BREAKING TRADITION

Evolution of the 60/40 Portfolio

BNY Mellon Investment Management / Portfolio Strategy Group

BNY MELLON
INVESTMENT MANAGEMENT

Agenda

Intro

- BNY Mellon Portfolio Strategy Group
- Difference between Risk-Based and Outcome-Oriented
- Why Outcome-Oriented Models

Outcome-Oriented Model Concept

- Growth is a Marathon, not a Sprint
- Income is Back
- Stability Matters

Blending Outcomes

Blending Managers

How BNY Mellon Can Help

Intro

BNY Mellon Portfolio Strategy Group

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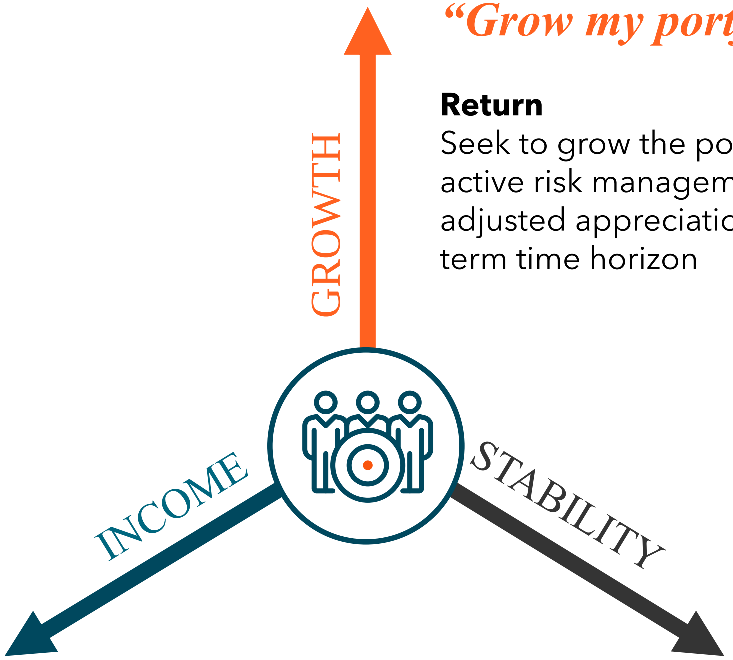
Team Capabilities

- **Portfolio Analysis**
- **Portfolio Risk Measures**
- **In-Depth Look-through Analysis**
- **Conditional Market Analysis**
- **Fund Comparison**
- **Correlation Analysis**

Primary Core Investment Outcomes



"Grow my portfolio"

Return
Seek to grow the portfolio through active risk management and inflation-adjusted appreciation over a long-term time horizon

"Provide a cash-flow"

Yield
Seek to provide a consistent stream of inflation-aware current income and liquidity for ongoing cash flow needs / liabilities

"Protect Principal"

Drawdown mitigation
Seek to minimize portfolio volatility and principal loss

Source: BNY Mellon Investor Solutions as of 3/31/2023.

Key differences between Risk-Based and Outcome-Oriented Models

Risk-Based Models

- Centered around target risk tolerance – typically Conservative, Moderate, Aggressive, etc.
- Can be somewhat simplistic in asset allocation – i.e., start with 60/40 portfolio and then scale for risk
- Relatively easy to replicate, and marketplace for Risk-Based models is crowded
- May have difficulty providing utility around targeted objectives
- May experience outflows if model underperforms benchmark

Outcome-Oriented Models

- Tied to end-client objectives centered around capital appreciation, current income/liquidity, and drawdown mitigation
- Allocations centered around utility, and is unique to goals of model – underlying asset class/sector/style allocations typically are not on sliding scale
- Model suite is more complex to replicate, as targets are objective-driven and may not fall on efficient frontier
- Allocations may be stickier and resonate better with end-clients, as they align to targeted goals

We believe there is opportunity in Outcome-Oriented models

Advisors and end-clients have reported an increased interest

Why Outcome-Oriented Models?

"Target-risk models are becoming an increasingly saturated market that lacks significant differentiation"

"Outcome-Oriented models have increased utility, and can be used as a portion (rather than the entirety) of a total portfolio"

"Over 50% of model providers do not offer custom Outcome-Oriented solutions"

"Investment Outcome-Oriented, customizable solutions are the future of model portfolios"

"Some of the most requested offerings include Income-Oriented models… 84% of advisors frequently receive client requests around generating income"

"Risk mitigation strategies have seen increasing demand… 88% of advisors frequently receive requests on downside risk protection"

Source: Cerulli – *The Cerulli Report: U.S. Asset Allocation Model Portfolios 2022: Model Customization and Tax Optimization*

Three Goals of Models Process

Robustness

Assume Capital Market Assumptions (CMA) forecast errors and annual changes in the CMA outlook, rather than optimizing around point-in-time forecasts for asset classes to develop Strategic Asset Allocation.

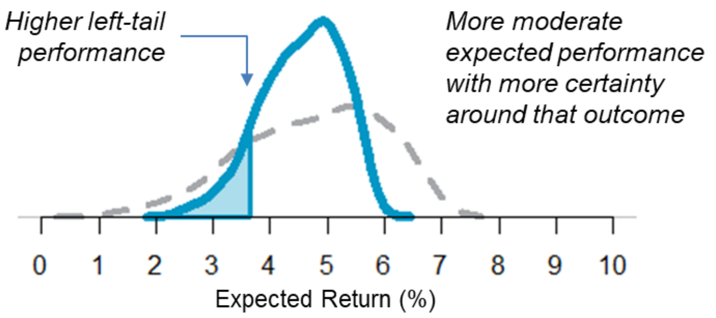
Risk Mitigation

Focus on tail risk and consider shortfall risks rather than optimization on efficient frontier.

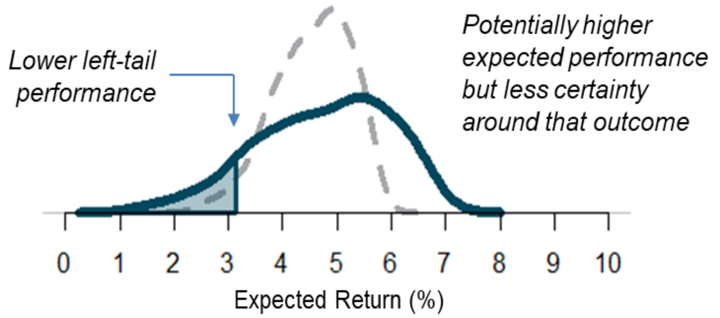
Objective Driven

Incorporate income objectives with additional specific objectives (such as portfolio growth or minimizing drawdown) around portfolio allocation weights

"Robust" Portfolio



"Optimal" Portfolio



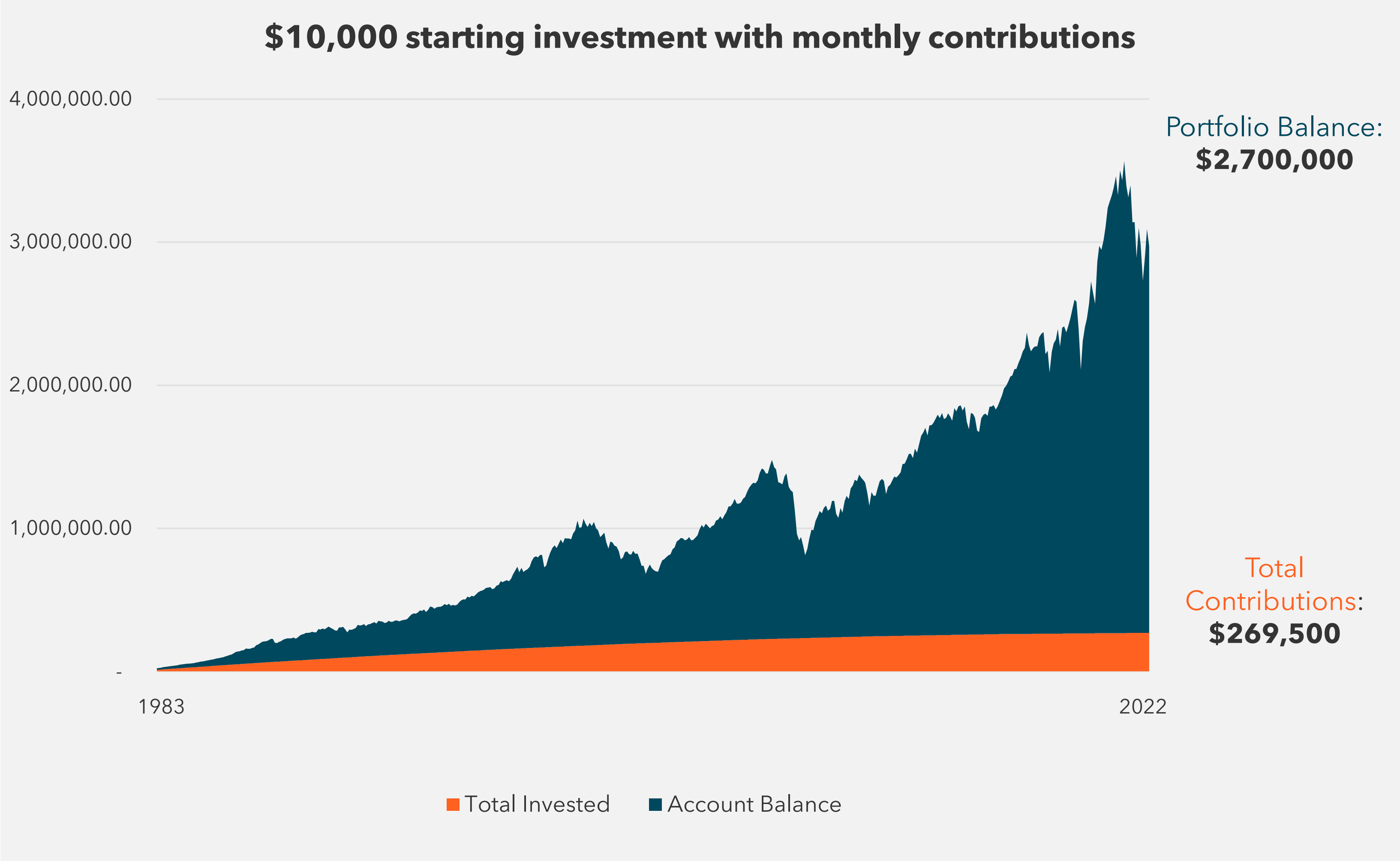
Source: BNY Mellon Investor Solutions. Charts are provided for illustrative purposes and are not indicative of the past or future performance of any product, including any BNY Mellon product. Projections or forecasts regarding future events, targets or expectations, are subject to change. There is no assurance that such events or expectations will be achieved, and actual results may be significantly different.

