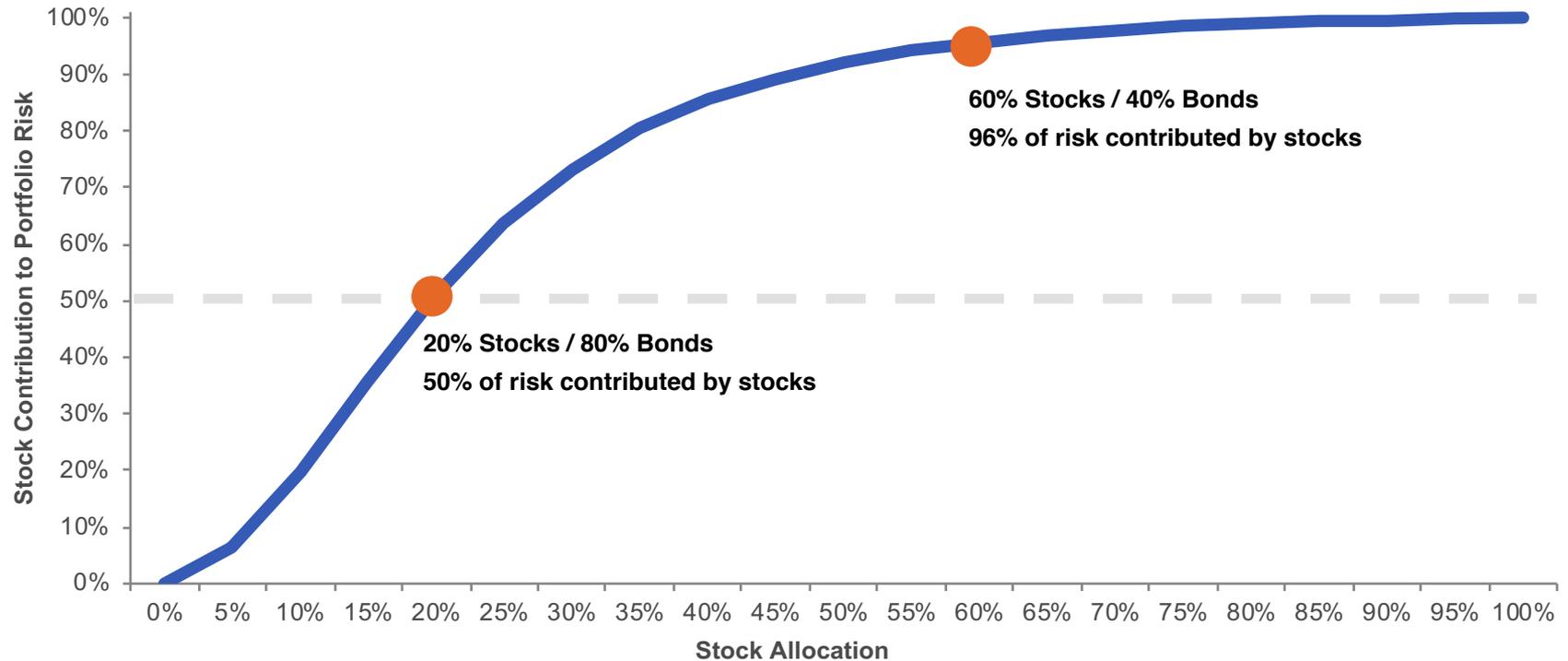
Losses can take significant time to recover from and in certain situations may permanently impair growth prospects.



The chart is a hypothetical example. It is for illustrative purposes only and is not indicative of any Newfound strategy or index.  
\* Assumes an 8% annualized rate of return.

