



## Presentation for Investment Consulting Services – October 18, 2023

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# Introductions

# STRS Ohio Team

## Proposed Defined Contribution Client Consulting Team

**Hannah Schriener, CAIA**



**San Diego, CA**  
Managing Principal  
Consultant

**Colin Bebee, CFA**



**Portland, OR**  
Managing Principal  
Consultant

**C. LaRoy Brantley**



**Westwood, MA**  
Managing Principal  
Consultant

**Stephen P. McCourt, CFA**



**San Diego, CA**  
Managing Principal  
Co-CEO

### Experience

- 16 years of industry experience
  - Joined Meketa in 2017; Shareholder
  - Consultant on various non-profit, defined benefit and defined contribution plan sponsors
  - Leader: Defined Contribution Practice Group
  - Member: Fiduciary Management (OCIO) Investment and Consulting Leadership Committees
  - MBA: University of Phoenix; BA: Eastern Washington University
  - Leads/co-leads four client relationships including Defined Contribution, Defined Benefit, and Operating Funds
- 13 years of industry experience
  - Joined Meketa/PCA in 2010; Shareholder
  - Lead consultant on select public pension and healthcare funds as well as a member of Meketa's Capital Markets Research team
  - Architect of several of Meketa's proprietary modeling approaches and member of Asset-Liability Risk Management Committee
  - BS: Linfield College (Finance/Economics)
  - BS: Oregon State University (Computer Science)
  - Primary consultant for 4 clients and secondary consultant for 1 client; assets range from \$5.9 B to \$135.4 B
- 24 years of industry experience
  - Joined Meketa in 2017; Shareholder
  - Co-Chair: Emerging and Diverse Manager Committee
  - Member: Endowment & Foundation Practice Group, Investment Policy, and Diversity Leadership Committees
  - Has served as trustee for close to two decades on the Massachusetts PRIM Investment Committee
  - Currently serves as trustee on the Board for Hollins University, an all-women's college in Roanoke, VA
  - MBA: MIT Sloan School of Management; BA: Amherst College
  - Primary consultant for 3 clients and secondary consultant for 3 clients; assets range from \$107 M to \$47.8 B
- 29 years of industry experience
  - Joined Meketa in 1994; Shareholder
  - Lead consultant on various public and private pension funds for both general and private markets consulting
  - Speaker at numerous industry events
  - Member: Board of Directors, Fiduciary Management (OCIO), Private Markets Policy, and Diversity Leadership Committees
  - ALM: Harvard University; BS: University of Vermont
  - Primary consultant for 6 clients, secondary consultant for 3 clients, and tertiary consultant for 1 client; assets range from \$244 M to \$442.4 B

# Meketa Overview

45

Years of Experience

243

Clients

\$1.7 T

In Assets under Advisement

\$1.5 T

In Public Fund Assets

- Four decades of investment advisory experience
  - Advising Defined Benefit and Defined Contribution plans, and Endowments/Foundations
  - Working with Public, Corporates, Endowments/Foundations, Healthcare, Taft-Hartley, and Non-Profits
- Over 240 clients\*
  - 71 Defined Contribution plans
  - Over 180 General Consulting clients
  - Over 100 Private Market clients
- Staff of 247, including 165 investment professionals
  - 69 consultants and 45 analysts
  - 62 investment operations
  - 72 corporate & business administration
- One Line of Business
  - 100% of our revenue comes from our clients
  - No proprietary products

\* Overlap may occur as some clients have multiple mandates.  
Client and employee counts as of June 30, 2023; assets as of March 31, 2023.



# Significant Public Fund Experience

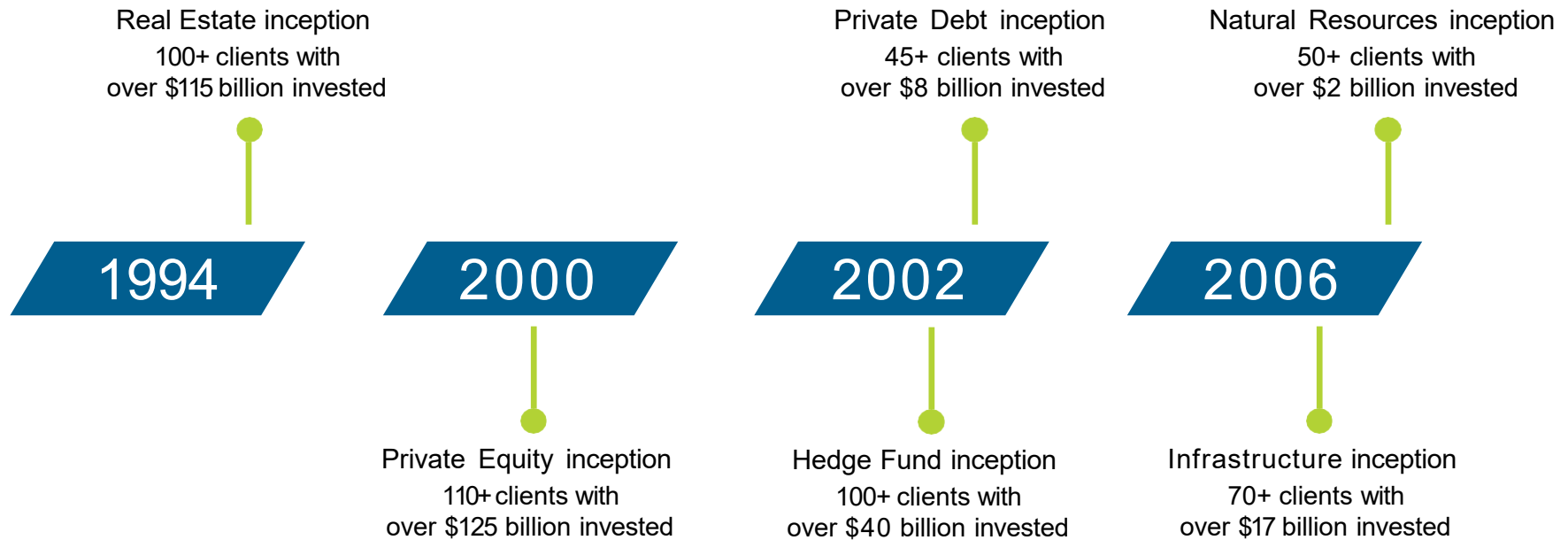
- We were hired by our first public fund client in 1988\*.
- We currently advise on over \$1.5 trillion in assets for 95 public fund clients throughout the nation.



\* PCA began working with public funds in 1988. As of June 2023.

# Longstanding Alternative Investment Experience

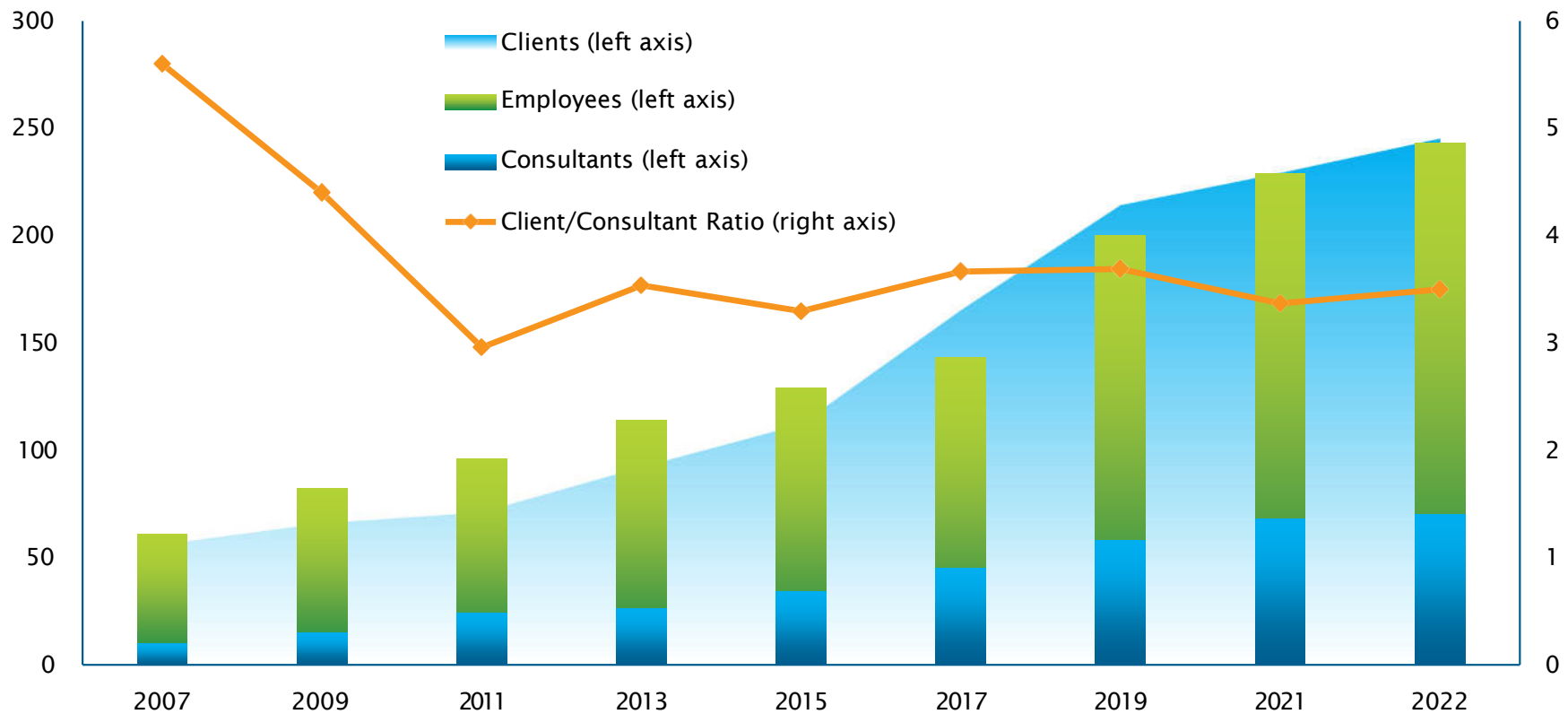
Meketa serves as a specialized Alternative Investment Consultant on many client relationships and is long-tenured in the space.



Denotes both discretionary and non-discretionary assets under advisement.  
Data as of December 31, 2022.

# Committed to Client Service

- We work directly with each client to meet their unique objectives.
- Low client to consultant ratio means we know our clients and their portfolios well.
- Timely and proactive advice has resulted in strong client retention.





