

# Winter Trustee School – CEU Program

## Understanding Investment Benchmarks

*Beth Bowen, CFA*  
*Vice President*

# Understanding Investment Benchmarks

## Discussion Topics

- Why we have them, and what makes a good benchmark
- Benchmarking by asset class
- Benchmarking investment managers
- Benchmarking pension funds

# Benchmarks - Public Perceptions

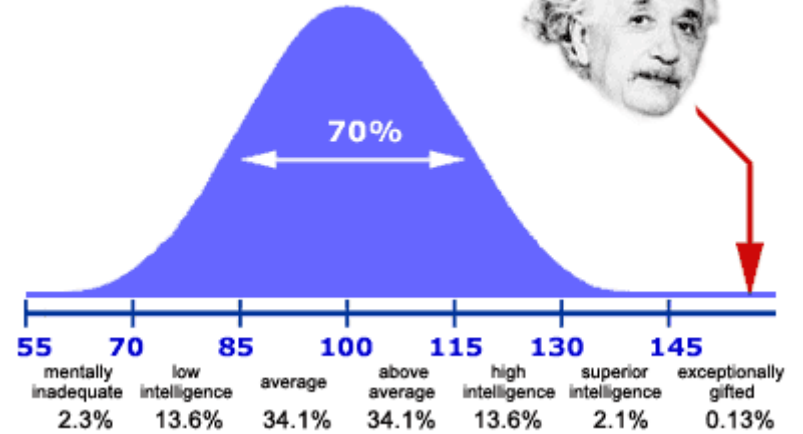


**Benchmarks help provide context**

# Benchmarks – Public Awareness

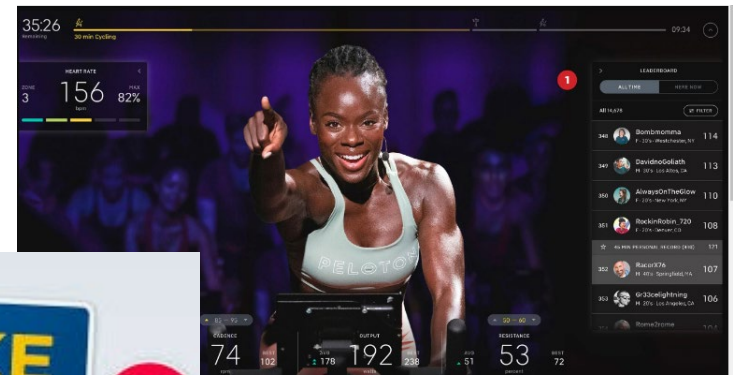
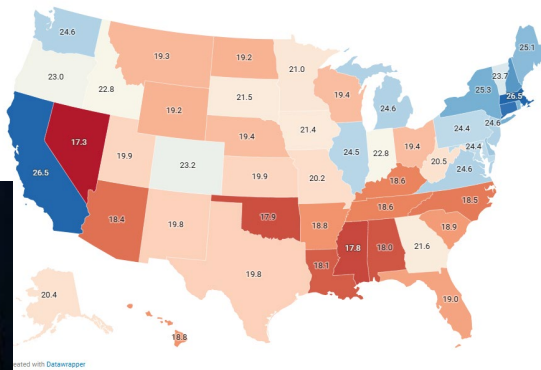


Einstein's IQ = 160+  
What about yours ?



Source: [afribary.com/blog/83/how-to-calculate-your-childs-intelligent-quotient](http://afribary.com/blog/83/how-to-calculate-your-childs-intelligent-quotient)

## Benchmarks are everywhere



# Benchmarks – Context is Key

Are you impressed with 1125<sup>th</sup> place?