# Why Bonds May Not Be Enough?

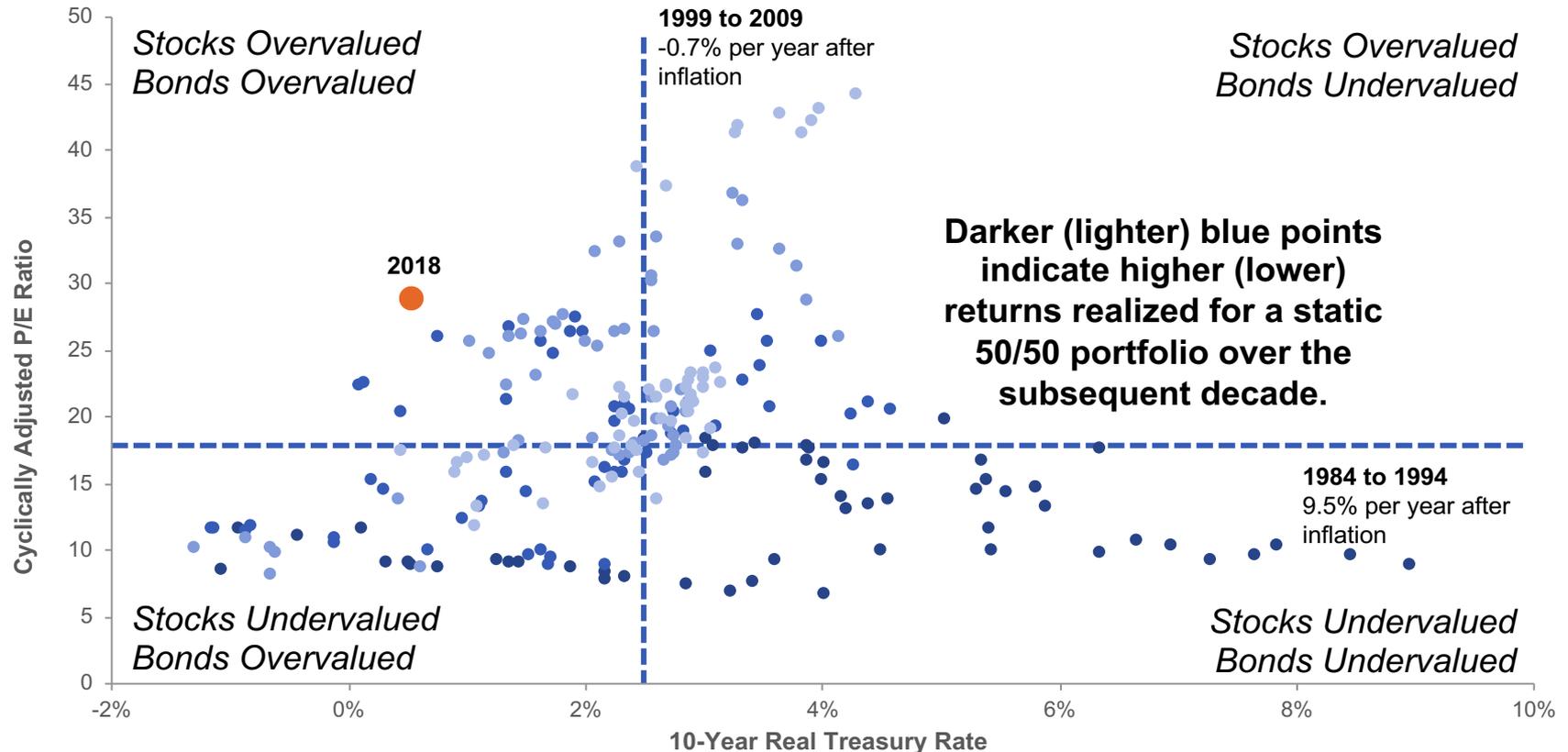
Portfolios diversified by asset class can still be dominated by equity risk.



Source: CSI Analytics. Analysis provided by Newfound Research. **Past performance does not guarantee future results.** Contribution to portfolio risk is calculated by weighting the individual asset class volatility and correlation by their allocations and dividing by the total portfolio volatility. Data uses monthly returns from September 2003 to December 2018. The start date was chosen because it is the first date on which data is available for all ETFs. Bonds are represented by the iShares Aggregate Bond ETF (ticker: AGG). Stocks are represented by a portfolio of the SPDR S&P 500 ETF (ticker: SPY), the iShares MSCI EAFE ETF (ticker: EFA), and the iShares MSCI Emerging Markets ETF (ticker: EEM). Results are for general market comparisons and are not representative of any Newfound index or strategy. This content should not be considered investment advice. For illustrative purposes only.