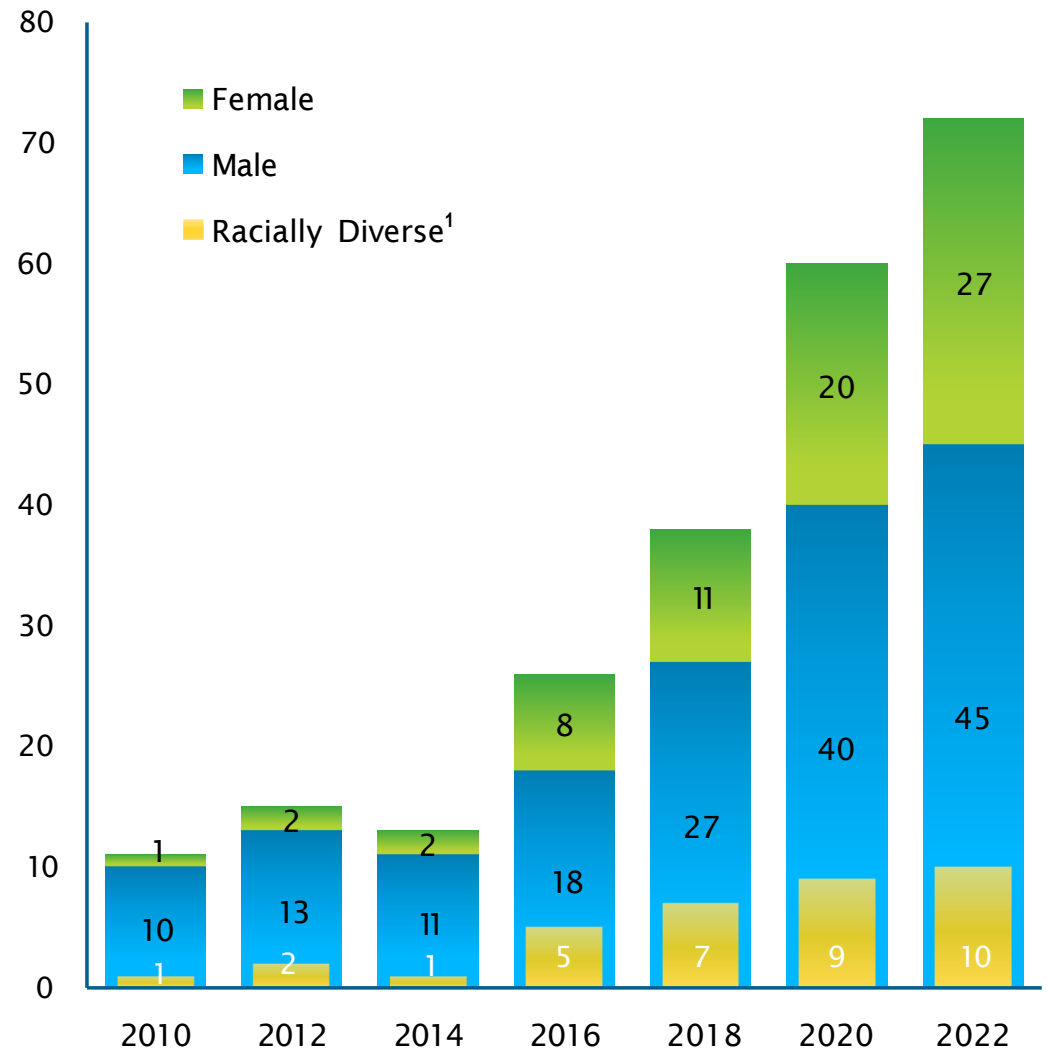
# Employee-Owned

We empower individuals to become owners of the firm, with no single shareholder owning more than 25%.

Our Co-CEO structure and team orientation across business groups enhance and secure our collaborative culture.

Our collegial atmosphere is exemplified by an open-door policy with approachable management as well as a formal process of continual feedback.

## Shareholders

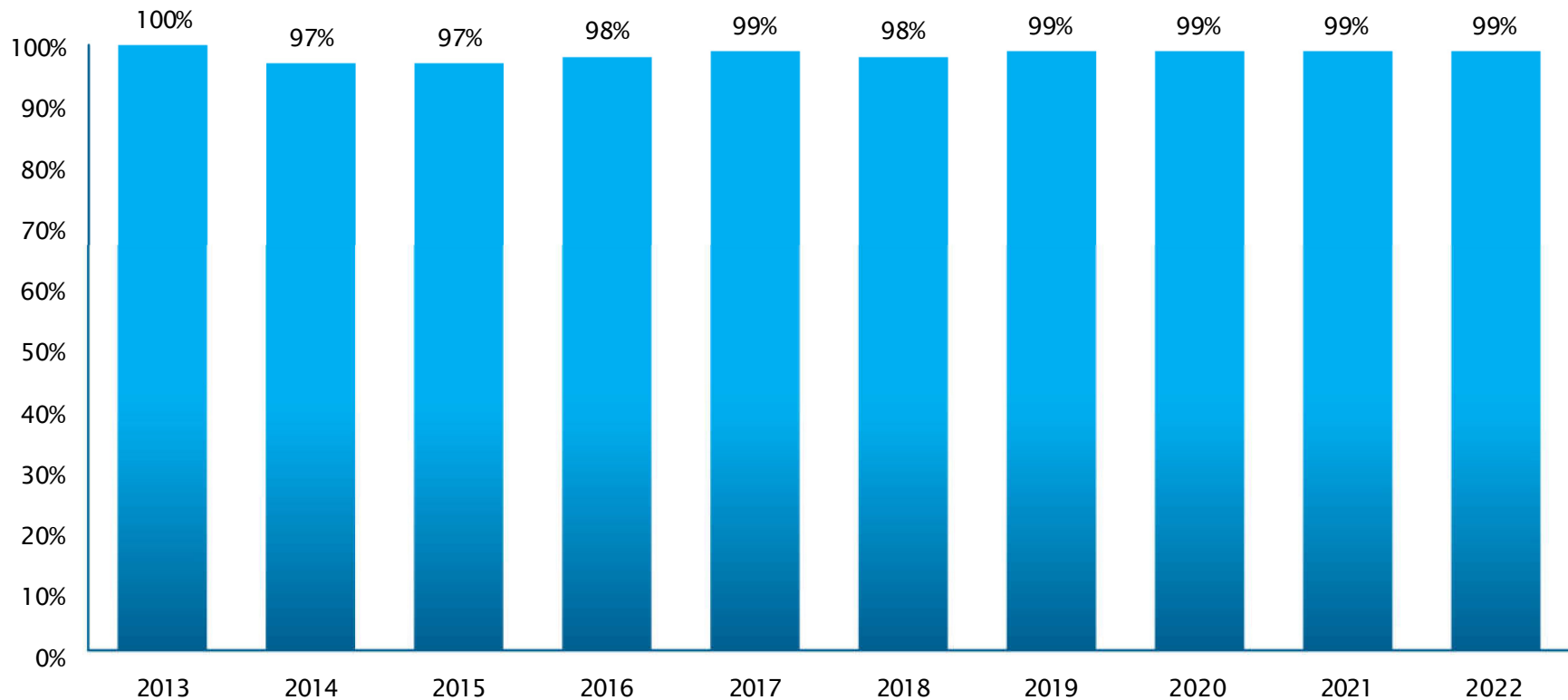


<sup>1</sup> Racially Diverse includes shareholders counted in the male and female categories.

# Client Satisfaction

- Consistent and controlled growth has resulted in strong retention.
- Nearly 100% client retention rate<sup>1</sup> shows we have been able to keep our clients happy.

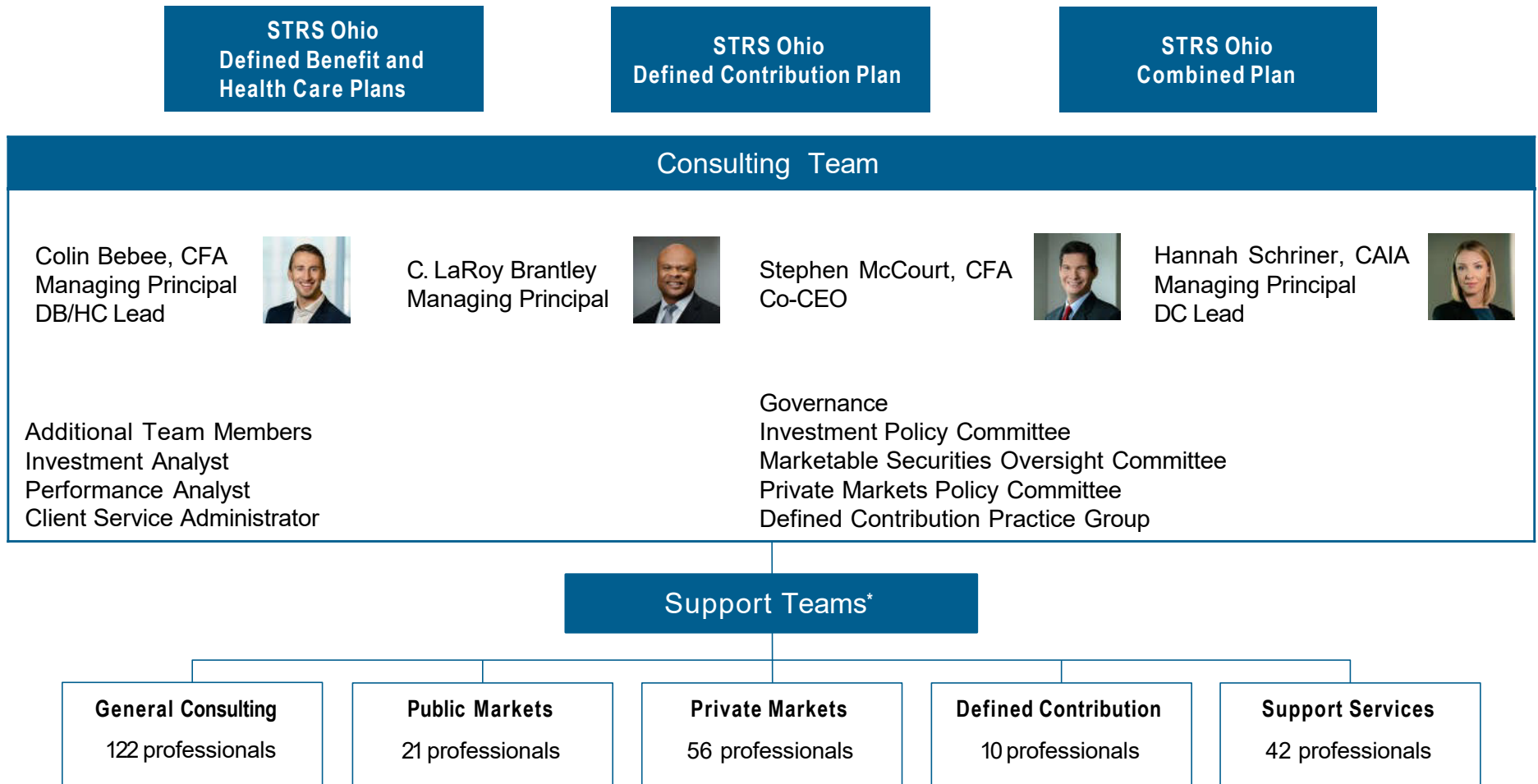
## Annual Client Retention Rate



<sup>1</sup> Average over the previous five years. Client Retention Rate is one minus the number of clients lost divided by the number of clients at prior year end.

## Response to Questions

# 1) STRS Ohio Team Details



→ Each of our clients is serviced by a team of consultants, analysts, and support teams.

→ We strive to provide timely and detailed responses to all inquiries from our clients.

\* General Consulting, Public Markets, Private Markets, and Defined Contribution counts include overlap of professionals and includes support staff.  
Employee counts as of June 30, 2023.

