# Decision Economics
## A behaviorally informed framework for investment decision-making

Keith Van Etten, CFP®, CIMA, CAIA

Portfolio Consultant

John Hancock Investments

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# Decisions

Can you make decisions that **systematically** improve your odds of success?

# Why is it so difficult to deliver alpha after fees?

## **Decision traps** that catch both professional and amateur

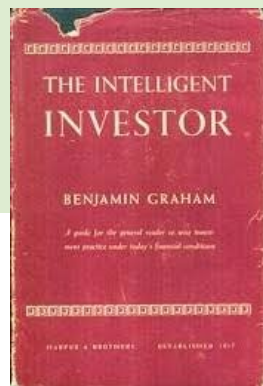**BEHAVIORAL αlpha**

| | |
|---|---|
| **Philosophical alignment** | Low conviction in process leads to 'trial and error' implementation |
| **Managing attention** | Over-weighting data with little or no signal value (i.e., 'noise') |
| **Mean reversion** | Inattention to price leads to performance chasing |
| **GroupThink** | Individual biases and expert opinions lead to 'lazy thinking' |
| **Evaluating performance** | Focus on 'score-carding' inhibits learning and process improvement |

# Solution: a behaviorally informed decision framework

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**Why?** People tend to make decisions based on preferences, not probabilities

"To invest successfully over a lifetime does not require a stratospheric IQ, unusual business insights, or inside information. What's needed is a sound intellectual framework for making decisions and the ability to keep emotions from corroding that framework."

– Warren Buffett,
Preface to *Intelligent Investor*

# Decision traps

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**Philosophical alignment**

**Managing attention**

**Mean reversion**

**GroupThink**

**Evaluating performance**

## Low conviction in process leads to 'trial and error' implementation

**Is your process definable, repeatable, and defendable?**



"If you don't know where you are going, you'll end up someplace else."
–Yogi Berra

FEDERAL RESERVE BANK OF PHILADELPHIA
### Survey of Professional Forecasters

The Survey of Professional Forecasters is the oldest quarterly survey of macroeconomic forecasts in the United States. The survey began in 1968 and was conducted by the American Statistical Association and the National Bureau of Economic Research. The Federal Reserve Bank of Philadelphia took over the survey in 1990.

Forecast 10-year return



Stocks — 5.5%
Bonds — 3.6%
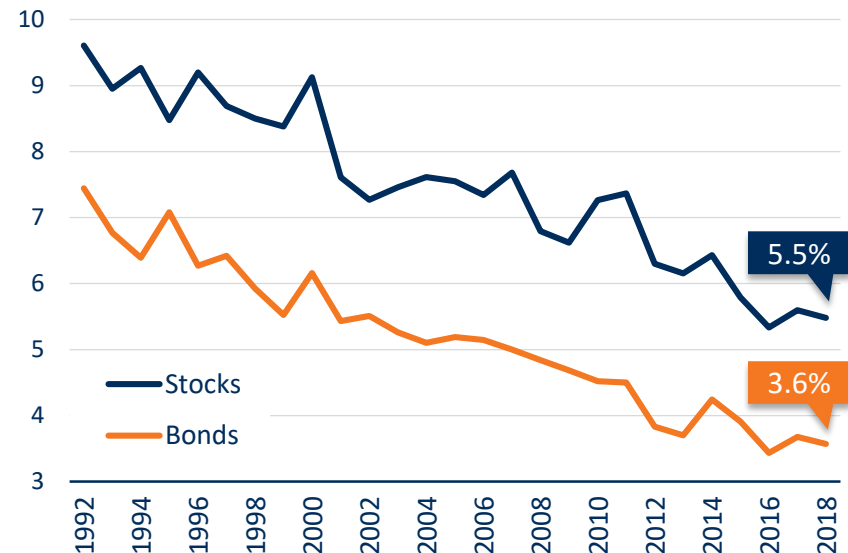
Source: Philadelphia Federal Reserve. Period is 1992-2018.