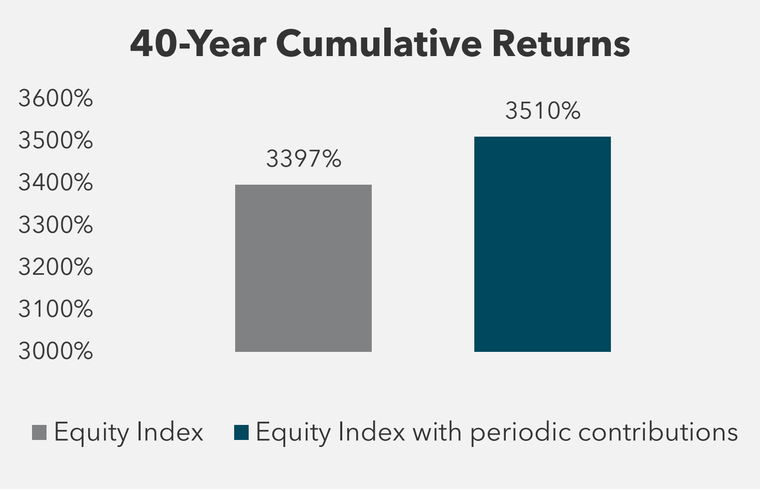
Growth is a Marathon, not a Sprint

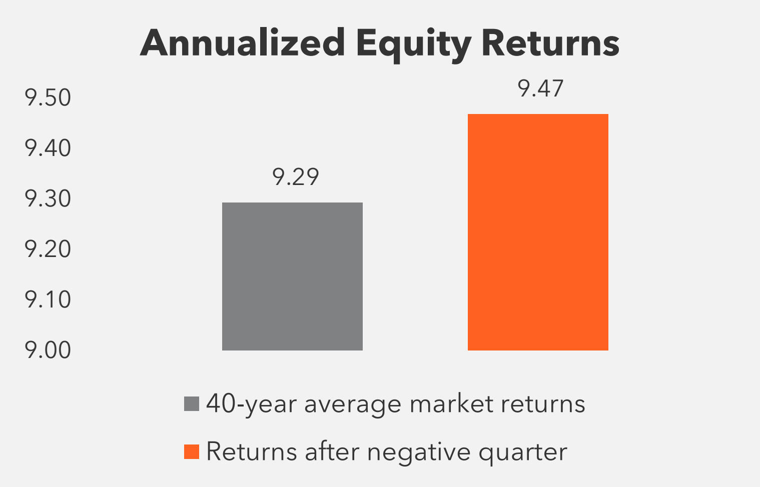
Client Profile: Growth Model

Source: BNY Mellon Portfolio Strategy Group. Charts are provided for illustrative purposes and are not indicative of the past or future performance of any product, including any BNY Mellon product.

Performance experience has historically improved with continued investment







Source: BNY Mellon Portfolio Strategy Group using Morningstar Direct data. **Past performance is no guarantee of future results.** Returns based in investment in global equities, via MSCI ACWI. Monthly portfolio contributions begin at $1,000 and decrease by $250 every 10 years. Return after negative quarter are average of forward 1-year returns after quarterly drawdown.

Volatility May Create Opportunities for Enhanced Returns

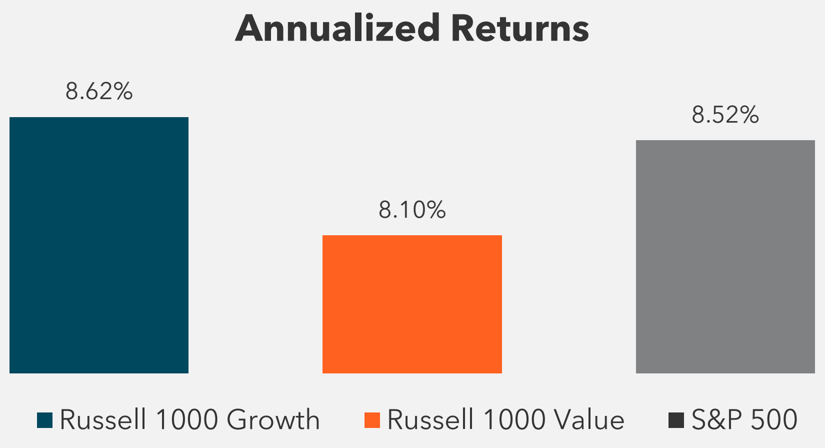
					High Volatility							Extreme Volatility						
					Average Return			Frequency of Positive Return			Obs.	Average Return			Frequency of Positive Return			Obs.
Asset Class	Start Date	Z-Score as of 9/30/2022	Return Since 9/30/2022	Z-Score as of 3/10/2023	1 Year	2 Year	3 Year	1 Year	2 Year	3 Year	Ratio	1 Year	2 Year	3 Year	1 Year	2 Year	3 Year	Ratio
US Equities																		
US Equity	12/29/1978	-1.88	8%	-1.20	15%	30%	46%	70%	77%	91%	17%	24%	43%	54%	87%	89%	99%	3%
US Large Cap	1/8/1988	-1.69	9%	-1.10	6%	20%	33%	58%	65%	84%	14%	23%	41%	51%	87%	87%	100%	4%
US Large Cap Growth	12/29/1978	-1.98	7%	-1.25	15%	29%	45%	72%	77%	81%	16%	11%	23%	34%	61%	62%	64%	5%
US Large Cap Value	12/29/1978	-1.51	10%	-1.02	18%	32%	48%	78%	85%	86%	14%	28%	49%	54%	95%	96%	100%	2%
US Mid Cap	2/2/1979	-1.84	10%	-1.05	25%	46%	66%	80%	87%	100%	15%	46%	82%	84%	98%	100%	100%	2%
SMID Cap	2/2/1979	-1.80	8%	-1.06	29%	46%	63%	85%	88%	100%	16%	46%	81%	80%	98%	100%	100%	2%
SMID Cap Growth	1/3/1986	-1.82	7%	-0.81	22%	41%	55%	72%	83%	94%	16%	30%	61%	71%	77%	84%	100%	2%
US Small Cap	12/29/1978	-1.87	7%	-1.09	28%	43%	56%	85%	89%	100%	18%	46%	77%	79%	100%	100%	100%	2%
Microcap	6/30/2000	-1.72	3%	-1.12	24%	49%	53%	70%	79%	95%	17%	45%	78%	71%	100%	100%	100%	3%
Developed Market Equities																		
International Developed	1/2/1970	-1.98	24%	-0.41	12%	25%	39%	70%	81%	91%	19%	21%	32%	37%	83%	91%	98%	3%
International Small Cap	1/1/1999	-2.29	21%	-0.81	15%	42%	57%	60%	80%	100%	21%	48%	77%	60%	100%	100%	100%	4%
Europe Ex UK	1/2/1970	-2.04	30%	-0.26	14%	30%	39%	74%	88%	93%	19%	26%	41%	30%	83%	94%	95%	2%
UK	1/2/1970	-1.09	23%	-0.29	19%	31%	49%	72%	83%	84%	13%	54%	55%	89%	100%	100%	100%	3%
Japan	1/2/1970	-1.87	19%	-0.57	9%	23%	33%	58%	73%	85%	23%	16%	23%	25%	73%	79%	99%	3%
Asia Ex Japan	12/29/2000	-1.94	11%	-0.99	29%	55%	57%	88%	100%	100%	21%	66%	100%	80%	100%	100%	100%	3%
Emerging Market Equities																		
Emerging Markets	12/29/2000	-1.85	10%	-0.99	30%	54%	55%	91%	99%	99%	21%	71%	105%	82%	100%	100%	100%	3%
EM Asia	11/24/2000	-1.92	11%	-1.00	29%	57%	57%	90%	100%	100%	20%	69%	102%	82%	100%	100%	100%	3%
EM Europe	1/1/1999	-2.77	50%	0.21	29%	53%	69%	78%	87%	93%	15%	88%	129%	89%	100%	100%	100%	7%
EM Latin America	1/1/1999	-0.47	9%	-0.47	36%	58%	91%	81%	89%	86%	17%	98%	128%	103%	100%	100%	100%	2%
Global Equities																		
Global Equity	1/1/1999	-1.61	12%	-0.71	11%	25%	37%	57%	75%	89%	17%	32%	53%	48%	91%	98%	100%	4%
Alternatives																		
Natural Resources	11/22/2002	-0.48	16%	-0.55	22%	42%	31%	84%	98%	87%	15%	40%	59%	39%	100%	100%	100%	3%
US Fixed Income																		
US Aggregate	1/30/1976	-3.96	3%	-2.58	6%	17%	26%	77%	99%	100%	18%	14%	34%	57%	100%	100%	100%	3%
US Treasury	2/2/1973	-3.68	2%	-2.64	5%	15%	22%	76%	99%	100%	17%	7%	20%	29%	62%	100%	100%	2%
US Corporates	2/2/1973	-3.65	5%	-2.00	11%	25%	38%	85%	98%	100%	17%	14%	33%	55%	86%	100%	100%	4%
US High Yield	7/29/1983	-3.07	6%	-1.74	13%	29%	42%	75%	92%	98%	22%	41%	61%	77%	100%	100%	100%	5%
US Municipals	2/1/1980	-2.65	5%	-1.41	14%	25%	33%	92%	100%	100%	11%	19%	42%	51%	81%	100%	100%	3%
Muni High Yield	5/23/2003	-1.76	6%	-1.06	13%	24%	37%	74%	100%	100%	11%	26%	34%	49%	100%	100%	100%	3%
Global Fixed Income																		
EM Aggregate	1/29/1993	-3.06	8%	-1.37	19%	37%	48%	93%	100%	100%	17%	33%	58%	69%	100%	100%	100%	7%
Global Aggregate Hedged	2/2/1990	-5.29	3%	-3.44	5%	13%	20%	82%	98%	100%	21%	8%	24%	36%	72%	100%	100%	5%
Global Aggregate	1/5/1990	-4.53	6%	-2.78	4%	10%	15%	84%	88%	96%	18%	9%	8%	8%	100%	100%	100%	3%
Global Treasuries	9/29/2000	-3.71	6%	-2.32	3%	8%	12%	75%	76%	94%	15%	-	-	-	-	-	-	4%
Global Corporates	9/29/2000	-4.20	7%	-2.04	9%	20%	19%	89%	100%	94%	16%	24%	33%	39%	100%	100%	100%	7%
Global High Yield	2/2/1990	-3.38	10%	-1.55	15%	31%	40%	83%	98%	100%	22%	42%	62%	72%	100%	100%	100%	5%
Currencies**																		
USD	2/3/1967	2.44	-7%	0.68	0%	-2%	-2%	47%	57%	59%	18%	0%	2%	4%	48%	39%	57%	4%