# 1) Best Fit for STRS Ohio & Role of Consultant

## → **Multi-faceted team with complementary skillsets and experience:**

- Significant defined contribution experience, including clients of similar size and structure as STRS Ohio.
- Proposed team focuses on most important decisions: investment menu design & implementation, governance, education, and monitoring.
- Co-lead consultant has experience as both a teacher and public fund Trustee.
- DC Consultant has extensive experience in plan administration and DC investment consulting.

## → **We work for the Board, full stop.**

## → **Our focus will be three-fold:**

- Provide ongoing education to the Board around fiduciary duties, plan design, and oversight.
- Review and enhance appropriate policies, practices, and processes that express the Board's expectations of the DC plan.
- Prudently monitor the investment implementation within the DC plan.

## 2) Fee Proposal

We constructed our original proposed fees based on the RFP Scope of Engagement:

Defined Contribution Program Scope of Engagement
<ul style="list-style-type: none"><li>• DC Program Design &amp; Structure Review</li><li>• Investment Structure Design and Fees</li><li>• Target Date Glidepath and Default Investment Alternatives</li><li>• Investment Performance Monitoring &amp; Reporting</li><li>• DC Program Service Provider Monitoring</li><li>• Board Education</li><li>• Other Duties Defined in Scope of Engagement</li></ul>
Proposed Fees
<ul style="list-style-type: none"><li>• \$120,000 for the first year. 4% increase for each year thereafter.</li></ul>

We are open to modifications to the Scope and corresponding fee changes.

Meketa's proposed standalone fee for the defined benefit and health plans is \$545,000. If retained to provide services for all three plans (defined benefit, health care, and defined contribution), Meketa's total fee would be \$625,000 for the first year, increased by 4% for each year thereafter.

Basic asset allocation/asset-liability studies are included in our fees. Basic Simulation-Based Optimization (SBO) studies are \$60,000 per study; Robust SBO Studies are \$100,000 per study.

### 3) Defined Contribution Plan Resources



- Meet monthly to discuss timely and relevant topics, such as: recent industry news and trends, legislative updates, and client-specific issues.
- Discuss longer-term initiatives on behalf of our clients (e.g., investment policy, custom fund management, other value-add services, etc.)
- Recent projects include: Evaluating and hiring a fee and value benchmarking service for Defined Contribution plans and developing and communicating a detailed best practices checklist for our clients in response to their client-specific participant issues and legal matters.

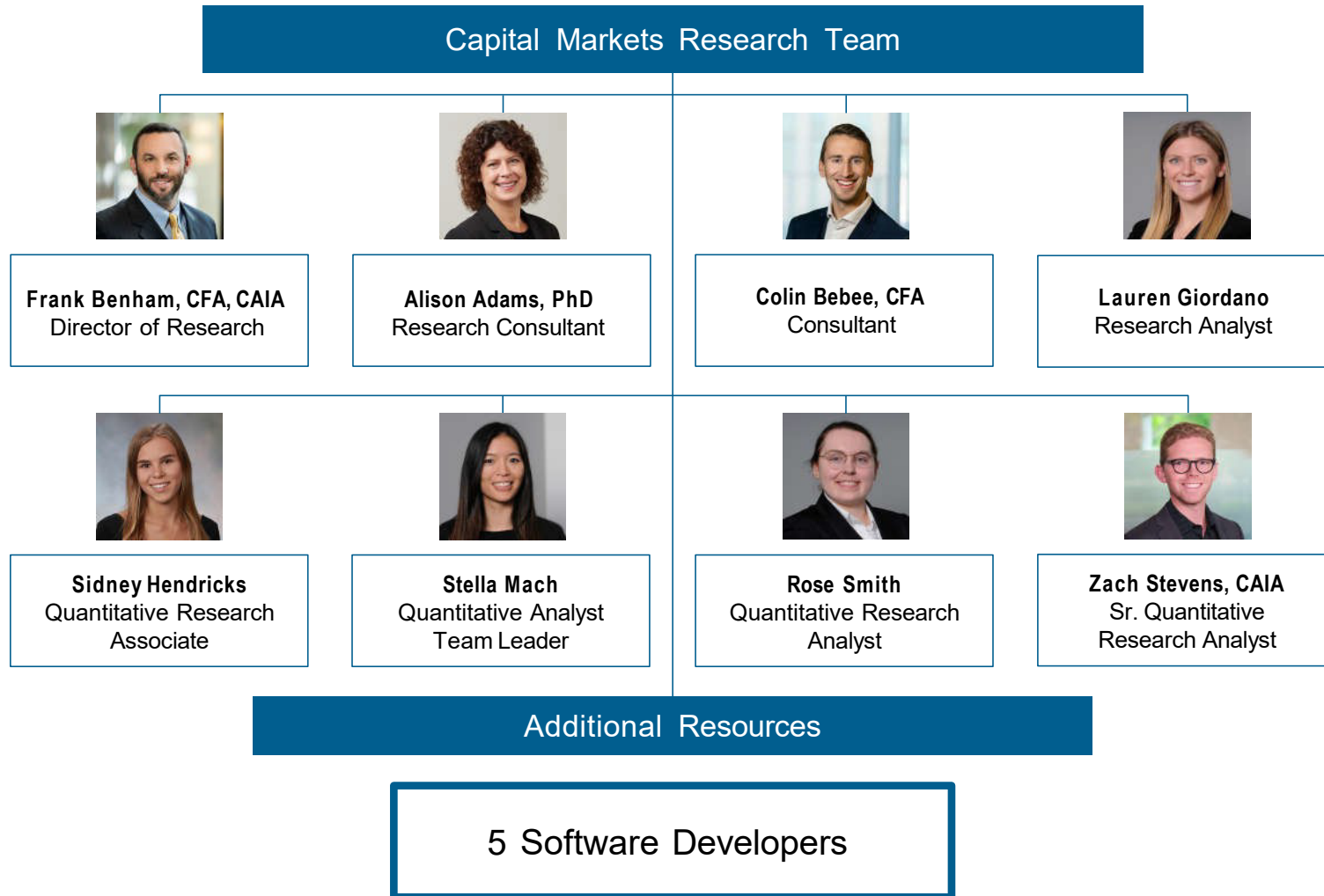


### 3) Defined Contribution Plan Resources



- Our research team is a subset of Meketa’s Defined Contribution Practice Group and Public Markets Manager Research Team.
- Meet quarterly to discuss timely and relevant DC research topics relating to investment products, services and trends, such as: DC-specific managers/strategies, target date funds, stable value and retirement income.
- Recent projects include: standardizing a quarterly survey for target date funds and formalizing a DC-specific manager research process to be used for search and selection projects.

### 3) Defined Contribution Plan Resources



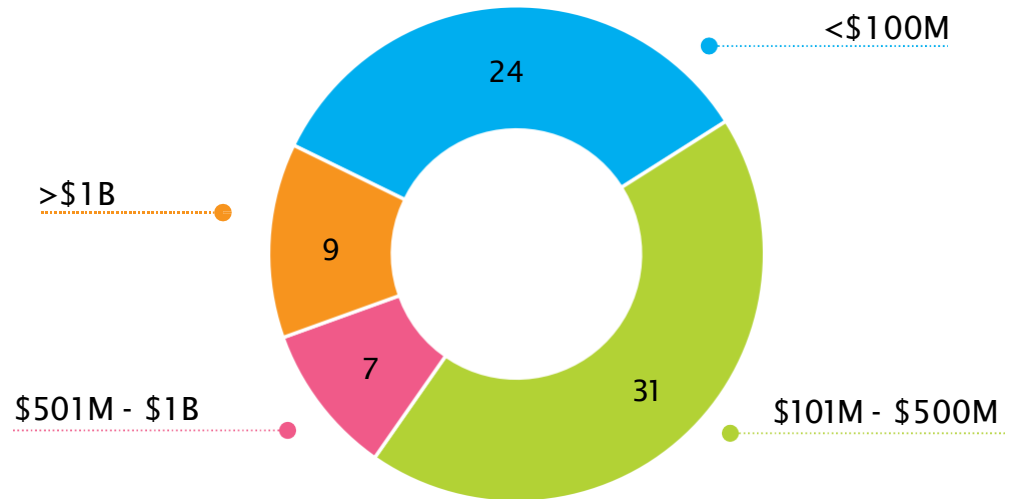
- Capital Markets Research team is the model development/analysis engine within Meketa.
- As it pertains to DC plans, specific focus on analyzing and designing glidepaths.

## 4) Experience with Defined Contribution Plans

- Meketa has been working with Defined Contribution plan clients for over three decades, and our first Defined Contribution relationship continues to this day.
- We work with all qualified and non-qualified plan types: 401(k), 403(b), 401(a), 457(b), and 457(f) for public, private, and non-profit plan sponsors, offering 3(21) and 3(38) fiduciary services.
- Memberships include:



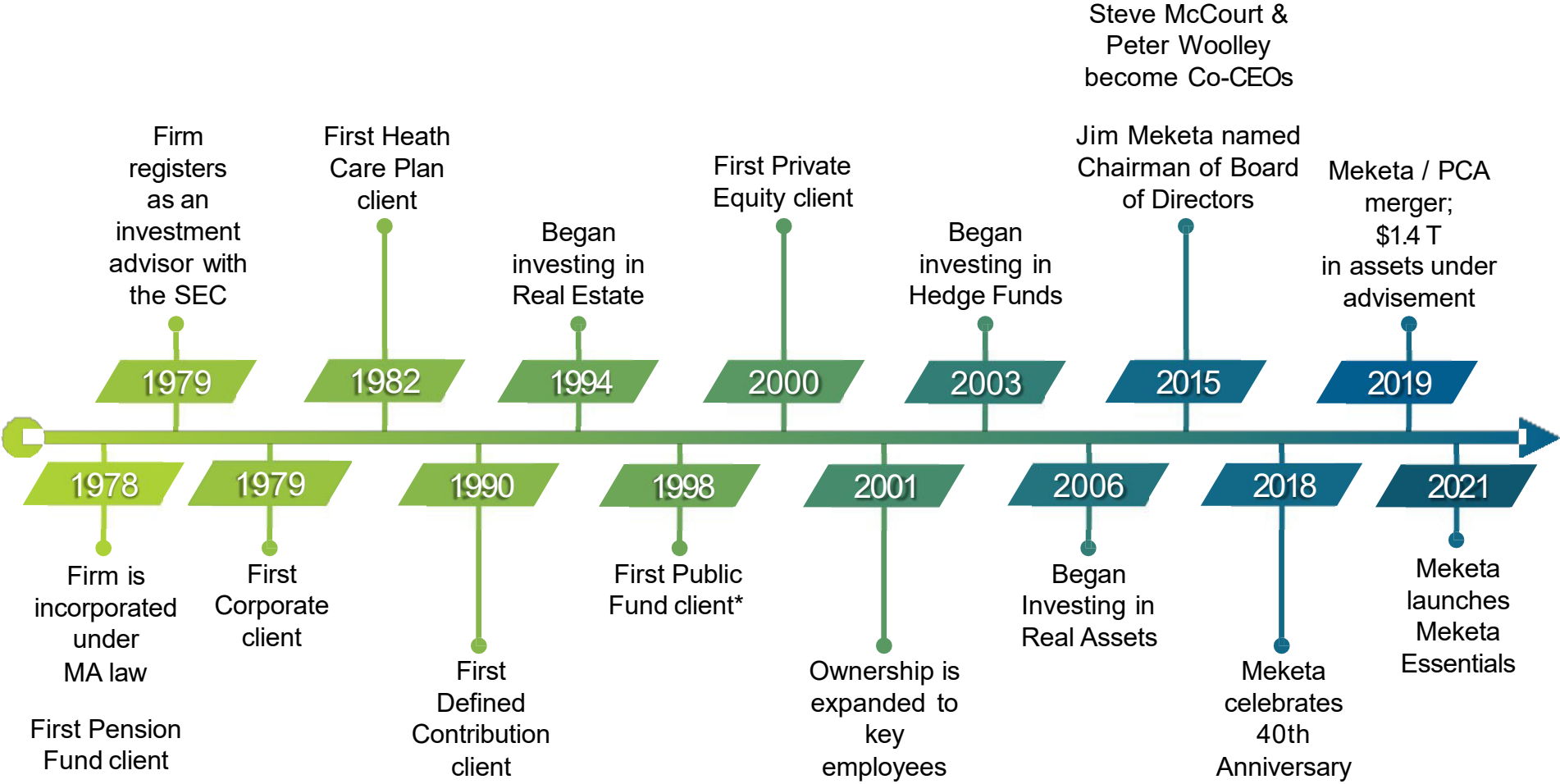
71 Plans with over \$70B in Defined Contribution Assets



Specializing in customized, actionable retirement solutions based on deep industry experience with the goal of providing participants with successful retirement.

