NORTHERN TRUST

ASSET MANAGEMENT

INVESTMENT SOLUTIONS

Let Our Experts Be Your Experts

Confidently navigate a changing financial landscape with the resources and expertise of a versatile, collaborative partner

INNOVATIVE SOLUTIONS. ONE BELIEF.

As a global financial services provider with a history that dates back to 1889, we've honed our expertise over many years—earning the confidence of investors worldwide.

We understand that investing ultimately serves a greater purpose. That is why our philosophy is rooted in the fundamental belief that investors should get compensated for the risks they take—in all market environments and in any investment strategy.

At the heart of our philosophy is how we think about, view and analyze risk. As risk-aware investors, we take risk intentionally, to achieve investors' desired outcomes and minimize unintended consequences.

Our innovative solutions are thoughtfully designed and efficiently executed, using our time-tested portfolio construction and asset allocation expertise. This results in empirically driven investment solutions that are carefully constructed, with a deep appreciation for risk and a clear focus on meeting investors' needs.

Northern Trust Asset Management

$1.0 trillion
TOTAL AUM[1]

Worldwide assets[2]
18th largest

Family Offices[3]
8th largest

Factor Investing[3]
8th largest

EQUITY

Factor-based
Active
Passive
Tax-Advantaged

FIXED INCOME

Active
Passive
Cash Management

ALTERNATIVES

Hedge Funds
Private Equity
Private Credit
Real Assets
Infrastructure
Real Estate

SOLUTIONS

Multi-Asset
ESG
Retirement
Target Date
Multi-Manager
OCIO
Investment Institute

ASSET ALLOCATION

Strategic
Tactical

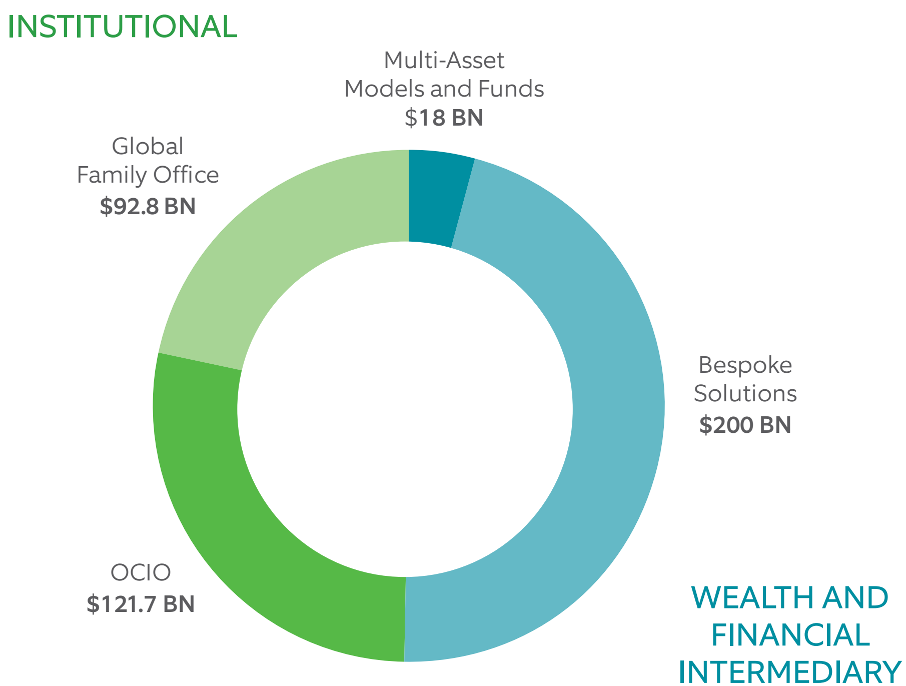
[1] Assets under management as of December 31, 2019. For the Northern Trust Asset Management entities included in AUM total, please see the important information at the end of this document. Unless otherwise noted, rankings are based on Investments & Pensions Europe (IPE) June 2019 Top 400 Asset Managers Survey, assets managed for external clients as of December 31, 2018.
[2] Worldwide assets under management as of December 31, 2018, based on $885 billion in assets, according to Pension & Investments 2019 Special Report on Money Managers.
[3] Institutional clients globally. The above rankings are not indicative of future performance.