**USD shows frequency, average subsequent returns, and observations when above one/two standard deviations.

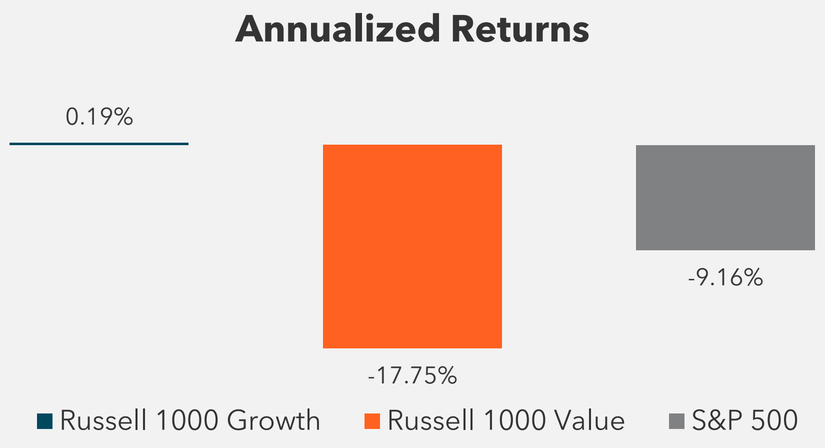
Source: BNY Mellon Portfolio Strategy Group using data from Bloomberg as of March 10, 2023. Charts are provided for illustrative purposes and are not indicative of the past or future performance of any product, including any BNY Mellon product. **Past performance is no guarantee of future results**. See full definition of indices in back labeled Appendix. First existing data point is basis for start date. All calculations are done through weekly return data. Return windows are 52 weeks with 1 week step. High volatility defined as 52-week rolling returns below one standard deviation. Extreme volatility defined as 52-week rolling returns below two standard deviation.

In a low-growth world, lean into Growth

During below-average Growth...



During extreme-low Growth...



As well as during the time period afterwards...

1-year following below-average GDP Growth

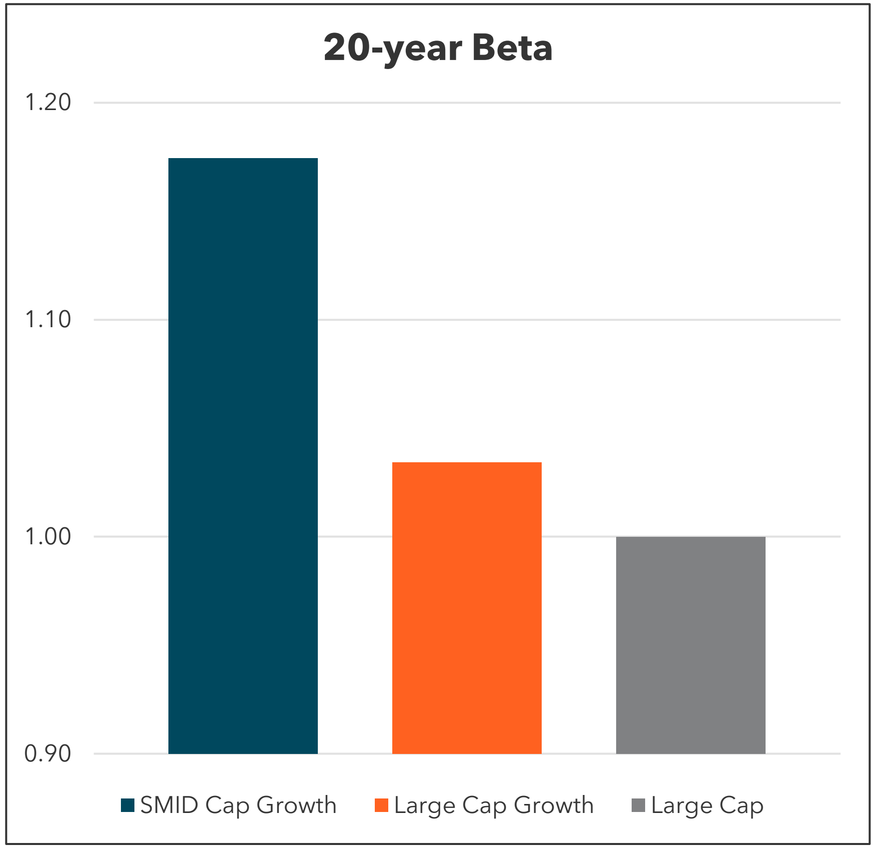
Russell 1000 Growth	Russell 1000 Value	S&P 500
12.87%	11.41%	12.05%

1-year following extreme-low GDP Growth

Russell 1000 Growth	Russell 1000 Value	S&P 500
40.14%	35.07%	36.29%

Source: BNY Mellon Portfolio Strategy Group using Morningstar Direct data, from 3/31/1979 through 3/31/2023. **Past performance is no guarantee of future results.** Below-average growth defined by GDP growth under historical average since 1947. Extreme-low growth defined by GDP growth below 1 standard deviation of historical average. 1-year returns calculated using historical average 1-year returns following below-average and extreme-low GDP Growth

Incorporating into beta within Large-Cap Growth and SMID-Cap Growth has historically been rewarded



Source: BNY Mellon Portfolio Strategy Group using Morningstar Direct data. SMID Cap Growth represented by Russell 2500 Growth Index. Large Cap Growth represented by Russell 1000 Growth Index. Large Cap represented by S&P 500. Beta defined as a measure of an investment's sensitivity to market movements and is used to evaluate market related, or systematic risk.

Sample Growth Model

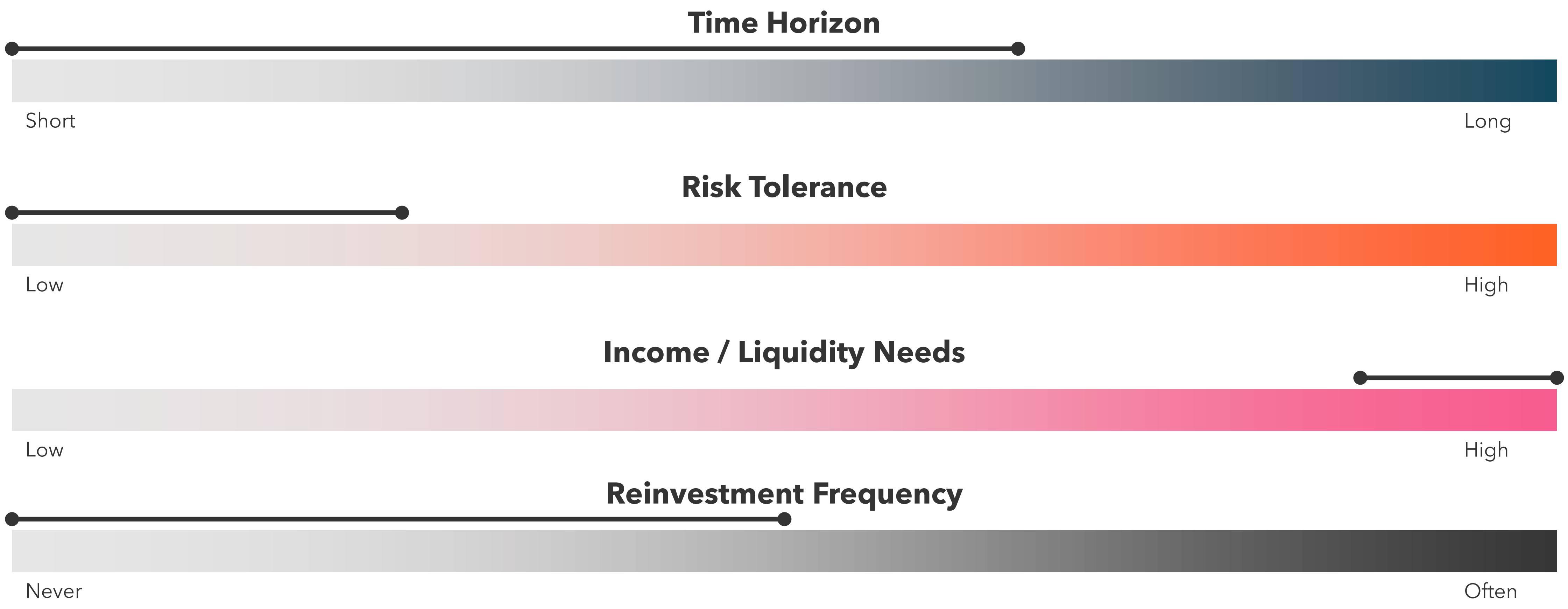
- **Lean into Active within Small-Cap and Non-US Equities**
  - Active alpha challenged in US LC & MC
  - US SC offers strongest ER capability
  - Avoid index risk for International / EM
- **Consider Passive Growth & Value ETF split**
  - S&P exposure has inherent Growth tilt
  - Split ETFs allow for style tilts without changing broad asset class exposure
- **High relative exposure to SMID Equities**
- **Lean into Growth within US SC**
  - Want earnings reinvested for small business
  - SC Growth has attractive beta for Growth-oriented model
- **Active within IG Fixed Income**
  - Avoid over-concentration of Treasuries within Agg
  - Access to high quality spread asset classes outside of Agg
  - More favorable roll yield
- **Return-seeking Alternatives**
  - Avoid beta-reducing alts
  - Seek uncorrelated alpha generators

Strategic Portfolio Weights

Asset Class	Active/Passive	Weight (%)
US Large Cap	Passive	22.00
US Mid Cap	Passive	17.00
US Small Cap	Active	15.00
US Equity		54.00
International Developed	Active/Passive	25.00
Emerging Markets	Active	6.00
Non-US Equity		31.00
Total Equity		**85.00**
Core Plus Bond	Active	5.00
Investment Grade Bond		5.00
High Yield Credit	Active	3.00
EMD	Active	2.00
Extended Credit		5.00
Total Fixed Income		**10.00**
Commodities / Natural Resources	Active	5.00
Alternatives		**5.00**
Total Portfolio		**100.00**