## Over-weighting data with little or no signal value (i.e., 'noise')

**Do your information sources inform or distract?**
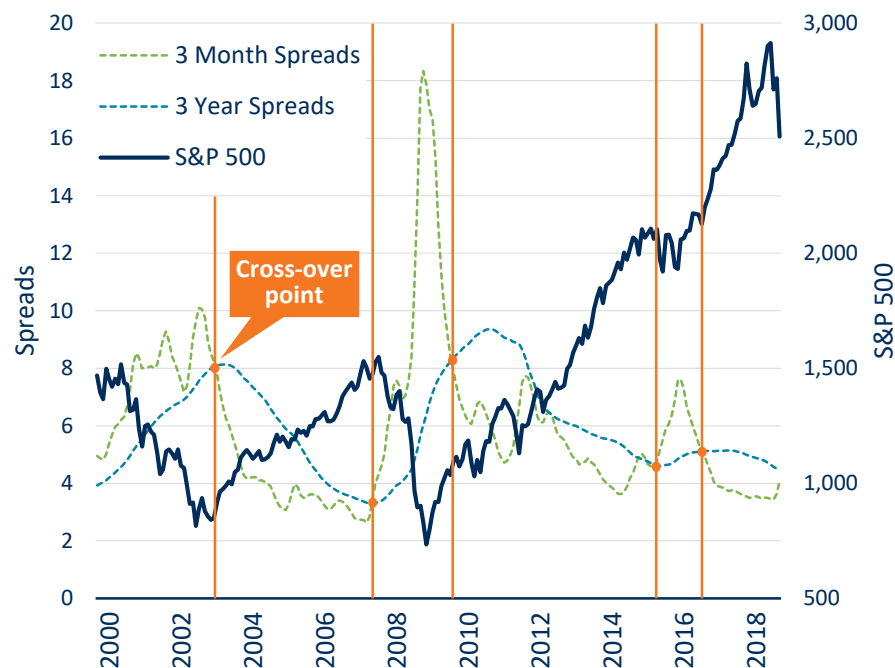
CNBC

It's the final quarter of the year -- here's how to play it

"The art of being wise is the art of knowing what to overlook."
–William James

**Credit spreads have 'signal' value**

ML OAS credit spreads (January 1997–December 2018)



Source: Data from ICE BofA Merrill Lynch, ICE BofA Merrill Lynch U.S. High Yield Option-Adjusted Spread© [BAMLH0A0HYM2], retrieved from FRED, Federal Reserve Bank of St. Louis and based on monthly averages. Vertical lines represent dates where crossover points were confirmed by a minimum of 25bp move in same direction. Time period is January 1997–December 31, 2018. Ref. Code 16-10-26

# Inattention to price leads to performance chasing

## Why can't we buy low and sell high?

Net new cash flow to equity mutual funds typically is related to world equity returns (monthly, 2002–2017)

Percentage of total net assets / Percent

Total return[2]
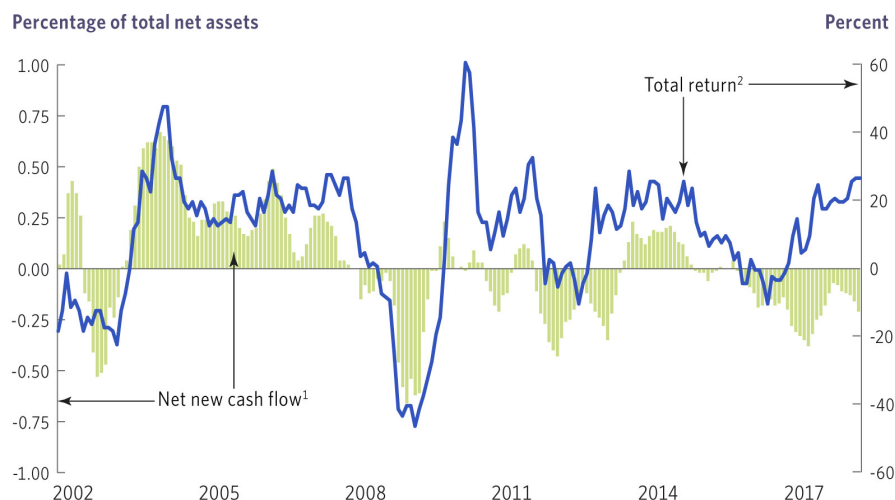
Net new cash flow[1]

Source: Investment Company Institute, MSCI, and Bloomberg. Investment Company Institute *2018 Factbook*, page 65.