# Benchmarks – Context is Key



1:54:39



8:12:37



6:18:47



16:46:08

# Understanding Investment Benchmarks

## **Benchmarks provide many uses for the investment world**

- General gauge of market sentiment
- Base for the construction of index funds
- Reference point for comparing manager performance
- Allows for measurement of manager's active risk
- Enables performance and risk measurements of asset classes over periods of time
- Utilized to set performance fees

# Understanding Investment Benchmarks

## **A Valid and Effective Benchmark is:**

- Unambiguous – clearly identifiable components
- Measurable – on a frequent and timely basis
- Appropriate – consistent with investment style
- Investable – possible to replicate and hold
- Specified in Advance – prior to evaluation
- Reflective of Current Investment Options



# Public Equity Benchmarks

## Differentiating Characteristics of Equity Indices:

- Price-Weighted vs Market-Value Weighted
- Completeness vs Investability
- Rules for Membership – judgement based or objective rules based
- Reconstitution

# Public Equity Benchmarks

## Market Cap Weighted Indexes

### Pros

- Reflects market's collective opinion of stock's relative value
- Large, well-established companies have higher weight, provide lower volatility
- Reduced turnover and related trading costs for indexing

### Cons

- Increasing stock price can lead to outsized weighting in index
- Larger weighted companies can have disproportionate influence on index
- Fund managers adding shares of overvalued stocks raises weightings and creates potential for a bubble

# Public Equity Benchmarks

## Price Weighted Indexes

### Pros

- Simple and transparent calculation
- Can be useful in examining historical market trends
- Highlights performance of higher-priced stocks, which can be useful in certain scenarios

### Cons

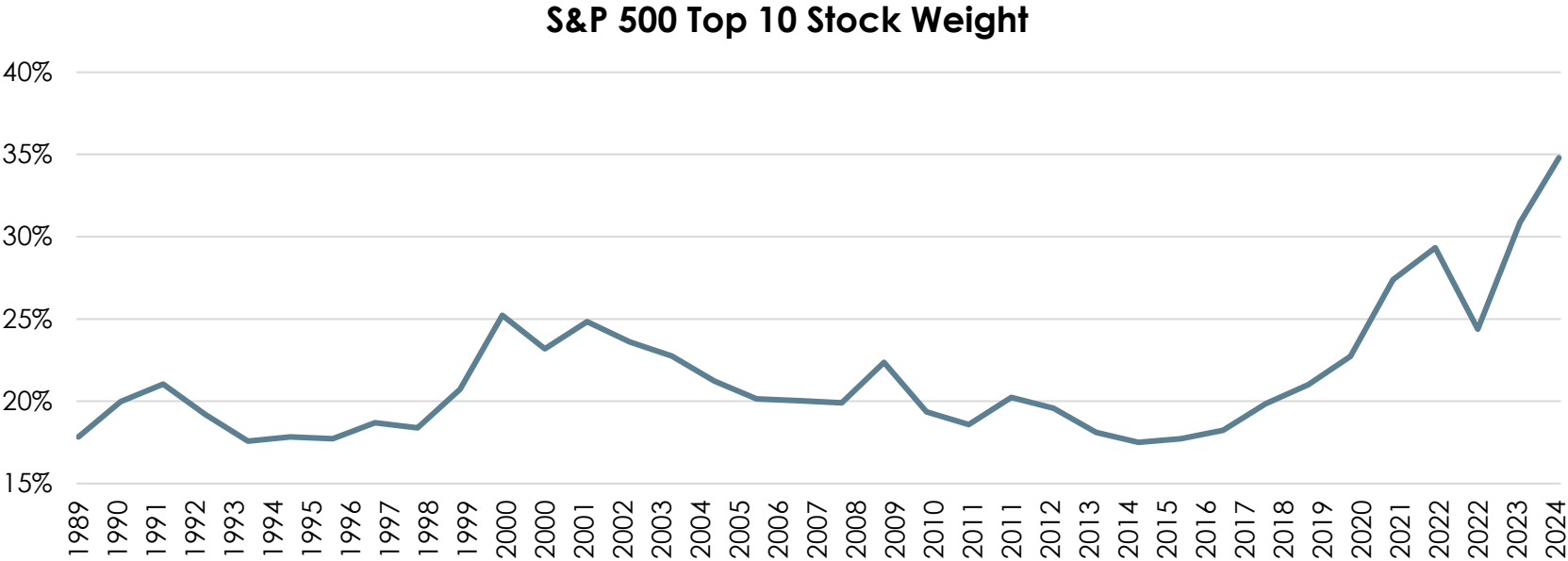
- Price bias can result from higher-priced stocks being over-represented vs lower-priced
- Overlooks company's size and market influence
- Lower-priced stocks have minimal effect on the index even if they represent significant market players