Income is Back

Client Profile: Income Model



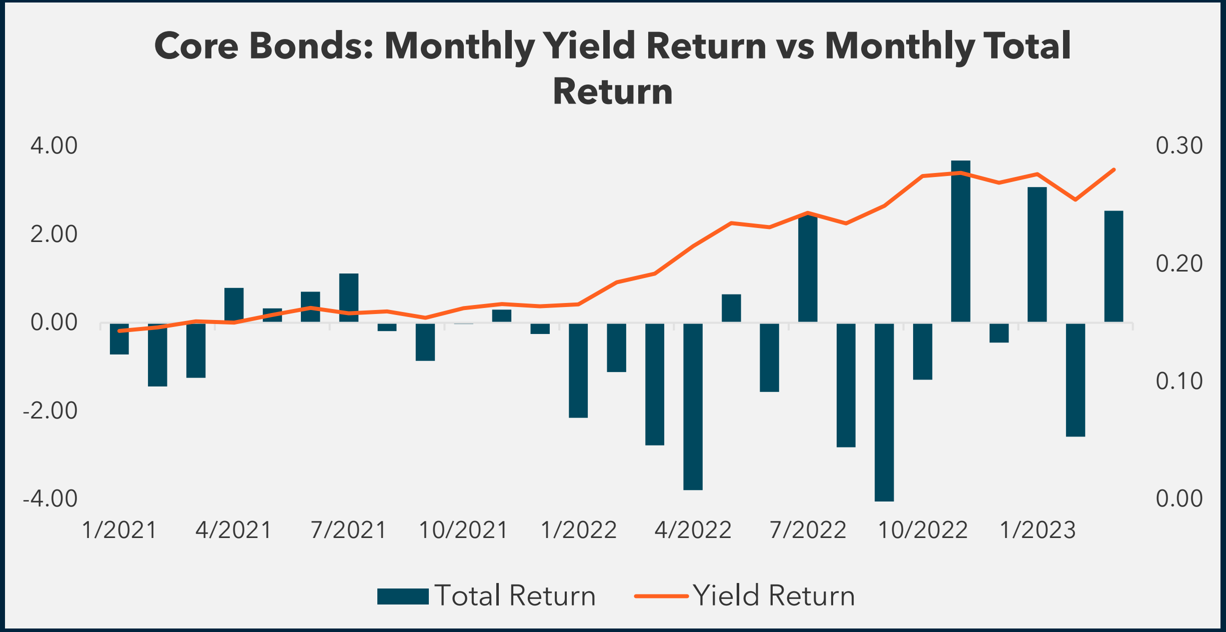
Source: BNY Mellon Portfolio Strategy Group. Charts are provided for illustrative purposes and are not indicative of the past or future performance of any product, including any BNY Mellon product.

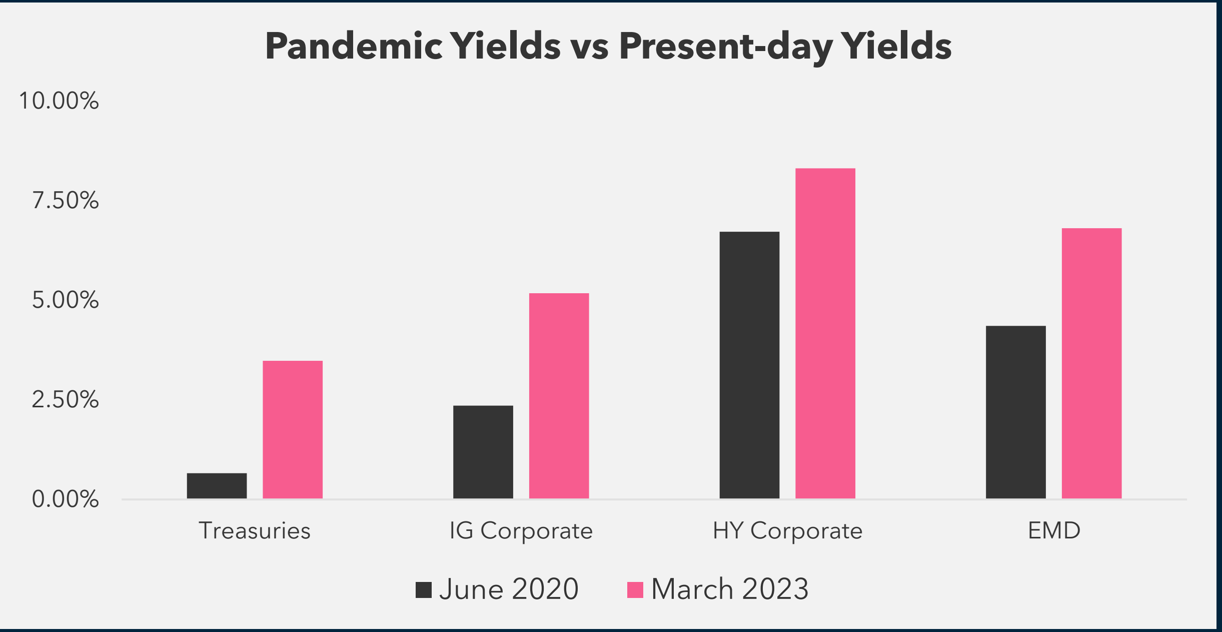
Persistent Yields Amid Market Turbulence

Despite bonds trading with high volatility recently, the yield returns have remained stable.

Since the pandemic, yields are up across all major fixed income asset classes.

Today, asset allocators have several options within fixed income to source yield without dramatically increasing risk.





Source: Morningstar. **Past performance is no guarantee of future results.**
Core Bond and associated returns based on Bloomberg Aggregate Bond Total & Price Return.

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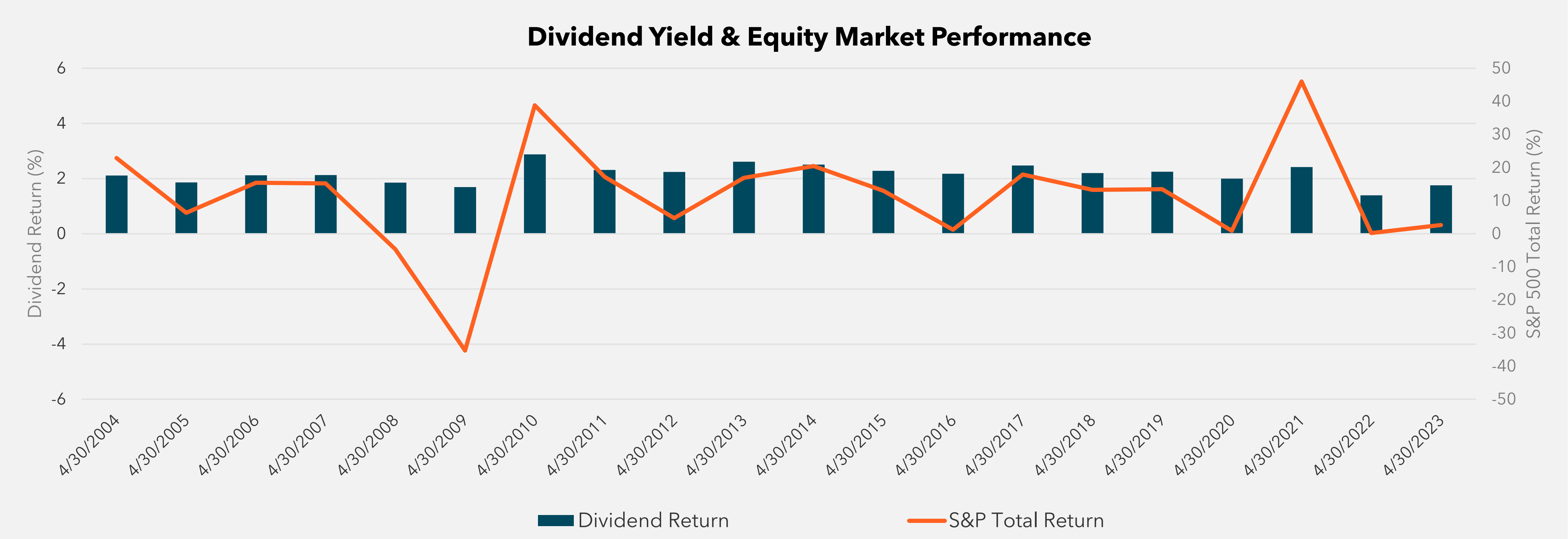
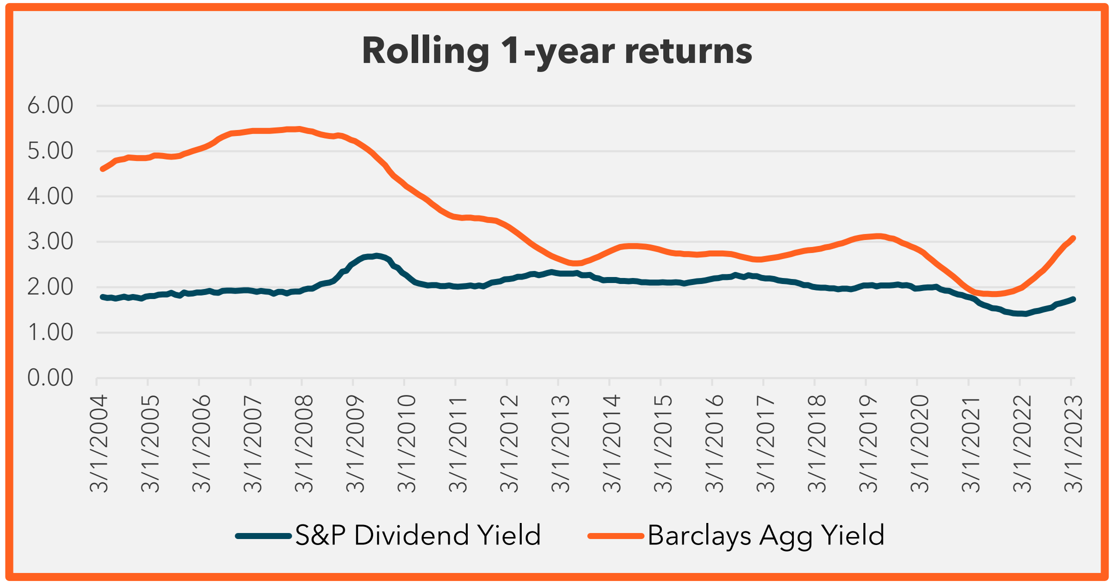
Yield is not Exclusive to Fixed Income