# The Changing Investment Landscape

High U.S. Stock and Bond Valuations Have Often Led to Depressed Returns



Data Source: Shiller data library (<http://www.econ.yale.edu/~shiller/data.htm>) and Federal Reserve of St. Louis. Calculations by Newfound Research. Data for the period from 1953 to 2018. 1953 is the start date because that is the start date of the 10-year U.S. Treasury rate. Cyclically Adjusted P/E Ratio is a version of the P/E ratio that averages earnings over the prior ten years. P/E ratio is the price of a security divided by its earnings. P/E ratio is used as a measure of valuation with higher relative values indicating more expensive valuations. The 50/50 portfolio represents equal allocations to the S&P 500 index and 10-year U.S. Treasuries. The 50/50 portfolio is a hypothetical index. The S&P 500 index is an unmanaged composite of 500 large capitalization companies. The index is widely used by professional investors as a performance benchmark for large-cap stocks. You cannot invest directly in an index, and unmanaged index returns do not reflect any fees, expenses or sales charges. The referenced index is shown for general market comparisons and is not meant to represent any Newfound index or strategy. Index returns do not reflect fees or transaction costs. Past performance does not guarantee future results.



*Using systematic trend-following in an effort to avoid prolonged and significant drawdowns, providing a turnkey solution for dialing U.S. equity exposure up and down.*