# Public Equity Benchmarks

	Dow Jones Industrial Average	S&P 500	NASDAQ
<b>What is it?</b>	A basket of 30 US "blue-chip" stocks	An "index" of 500 US large cap stocks	A stock exchange of ~3300 mainly tech stock listings
<b>Inception Date</b>	1896	1957	1971
<b>Weighting Scheme</b>	Price Weighted	Market-Cap Weighted	Market-Cap Weighted
<b>Market Cap</b>	Total: \$19.8 Trillion Median: \$243 Million	Total: \$56 Trillion Median: \$37 Billion	Total: \$37 Trillion Median: \$258 Million
<b>Membership Criteria</b>	<ul style="list-style-type: none"> <li>Leaders in industry as selected by editors of the Wall Street Journal</li> </ul>	<ul style="list-style-type: none"> <li>US company w market cap in excess of \$18 billion</li> <li>Financial viability</li> <li>Adequate liquidity and reasonable price</li> <li>Public float of at least 50%</li> <li>A corporation listed on US Exchange</li> </ul>	<ul style="list-style-type: none"> <li>Bid price more than \$4</li> <li>Minimum of 1 million publicly traded shares outstanding</li> <li>Must meet criteria under one of four requirement sets around earnings, capitalization with cash flow/revenue</li> </ul>
<b>Is it a common benchmark used with Pensions?</b>	No	Yes	No
<b>Why?</b>	Concentration bias	Easy to understand/relate to	Style bias

# Public Equity Benchmarks

Benchmarks can become more/less concentrated over time



# Fixed Income Benchmarks

## Differentiating Characteristics of Fixed Income Indexes:

- Bond markets are considerably larger than equity markets
- Bonds are traded over the counter, not on exchanges
- Fixed Income indexes are typically constructed based on the type of bond (sectors), maturity profile, and credit risk

Bloomberg Index	US Treasuries	Corporate Bonds	Govt Bonds	Asset-Backed Mortgages	Non-US Bonds	Investment Grade	Non-IG High-Yield	Duration
US Agg Bond	✓	✓	✓	✓		✓		6.1
US Gov/Credit	✓	✓	✓			✓		6.1
US Interm. Gov/Cred	✓	✓	✓			✓		3.7
US MBS				✓		✓		6.2
Multiverse	✓	✓	✓	✓	✓	✓	✓	6.4
US Corp High Yield		✓					✓	3.1
US Long Treasury	✓							14.7

# Fixed Income Benchmarks

## Common Issues with Fixed Income Benchmarks:

- Bum Issue: in a cap-weighted index, issuers with the most debt are heaviest weighted
- Credit Market Growth and Volatility Issue: credit have taken on a greater percentage of broad fixed income benchmarks – leading to increased risk in fixed income benchmarks
- Duration Issue: duration structure driven by preferences of issuers which can conflict with an investor's time horizon preference

# Private Markets Benchmarks

## Key Considerations

- Private market strategies (Private Equity, Private Credit, Real Estate) are not transparent and have limited data around asset prices and transactions
- One approach is to benchmark against a peer group of funds with similar investment strategies (Pitchbook, NFI ODCE)
- Another approach is to use a public market proxy – an index with similar economic drivers to risk and return. Investors may add a liquidity premium to index performance.

