

Santa Barbara County Employees' Retirement System (SBCERS) Board Meeting

January 22, 2025

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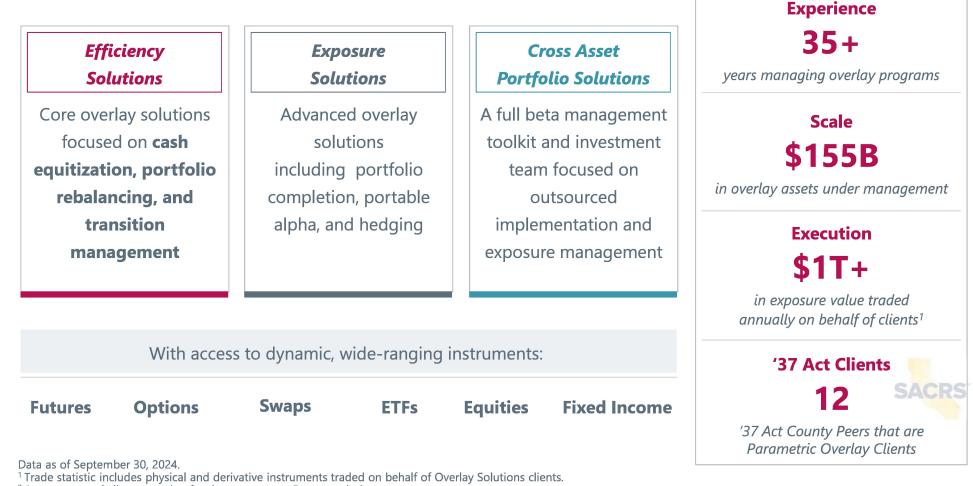
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Firm & Overlay Overview

Overlay Solutions at Parametric

We offer a *comprehensive platform of solutions* engineered by our team of derivative investment experts, built to help solve evolving investor challenges, such as the overlay objectives of **SBCERS**



² Average annual client retention for the most recent 5-year period.



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Why we are an

Overlay Leader

Dedicated SBCERS Team

Our high-touch client service and relationship experience is a key differentiator for Parametric. As a Parametric overlay client, SBCERS will have direct access to the following dedicated team:

Investment Leadership

Tom Lee, CFA Co-President, Chief Investment Officer

Richard Fong, CFA Managing Director, Co-Head of Overlay Solutions

Clint Talmo, CFA Managing Director, Co-Head of Overlay Solutions

SBCERS Overlay Team

Sylvia Horstmann, CFA Executive Director, Overlay Solutions

Dan Wamre, CFA Executive Director, Overlay Solutions

Heather Wolf, CFA Portfolio Manager

Jacob Christina, CFA Associate Portfolio Manager

Moises Sanchez Garcia Associate Portfolio Manager

Research

Ben Hood, PhD Managing Director, Derivatives Research

Patrick Persons Senior Researcher

Vathana To Associate Quantitative Analyst

SBCERS Relationship Management Team

Dan Ryan Executive Director, Institutional Relationship Management

Laura Loizeaux **Relationship Management Associate**

Jesse Cauble Executive Director, Institutional Relationships



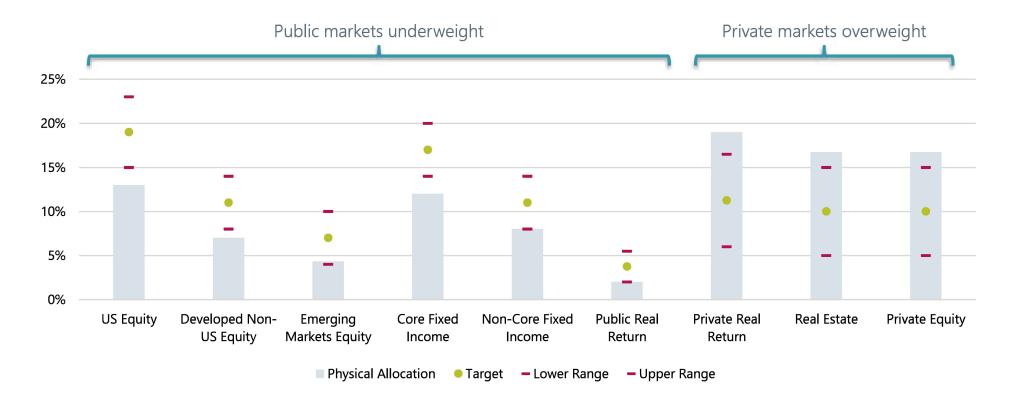
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Scenario Response

SBCERS Illustrative Scenario Overview

Parametric was provided the following illustrative scenario for analysis:

- > To meet required cash distributions, SBCERS must raise \$25 million
- > Due to a major market dislocation event, SBCERS portfolio asset classes are outside of rebalancing ranges and therefore SBCERS desires to rebalance to the extent possible



For illustrative purposes only. Data provided by SBCERS and RVK. There is no assurance that the investment objectives and intended benefits will be achieved. Investing in an overlay strategy involves risk. All investments are subject to loss.