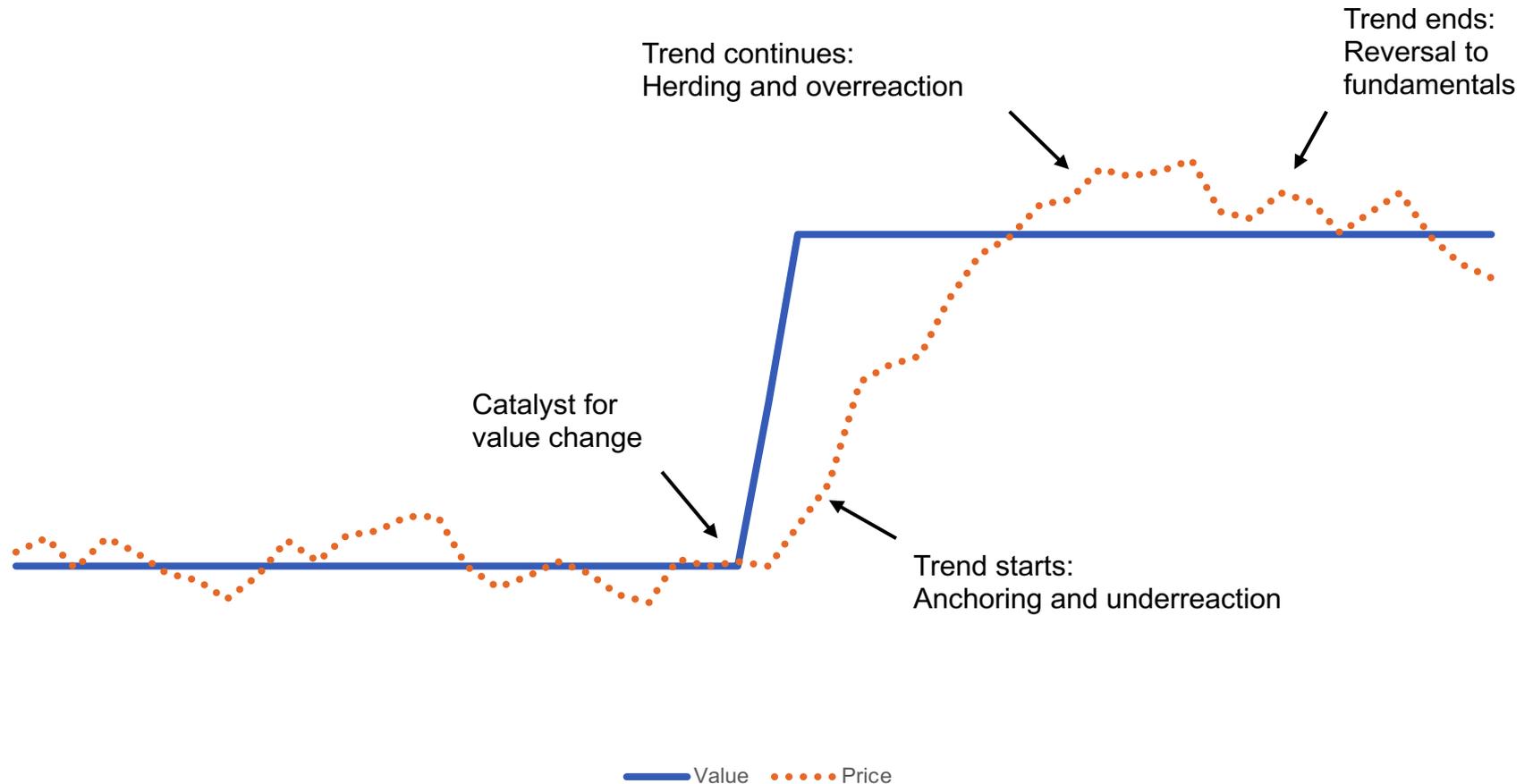
# Important Disclosures

Investors should carefully consider the investment objectives, risks, charges and expenses of the Newfound Risk Managed Global Sectors 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 Global Sectors Fund is distributed by Northern Lights Distributors, LLC, Member FINRA/SIPC. Newfound Research LLC is not affiliated with Northern Lights Distributors, LLC.

## ***Risk Factors***

*Adverse changes in currency exchange rates may erode or reverse any potential gains from the Fund's investments. ETF's 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. Investments in foreign securities could subject the Fund to greater risks including, currency fluctuation, economic conditions, and different governmental and accounting standards. In addition to the risks generally associated with investing in securities of foreign companies, countries with emerging markets also may have relatively unstable governments, social and legal systems that do not protect shareholders, economies based on only a few industries, and securities markets that trade a small number of issues.*

# What is Trend Following?



# Why We Believe in Trend Following

## Evidence Based

Supported by academic (both in and out of sample) and practitioner evidence across time, asset classes, and geographies.

## Backed by Theory

Behavioral finance points to why investors may regularly underreact and overreact to information, creating exploitable trends.

## Systematic

“As much as we like to think we can add something to the quant model output, the truth is that very often quant models represent a ceiling in performance (from which we detract) rather than a floor (to which we add).”

# Newfound's Approach to Trend-Following

## Distinguishing Characteristics of our Approach

### Fully Systematic

No discretionary model overrides.

### Transparent

Holdings, portfolio construction, performance attribution.

### Consistent

Model changes are rare; seek to keep models simple and not add unnecessary complexity.

### Thoughtful

Acknowledge weaknesses of momentum and models in portfolio construction.

# Newfound's Approach to Trend-Following

## An Adaptive, Confidence-Based Approach

Building on the theoretical foundation and empirical evidence for trend-following, Newfound's proprietary trend-following model seeks to adapt not only to the unique nature of each asset class, but also to changing market regimes.