DEEP MULTI-ASSET EXPERTISE. CONSULTATIVE APPROACH.

We apply our capital market, asset allocation, risk management and portfolio construction expertise to support large institutions, financial intermediaries and wealthy families across Northern Trust.

We've honed our expertise as a global asset manager—entrusted by institutional investors for total portfolio design and construction. This provides a distinctly informed perspective and advantage.

MULTI-ASSET SOLUTIONS — $432.5 BN+ AUM/AUA[3]



[3] Multi-asset solutions assets under management / assets under advisement across Northern Trust institutional and wealth and financial intermediary channels as of December 31, 2019.

INSIGHTS. EXPERTISE. SOLUTIONS. SUPPORT.

Portfolio Consulting and Analysis

Through rigorous analysis, we seek to identify opportunities for greater efficiency, risk reduction and enhanced outcomes in line with investor goals.

Bespoke Portfolio Design

Consultative bespoke portfolio design and implementation aligned with your investment philosophy and objectives as well as full OCIO services and support to effectively manage complex portfolios.

Managed and Model Multi-Asset Portfolios

Goal-oriented managed and model portfolios for a range of investment objectives and time horizons. Our multi-asset solutions are built with risk-efficient strategies, offering a straightforward, cost-efficient means to pursue targeted outcomes.

The Investment Institute

Research, insights and investment solutions supported by consultative advice to help financial professionals demonstrate a well-defined investment process, enhance client engagement, build scale and grow a successful investment practice.

Improve investment outcomes.
Advance business initiatives.
Design efficient portfolios.
Seize opportunities through evolving markets.

Holistic consultative advice designed for financial professionals.

Achieving goals in an ever-changing market and regulatory environment can be challenging. As one of the world's largest investment managers, Northern Trust Asset Management helps investors navigate changing market environments, so they can confidently realize their long-term objectives.

Guided by our fiduciary heritage and a principle-based culture, we leverage a broad range of globally diverse talent and deep expertise earned over many market cycles to deliver original insights and innovative solutions in a client-focused, consultative manner.

As a strategic partner focused on your success, we share unique views on the global economy and markets to inform your investment decisions and improve investor outcomes. Our aim is to provide clarity, make the complex simple, manage risk and avoid unexpected surprises—so you can achieve the results you seek.

Drawing upon a full spectrum of investment capabilities—from passive and factor-based to fundamental active and multi-manager—we work with you to create solutions aligned with your goals. From turnkey and model multi-asset strategies—to portfolio consulting and bespoke portfolio design—to full OCIO services, we bring creative ideas and thoughtful solutions to help you seize opportunities across changing markets.

Furthermore, through the Northern Trust Asset Management *Investment Institute,* financial professionals can benefit from a comprehensive support model offering robust investment research, wealth management insights and practice management guidance, to help you build scale and advance your business initiatives.

CAPITAL MARKET EXPERTISE. RESEARCH-DRIVEN RESULTS.

As long-term investors, we don't chase performance or fads. We take a forward-looking, historically aware approach based on our best thinking—proprietary capital markets research that identifies key market drivers shaping the investing landscape.

This research powers our annual Capital Market Assumptions, including global economic and financial market forecasts and return expectations for all major asset classes. Through this analysis, we seek to gain insight as to where the markets are headed, to help position assets accordingly and deliver better outcomes in all market environments.

Our outlook forms the basis for our adaptive asset allocation framework, which combines long-term, strategic discipline with short-term, tactical flexibility. This foundation guides the construction of flexible, risk-aware investment solutions designed to navigate change, capitalize on market opportunities and provide options to meet the needs of a diverse client base.

