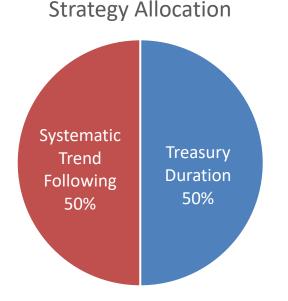
PCA PENSION CONSULTING ALLIANCE

Rhode Island SIC

John Linder, CFA, CPA March 22, 2017 Crisis Protection Class Platform Manager Recommendation

ERSRI CPC Portfolio

Board-approved structure:



- 8% allocation
 - 50% Treasury Duration / 50% Systematic Trend Following
 - Relatively Simple and Low Cost
 - Likely to produce appreciation during a growth crisis
 - Similar volatility as the total portfolio



RI Investment Staff / PCA joint recommendation: Aberdeen - HedgeMark

One platform manager to oversee the Crisis Protection Class (CPC) ~ \$600 million (8% of total fund assets)

CPC Portfolio 50% long duration / 50% systematic trend following

Long-duration U.S. Treasury Portfolio

- Mackay Shields
- Western Asset Management (WAMCO)

Systematic Trend Following manager recommendations

- April 2017 SIC meeting equal capital and risk allocation to each manager
- Manager A
- Manager B
- Manager C

ALLIANC

Platform Manager Selection Process: Investment Staff and PCA Evaluation

- Manager Request for Information (" RFI") document issued December 9, 2016
- Managers Submitting
 - Aberdeen / HedgeMark
 - Cliffwater / InfraHedge
 - Franklin Templeton
 - Lyxor Asset Management
 - Man / FRM Asset Management
 - North Star Financial Services Group
- Proposer responses due January 6, 2017
- Proposals reviewed / rated
- Conference call with proposers seeking additional information
- Conference calls with RI investment and Legal Staff on program structure
- On-site due diligence meetings: Man FRM and Aberdeen / HedgeMark
- Best and Final fee proposals reviewed
- Proposals rerated / manager recommendation to SIC: Aberdeen / HedgeMark
- Platform Manager interview with the SIC March 22, 2017
- Platform manager contracting / account set up / account guidelines / other onboarding activities – March / April 2017
- CPC portfolio funding May June 2017

- Systematic trend following manager operational due diligence
- Act as fiduciary to the plan
- Key role: gathering and accounting for all long-short positions across all of the component managers
- Reconciling manager position data with primary broker position data
- Provide account administrative functions, very similar to RISIC custodian function
- Netting all positions and providing risk analytics/characteristics of aggregate portfolio
- Monitoring and managing risk levels per ERSRI staff direction/IPS guidelines
 - Intra class rebalancing (i.e., rebalancing among managers)
 - Directing managers to adjust collateral levels
- Provide best-practices user-interface to the ERSRI staff



Platform Manager Fees and Estimate of Total Cost of Ownership

- Investment staff negotiated best and final fees from the manager: **12.5** bps
- The fee will comply with Most Favored Nation Clause (MFN) there is no other client with the same mandate and a lower fee

Expected ERSRI total cost*	
Effective platform fee	12.5 bps
Effective Operating Expenses	Approx. 6.5 bps
Total Effective Cost*	19 bps
Risk View Total Plan Risk Services \$189,000 (3.15bp)	No Charge



Crisis Protection Class Expected Implementation Timeline

- Platform manager hired •
 - Contracting complete April 1
 - Counterparty and service provider agreements negotiated and contracted (May)
- Systematic trend following manager selection SIC (April)
 - Contracting complete (May)
 - Manager guidelines approved (May) •
- Platform manager operational due diligence systematic trend following managers
 - Completed (May)
- Long-Duration U.S. Treasury portfolio funded (June)
- Systematic trend following manager portfolio funded (June)







Dedicated Managed Accounts Platform Setup

- Structuring separately managed account (limited recourse entities) to meet RISIC needs
- Coordinate legal documents and fund formation
- Coordinate onboarding of investment managers
 - Negotiate key terms
 - Create monitorable investment guidelines and restrictions
 - Put in place counterparties and counterparty agreements
 - Conduct operational due diligence review
 - Coordinate data transfer and connectivity among all parties
 - Develop workflow and data feeds
 - Project manage the onboarding process
- Coordinate hiring of service providers to wholly owned limited recourse entities
 - Administrator, Auditor, Legal and Tax Services, Corporate Governance
- Ongoing report creation and publication scheduling
- On demand reporting versus push reports



- Daily Data Processing
 - Data Collection
 - Date Enrichment (processing, combination with external data providers)
 - Data Reconciliation between Manager, Admin and Counterparties
 - Processing data through risk model
 - Quality control and data aggregation
- Daily Cash and Collateral Management
 - Monitor balances, collateral requirements, and excess collateral held at Clearing Brokers
 - Verify collateral calls are valid
 - Investigate, approve and effect (or investigate and dispute), cash or other asset movement
 - Set up pre-authorized wire instruction templates
 - Defined procedures for repetitive and non-repetitive wire transfers
 - All balances are confirmed at the start of each day
 - Excess cash held by brokers can be wired out to a custody or deposit account
- CPC portfolio monitoring and rebalancing
- Guideline monitoring and risk reporting
- Risk & performance reporting portal
- Manager breach recognition, reconciliation and cure

PENSION CONSULTING ALLIANCE Additional risk analysis services bundled in the Aberdeen / HedgeMark bid

- Aberdeen / HedgeMark has agree to provide ERSRI with access to the RiskView Total Plan Risk Analytical service (a BNY Mellon Service)
- a la carte pricing of this service is \$189,000
- Provides risk aggregation across the entire plan, not just the CPC class



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