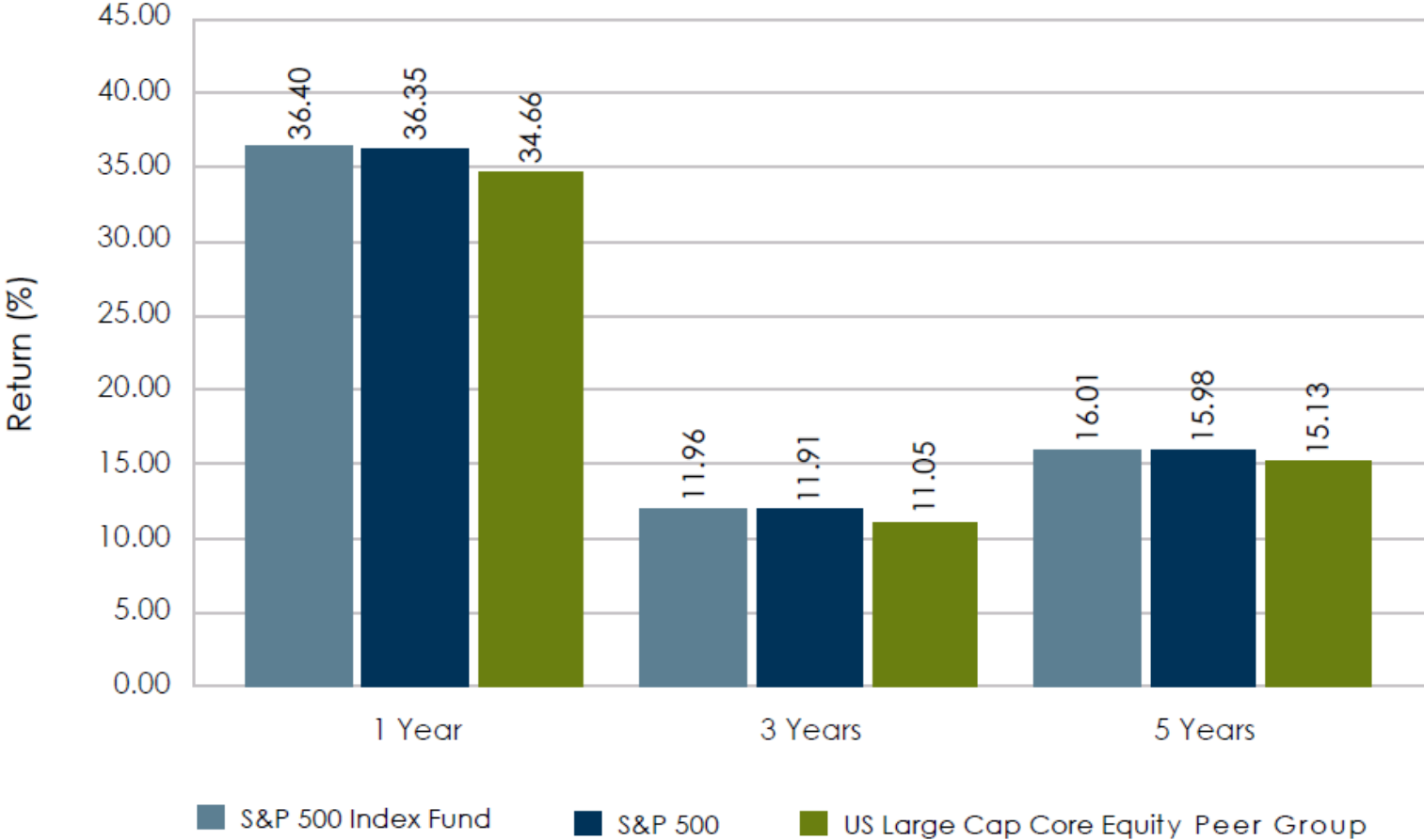


# Benchmarking Investment Managers

- Benchmark agnostic – little/no regard for constraints or guardrails of benchmark holdings
- Benchmark hugging – sector/industry/market cap
- Peer group benchmarks, multiple benchmarks
- Changing benchmarks