Net new cash flow is the percentage of previous month-end equity mutual fund total net assets, plotted as a six-month moving average. The total return on equities is measured as the year-over-year percent change in the MSCI All Country World Daily Gross Total Return Index.

## Impact of entry points on future returns

S&P 500 Index

5 Year Prior  3 Year Prior
3 Year Post   5 Year Post
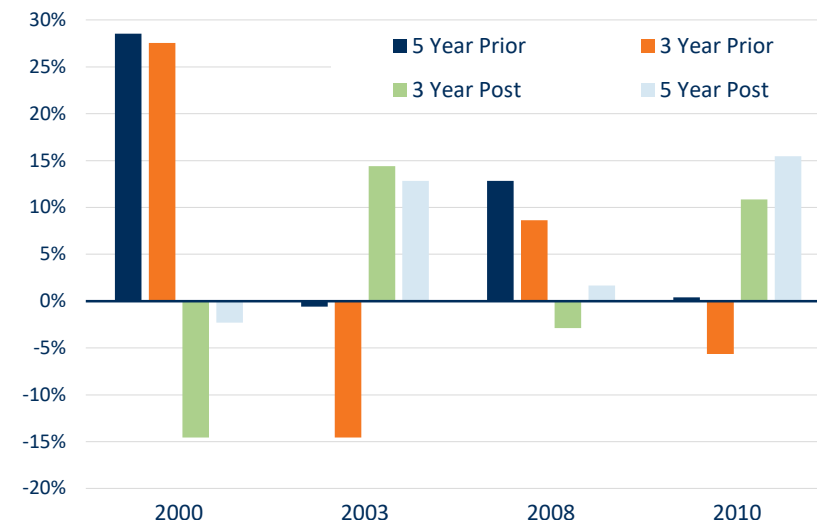
"It's not what you buy; it's what you pay for it."

–Howard Marks

Source: Data from Morningstar. Performance is based on the S&P 500 Index from 1997–2018. Chart shows average annual returns for 3 and 5 years prior to each date and 3 and 5 years after each date.

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# Individual biases and expert opinions lead to 'lazy thinking'

## Why do we confuse 'plausible' with 'probable'?

Bay of Pigs

"The more cohesive the group, the greater the inner compulsion on the part of each member to avoid creating disunity, which inclines him to believe in the soundness of whatever proposals are promoted by the leader or by a majority of the group's members."

–Irving Janus, psychologist, Yale University Coined the term 'GroupThink' in 1972

## MLPs as 'toll roads'



MLP Performance
Spot Price WTI
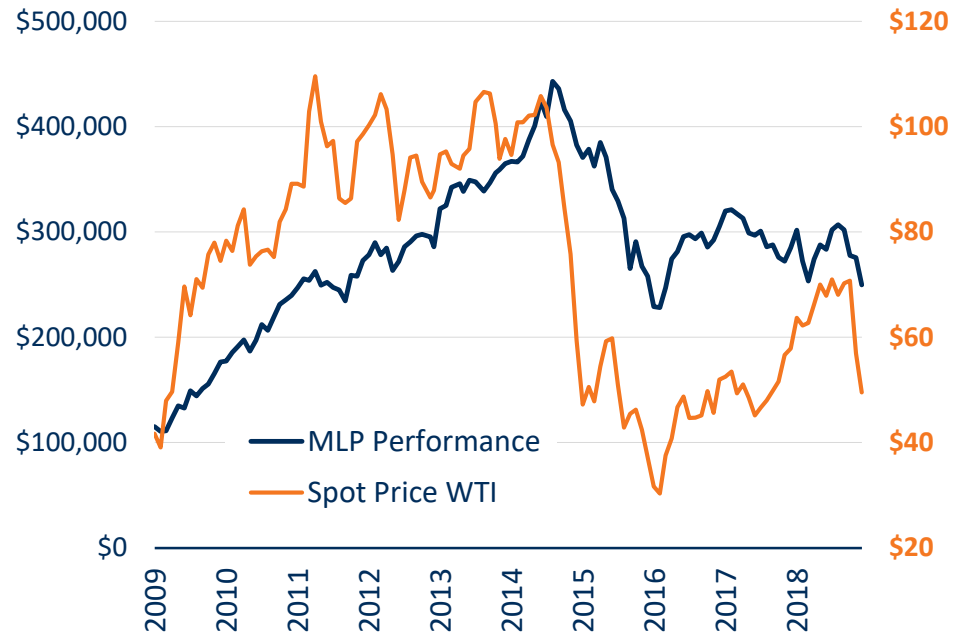
"You want to learn from experience, but you want to learn from other people's experience when you can."
–Warren Buffett

Source: Data from Morningstar and Federal Reserve Bank of St Louis FRED. Period for MLPs as toll roads is 2009-2018. Index is based on the Alerian MLP Index.