2020
Outlook

Five Year Outlook
2019 Edition

Capital Market
Assumptions Process

Strategic Asset
Allocation Process

STRATEGIC AND TACTICAL APPROACH TO ASSET ALLOCATION

1 | Strategic Asset Allocation

Setting the Foundation

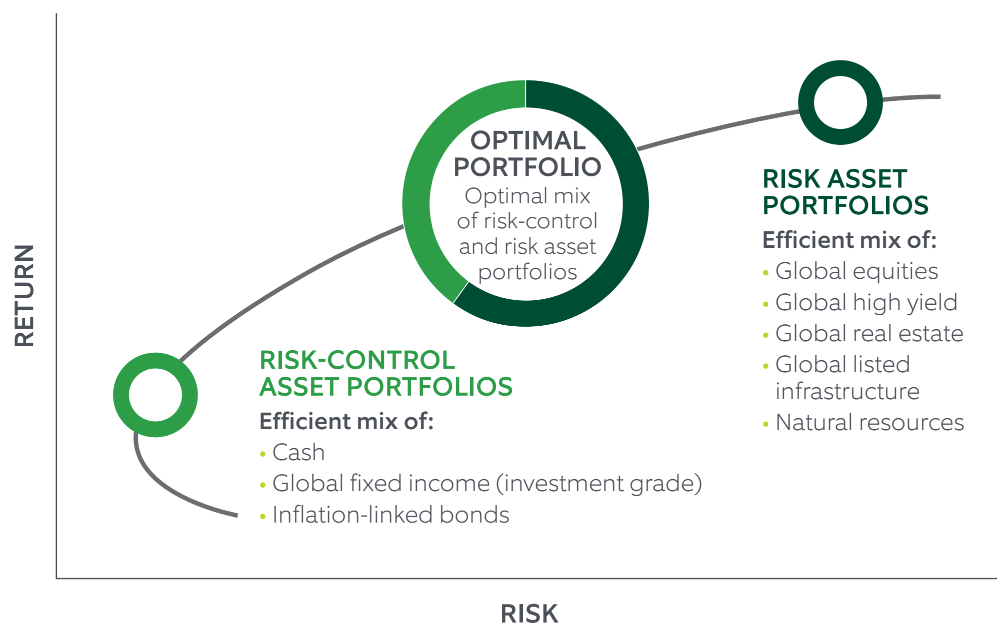
We seek to establish an optimal strategic allocation to serve as the investor's foundation. Grounded in our five-year Capital Market Assumptions, we employ a "forward-looking, historically aware" approach informed by extensive research.

2 | Tactical Asset Allocation

Capitalizing on Opportunities

We seek to add value by exploiting near-term financial market opportunities. Risk management techniques are incorporated to ensure that tactical changes made to the strategic asset allocation conform to investor expectations.

Navigating challenging markets with a purposeful employment of risk



RIGOROUS ANALYSIS. INSIGHTFUL RECOMMENDATIONS.

Leveraging our asset class outlook, market forecasts and global investment themes, we can assist you in creating an optimal and efficient mix of securities across the asset class spectrum. Our disciplined approach employs both quantitative and qualitative analysis to identify suitable investment strategies and combine them in ways that seek to amplify their strengths while minimizing concentration bias and overall portfolio risk.

Essential to our portfolio consulting practice is a thorough understanding of your objectives, philosophy and preferences. Our investment solutions experts engage with you and your team to get to know your business, challenges and strategic vision. With consideration for your priorities—as well as the market and economic landscape—we seek to help you build optimized solutions that address complex portfolio challenges and deliver on your goals.

ROBERT P. BROWNE, CFA
Chief Investment Officer

> "We believe investors should be compensated for the risk they take—in all market environments and in any investment strategy."

ANALYZE

1. **Develop expectations for asset class and portfolio performance** via capital market expertise and market and economic research

2. **Assess the portfolio's asset allocation** in relation to risk/return expectations

3. **Analyze portfolio constituents** to gain clarity on exposures, concentrations and alignment with objectives

ENHANCE

4. **Uncover drivers of return and risk** including risk factor analysis, to better understand exposures, vulnerabilities and return potential

5. **Identify opportunities** for greater efficiency, risk reduction and enhanced outcomes, taking into consideration investor beliefs

6. **Determine the impact of modifications** to portfolio structure or fulfillment with regard to efficiency, efficacy and expenses

PROJECT

7. **Stress test** to identify and evaluate risk exposures to build a more resilient portfolio

8. **Design an optimized solution** (complete bespoke portfolio or strategy recommendations to complement existing holdings)

9. **Project outcomes** via Monte Carlo analysis to determine the probability of meeting a specific goal

Our experts include a globally diverse team of investment strategists, economists and specialists whose knowledge and experience span global markets, economies and investment products. This expertise is leveraged throughout the organization to enable our clients around the world to achieve their goals.