# Benchmarking Investment Managers

## S&P 500 Index Fund



**Peer Rank**

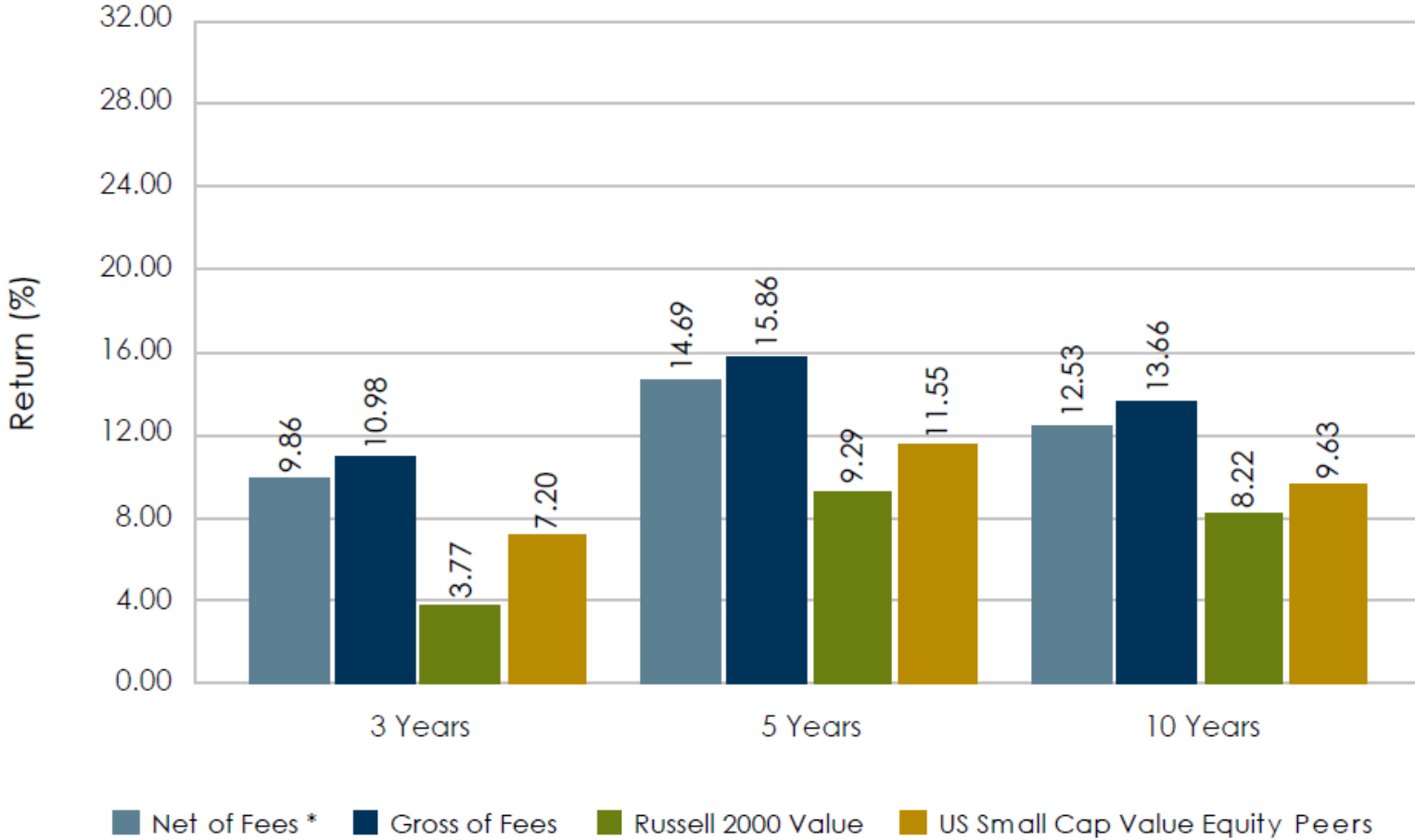
38

38

33

# Benchmarking Investment Managers

## Small Cap Value Manager



Peer Rank

15

11

3

# Benchmarking Investment Managers

- Sometimes one benchmark does not tell the full story
- Multiple benchmarks might be needed
- Sometimes they provide conflicting results
- Conflicting results could be ok, as long as there is good understanding of why

	1 Month (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	10 Years (%)
<b>As of December 31, 2022</b>						
<b>Liquid Absolute Return Manager Returns</b>	<b>0.12</b>	<b>-5.64</b>	<b>-5.64</b>	<b>0.71</b>	<b>1.82</b>	<b>2.43</b>
<i>Bloomberg Universal</i>	-0.34	-12.99	-12.99	-2.54	0.18	1.33
Difference (+/-)	0.46	7.35	7.35	3.25	1.64	1.10
<i>US T-Bills 90 Day</i>	0.36	1.46	1.46	0.72	1.26	0.76
Difference (+/-)	-0.24	-7.10	-7.10	-0.01	0.56	1.67

# Benchmarking Pension Funds

- **Broad Policy Benchmark:** ex - (60% ACWI, 40% US Agg)
- **Strategic Policy Benchmark:** ex - (20% S&P, 10% Russell 2000, 20% MSCI ACWI ex US, 10% Pitchbook, 25% US Agg, 15% NFI ODCE)
- **Allocation Benchmark:** ex - (24% S&P, 13% Russell 2000, 17% MSCI ACWI ex US, 11% Pitchbook, 22% US Agg, 13% NFI ODCE)
- **Peer Group Benchmark:** ex – All Reporting Public Defined Benefit Plans, or All Reporting Total Fund Between 50%-60% Equity
- **Target Return:** 7.00% or CPI + 5%

	YTD (%)	Rank	1 Year (%)	Rank	3 Years (%)	Rank	5 Years (%)	Rank	10 Years (%)	Rank	Since Incp (%)
	12.93	17 / 45	22.64	21 / 50	5.86	11 / 19	8.78	23 / 42	7.76	20 / 37	8.24
<i>Strategic Policy Index</i>	12.20		22.12		4.83		8.19		7.43		7.33
Allocation Index	12.40		22.77		4.56		8.40		7.52		7.46
Peers TF Between 55-70% Equity	12.77		22.63		4.99		8.58		7.42		--