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## Focus on 'score-carding' inhibits learning and process improvement

### Can you separate a bad outcome from a good process?

### Poor recall leads to insourcing successes and outsourcing failures

- The very act of creating a memory is subject to distortion
- Memories can be constructed and reconstructed
- True memories can be subsequently contaminated by others
- False memories can be planted by others
- Can't reliably distinguish between true and false memories
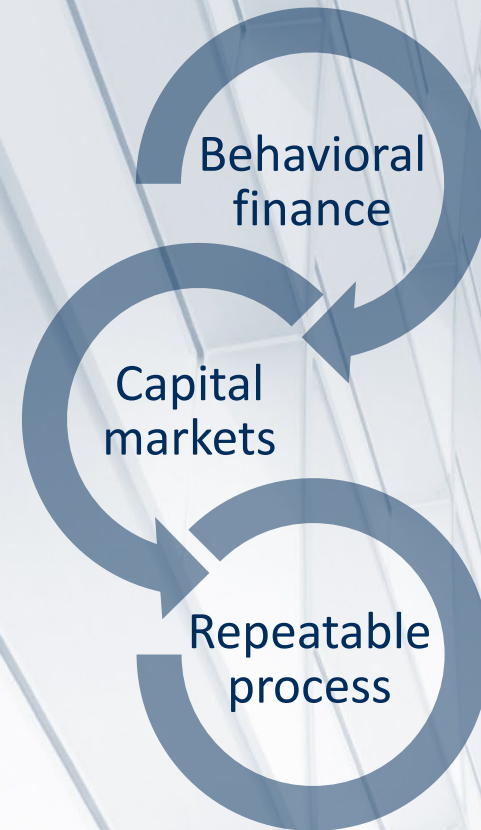
**Elizabeth Loftus**
American cognitive psychologist and expert on human memory. She has conducted extensive research on the malleability of human memory. Loftus is best known for her ground-breaking work on the misinformation effect and eyewitness memory, and the creation and nature of false memories.

Source: American Psychologist November 2003 & Memories of Things Unseen, Elizabeth Loftus.

# Implementation



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Behavioral finance

Capital markets

Repeatable process

# Five behaviorally informed 'best practices'

**①**   Be **Grounded**     Create an Investment 'Philosophy' Statement (IPS)

**②**   Be **Focused**     Build a market dashboard to separate 'signals' from 'noise'

**③**   Be **Disciplined**     Apply base rates to promote the capture of mean reversion

**④**   Be **Skeptical**     Employ counter-intuition to address GroupThink

**⑤**   Be **Thorough**     Design a feedback loop to promote learning and process improvement

"We are what we repeatedly do. Excellence, then, is not an act, but a habit."
–Aristotle

# 1. Be **Grounded**

## Create an Investment 'Philosophy' Statement (IPS)

**A well-crafted 'IPS' can provide clarity of purpose to the team and differentiation from your competitors**



What do we **believe?**

Why do we **believe it?**

Why does it **matter?**

Why is our **approach better?**

"If you can't explain it simply, you don't understand it well enough."
–Albert Einstein

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## Build a market dashboard to separate 'signals' from 'noise'

**A signal dashboard can promote less frequent but more strategic shifts**

**Test for signal value**

- Does it have an economic or behavioral rationale to have signal value?

**AND**

- Is there an established correlation between the signal and the return of the asset class?