### Dynamic

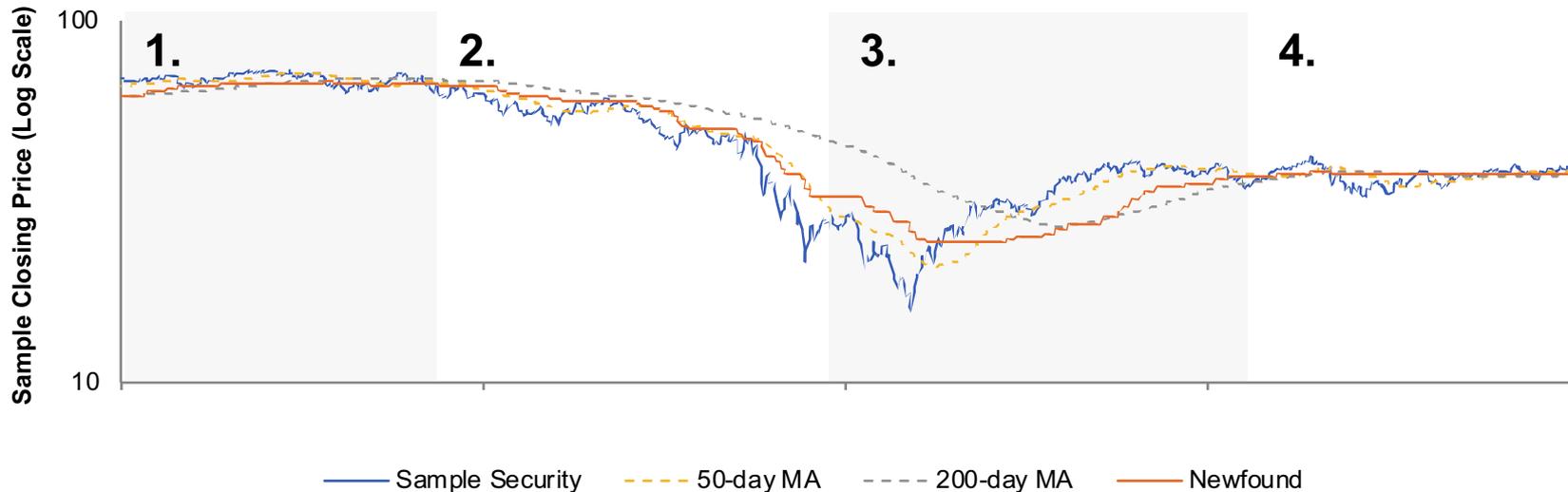
Instead of using a single time horizon or a blend of multiple measurement horizons, our model uses a dynamic window governed by estimates of trend velocity. All else held equal, faster trends require shorter horizons while slower trends require longer ones.

### Volatility-Adjusted

Volatility provides context for returns. Our model seeks to filter returns that are more likely to be short-term market noise. All else held equal, when volatility is higher, our models require larger price movements to register as a meaningful continuation, or change, of trend.

# Newfound's Approach to Trend-Following

## Adapting to Different Market Regimes

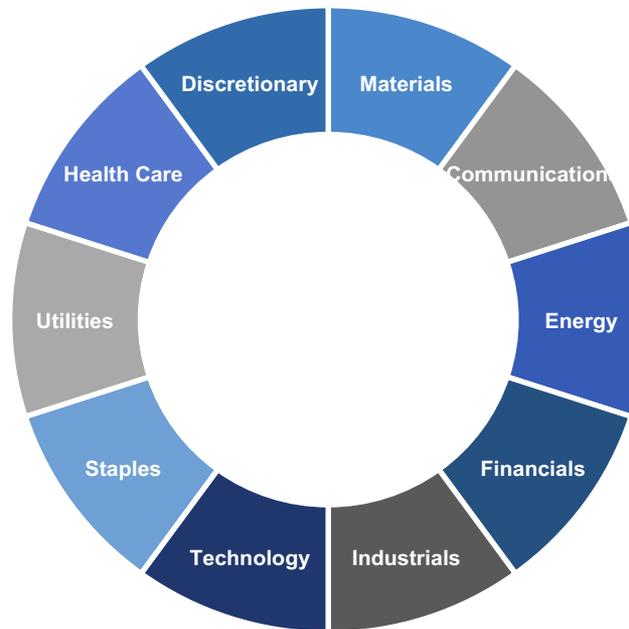


1. A steady, stable uptrend causes the model to expand its horizon in an effort to avoid short-term whipsaw.
2. As the security rapidly sells off during a crisis, our model identifies significantly increased trend velocity and shortens its momentum horizon in an effort to rapidly adapt to the fast moving trend.
3. With increasing volatility and mean-reversion, the model expands its horizon to reduce sensitivity.
4. With little trend velocity, the model significantly expands its momentum horizon to desensitize to short-term noise.

Calculations by Newfound Research. Past performance does not guarantee future results. Mean reversion is the phenomenon where security prices may return to their average value after large increases or decreases. Moving averages (MA) are used to detect trends in security prices. Longer window lengths average more data and are less sensitive to recent trends relative to shorter window moving averages. The Newfound moving average was generated using the second version of Newfound's algorithm, which was finalized in June 2009. The first version of the algorithm went live in September 2008. The second version of Newfound's algorithm incorporated a dynamic measure of volatility. The algorithm has remained unchanged since this time.

# The Weekly Portfolio Process

Begin with an equal-weight portfolio of exchange-traded funds representing the primary global sectors.