# Benchmarking Pension Funds

	Pros	Cons
<b>Broad Policy Index</b>	<ul style="list-style-type: none"> <li>▪ Easily understood</li> <li>▪ Emphasis on strategic asset class implementation</li> <li>▪ “Default” asset allocation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Least similar to how portfolio is invested (widest dispersions)</li> <li>▪ Manager over- and under-performance likely muted</li> </ul>
<b>Strategic Policy Index</b>	<ul style="list-style-type: none"> <li>▪ Easily understood</li> <li>▪ Evaluates the impact of both assetclass over- and under-weights and manager selection</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not evaluating decisions surrounding composition of strategic asset allocation decisions</li> </ul>
<b>Allocation Index</b>	<ul style="list-style-type: none"> <li>▪ Likely tightest dispersion between actual and benchmark performance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Evaluation of asset allocation decisions are benchmarked away and just evaluating manager selection</li> </ul>
<b>Median Fund/ Peer Universe</b>	<ul style="list-style-type: none"> <li>▪ Evaluates portfolio performance relative to others investing in the same markets with same investment options</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not investable</li> <li>▪ “Peers” in universe might be in very different situations and have significantly different portfolio objectives</li> </ul>
<b>Target Return</b>	<ul style="list-style-type: none"> <li>▪ Evaluates if portfolio is hitting long term spending or actuarial return target</li> </ul>	<ul style="list-style-type: none"> <li>▪ Does not incorporate short-term market dynamics</li> <li>▪ Hard to assess what is driving overall over- or under-performance</li> </ul>