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SBCERS Scenario Observations

Key observations in reviewing this illustrative scenario include:

Liquidity challenges

Selling public markets exposures at depressed levels is undesirable and private markets overweight is exacerbating portfolio illiquidity.

Basis risk

Futures instruments are generally available for most public markets exposure but are essentially nonexistent for private markets.

Denominator effect

Magnitude of public markets stress and *stale valuation* of private investments is causing distortion in the asset allocations relative to target.

Exercise restraint in potentially overcorrecting for transient valuation discrepancies.

There is no assurance that the investment objectives and intended benefits will be achieved. Investing in an overlay strategy involves risk. All investments are subject to loss. Please refer to the Risks and other Disclosures in the Appendices for further information.



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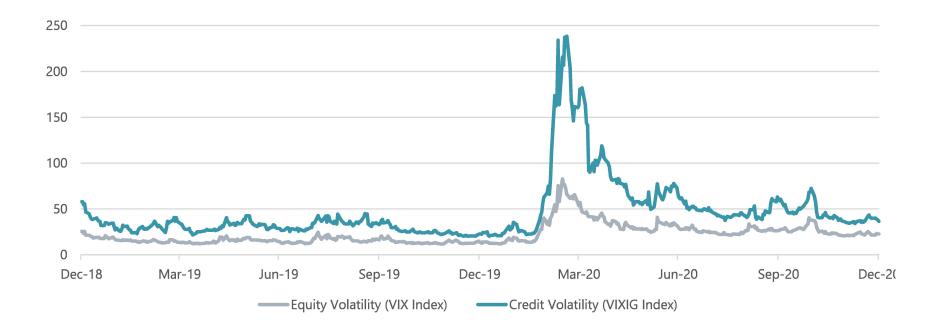
Source most liquid markets for cash while maintaining exposure with futures.

Select futures that are *reasonable proxies* for the asset class or exposure to be hedged.

SBCERS Liquidity Challenges & Raising Cash

Parametric recommends *raising cash from US Equity*. Despite being underweight, equities are typically the most liquid and cost-effective asset class during market dislocations.

- > Volatility levels can be an indicator of transaction costs.
- > During times of market stress, fixed income has historically exhibited heightened volatility relative to equities, making it unfavorable to transact in.



For illustrative purposes only. It is not possible to invest directly in an index. Indexes are unmanaged and do not reflect the deduction of fees or expenses. Source: Bloomberg; Date: Nov 30, 2024.

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Tackling Rebalancing with an Overlay

When considering severe market dislocations and the desire to rebalance a portfolio, there are a number of factors to consider to build the most cohesive rebalancing methodology.

Treatment of Private Assets	Instrument Selection	Rebalancing Goal		
 Pro Rata (proportional allocation to public markets) Discretionary Mapping (group similar styles such as public and private equity) Beta Adjustments (scaling allocation best on market factors) Tactical Decisions 	 Public markets proxies are widely available: For example, S&P 500, MSCI EAFE & EM, U.S. Treasuries. Private markets proxies are very limited: For example, real estate futures exist but have significant limitations in tracking illiquid private real estate. 	 Rebalance fully to target, halfway, or to bring exposure just within tolerance band levels? When considering a significant market dislocation, rebalancing just within tolerance bands may be most appropriate and least disruptive. 		



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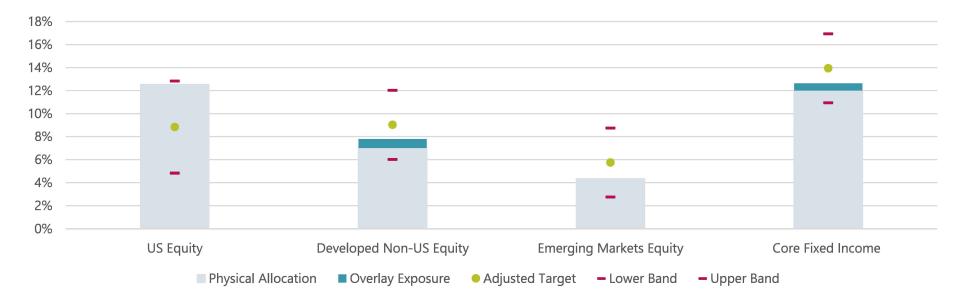
Parametric's Rebalancing Recommendation

Utilize *adjusted targets* for public markets based on private markets overweights:

- > Allocate Private Equity \rightarrow US Equity
- > Allocate Non-Core Fixed Income, Real Return, and Real Estate \rightarrow pro rata

Parametric would overlay \$75mm cash proportionally across Developed Non-US Equity (MSCI EAFE futures) and Core Fixed Income (US Treasury futures).