**Stocks**



- Implied volatility
- Credit spreads
- Valuations (price)

**Bonds**



- Direction of interest rates
- Shape of yield curve
- Inflation expectations

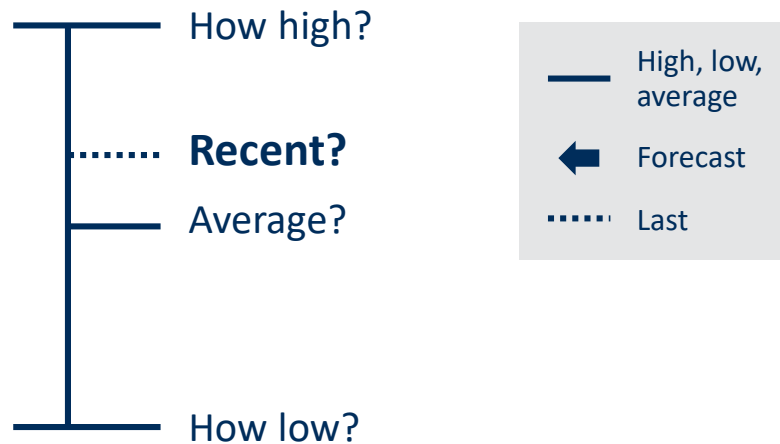"One way to boost our willpower and focus is to manage our distractions instead of letting them manage us."
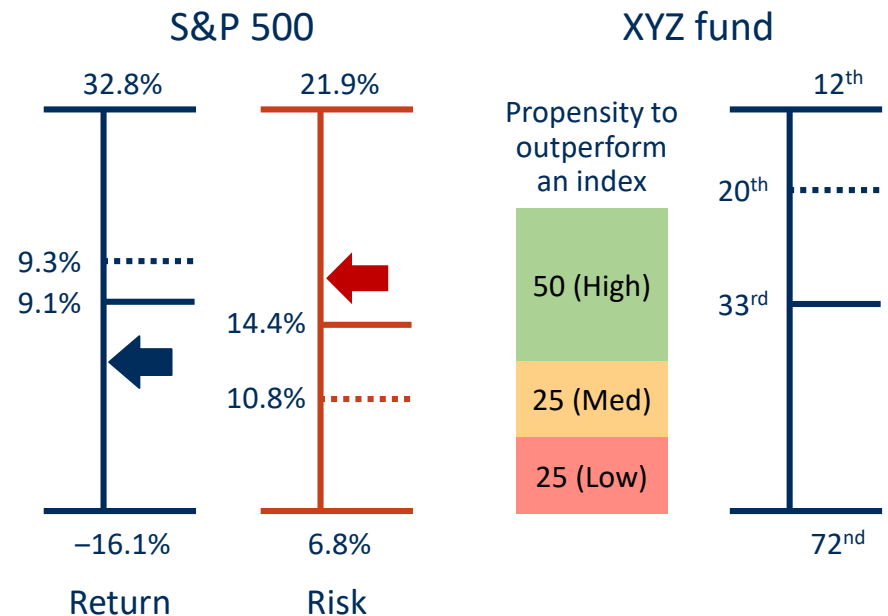
–Daniel Goleman

## Employ counter-intuition to address GroupThink

**Playing devil's advocate helps avoid second-guessing decisions later**



- In group settings, **de-correlate opinions** to avoid GroupThink

- **Assign a devil's advocate** to explicitly seek out and present contrarian/'outside' points of view

- Explicitly review the major facts supporting your conclusions to avoid **belief/confirmation bias**

- Build a Bull, Bear, and Base case for major decisions. Explicitly discuss what can go wrong and its implications.

- Document critical aspects of the decision-making

"It is not that I'm so smart. But I stay with the questions much longer."
–Albert Einstein

## Design a **feedback loop** to promote learning and process improvement

**Recreate the environment and capture the rationale for decisions**



"The single biggest problem in communication is the illusion that it has taken place."
                                                    –George Bernard Shaw

# Design a **feedback loop** to promote learning and process improvement

## Recreate the environment and capture the rationale for decisions

### Bookmark:
**Recreate environment**

Establish market environment and 'frame of mind' where previous decisions were made (leverage information from dashboard)

### Improve:
**Link outcomes to process**

Can good outcomes be directly linked to process? Were poor outcomes the result of a good decision process? Where are the opportunities to improve?