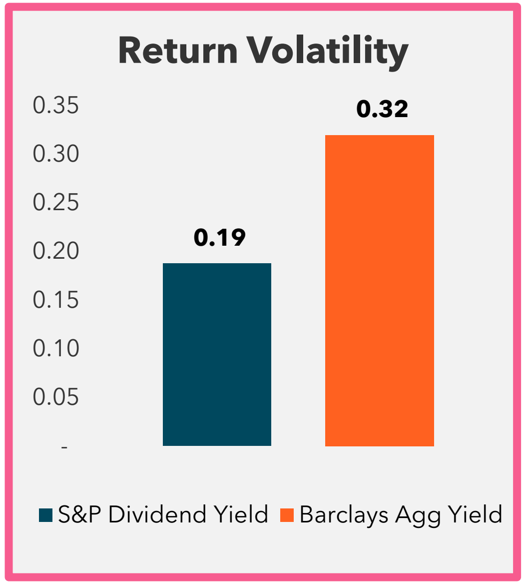
Did you Know: Dividend Return accounts for nearly a quarter of Equity Total Return

Historically, Dividend Return has been over **77x less volatile** than US equity market returns, and exhibits over **8x more efficient returns**



Source: Morningstar. **Past performance is no guarantee of future results.** Dividend Return based on difference between monthly S&P 500 Total Return and S&P 500 Price Return. Contribution towards total return based on 20-year returns. Return efficiency measured by Sharpe Ratio over last 20 years





Correlation of Returns between Equity Yield and Bond Yield

0.04

Source: Morningstar. **Past performance is no guarantee of future results.** Return volatility and return correlation based on monthly returns since 2004. Yield returns are the return contribution of the yield component of the index.

Dividend Yield vs Bond Yield

Rolling 1-year returns

Dividend Yield has remained relatively stable over the last 20 years, whereas fixed income has sometimes trended downward

Volatility of Yield Return

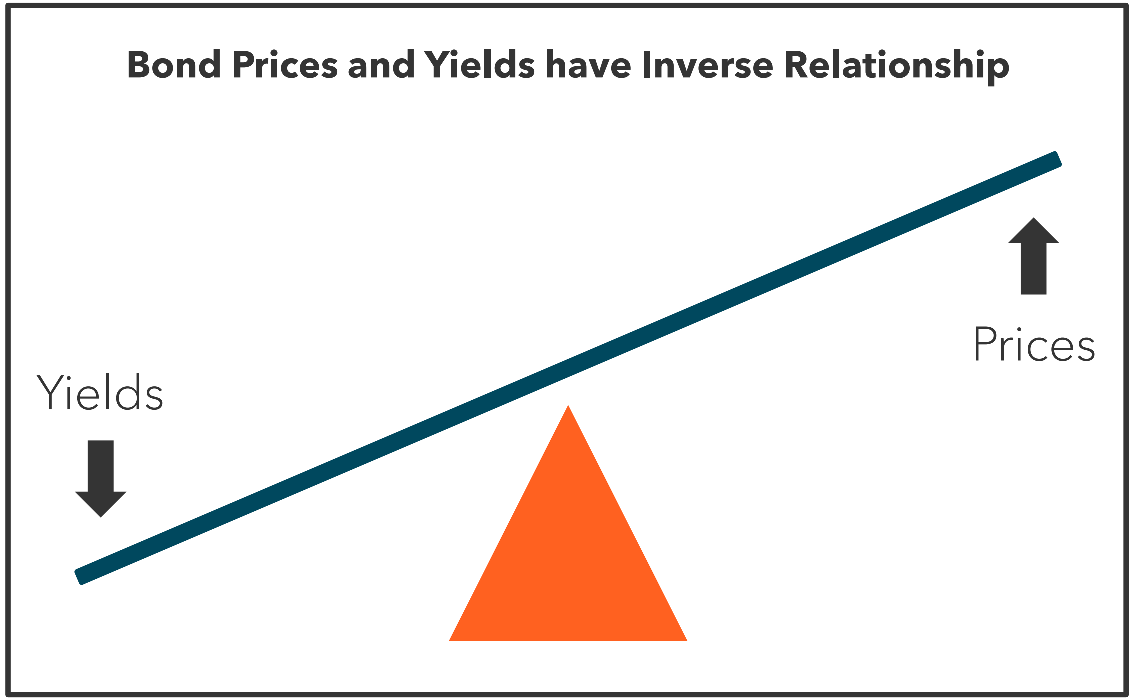
Equity dividends have exhibited 40% less volatility than bond income

Minimal Return Correlation

Dividend Yield and Bond Yield have shown nearly zero correlation to each other, supporting the case for diversification

Total Return is Key

Total Return = Price Return + Yield Return



For illustrative purposes only. **Past performance is no guarantee of future results.**

When Yields Rise...

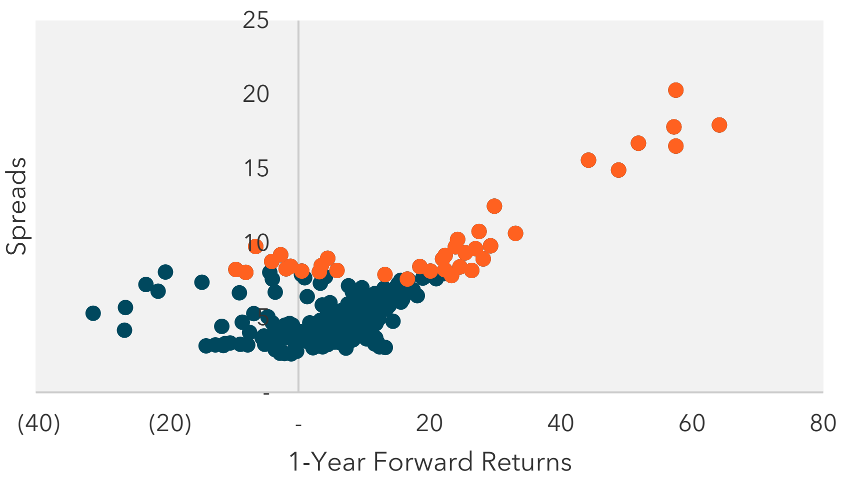
- Reinvestments and rebalances occur at lower prices with higher income
- Higher Yield offsets lower Price

When Yields Fall...

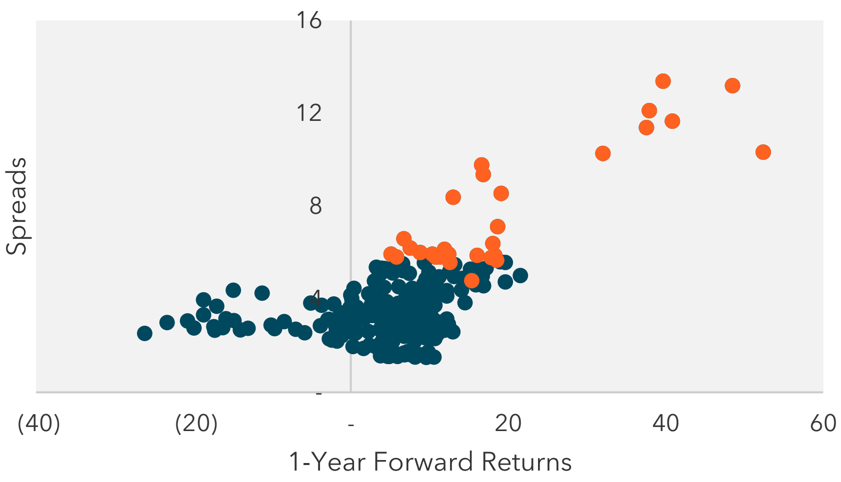
- Profit-taking on price appreciation can supplement lower yield on reinvested/rebalanced monies
- Price Return offsets lower Yield

Leverage Extended Credit when spreads attractive

High Yield



Emerging Markets Debt



Gold points indicate 1+ Standard Deviation Spread over recent 25-Year Average

High Yield

	Average	**Wide Spreads**
Total Return	6.77	**21.65**
Yield over Treasuries	5.41	**10.56**

Emerging Markets Debt

	Average	**Wide Spreads**
Total Return	6.01	**20.02**
Yield over Treasuries	3.78	**7.88**

Source: Morningstar, Federal Reserve Bank of St. Louis. High Yield spreads ands returns based on ICE BofA High Yield Index. **Past performance is no guarantee of future results.** Emerging Markets Debt spreads and returns based on ICE BofA Emerging Markets Corporate Plus Index.

Sample Income Model

- Equity allocation should be centered around Income/Dividend strategies for both US and non-US exposure
  - Direct Growth exposure should be limited, as Growth stocks tend to not provide yield
- Exposure to higher-beta asset classes like US SC and EM is limited due to price & yield volatility
- IG Bond split favors Core Plus for additional yield potential and sector flexibility
  - Active management recommended due to benchmark methodology issues within Agg
- Given the high degree of duration exposure, Short Bonds incorporated as strategic allocation to help mitigate interest rate risk
- High degree of extended credit for yield potential. Active management recommended in space to maximize quality and minimize default risk
- Alternatives not part of strategic allocation, but multi-sector funds may be employed tactically
  - Recommended funding source for multi-sector would typically be extended credit and Core Plus