COLLABORATIVE PARTNERSHIPS. EXPERT ADVICE.

When you partner with Northern Trust Asset Management, you gain access to comprehensive support backed by the full resources of the firm. We bring a global culture of innovation, deep expertise and decades of experience to help you achieve your goals in a way that is tailored to your preferences.

Using a consultative approach, we collaborate with you and your investment team to support the delivery of optimized investment solutions that address complex portfolio challenges and consistently deliver the expected results.

No matter what your needs entail, from an informed view on a market event, asset class or a specific stock, to insights on individual strategies or strategic guidance on your entire investment program, our team of investment strategists, portfolio construction experts and solutions specialists are focused on your success.

Tap into our expertise:

- Insights on market, economic and regulatory developments
- Capital markets research and forecasting
- Global asset allocation
- Risk management
- Turnkey, model and custom solutions
- Portfolio analysis, design and implementation
- Factor-based analysis and fulfillment
- Investment manager research and operational due diligence
- Asset/liability modeling and management
- Overlay portfolio management

HOLISTIC GUIDANCE.
COMPREHENSIVE SUPPORT.

The Northern Trust Asset Management *Investment Institute* is designed to equip financial professionals with all the tools and support needed to build and grow a successful investment practice and effectively demonstrate a defined investment process to both clients and regulators:

- **Research & Insights** to empower consistent, risk aware investment decision-making and facilitate the achievement of both investment and business goals
- **Investment Solutions** to help you efficiently expand your investment offering with turnkey and model multi-asset portfolios as well as bespoke portfolio design for custom mandates and completion strategies to complement and enhance existing portfolios
- **Consultative Advisory Services** backed by a globally diverse team of investment professionals focused on helping you advance your growth initiatives, enhance client service and satisfy regulatory expectations

Rounding out the *Investment Institute* offering is an extensive suite of thought leadership and insights on topics beyond investments, as well as educational conferences and events and tools and materials to support practice management and client communications.

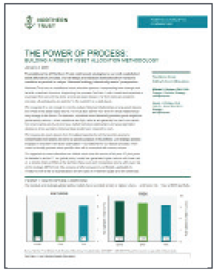
Learn more about the *Investment Institute* at NTAMInvestmentInstitute.com.

Access a broad array of thought leadership:

Capital Market Assumptions


NORTHERN TRUST
2020 OUTLOOK
EVERYTHING IN MODERATION

Asset Allocation


NORTHERN TRUST
THE POWER OF PROCESS:

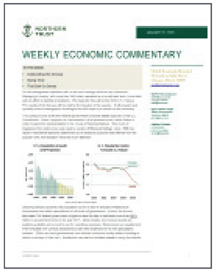
Portfolio Construction


NORTHERN TRUST
PORTFOLIO REBALANCING: HOW AND HOW OFTEN?

Market Update

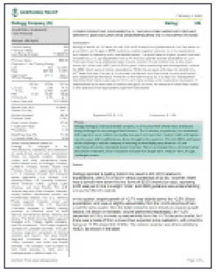

NORTHERN TRUST
WEEKLY MARKET UPDATE

Economic Research

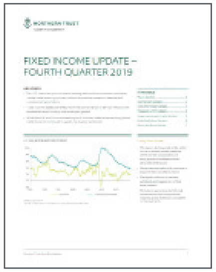


WEEKLY ECONOMIC COMMENTARY

Equity Research



Fixed Income Research

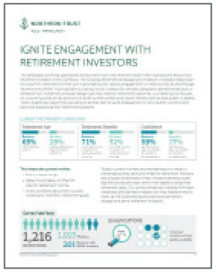


FIXED INCOME UPDATE – FOURTH QUARTER 2019

Factor-based Investing

FOUNDATIONS IN FACTORS

Retirement Planning

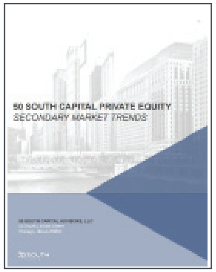


IGNITE ENGAGEMENT WITH RETIREMENT INVESTORS

Sustainable Investing (ESG)