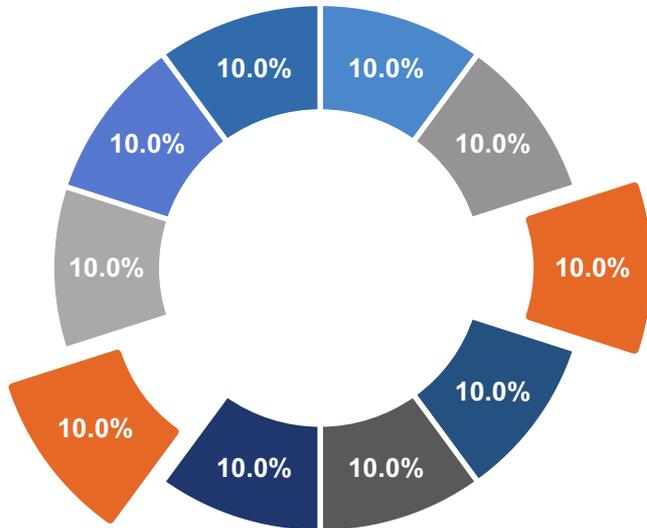


\* For demonstration purposes only of how the over-arching portfolio process works. The portfolio may not exactly reflect these allocations.

**There is no guarantee that the strategy will achieve its objectives.** There are no guarantees that the strategy will be positioned correctly for any given market environment. The strategy utilizes various rebalance techniques designed to reduce transaction costs and turnover, which may result in the strategy's actual allocation straying from its target allocation.

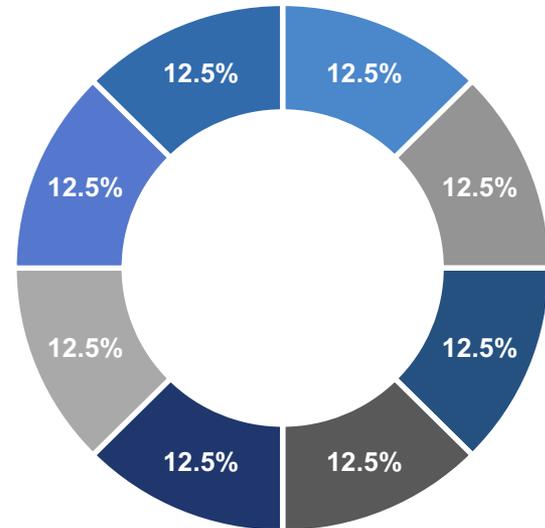
# The Weekly Portfolio Process

Remove sectors exhibiting negative trends.



Reallocate available capital to other sectors pro-rata.

*Exposures are capped at 20%.*



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# Determining the Defensive Allocation

*Sectors with Positive Trends*

5 or more

4

3

2

1

0

**Short-Term Treasury Allocation**

0%

20%

40%

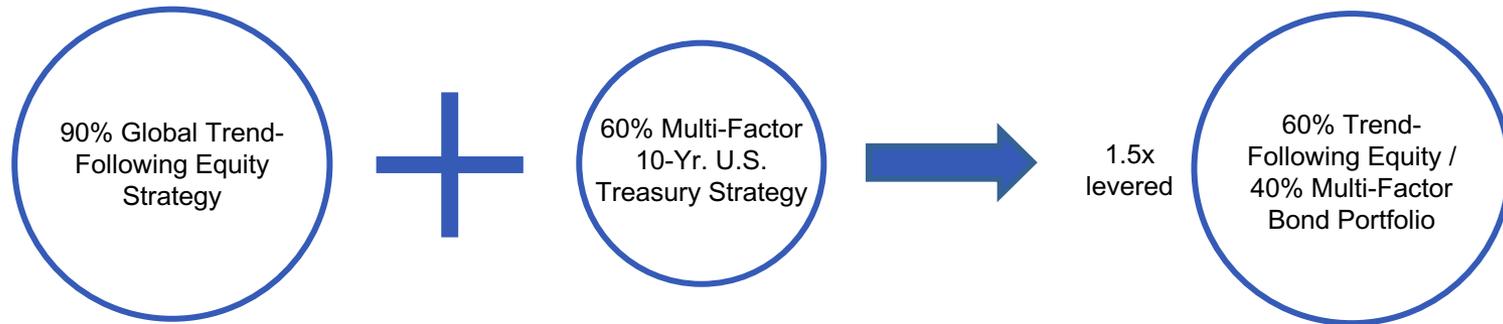
60%

80%

100%

For demonstration purposes only of how the over-arching portfolio process works. The portfolio may not exactly reflect these allocations.