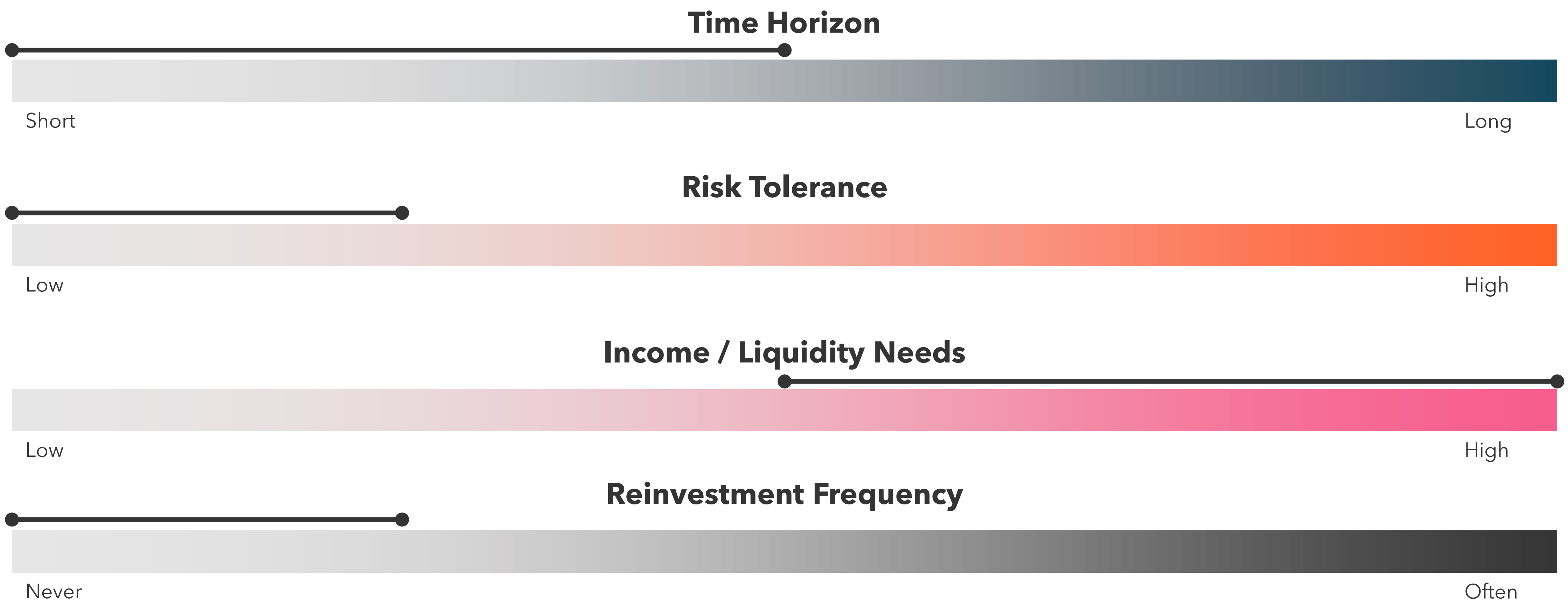
For illustrative purposes only. This material has been distributed for informational purposes only and should not be considered as investment advice or a recommendation of any particular investment, strategy, investment manager or account management.

Strategic Portfolio Weights

Asset Class	Active/Passive	Weight (%)
US Large Cap	Passive	5.00
US Mid Cap	Passive	3.00
US Small Cap	-	-
US Equity		8.00
International Developed	Active/Passive	7.00
Emerging Markets	-	-
Non-US Equity		7.00
Total Equity		**15.00**
Core Bond	Active	15.00
Core Plus Bond	Active	30.00
ST Bond	Passive	10.00
Investment Grade Bond		55.00
High Yield Credit	Active	20.00
EMD	Active	10.00
Extended Credit		30.00
Total Fixed Income		**85.00**
Alternatives		**-**
Total Portfolio		**100.00**

Stability Matters

Client Profile: Stability Model



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Stability means holding bonds, not only cash

Two key components of Stability in the context of a portfolio are:

1. Providing cushion against Market Risk
2. Protection against Purchasing Power Risk (i.e. Inflation)

Market Risk

While cash has kept up with bonds during negative equity quarters…

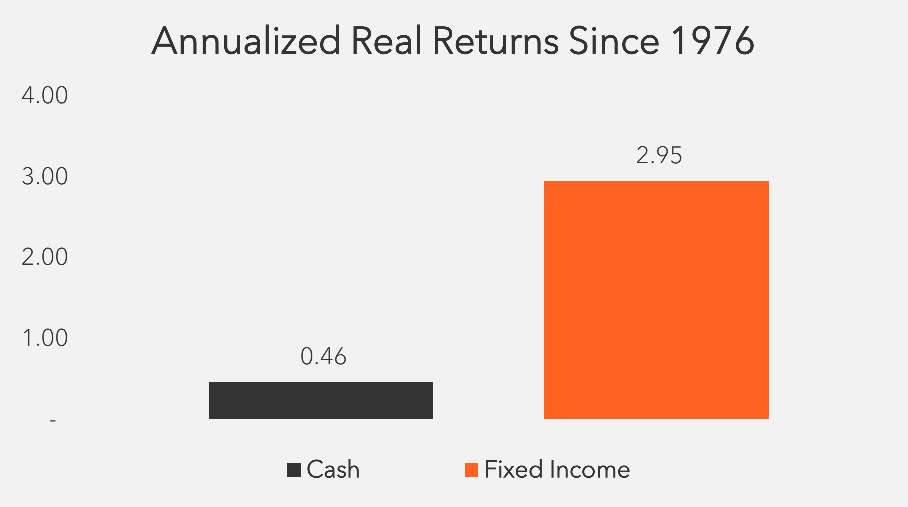
Cash	*Fixed Income*
+1.11%	+0.94%

…Cash has meaningfully lagged bonds the following 12-months

1-year Cash return after equity drawdown	*1-year Bond return after equity drawdown*
+4.35%	+8.26%

Inflation Risk

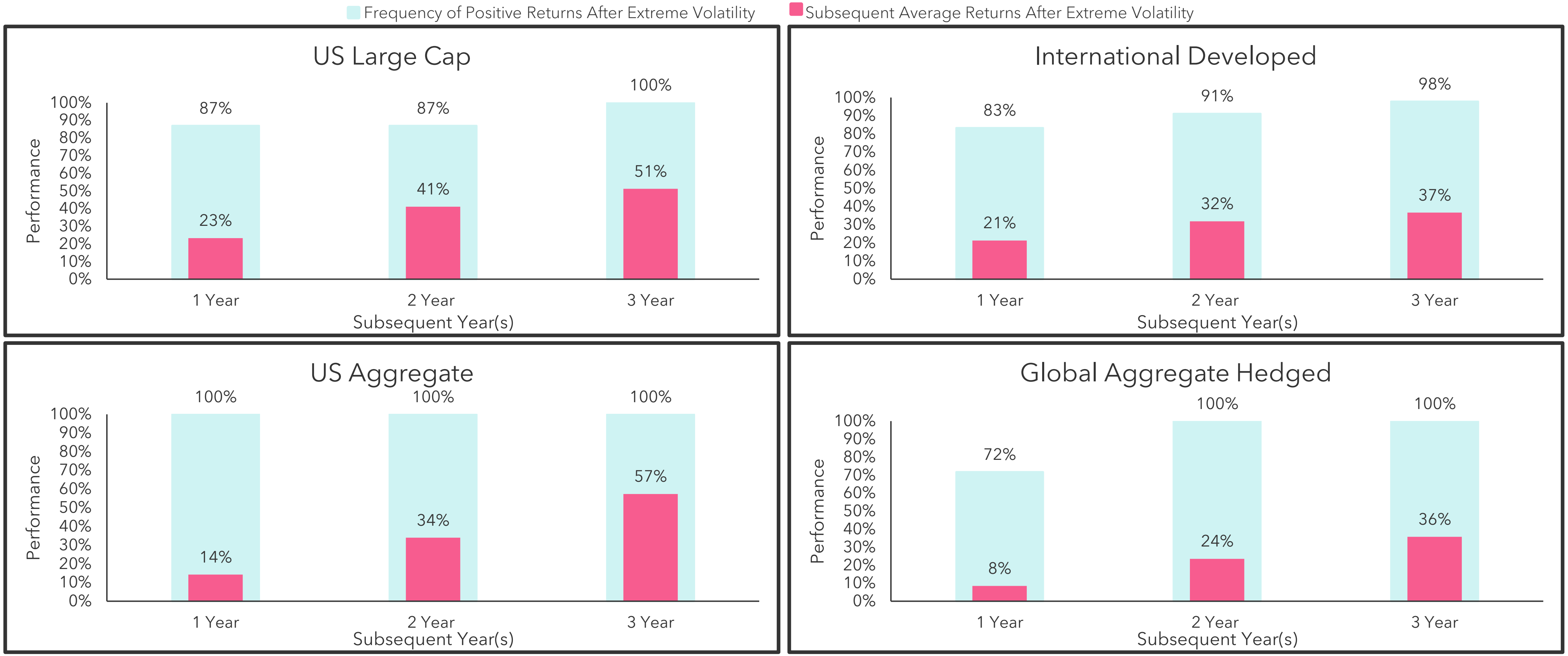
Over the past 45 years, fixed income performance has outperformed cash on an inflation-adjusted basis



Source: Morningstar. **Past performance is no guarantee of future results.** Based on returns from January 1976 through March 2023. Cash return based on monthly returns of 3-month US T-Bills. Fixed Income return based on monthly returns of Bloomberg US Aggregate Bond Index

Fixed income may improve odds of recovery and long-term stability

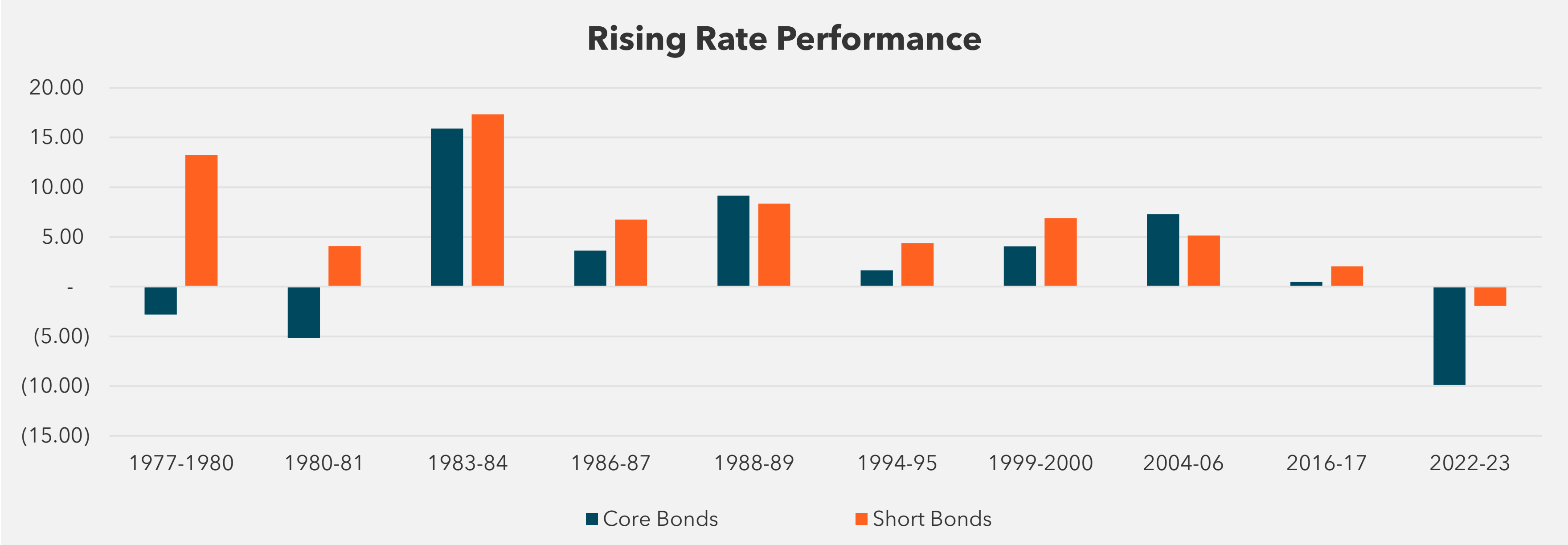
US Agg has been positive 100% of the time in 1, 2, and 3-year periods after significant market volatility