\* Client counts as of June 30, 2023; based on total fund assets as March 31, 2023.

# 4) Experience with Defined Contribution Plans



45-Year History

\*PCA began working with public funds, including those of similar size as STRS Ohio, in 1988.

# 5) Evaluating Plan Design and Investment Menu

## Comprehensive Initial Plan Review

- Examines existing Investment Policy Statement, investment options, and structure/demographics of participants.
- Examines all fees and expenses associated with the Plan and creates plan to minimize them, wherever possible.
- Examines all participant communication and education.
- Reviews investment structure design and managers.
- Provides a guide for discussions, education, and decision-making.
- Provides recommendations and priorities.
- Uses an iterative process and dialogue among your Staff, Board, and Meketa.

**MEKETA**  
INVESTMENT GROUP

**Initial Fund Review**  
Sample Client Defined Contribution Plan

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**Summary Initial Fund Review**

The table below summarizes Meketa Investment Group's initial review of the Sample Client Defined Contribution Plan, including recommendations for action and priorities. Each recommendation is described in detail in the following pages.

Recommendation	Priority
<b>General Investment Policy</b>	
• Evaluate Investment Policy Statement	One
<b>Investment Menu Design</b>	
• Review default option	One
• Identify any gaps	One
• Broaden passive options (where appropriate)	One
• Custom funds	Two
<b>Performance Review</b>	
• Complete manager evaluation	One
• Review all fees and share classes	One
• Full 408(b)(2) Disclosure Analysis	One
<b>Recordkeeper Evaluation</b>	
• Review operating expenses, including revenue share	One
• Review all investment-related expenses and identify potential lower fee share class	One
• Review participant communication	Two
• Review participant education	Two

Priority one areas will be addressed by the Trustees and Meketa Investment Group, and any recommendations implemented by Meketa Investment Group within the next nine months. Priority two areas will be addressed over the next six to eighteen months, and any recommended actions implemented within that timeframe. Priority three areas will be addressed over the next twelve to thirty-six months, and any recommended actions implemented within that timeframe.

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BOSTON CHICAGO LONDON MIAMI NEW YORK PORTLAND SAN DIEGO

## 5) Best Practices for Defined Contribution Plans

### ✓ Have a strong governance structure in place

- Meet regularly
- Review IPS annually
- Document meetings and decisions

### ✓ Promote employee education and savings

- Focus on participant retirement outcomes
- Implement auto-features

### ✓ Implement a prudent fee structure

- Minimize fees and expenses where possible
- Have a fee structure that is transparent and equitable across all participants

### ✓ Provide an effective investment lineup

- Use an open-architecture structure
- Implement a simplified, multi-tiered menu that provides adequate diversification and choice
- Avoid redundancy in investment options
- Consider both passive and active options
- Use target date funds (or customized accounts) as the default option/QDIA
- Evaluate and monitor investment options
- Monitor participant activity and utilization of investment options
- Monitor and review industry trends within defined contribution market

## 5) Plan & Investment Menu Philosophy

### → One size does not fit all

- We customize investment menus based on specific plan objectives and demographics.

### → Multi-tier investment menu approach

- Single manager options representing major asset classes (capital preservation, equity, and fixed income).
- Target date funds as the QDIA/Default Investment Option.
- Brokerage account or mutual fund window, if appropriate.

### → Favor broadly diversified index managers

- Use active management only when excess returns are needed, when participants understand active risk, and when advisor and plan sponsor conviction is high.
- Favor lower-cost active managers (e.g., those that follow a systematic process).

### → Monitor and continuously improve fund lineup and participant-driven outcomes.

- Retirement readiness can be enhanced by reviewing participant choices regularly.
- Fund lineup should be reevaluated regularly to ensure lowest expense share classes are utilized.
- Longer term, consider automating enrollments and escalation of deferrals, and “reenrollment” when available.

### → Focus on improving participant outcomes by:

- Understanding participants’ behavioral factors.
- Recognizing that less is sometimes more.
- Offering low fee, passively managed options.
- Offering and promoting diversified age-based solutions.



## 5) DC Trends

### A few of the major trends we're discussing with clients today:

→ **Litigation Risk** continues to be top of mind for plan fiduciaries.

- Lawsuits continue to focus on fees and performance. Fiduciaries are looking for ways to minimize litigation risk without sacrificing the benefits members get from a DC plan.

→ The concept of **Retirement or Lifetime Income**.

- Plan sponsors have been increasing their focus on helping members through retirement. This includes evaluating the current tools and resources that are available through the DC program and looking for ways to enhance the overall program to support retirees.

→ Incorporating **Environmental, Social and Governance (ESG)** factors into DC program processes and investment products.

- Legislation took a whipsaw path to allowing plan sponsors to consider ESG factors in their decision-making process, broadly speaking. However, there has not been a significant uptake for incorporating ESG into a DC program at this time.

→ Increasing **Participant Engagement** is a continuous effort.

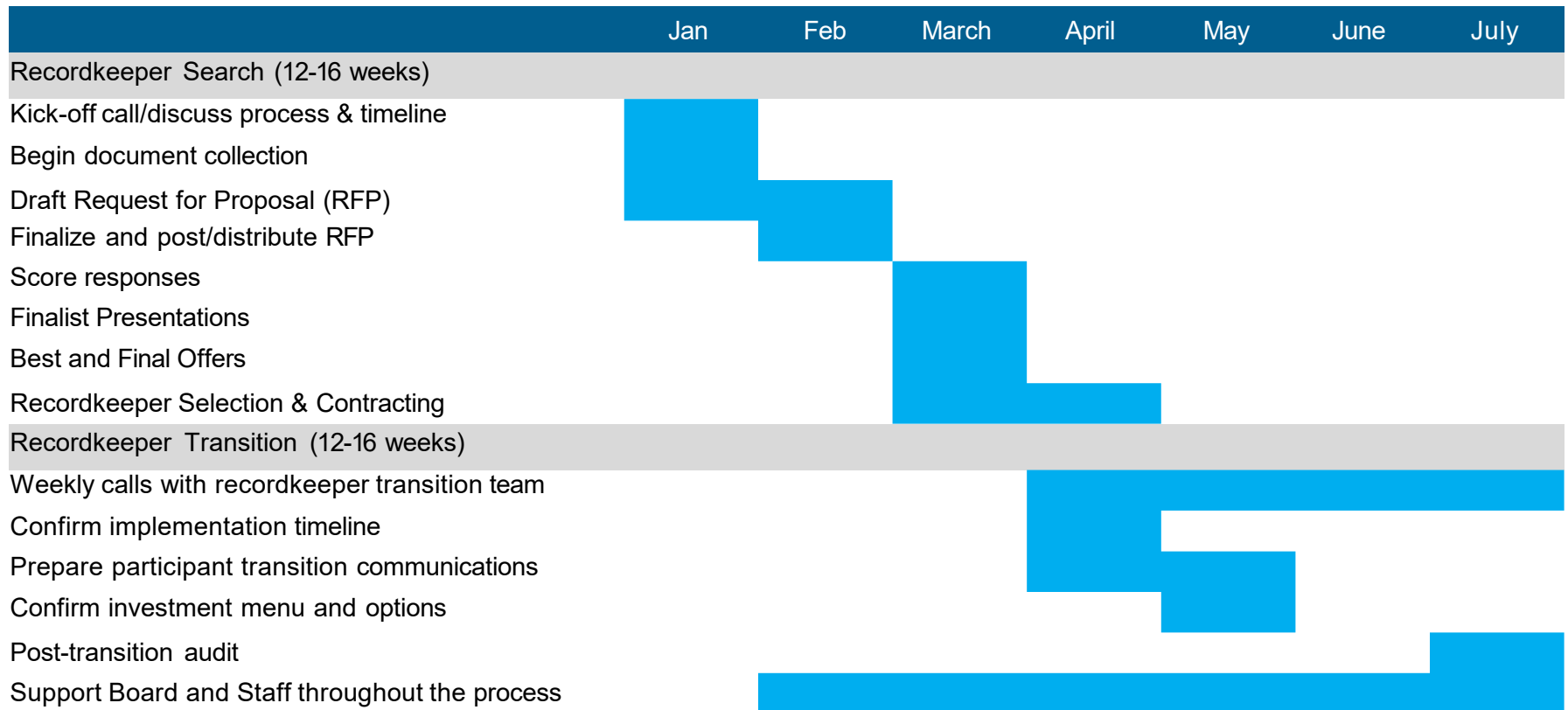
- A well-designed plan and investment menu are only effective if it's being utilized by eligible employees. Plan sponsors explore various methods and approaches to reach participants where they are at in their career to better resonate with them on the benefits of saving for retirement.

## 6) Performance Monitoring Process

- Receiving timely, accurate, and relevant reporting is critical for proper governance.
- Meketa's Quarterly DC reporting focus:
  - Long-term orientation – recognizing participants' focus on the short term.
  - Concise reports – what matters most?
  - Consideration of relative results – benchmarks and peer groups.
  - Discussion of ex-ante approach compared to ex-post results – are managers performing as expected?
  - Examination of the target date glide path – does it remain appropriate for the plan demographics?
  - Fees – where do they stand versus peers and are there lower cost vehicles/share classes available?
- Service Provider Monitoring
  - Meetings – on-site and virtual
  - Focus on full disclosure of plan fees (direct and indirect) and services offered (fee benchmarking study)
  - Evaluate all services:
    - Investment options
    - Recordkeeping, trust, and custody
    - Participant communications & education
    - Participant investment advice
    - Evaluate the security, systems, compliance, administrative capabilities, investment offering, and communication materials
- Conduct service provider searches when necessary to match specific needs of the Plan with a vendor who understands those needs and can execute efficiently.