Result: Public markets asset classes are within adjusted tolerance levels.



For illustrative purposes only. Based on data provided by SBCERS and RVK and potential overlay rebalancing framework by Parametric. There is no assurance that the investment objectives and intended benefits will be achieved. Investing in an overlay strategy involves risk. All investments are subject to loss.

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Caveats for the Proposed Rebalancing Framework

There is not a "one-size-fits-all" rebalancing solution.

Important differences for each market event may arise, leading to different conclusions.

- > Public markets may react differently from each other during market stress
 - □ For example, during the GFC and initially during COVID-19, a more sizeable rebalance between equities and fixed income may be warranted.
- > Makeup of private markets may lead to different treatment for adjusted targets
 - □ For example, mapping of private equity may be more appropriate across global markets, rather than US equity alone.
- > Ability to receive off-cycle valuations from private markets managers would offset some of the denominator effect
 - □ For example, intra-quarter estimates of private markets may alter the overlay rebalancing positions.



Gameplan Following Market Dislocation

The focus amidst severe market dislocations is damage control.

In the context of overlay rebalancing, key pillars are to *maintain adequate liquidity, limit basis risk, and manage the denominator effect.*

As such, when market stress subsides, it is important to revisit portfolio rebalancing and liquidity needs:

- > Reevaluate whether private markets balances have been updated to reflect a more accurate depiction of the overall asset allocation (reversing denominator effect).
- > Review synthetic positions and determine if they can be unwound to allow for physical rebalancing.
- > Review cash balances and determine if liquidity sources are still adequate.



The Parametric Advantage

Creativity in solving client challenges. Unparalleled, diligent execution in doing so.

Customization Technology Engagement Transparency Each overlay solution Our investment and client We continuously refine We provide detailed, is wholly-tailored to the service team members our proprietary systems to timely exposure and unique needs of the client. have consistent, two-way seamlessly fit and evolve performance reporting communication with with our clients. day in and day out. our clients.

Why Clients Continue to Choose Parametric:



Appendix

Tackling Rebalancing: Available Instruments

Asset Class	SBCERS Benchmark	Available Futures Exposure	Additional Considerations
US Equity	Russell 3000 Index	Optimized futures basket: S&P 500, S&P MidCap 400, Russell 2000	
Developed Non-US Equity	MSCI EAFE Index (USD) (Net)	MSCI EAFE	
Emerging Markets Equity	MSCI Emerging Markets Index (USD) (Net)	MSCI EM	Contract has minimal tracking error to benchmark. May be appropriate for long exposure, but perhaps less for hedging underlying portfolio.
Core Fixed Income	Bloomberg US Agg Bond Index	US Treasury futures (duration-matched)	Includes interest rate exposure only (excludes credit) which may result in increased tracking error.
Non-Core Fixed Income	Custom Non-Core Fl Benchmark	N/A	EMD and HY CDX trade similarly to futures but would exhibit significant tracking error.
Public Real Return	CPI + 4%	N/A	
Private Real Return	Custom Real Return Benchmark	N/A	
Real Estate	NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag)	Dow Jones Real Estate	May be appropriate depending on the underlying portfolio and market conditions.
Private Equity	Russell 3000 + 3% (1 Qtr Lag)	N/A	

For illustrative purposes only. The information presented represents how the investment team generally applies its investment process under normal market conditions.



Q3 2024

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Scenario Asset Allocation

Asset Class	Allocation (%)	Target (%)	Lower Range (%)	Upper Range (%)	Deviation (%)
US Equity	13.00%	19%	15%	23%	-6%
Developed Non-US Equity	7.00%	11%	8%	14%	-4%
Emerging Markets Equity	4.33%	7%	4%	10%	-3%
Core Fixed Income	12.00%	17%	14%	20%	-5%
Non-Core Fixed Income	8.00%	11%	8%	14%	-3%
Public Real Return	2.00%	4%	2%	6%	-2%
Private Real Return	19.00%	11%	6%	17%	8%
Real Estate	16.75%	10%	5%	15%	7%
Private Equity	16.75%	10%	5%	15%	7%
Cash	0.94%	0%	0%	2%	1%
Transition Account (Illiquid Assets)	0.03%	0%	0%	0%	0%
SBCERS Headquarters	0.20%	0%	0%	0%	0%



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