SUSTAINABLE COMPANIES FOR A BETTER PORTFOLIO

Alternatives



50 SOUTH CAPITAL PRIVATE EQUITY SECONDARY MARKET TRENDS

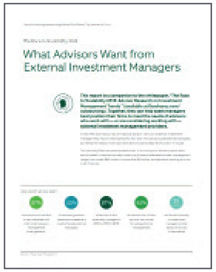
Tax & Wealth Transfer Strategies

OPTIMIZING LIFETIME GIFT EXCLUSIONS IN 2020

Financial and Wealth Planning

THE RISK OF HOLDING CONCENTRATED STOCK

Practice Management



What Advisors Want from External Investment Managers

LET OUR EXPERTS BE YOUR EXPERTS.

When you partner with Northern Trust Asset Management, you gain a trusted advisor dedicated to your success. Our Investment Solutions program provides a robust framework to navigate global markets and empowers the design of effective multi-asset investment solutions for a range of investor goals.

To discover more about how Northern Trust Asset Management Investment Solutions and the *Investment Institute* can help you realize your objectives, please contact your Northern Trust Relationship Manager or the Northern Investment Solutions Group at 855–645–8303 | NorthernSolutionsGroup@ntrs.com.

LEARN MORE Visit us at northerntrust.com/investmentsolutions or NTAMInvestmentInstitute.com

THE INVESTMENT SOLUTIONS VALUE PROPOSITION

1 | Access to the comprehensive resources of the firm, a $1 trillion platform[1]

2 | Unique perspectives and thought leadership on global markets, economic environments and topics beyond investments

3 | Robust capital markets research informing a time-tested asset allocation discipline focused on risk management

4 | Insightful portfolio consulting and analysis to guide optimized portfolio construction and efficient implementation

5 | Distinctive portfolio design and implementation focused on getting paid for risk and meeting investor goals

[1] Assets under management as of December 31, 2019. For the Northern Trust Asset Management entities included in AUM total, please see the important information at the end of this document.

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IMPORTANT INFORMATION

This report is provided for informational purposes only and is not intended to be, and should not be construed as, an offer, solicitation or recommendation with respect to any transaction and should not be treated as legal advice, investment advice or tax advice. Recipients should not rely upon this information as a substitute for obtaining specific legal or tax advice from their own professional legal or tax advisors. References to specific securities and their issuers are for illustrative purposes only and are not intended and should not be interpreted as recommendations to purchase or sell such securities. Indices and trademarks are the property of their respective owners. Information is subject to change based on market or other conditions.

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Past performance is no guarantee of future results. Performance returns and the principal value of an investment will fluctuate. Performance returns contained herein are subject to revision by Northern Trust. Comparative indices shown are provided as an indication of the performance of a particular segment of the capital markets and/or alternative strategies in general. Index performance returns do not reflect any management fees, transaction costs or expenses. It is not possible to invest directly in any index. Net performance returns are reduced by investment management fees and other expenses relating to the management of the account. Gross performance returns contained herein include reinvestment of dividends and other earnings, transaction costs, and all fees and expenses other than investment management fees, unless indicated otherwise. For additional information on fees, please refer to Part 2A of the Form ADV or consult a Northern Trust representative.

Forward-looking statements and assumptions are Northern Trust's current estimates or expectations of future events or future results based upon proprietary research and should not be construed as an estimate or promise of results that a portfolio may achieve. Actual results could differ materially from the results indicated by this information.

There are risks involved in investing including possible loss of principal. There is no guarantee that the investment objectives of any fund or strategy will be met. Risk controls and models do not promise any level of performance or guarantee against loss of principal. FlexShares™ ETFs and Northern Funds are advised by Northern Trust Investments, Inc. For more information on the investment objectives, principle risks, and fees associated with these Funds, please see each Fund's prospectus and statement of additional information ("SAI"), which are available on the Advisors' websites at northernfunds.com and flexshares.com.

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