# 7) Recordkeeper Search & Transition

- Recordkeeper searches and transitions are large undertakings and can be quite disruptive to participants.
- Meketa takes a collaborative approach with our clients to ensure the best experience possible.
- Hypothetical Timeline:



## 8) Fiduciary Considerations

- Meketa acts in a fiduciary capacity as investment advisor and, if desired, investment manager (e.g., of custom TDFs).
- Duties include assistance with or responsibility for:
  - Offering a broad range of investment alternatives at the lowest possible cost (all else equal)
  - Monitoring all costs, direct and indirect
  - Regular review of participant decision making, when choice is offered
  - Regular review of service providers (e.g., recordkeeper performance)
  - Documentation and reporting of oversight and recommendations
  - Investment Policy Statement review and enhancement
  - Providing fiduciary education
- Potential Board Education Topics
  - Annual plan benchmarking study – fees/plan design
  - Target date marketplace and benchmark analysis
  - Lifetime income solutions
  - Retirement readiness communication strategies
  - Education on potential new asset classes to consider
  - Environmental, Social and Governance (ESG) investing
  - Smart Beta and enhanced indexing
  - Macroeconomic and capital market outlook reviews

## 9) Educating Plan Participants

### Participant Communications

- Provide independent oversight of investment communications.
- Collaborate with plan providers to develop clear, concise communications for participants.
- Integrate industry best practices across recordkeeping vendors.
- Custom participant newsletters and slide presentations.

# 10) Proposed Transition & Implementation Plan

Once a contract is executed, we would propose the following transition timeline:

Week 1 to Week 3	Week 4 to Week 6	Week 7 to Week 9	Week 10 & Beyond
<ul style="list-style-type: none"><li>☑ Gather all critical data for the Plan from current providers (managers, recordkeeper, etc.)</li><li>☑ Schedule due diligence meetings with each of the Plan's managers and recordkeeper</li><li>☑ Begin review of investment policy, plan features, investment line up, and other critical plan components</li></ul>	<ul style="list-style-type: none"><li>☑ Complete initial investment policy review</li><li>☑ Complete initial review of plan features and investment line up</li><li>☑ Complete initial review of the recordkeeping relationship</li><li>☑ Complete initial manager due diligence meetings</li><li>☑ Finalize Initial Plan Review</li></ul>	<ul style="list-style-type: none"><li>☑ Present Initial Plan Review to the Board, Committee, and Staff</li><li>☑ Review investment policy with the Board, Committee, and Staff</li><li>☑ Investment line up structure and plan features with the Board, Committee and Staff</li><li>☑ Review manager roster analysis with the Board, Committee and Staff</li></ul>	<ul style="list-style-type: none"><li>☑ Begin to implement Board, Committee, and Staff decisions</li><li>☑ Continue dialogue with the Board, Committee, and Staff regarding other components critical to running a successful investment program</li></ul>

# 11) Defined Contribution Reporting and Communications

## Reporting, Reviews & Communication

- Quarterly Performance Analysis
- Quarterly Investment Fee Analysis
- Quarterly DC Marketplace Update
- Standing Quarterly calls with Staff  
*(more frequent as-needed)*
- Quarterly/Semi-annual/Annual Board Education
- Annual Service Provider Review
- Annual Investment Structure & Plan Design Review
- Annual Investment Default Review
- Quarterly Meketa Webinars
- Periodic white papers and research
- Frequent emails/calls from client team

**MEKETA** Sample Client

Total Assets I As of September 30, 2019

	Trailing Net Performance										
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Plan</b>	<b>1,916,274,388</b>	<b>100.0</b>									
<b>Total Plan Tier I</b>	<b>602,412,817</b>	<b>31.4</b>									
BlackRock LifePath Index Retirement	33,796,448	18	1.4	11.6	10.2	6.3	5.5	4.7	--	4.9	Jun-13
BR LifePath Index Ret NL Custom Benchmark			1.4	11.6	10.2	6.4	5.6	4.8	5.9	4.9	Jun-13
Target Date Retirement Mstar MF Median			1.3	10.4	9.2	6.1	5.1	4.4	5.6	4.6	Jun-13
Target Date Retirement Mstar MF Rank			45	21	16	36	24	27	--	41	Jun-13
BlackRock LifePath Index 2020	64,310,274	3.4	1.4	12.0	10.2	6.0	6.1	5.1	--	5.5	Jun-13
BR LifePath Index 2020 NL Custom Benchmark			1.3	11.9	10.2	6.0	6.1	5.1	6.7	5.5	Jun-13
Target Date 2020 Mstar MF Median			1.1	12.3	9.8	5.2	6.6	5.5	7.4	6.0	Jun-13
Target Date 2020 Mstar MF Rank			31	63	31	20	79	87	--	84	Jun-13
BlackRock LifePath Index 2025	108,669,711	5.7	1.1	13.0	10.2	5.2	6.9	5.6	--	6.1	Jun-13
BR LifePath Index 2025 NL Custom Benchmark			1.1	13.1	10.3	5.3	6.9	5.6	7.3	6.1	Jun-13
Target Date 2025 Mstar MF Median			1.1	13.3	10.1	4.8	7.3	5.9	8.0	6.7	Jun-13
Target Date 2025 Mstar MF Rank			44	59	47	31	81	84	--	84	Jun-13
BlackRock LifePath Index 2030	101,870,403	5.3	0.9	14.0	10.3	4.6	7.6	6.0	--	6.6	Jun-13
BR LifePath Index 2030 NL Custom Benchmark			0.9	14.0	10.3	4.7	7.6	6.0	7.8	6.5	Jun-13
Target Date 2030 Mstar MF Median			0.9	14.4	10.3	4.2	8.0	6.4	8.5	7.2	Jun-13
Target Date 2030 Mstar MF Rank			47	74	50	34	80	82	--	83	Jun-13

MEKETA INVESTMENT GROUP

**MEKETA** Sample Client

Total Plan | As of June 30, 2023

Name	Investment Expense Analysis Reflecting Recordkeeper Fees As of June 30, 2023										
	Market Value (\$)	% of Portfolio	Manager Expense Ratio %	Estimated Manager Expense (\$)	TIAA Recordkeeper Fee %	Revenue Share %	Total Est. Combined Fees (%)	Total Est. Combined Fees (\$)	Median Expense Ratio %	Passive Median Exp. Ratio %	
Vanguard Target Retirement Income Trust II	10,241,840	1.0%	0.08%	7,583	0.03%	--	0.15%	14,854	0.43%	--	
Vanguard Target Retirement 2020 Trust II	17,601,833	1.8%	0.08%	13,201	0.03%	--	0.15%	25,523	0.36%	--	
Vanguard Target Retirement 2025 Trust II	33,073,682	3.3%	0.08%	24,805	0.03%	--	0.15%	47,857	0.43%	--	
Vanguard Target Retirement 2030 Trust II	42,576,801	4.2%	0.08%	30,933	0.03%	--	0.15%	61,736	0.62%	--	
Vanguard Target Retirement 2035 Trust II	54,642,787	5.5%	0.08%	40,982	0.03%	--	0.15%	79,232	0.43%	--	
Vanguard Target Retirement 2040 Trust II	66,777,817	6.7%	0.08%	50,063	0.03%	--	0.15%	96,628	0.44%	--	
Vanguard Target Retirement 2045 Trust II	44,838,940	4.5%	0.08%	33,629	0.03%	--	0.15%	65,016	0.44%	--	
Vanguard Target Retirement 2050 Trust II	32,462,831	3.2%	0.08%	24,907	0.03%	--	0.15%	46,607	0.45%	--	
Vanguard Target Retirement 2055 Trust II	12,458,836	1.2%	0.08%	9,343	0.03%	--	0.15%	18,062	0.46%	--	
Vanguard Target Retirement 2060 Trust II	5,503,204	0.5%	0.08%	4,027	0.03%	--	0.15%	7,980	0.46%	--	
Vanguard Target Retirement 2065 Trust II	2,493,773	0.2%	0.08%	1,872	0.03%	--	0.15%	3,619	0.46%	--	
Vanguard Target Retirement 2070 Trust II	53,684	0.0%	0.08%	40	0.03%	--	0.15%	78	0.46%	--	
Vanguard Short-Term Bond Index	14,276,376	1.4%	0.05%	7,139	0.03%	--	0.12%	17,134	0.47%	0.07%	
Vanguard Total Bond Market Index	7,787,707	0.8%	0.04%	3,105	0.03%	--	0.11%	8,564	0.44%	0.13%	
Vanguard Institutional Index	61,579,618	6.1%	0.04%	24,632	0.03%	--	0.11%	67,738	0.67%	0.20%	
Vanguard Extended Market Index	16,793,667	1.7%	0.05%	8,397	0.03%	--	0.12%	20,152	0.86%	0.24%	
Vanguard Total International Stock Index	31,601,846	3.2%	0.08%	25,283	0.03%	--	0.15%	47,406	0.84%	0.26%	
Vanguard Treasury Money Mkt Inv	9,056,892	0.9%	0.06%	8,054	0.03%	--	0.16%	14,408	0.23%	--	
Vanguard Inflation-Protected Secs Inst	6,084,496	0.6%	0.04%	14,603	0.03%	--	0.11%	18,862	0.37%	--	
Benzl Core Plus Bond Inst	6,657,093	0.7%	0.30%	19,671	0.03%	--	0.37%	24,638	0.90%	--	
Champion Mid Cap Institutional	17,404,765	1.7%	0.64%	146,217	0.03%	--	0.91%	158,402	0.86%	--	
IAWO 09616 Serial Cap Care Fund - Class Z	6,995,374	0.7%	0.77%	53,906	0.03%	--	0.84%	58,719	0.99%	--	
Goldman Sachs GSD Divers Int Opp Inv	6,716,646	0.7%	0.50%	63,405	0.03%	--	0.97%	18,103	0.88%	--	
CREF Social Choice	42,551,906	4.2%	0.09%	40,849	0.03%	0.00%	0.16%	66,083	0.76%	--	
American Century High Income BB	7,251,444	0.7%	0.54%	39,158	0.03%	--	0.61%	44,234	0.71%	--	

The Passive Median Expense Ratio is a custom calculation using Vanguard data, based on historical annual performance returns classes as defined by Vanguard.

MEKETA INVESTMENT GROUP



Q&A and  
Closing Remarks

# Distinguishing Characteristics

## Why Meketa Investment Group?

- We have **creative investment solutions** to help our clients achieve their objectives across defined benefit, health care, and defined contribution plans.
- Our **high-touch** consulting approach will be evident from day one. We seek to exceed client expectations throughout the tenure of a relationship.
- We are **public fund experts** who can share our insights, best practices, and lessons learned from our decades of experience.
- We believe we have **strong alignment of interests** with STRS Ohio.
- **Transparent and Objective**: We have no internal products and seek to minimize any conflicts of interest, which allows our clients to trust our research and decisions.