**Bookmark**

**Improve**     **FEEDBACK LOOP**     **Review**
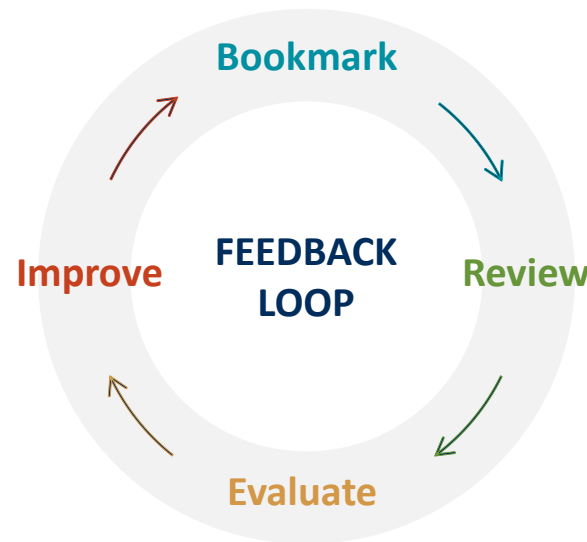
**Evaluate**

### Review:
**Rationale for decisions**

Verify connection between philosophy, strategy, and decision (leverage information from base rating process and group decision session)

### Evaluate:
**Performance vs. benchmark**

How did the portfolio perform overall? What components excelled and disappointed? How closely aligned were results versus expectations?

> "The single biggest problem in communication is the illusion that it has taken place."
>
> –George Bernard Shaw

# Personal workshops



## Contact your Business Consultant for further details

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**WORKSHOPS**

### Workbooks

**Meeting 1:** Investment 'Philosophy' Statement ('IPS')

**Meeting 2:** Separating 'Signals' from 'Noise'

**Meeting 3:** Avoiding Performance Chasing

**Meeting 4:** Group Decision Dynamics

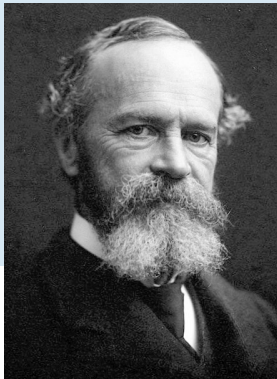**Meeting 5:** Performance Review Session

# Summary

① Be **Grounded**    Create an Investment 'Philosophy' Statement (IPS)

② Be **Focused**    Build a market dashboard to separate 'signals' from 'noise'

③ Be **Disciplined**    Apply base rates to promote the capture of mean reversion

④ Be **Skeptical**    Employ counter-intuition to address GroupThink

⑤ Be **Thorough**    Design a feedback loop to promote learning and process improvement

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–Aristotle

# Decision Economics

A behaviorally informed investment decision process

"A new idea is first condemned as ridiculous and then dismissed as trivial, until finally, it becomes what everybody knows."

–William James (1842–1910), considered the father of modern psychology

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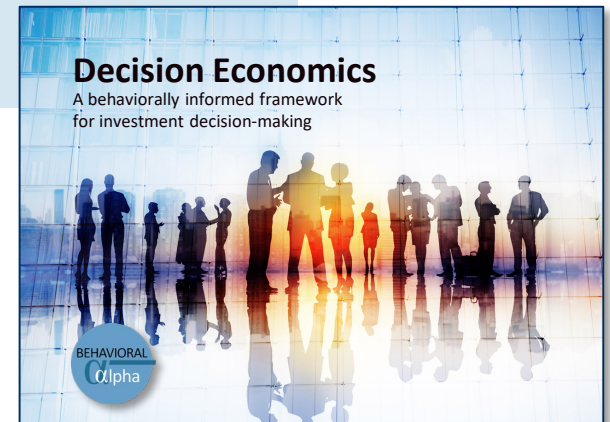
# Additional disclosures on Indexes

**The S&P 500 Index** tracks the performance of 500 of the largest publicly traded companies in the United States. It is not possible to invest directly in an index.

**The Alerian MLP Index** is the leading gauge of energy Master Limited Partnerships (MLPs), representing 85% of the total float-adjusted market capitalization. It is not possible to invest directly in an index.

For more information, contact your John Hancock Investments Business Consultant at 800-225-6020, or visit jhinvestments.com.

**A word about risk**

Clients should carefully consider a fund's investment objectives, risks, charges, and expenses before investing. To request a prospectus or summary prospectus with this and other important information, call us at 800-225-6020, or visit us at jhinvestments.com.