# Diversifying with Overlaid U.S. Treasuries

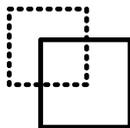


## Potential Benefits of Overlay



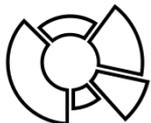
### Introduce Diversification

The U.S. Treasury overlay on the core equity trend-following strategy may help reduce losses in crisis periods due to U.S. Treasuries' historical "flight-to-safety" premium.



### Enhance Returns

The U.S. Treasury overlay adds a second source of return to the strategy. A focus on more traditional sources of return (e.g. stocks and bonds) rather than alpha aims for more consistent improvement in expected returns.

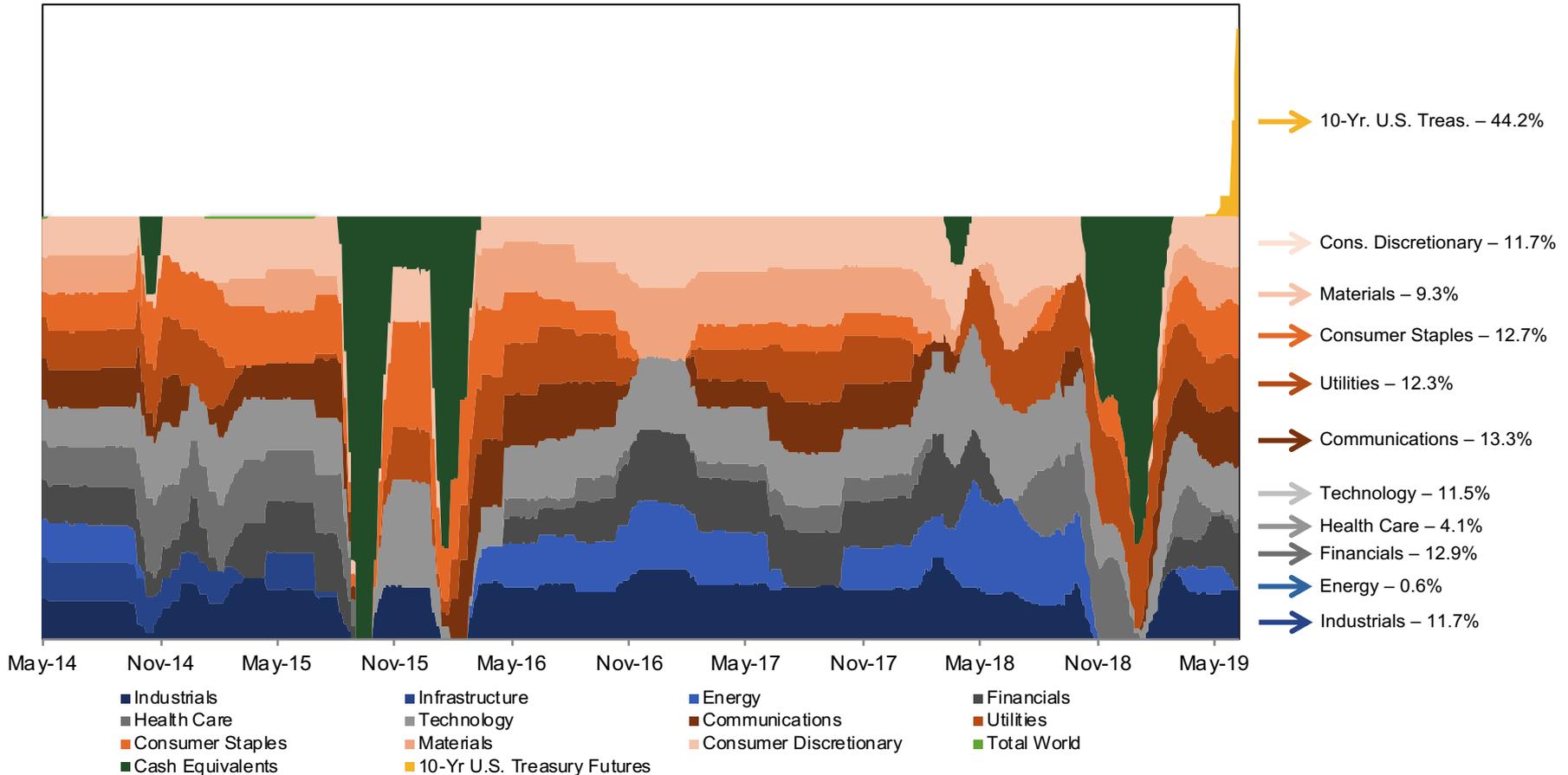


### Capital Efficiency

In overlaying exposure on the trend-following strategy, this portfolio seeks to use every invested dollar more efficiently. This can free up dollars in an overall portfolio to invest in other asset classes or investment opportunities.

For demonstration purposes only of how the over-arching portfolio process works. The portfolio may not exactly reflect these allocations.

# Historical Allocations



Past performance does not guarantee future results. Data is through 6/30/19.

The allocations are presented to illustrate examples of the securities that the fund has bought and the diversity of areas in which the funds may invest and may not be representative of the fund's current or future investments. Portfolio holdings are subject to change and should not be considered investment advice.

# Fund Facts and Performance

	A Share	I Share
Ticker	NFGAX	NFGIX
CUSIP	66538G700	66538G882
Investment Minimum	\$2,500	\$100,000
Net Expense Ratio	1.75%	1.50%
Net Assets	\$45.3mm	

Returns in percent (as of 6/30/19)	2 <sup>nd</sup> Quarter 2019	6 Months	1 Year	3 Year	5 Year	Inception*
NFGIX NAV	2.82%	7.52%	0.54%	6.80%	2.32%	3.01%
NFGAX NAV	2.82%	7.52%	0.28%	6.54%	2.07%	2.75%
NFGAX LOAD	-3.09%	1.35%	-5.51%	4.47%	0.87%	1.56%
50/50 MSCI ACWI/1-3 Year U.S. Treasuries	2.65%	9.34%	5.26%	6.52%	3.85%	4.10%
MSCI ACWI	3.61%	16.23%	5.74%	11.62%	6.16%	6.73%