## Thank You

---

*Thank you for the opportunity to meet with you and present our capabilities.*

*We are excited about the prospect of serving*



*and believe we would be a great fit for your organization.*

*It would be an honor and a privilege to serve as your investment consultant.*

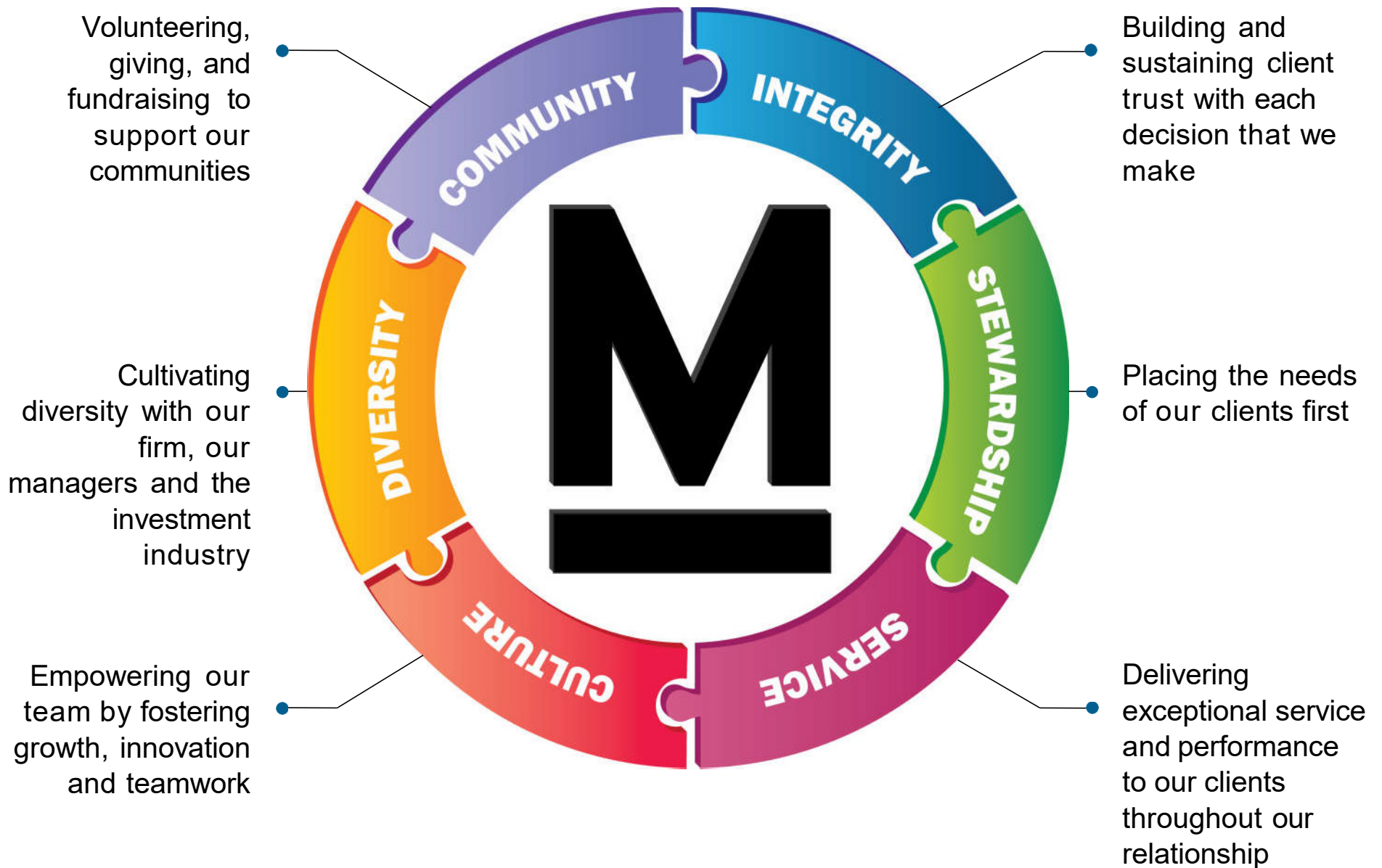
## Who We Are



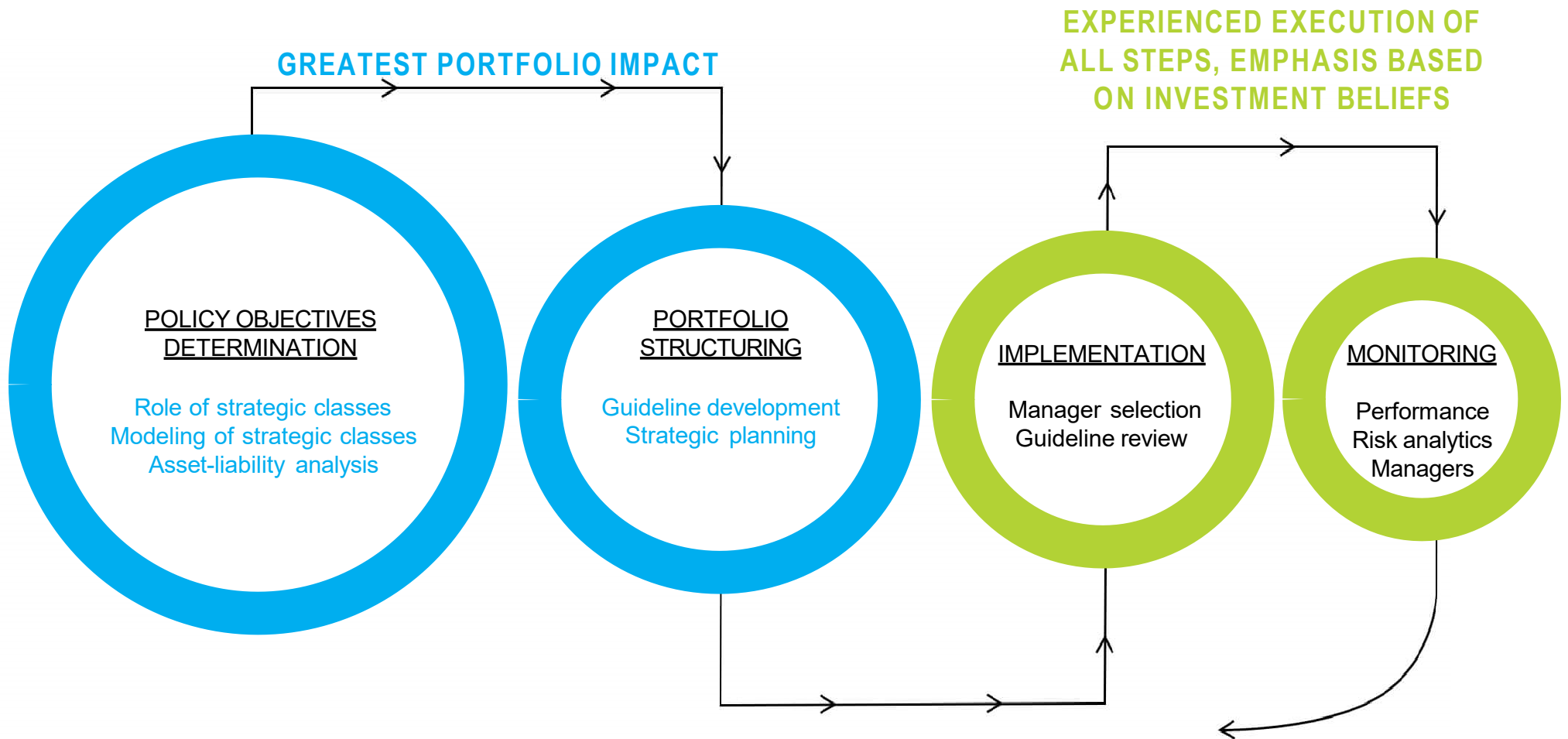
- Our unwavering culture will continue to be driven by our history and supported by our people. This commitment will ensure long-term success.
- We help individuals and communities achieve their financial goals through responsible, ethical, and thoughtful research and relationships.
- Our clients are our #1 priority. We engage in partnerships offering customized solutions and pride ourselves on our responsive nature, collaboration, and ongoing education.

# Appendix

# Our Values



# Meketa's Approach Emphasizes Major Decisions





# Proactive Communication

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Today's Low Interest Rate Environment—Zero Bound and Down

**GLOBAL MACROECONOMIC RESEARCH**  
INVESTMENT GROUP  
GLOBAL FINANCIAL THEORY

**Artificial Intelligence**

Artificial Intelligence, or more simply, A.I., has captured our collective imagination since the 1950s when the idea was first introduced in the modern sense. It was popularized in media even earlier by Isaac Asimov who introduced the three laws of robotics and later more famously in the film series The Terminator. A discussion of the topic causes some to envisage some extreme scenarios, while others can feel that something that has been so long in coming cannot truly be real?

The purpose of this paper is to illustrate that not only has A.I. become a reality in our day to day lives, but that it is already impacting investment portfolios as well as the investment process in many cases. While A.I. looks nothing like the doomsday scenarios portrayed in blockbusters, it can come in many different forms. Understanding the best opportunities to make use of this quickly expanding technology can be a challenge, but keeping a focus on the 'how' and the 'why' it is valuable is the clearest path to a successful implementation. In the vast majority of cases, A.I. either expands or improves upon processes that are already in use. While the mathematics and technical details behind an A.I. algorithm can be very complex, the fundamentals of A.I.'s value-add should be clear and interpretable.

**Why are interest rates so low today?**

Are low rates driven by cyclical or secular forces?

What are the implications of low rates for investors?

To combat the effects of the Global Financial Crisis (GFC) of 2007-2009, central banks around the world aggressively lowered interest rates and ultimately engaged in non-traditional policies such as quantitative easing and negative deposit rates to encourage investment and growth. Ten years after the GFC, interest rates remain well below historical norms, with large portions of some countries' yield curves in negative territory. In this paper, we will discuss the current environment, how we got here, and what implications "lower for longer" might have on return assumptions, asset allocation, and overall economic activity.

**MEKETA essentials**

**GLOBAL MACROECONOMIC RESEARCH**  
INVESTMENT GROUP  
Richard J. Hall, CFA  
Kathleen Davidson  
David Davidson  
Paula Hayden  
Richard Morgan  
David Smith  
Eric White  
Teresa Torres

**ARTICLE WRITERS**  
Michael Walsh  
Steve Kim, MPA, PhD  
Richard Morgan, CFA, CFP®  
Teresa Torres, CFP®, CFA®

The first known mention of artificial intelligence was by John McCarthy in 1955 (http://www.mcs.duke.edu/~mccarthy/aihistory.html)

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- Timely, actionable research topics
- Flexible formats and delivery
- Customized client education materials on the topics of interest to your organization
- Direct access to subject matter experts throughout the organization to answer your questions
- Training on topics that impact your investment goals
- MEKETA essentials (client portal)
- Meketa Investment Perspectives

Welcome to your personal source for in-depth analysis, insights, and customized reporting

**Research Engine | Public Markets**  
Extensive library of research on Public Market investment firms and strategies.

**Research Engine | Private Markets**  
Rich analysis of hundreds of Private Market investment opportunities launched each year.

**Portfolio Dashboard | Private Markets**  
Customizable performance and diversification analysis for Private Market portfolios.

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**MEKETA**

WHO WE SERVE + WHAT WE OFFER + ABOUT US + THOUGHT LEADERSHIP | NEWS & EVENTS

**Thought Leadership**  
Providing in-depth analysis, research, and insights to increase understanding and success

ALL | MACROECONOMIC NEWSLETTER | QUARTERLY MARKET ANALYSIS | WEBINAR | WHITE PAPER

**QUARTERLY MARKET ANALYSIS**  
MAY 14, 2020  
First quarter 2020 global macroeconomic outlook

**WEBINAR**  
MAY 14, 2020  
Meketa's Christy Fields participates in a REFI Radio: Innovations in Real Estate podcast

# Asset Allocation Tool

→ Our asset allocation tool is fully customizable and allows users to create various asset mixes, return assumptions, and peer comparisons.