Source: BNY Mellon Portfolio Strategy Group using data from Bloomberg as of March 10, 2023. Charts are provided for illustrative purposes and are not indicative of the past or future performance of any product, including any BNY Mellon product. **Past performance is no guarantee of future results.** See full definition of indices in back labeled Appendix. All calculations are done through weekly return data. Return windows are 52 weeks with 1 week step. Extreme volatility defined as 52-week rolling returns below two standard deviation.

Managing duration risk

Utilize Short Duration exposure to help shield fixed income sleeve against rising rates



PROTECTION

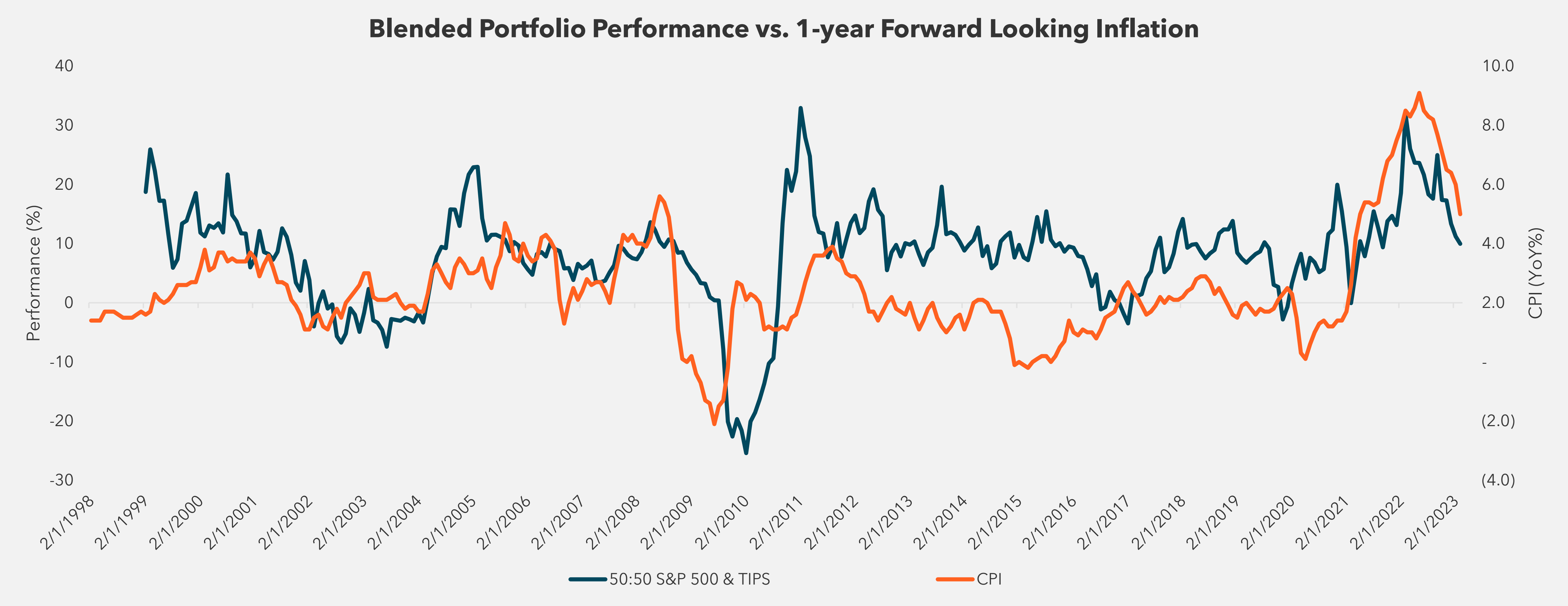
DURING RATE HIKE CYCLES

Interest rate risk should always be a consideration for a model that predominantly holds fixed income. Including short-term bonds as a structural allocation can help reduce some of the volatility of longer-duration assets within the portfolio

Source: Bloomberg, as of March 2023. **Past performance is no guarantee of future results.** Core Bond returns based on Bloomberg US Aggregate Bond Index. Short Bond returns based on Bloomberg US 1-5 Year Gov/Credit Index

Leveraging both TIPS and Equities for inflation protection

A combination of both asset classes tends to show a correlation with inflation on a forward-looking basis



Source: Bloomberg, Bureau of Labor Statistics, as of March 2023. **Past performance is no guarantee of future results.**

Sample Stability Model

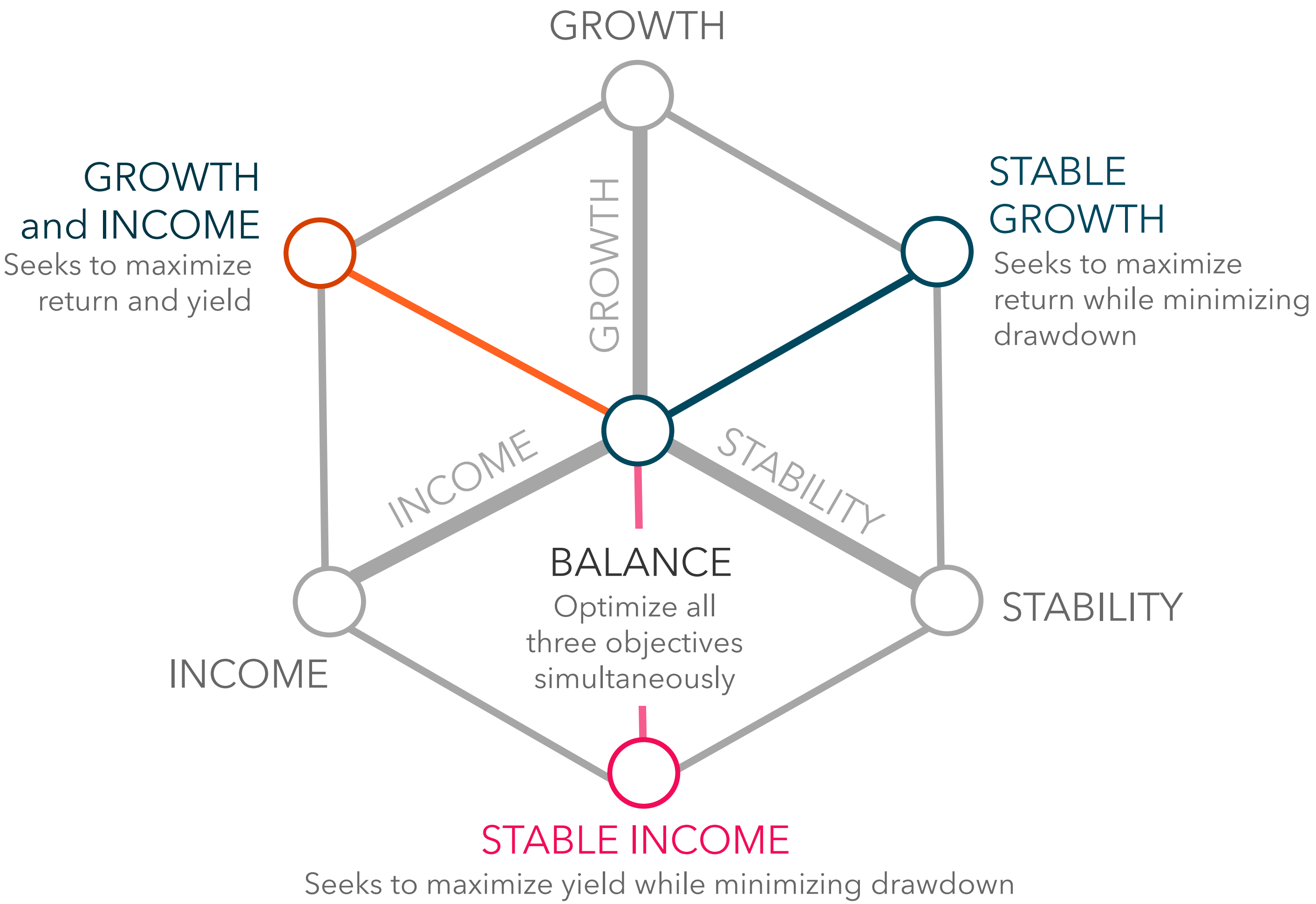
- Equity allocation focused on core passive exposure. Alpha is not explicit goal; exposure intended to help portfolio keep up with inflation and markets
- Active within EAFE universe with preference for high-quality tilts
- IG Bond split favors Core Bonds and high-quality
- Short Bonds and TIPS are part of structural allocation to combat against key fixed income risks – rising rates and inflation
- Extended credit's role in the model is for market beta with less risk than equities. Yield adds some cushion, while correlation with equities provides opportunity for up-market capture without as much drawdown exposure
- Alternatives may be incorporated to the extent that they reduce beta and correlation to risk assets.
    - Strategy ideas include absolute return, market neutral, multi-strategy, etc.