**There is no guarantee that the Fund will achieve its objectives.**

\* Inception for NFGAX and NFGIX is May 19, 2014. Inception for MSCI ACWI is calculated from May 19, 2014. The maximum sales charge (load) for NFGAX is 5.75%. 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](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. 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 A and I Shares total annual operating expenses would be 2.43% and 2.18%, respectively. The fee waivers ensure that the net annual, operating expenses of the Class A and I Shares will not exceed 1.75% and 1.50%, respectively, 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.

# Important Disclosures

- 1) *Performance at net asset value (“NAV”) does not include the effect of sales charges. Class A share performance, including sales charges, reflects the maximum applicable front-end sales load of 5.75%.*
- 2) *The MSCI ACWI Net Return Index is the version of the MSCI ACWI Index that includes the reinvestment of dividends after the deduction of withholding taxes, using a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties. The MSCI ACWI Index is a capitalization-weighted index that includes large and mid cap companies from 23 Developed Markets and 23 Emerging Markets countries. With 2,468 constituents as of November 30, 2014, the index covers approximately 85% of the global investable equity opportunity set. The Barclays US 1-3 Year Treasury Bond Index is an index that includes U.S. Treasury bonds with a remaining maturity between one and three years. The 50/50 MSCI ACWI / Barclays US 1-3 Year Treasury Bond benchmark consists of a hypothetical portfolio that is 50% allocated to the MSCI ACWI Net 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) *The MSCI EAFE Index is an equity index which captures large and mid cap representation across Developed Markets countries around the world, excluding the US and Canada. Developed Markets countries in the MSCI EAFE Index include: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the UK. With 913 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country. The MSCI Emerging Markets Index captures large and mid cap representation across 23 Emerging Markets (EM) countries. EM countries include: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Russia, Qatar, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates. With 837 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.*