→ It includes the following modules:

- Portfolio Statistics
- Risk Decomposition
- Tracking Error Contribution
- Probability of Achieving Target Return
- Expected Return Percentiles
- Value at Risk
- Historical Scenarios
- Stress Tests
- Economic Regime Management
- Liquidity Analysis
- Sequence of Returns
- Asset Growth
- Alpha Estimates
- Monte Carlo Simulation

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Asset Allocation / Asset Allocation Tool Example / Asset Study 2021

**Portfolio Statistics**

Asset Group	Policy A	Policy B	Benchmark
State Sensitive	20.00 %	21.50 %	17.50 %
Cash Equivalents	2.5 %	3 %	1 %
Investment Grade Bonds	2.5 %	3 %	13 %
Long-term Government Bonds	10 %	10 %	2.5 %
TIPS	5 %	5.5 %	1 %
Global Credit	9.00 %	8.00 %	7.50 %
High Yield Bonds	2 %	2 %	12 %
Bank Loans	1 %	1 %	0.8 %
		4 %	3 %
		0.5 %	1.25 %
		7.00 %	6.80 %
		12.93 %	13.30 %
		0.46	0.43

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Asset Allocation / Asset Allocation Tool Example / Asset Study 2021

Select Asset Classes

Asset Class	Current Weight	Target Weight
<input checked="" type="checkbox"/> Cash Equivalents	11	10
<input checked="" type="checkbox"/> Investment Grade Bonds	18	43
<input checked="" type="checkbox"/> Intermediate Investment...	2.0	5.0
<input checked="" type="checkbox"/> Investment Grade Corpor...	2.3	7.8
<input checked="" type="checkbox"/> Long-term Corporate Sec...	3.2	8.0
<input checked="" type="checkbox"/> Mortgage Backed Secur...	1.8	3.5
<input checked="" type="checkbox"/> Intermediate Governmen...	1.4	3.0
<input checked="" type="checkbox"/> Long-term Government B...	2.5	10.0
<input checked="" type="checkbox"/> Long-term Strips	3.3	20.0

Edit Asset Mix

Asset Class	Policy A	Policy B	Benchmark
Cash Equivalents	2.5	3	1
Investment Grade Bonds	2.5	3	13
Long-term Government Bonds	10	10	2.5
TIPS	5	5.5	1
High Yield Bonds	2	2	12
Bank Loans	1	1	0.8
Private Debt	4	4	3
Emerging Market Bonds (Local)	1	0.5	1.25
Emerging Market Bonds (Global)	1	0.5	1.25
Total	100	100	100

# Reporting

**An emphasis on thorough reporting is necessary to support investment insights. Below are typical steps of the reporting process.**

## Data Gathering

Data is gathered from several sources. We have automated custodial and direct manager feeds that enable quick data processing. We also collect statements from managers directly.

## Data Reconciliation

Once data is gathered, we begin the reconciliation process. We compare information between all received sources to bolster the accuracy of data.

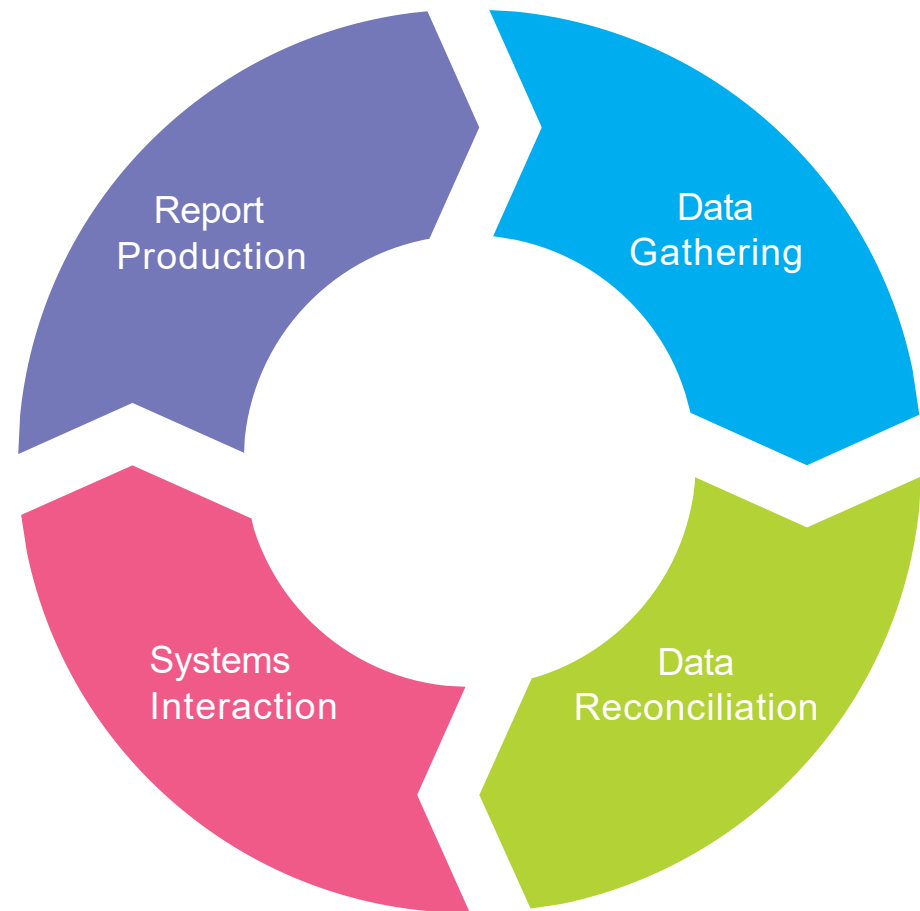
## Systems Interaction

Once data has been reconciled, we engage our primary performance system Investment Metrics as well as assess if other tools are needed to produce a full report.

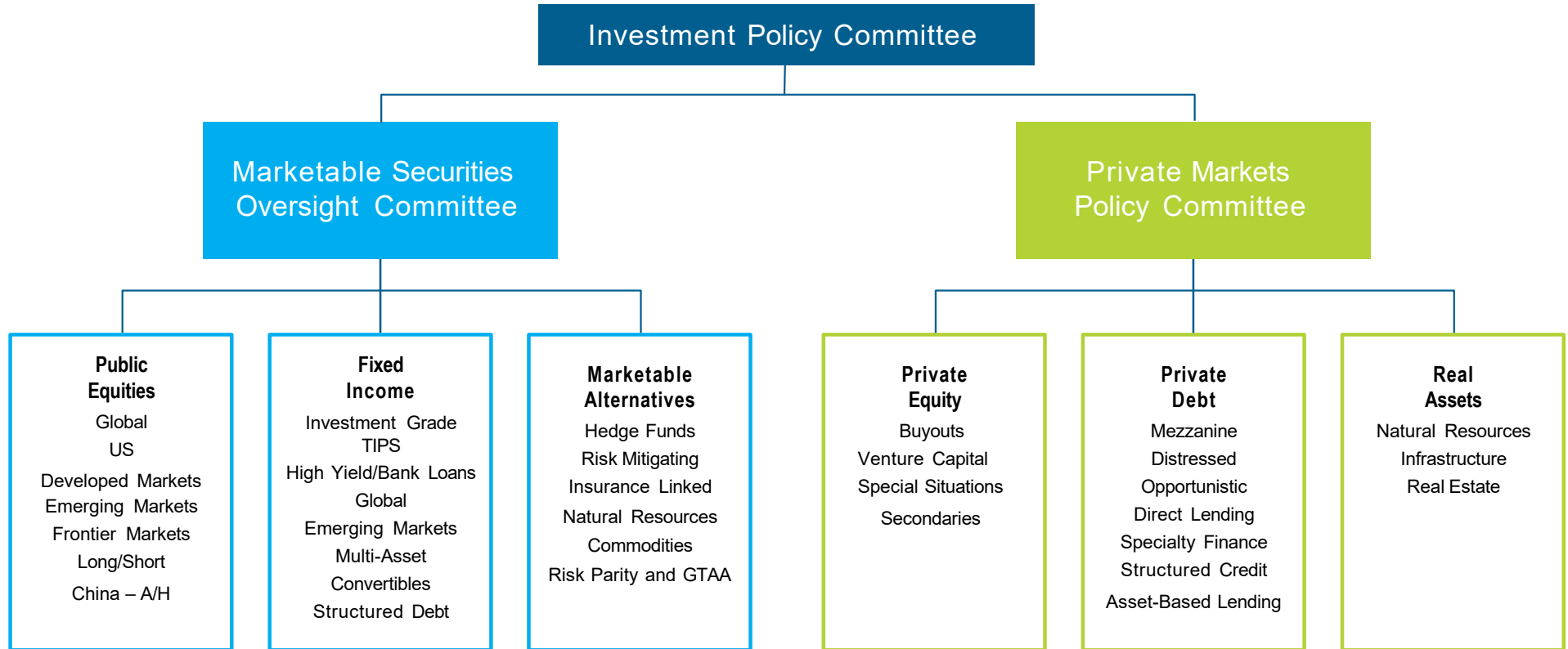
## Report Production

With all information produced, our Client Service Associates work to combine all materials into concise report packages for easy consumption.

The Reporting Process



# Broad Manager Research Coverage



## Investment Committee Structure

- We maintain dedicated resources across public and private markets asset classes.
- Our due diligence teams report to the firm’s Marketable Securities Oversight and Private Markets Policy Committees.
- Investment Committee structure draws on the expertise of the firm’s senior professionals.