Strategic Portfolio Weights

Asset Class	Active/Passive	Weight (%)
US Large Cap	Passive	5.00
US Mid Cap	Passive	3.00
US Small Cap	-	-
US Equity		8.00
International Developed	Active	2.00
Emerging Markets	-	-
Non-US Equity		2.00
Total Equity		**10.00**
Core Bond	Active	45.00
Core Plus Bond	Active	15.00
ST Bond	Passive	7.50
TIPS	Passive	7.50
Investment Grade Bond		75.00
High Yield Credit	Active	5.00
EMD	Active	5.00
Extended Credit		10.00
Total Fixed Income		**85.00**
Absolute Return / Risk Mitigation	Active	5.00
Alternatives		**5.00**
Total Portfolio		**100.00**

Blending Objectives

Outcome Oriented Portfolios For Investors



Source: BNY Mellon Investor Solutions as of 3/31/2023.

Blending Managers

Manager Research: Factors & Process

A rigorous quantitative and qualitative process that arrives at a clearly defined rating for each manager

Manager Research Evaluation Factors

(50+ Factors in 7 groups)

Manager Research Process

Manager Rating Scheme

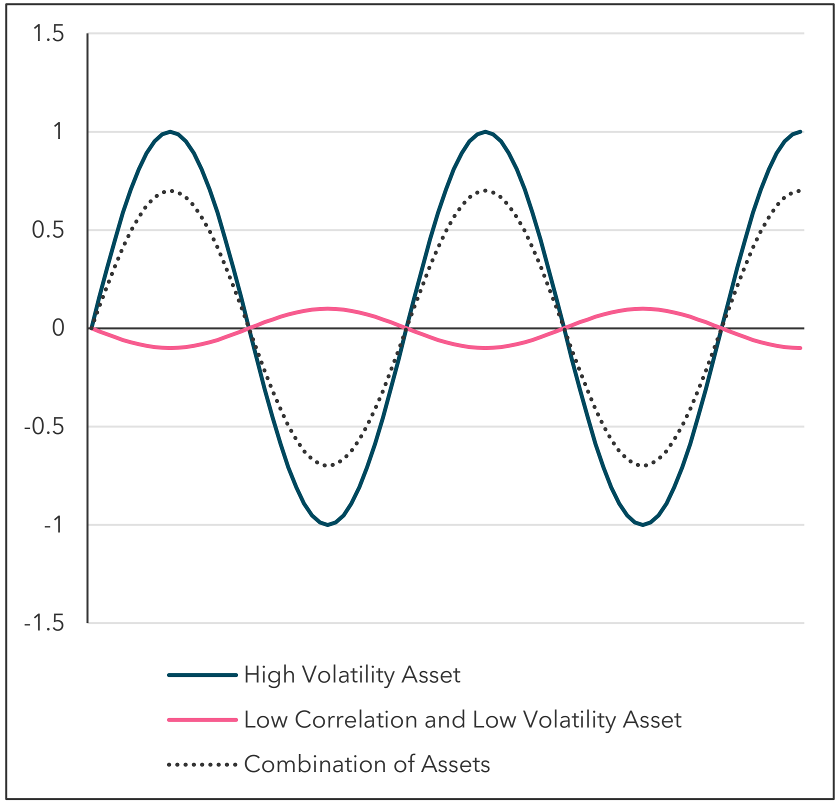
BEST IN CLASS	•Best in class managers •Highest conviction
RECOMMENDED	•Institutional quality •No major deficiencies
APPROVED	•Strategy is sufficient •May lack differentiation
AVERAGE	•No clear differentiation •May have deficiencies
BELOW AVERAGE	•Multiple deficiencies •No clear differentiation
WATCH	•Material event requiring monitoring
SELL	•Lack of research conviction •Material deficiencies

Source: BNY Mellon Portfolio Strategy Group, BNY Mellon Investor Solutions.

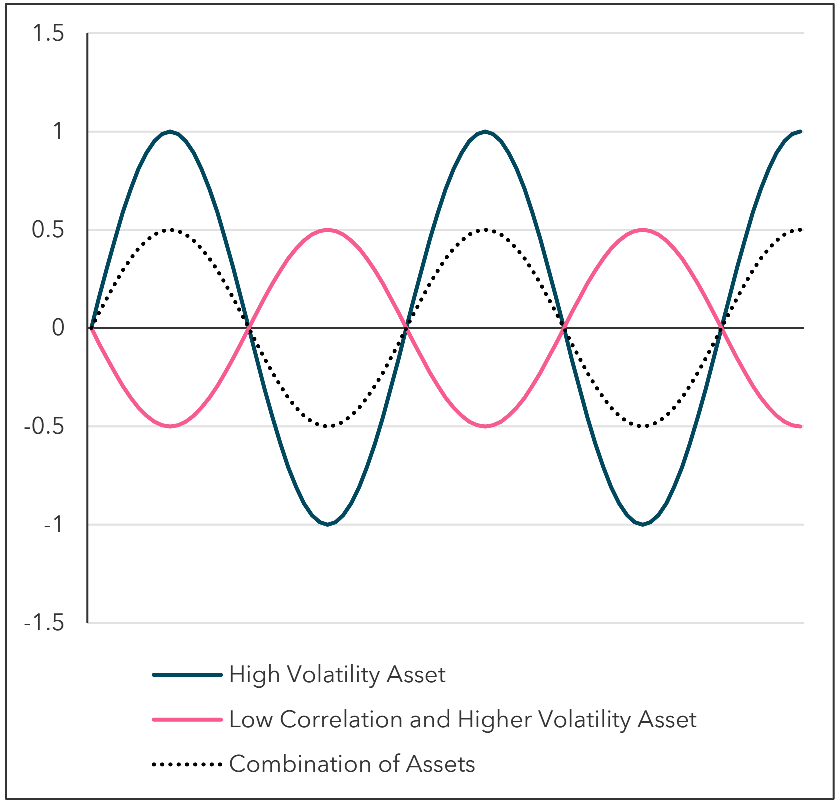
Diversification depends on Correlations, but also Volatility

If your diversifier does not have enough volatility, it may not provide enough benefit to total portfolio

Example: -1 correlation, but low volatility



Example: -1 correlation, but higher volatility



For illustrative purposes only. **Past performance is no guarantee of future results. Asset Allocation** and **Diversification** cannot assure a profit or protect against loss. Charts are provided for illustrative purposes and are not indicative of the past or future performance of any product, including any BNY Mellon product.

Excess Return Correlation

Focusing on diversification within manager selection can improve return efficiency

	Int'l Growth Fund	Int'l Value Fund A	Int'l Value Fund B
Int'l Growth Fund	1.00		
Int'l Value Fund A	0.02	1.00	
Int'l Value Fund B	-0.61	0.36	1.00

Key Takeaways

- Low-to-negative Excess Return Correlations are key to blending active managers – the lower the better, for diversification purposes
- Focusing on minimizing Excess Return Correlation can dramatically decrease Tracking Error for benchmark-oriented portfolio and sleeves
- A more diversified return experience can improve performance beyond a simple average of the underlying holdings
- Negative Excess Return Correlations can even result in higher Information Ratios than any of the individual manager components

5-year Stats	Growth Fund	Value Fund A	**50/50 Portfolio - Fund A**	Value Fund B	**50/50 Portfolio - Fund B**
Performance	4.06	1.42	2.82	1.36	2.96
Tracking Error	7.00	3.55	3.81	7.84	2.76
Information Ratio	0.36	-0.04	0.34	-0.02	0.51

Source: Morningstar, performance dates – 3/31/2018 – 3/31/2023. For illustrative purposes only. **Past performance is no guarantee of future results.** Charts are provided for illustrative purposes and are not indicative of the past or future performance of any product, including any BNY Mellon product.

How BNY Mellon Can Help

Leveraging PSG to Engage with Outcome-Oriented Models

"Most model providers will not accommodate all types of requests for custom models…[1]"

BNY Mellon Portfolio Strategy Group will!

3 ways for advisors to adopt framework		3 ways BNYM Portfolio Strategy Group can help
Build Custom ground-up model creation	→	**Collaboration** Work with advisors to marry broad model concepts with bespoke advisor-guided specifications
Transition Shifting existing Risk-Based models to Outcome-Oriented structure	→	**Guidance** Help advisors assess impact of deviations between model styles, and build a road map for transition plan
Review Analyze existing Outcome-Oriented model suite to optimize allocations	→	**Analyze** Review FA-built models to ensure appropriate asset allocation, active/passive allotment, and thoughtful manager selection

[1]Source: Cerulli – *The Cerulli Report: U.S. Asset Allocation Model Portfolios 2022: Model Customization and Tax Optimization*

Appendix

Appendix

Asset Class	Representative Index
US Equity	Russell 3000 TR
US Large Cap	S&P 500 TR
US Large Cap Growth	Russell 1000 Growth
US Large Cap Value	Russell 1000 Value
US Mid Cap	Russell Midcap TR
SMID Cap	Russell 2500 TR
SMID Cap Growth	Russell 2500 Growth
US Small Cap	Russell 2000 TR
Microcap	Russell Microcap TR
International Developed	MSCI EAFE NR
International Small Cap	MSCI EAFE Small Cap NR
Europe Ex UK	MSCI Europe Ex UK NR
UK	MSCI UK NR
Japan	MSCI Japan NR
Asia Ex Japan	MSCI AC Asia ex Japan NR
Emerging Markets	MSCI EM NR
EM Asia	MSCI EM Asia NR
EM Europe	MSCI EM Europe NR
EM Latin America	MSCI EM Latin America NR
Global Equity	MSCI ACWI
Natural Resources	S&P Global Natural Resources
USD	DXY

Asset Class	Representative Index
US Aggregate	Bloomberg US Agg Total Return Value Unhedged USD
US Treasury	Bloomberg US Treasury Total Return Unhedged USD
US Corporates	Bloomberg US Corporate Total Return Value Unhedged USD
US High Yield	Bloomberg US Corporate High Yield Total Return Index Value Unhedged USD
US Municipals	Bloomberg Municipal Bond Index Total Return Index Value Unhedged USD
Muni High Yield	Bloomberg Muni High Yield Bond Index Total Return Index Value Unhedged USD
EM Aggregate	Bloomberg EM USD Aggregate Total Return Index Value Unhedged
Global Aggregate Hedged	Bloomberg Global-Aggregate Total Return Index Value Hedged USD
Global Aggregate	Bloomberg Global-Aggregate Total Return Index Value Unhedged USD
Global Treasuries	Bloomberg Global Agg Treasuries Total Return Index Value Unhedged USD
Global Corporates	Bloomberg Global Agg Corporate Total Return Index Value Unhedged USD
Global High Yield	Bloomberg Global High Yield Total Return Index Value Unhedged

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Diversification cannot assure a profit or protect against loss.

An investor cannot invest directly in any index.

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