# Understanding Investment Benchmarks

## Discussion Topics

- Why we have them, and what makes a good benchmark
- Benchmarking by asset class
- Benchmarking investment managers
- Benchmarking pension funds

## Questions?

## Disclosures and Legal Notice

---

The views expressed herein are those of Asset Consulting Group (ACG). They are subject to change at any time. These views do not necessarily reflect the opinions of any other firm.

This report was prepared by ACG for you at your request. Although the information presented herein has been obtained from and is based upon sources ACG believes to be reliable, no representation or warranty, express or implied, is made as to the accuracy or completeness of that information. Accordingly, ACG does not itself endorse or guarantee, and does not itself assume liability whatsoever for, the accuracy or reliability of any third party data or the financial information contained herein.

Certain information herein constitutes forward-looking statements, which can be identified by the use of terms such as "may", "will", "expect", "anticipate", "project", "estimate", or any variations thereof. As a result of various uncertainties and actual events, including those discussed herein, actual results or performance of a particular investment strategy may differ materially from those reflected or contemplated in such forward-looking statements. As a result, you should not rely on such forward-looking statements in making investment decisions. ACG has no duty to update or amend such forward-looking statements.

The information presented herein is for informational purposes only and is not intended as an offer to sell or the solicitation of an offer to purchase a security.

Please be aware that there are inherent limitations to all financial models, including Monte Carlo Simulations. Monte Carlo Simulations are a tool used to analyze a range of possible outcomes and assist in making educated asset allocation decisions. Monte Carlo Simulations cannot predict the future or eliminate investment risk. The output of the Monte Carlo Simulation is based on ACG's capital market assumptions that are derived from proprietary models based upon well-recognized financial principles and reasonable estimates about relevant future market conditions. Capital market assumptions based on other models or different estimates may yield different results. ACG expressly disclaims any responsibility for (i) the accuracy of the simulated probability distributions or the assumptions used in deriving the probability distributions, (ii) any errors or omissions in computing or disseminating the probability distributions and (iii) and any reliance on or uses to which the probability distributions are put.

The projections or other information generated by ACG regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. Judgments and approximations are a necessary and integral part of constructing projected returns. Any estimate of what could have been an investment strategy's performance is likely to differ from what the strategy would actually have yielded had it been in existence during the relevant period. The source and use of data and the arithmetic operations used for calculating projected returns may be incorrect, inappropriate, flawed or otherwise deficient.

Past performance is not indicative of future results. Given the inherent volatility of the securities markets, you should not assume that your investments will experience returns comparable to those shown in the analysis contained in this report. For example, market and economic conditions may change in the future producing materially different results than those shown included in the analysis contained in this report. Any comparison to an index is for comparative purposes only. An investment cannot be made directly into an index. Indices are unmanaged and do not reflect the deduction of advisory fees.

This report is distributed with the understanding that it is not rendering accounting, legal or tax advice. Please consult your legal or tax advisor concerning such matters. No assurance can be given that the investment objectives described herein will be achieved and investment results may vary substantially on a quarterly, annual or other periodic basis. There is no representation or warranty as to the current accuracy of, nor liability for, decisions based on such information.

© 2025 Asset Consulting Group. All Rights Reserved. Asset Consulting Group is the sole owner of all rights, title, and interest to the materials, methodologies, techniques, and processes set forth herein, including any and all intellectual property rights. No part of this document may be reproduced, stored, or transmitted by any means without the express written consent of Asset Consulting Group.