# Manager Evaluation, Selection, and Monitoring

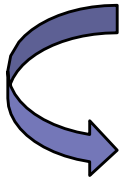
## Initial Analysis

### Idea Sourcing:

- Industry networks
- Clients
- Database screening
- 3<sup>rd</sup> party capital introduction

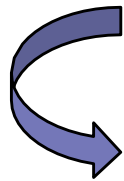
### Funneling:

- Quantitative screen
- Qualitative screen
- Peer group analysis



## Extensive Due Diligence

- Recommendation vetted by respective asset class heads
- Secondary review conducted by broader Public Markets Research Team



## Final Review by Marketable Securities Oversight Committee

- Committee members review for suitability by client type
- Determine respective search list to add



## On-going Monitoring

- Quarterly communication for long-only strategies via DiligenceVault
- Annual meeting for highly rated and/or high exposure strategies

# Private Markets Manager Research Team



John Haggerty, CFA  
Director of Private Markets

## Private Equity

Steven Hartt, CAIA Private Markets Consultant	Judy Chambers Private Markets Consultant
Tad Fergusson, CFA Private Markets Consultant	Molly LeStage Private Markets Consultant
John Haggerty, CFA Director of Private Markets	Jess Downer, CFA Private Markets Consultant
Ethan Samson, JD Private Markets Consultant	Jed Constantino, CAIA Sr. Private Markets Analyst
Luke Riela, CFA Macro Research & Data Analytics	Bradley Dumais Private Markets Analyst
John McCarthy Private Markets Analyst	Harrison Page Private Markets Analyst
Michael Pellatz, CAIA Private Markets Analyst	Balaj Singh, CFA, CAIA Private Markets Analyst
Cristen Xhama, CFA Private Markets Analyst	

## Private Debt

Mary Bates Private Markets Consultant
Maya Ortiz de Montellano, CFA Private Markets Consultant
Jed Constantino, CAIA Sr. Private Markets Analyst
John Haggerty, CFA Director of Private Markets
Tad Fergusson, CFA Private Markets Consultant
Luke Riela, CFA Macro Research & Data Analytics
John McCarthy Private Market Analyst
Michael Pellatz, CAIA Private Markets Analyst
Amy Hsiang, CFA, CAIA Director of Public Markets

## Real Assets

Lisa Bacon, CAIA Private Markets Consultant	Gerald Chew, CAIA Private Markets Consultant
Judy Chambers Private Markets Consultant	Adam Toczykowski, CFA Private Markets Consultant
Steven Hartt, CAIA Private Markets Consultant	John Haggerty, CFA Director of Private Markets
Jed Constantino, CAIA Sr. Private Markets Analyst	Luke Riela, CFA Macro Research & Data Analytics
Bradley Dumais Private Markets Analyst	Harrison Page Private Markets Analyst

## Additional Resources

- 4 Private Markets Policy Committee Members
- 6 Investment Associates
- 7 Operations
- 1 Private Markets Paralegal
- 6 Client Service Administrators

## ODD

Louis Rodriguez, CFE Head of ODD
-------------------------------------

## Real Estate

Christy Fields Head of Real Estate	Colin Hill Real Estate Consultant
Scott Maynard Real Estate Consultant	Derek Proctor Real Estate Consultant
Reggie Ross Real Estate Consultant	Chris Andrulic Real Estate Analyst
Sarah Christo Real Estate Analyst	Abigail Fischer Real Estate Analyst
Karen Reeves Real Estate Analyst	Paige Junker Sr. Performance Analyst

As of September 2023.



# Diversity, Equity, and Inclusion

We deeply believe that diversity across many different attributes drives better outcomes for all of us, especially our clients.

We use a mosaic of committees to integrate DEI practices into all aspects of our business model and investment processes.



## Organizational Initiatives

- Diverse representation on all internal committees
- Employee inclusivity training
- Formal networking and mentoring programs
- DEI learning library
- Hiring practices and diversity-focused internship program



## Community Outreach

- Support of women, veteran, and diverse-owned businesses
- Support of organizations that promote social justice and/or underserved communities
- Employee volunteerism and charitable giving



## Industry Involvement

- Semi-annual Emerging & Diverse Manager Research Day
- Evaluate investment management firms' DEI efforts, including benchmarking
- Annually publish results of DEI Questionnaire
- Active participation in organizations seeking to improve DEI in institutional investment

**57%**

total employees are female or racially diverse<sup>1</sup>

**51%**

investment professionals are female or racially diverse<sup>1</sup>

**46%**

firm shareholders are female or racially diverse<sup>1</sup>

<sup>1</sup> As of June 30, 2023.

# The Mosaic Approach

- The real world risks and objectives faced by investors are complex and often conflicting.
  - These cannot be summarized in a single statistic.
  - Rather, we use a variety of tools to build a more complete picture.
- Our staff has access to the best tools used in the industry, and specialized, proprietary tools developed by our internal team.

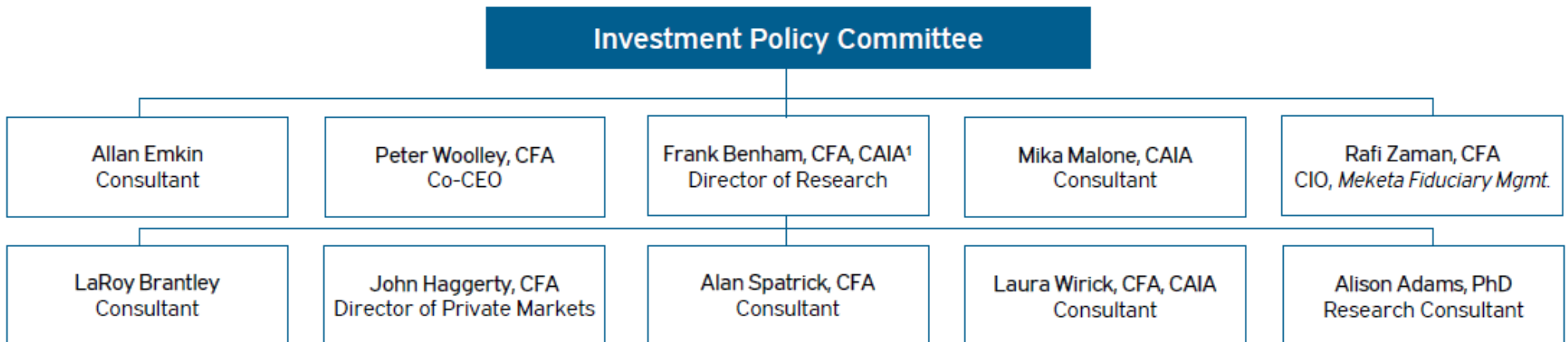
Mean-Variance Optimization	Tracking Error vs. Peers
Risk Budgeting	Historical Scenario Analysis
Alpha Assumptions	Factor Stress Tests
Sequence of Returns Impact	Liquidity Stress Tests
Big Data Simulations	Economic Regime Analysis
High Dimension Optimization	Simulation-Based Optimization

- This approach provides a better understanding of how the plan might behave.



# Generating and Vetting Research Ideas

- Ideas come from many different places:
  - Internally, academia, clients, and money managers
- We have a team of 8 professionals who focus on Capital Markets Research.
- We also work with the resources of the broader firm.
  - In the past 12 months, more than fifty of our investment professionals have contributed to white papers, research notes, or newsletters.
- We use a committee structure to ensure our research represents the best thinking of the firm.
  - This includes our Strategic Asset Allocation / Risk Management Committee, Global Macroeconomic Investment Committee, and our Investment Policy Committee.



<sup>1</sup> Mr. Benham serves as Chairman of the Investment Policy Committee and the Strategic Asset Allocation/Risk Management Committee.

# Strategic Asset Allocation and Risk Management

**Our Strategic Asset Allocation / Risk Management Committee works with our Investment Policy Committee to:**

- Develop firm-wide policy on strategic asset allocation.
- Develop return, risk, and correlation forecasts for asset classes.
- Develop and update model portfolios.
- Oversee publication and update of all white papers.
- Research and determine appropriate risk management strategies for clients.



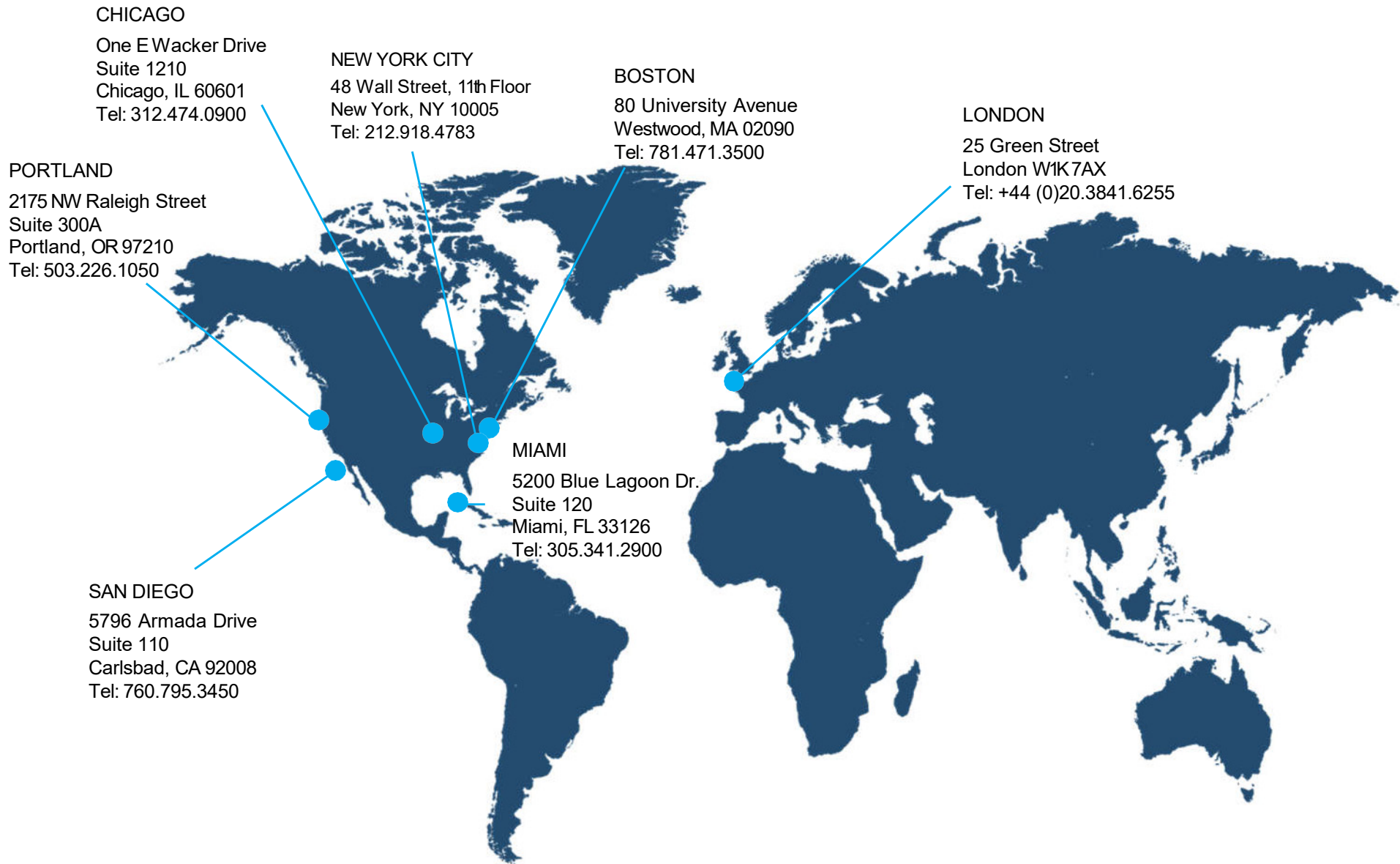
# Current Research Topics

→ Our research covers a broad array of topics:

Recently Published
Understanding China, Part III
Debt & The Debt Ceiling - Part I
RMS Framework
Functional Asset Classes
Total Fund Benchmarking
Alternative Risk Premia
Climate Scenario Frameworks
Carbon capture, utilization, and storage
Currency Hedging
GP-led secondaries
Five Indicators We Are Watching in the Labor Market

In the Pipeline
Deglobalization
Private Credit
How will we know if we are in a recession
Trend-following Strategies
GP Stakes Strategies
Impact of the "inflation reduction act"
The current landscape in office space
Climate, Carbon Offsets, & Carbon Credits
Retirement Income
Liability Driven Investing
The Debt Ceiling - Part II: the Impact of debt on growth

# Contact Information



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Meketa merged with Pension Consulting Alliance (PCA) on March 15, 2019. Data presented in this presentation may include information related to PCA prior to the merger with Meketa. This information could include years of tenure with the firm, client inception dates, and services offered, among other items.