

MEMORANDUM

To: Tim Nguyen, Interim CIO, ERSRI

Date: December 8, 2016

From: Pension Consulting Alliance, LLC

Re: **ERS Rhode Island Cash Manager DDQ Process and Recommendation:**

The ERSRI strategic policy allocation to cash is 3% of plan assets ~230 million. The fund pays out approximately \$530 million in benefits per year (\$44 per month). Since benefit payments exceed employer and employee contributions per year, liquidity management is a prime concern of the SIC.

The SIC is pursuing a policy to manage portfolio cash in a consolidated account. The account inflows would include: Income and dividends swept from publicly traded fixed income and equity manager accounts, employee and employer contributions and returns of capital from private equity and real estate investments.

Account outflows would include: monthly benefit payments and capital calls from private equity and real estate investments.

The purpose of the cash portfolio to provide liquidity to make monthly cash outflows while preserving principal and earning higher returns than can be achieved in a short-term investment fund (STIF) or money market account. The proposed cash portfolio management strategy is to manage a portion of the cash portfolio in very liquid, very high quality securities and the remainder in short-duration instruments which have a higher expected return than cash instruments due to the longer maturity and credit exposure. The combined portfolio would have a weighted average maturity (WAM) < 1 year. A portfolio with a WAM < 1 year is subject to more interest rate risk than a money market account. However over time investors are compensated for bearing this modest risk.

The Rhode Island Investment staff and PCA recommends that the SIC hire Payden & Rygel to manage the cash portfolio allocation.

Manager Review process:

PCA distributed a Due Diligence Questionnaire (DDQ) to three investment managers on November 8, 2016. All three firm are capable providers of cash investment management services to large institutional investors.

- Fidelity Institutional Asset Management
- Merganser Capital Management
- Payden & Rygel

The DDQ covered the following issues: firm ownership and resources, experience with cash investment management mandates, client service model and capabilities, personnel tenure with the firm, responsibilities and investment experience, investment philosophy and process, risk management, analytical tools, and fees.

Manager responses were due November 18, 2016. Manager proposal were reviewed by the Rhode Island investment staff and PCA. The investment staff and PCA scheduled a one-hour conference call with all three of the proposers to gain additional insight into their view of the mandate, investment management resources and investment process.

The three proposers were asked to submit a best and final fee proposal. The three cash management proposals were rerated; Payden & Rygel received the highest rating.

ERSRI Cash Management Mandate

Proposed Benchmark: T-B-D

Account investment guidelines: T-B-D

Best and final fee proposal: 11.2 bps

Payden & Rygel

Organizational Overview, Firm Background and Developments

Payden & Rygel ("Payden") was founded by Joan Payden in 1983 in Los Angeles, California as an investment advisor registered with the Securities and Exchange Commission pursuant to the Investment Advisors Act of 1940. The firm has been 100% employee owned since inception. Payden & Rygel currently manages over \$100 billion in global fixed income and equity assets across more than 350 institutional relationships.

In 1998, Payden created a 50/50 joint venture with Metzler Bank, the oldest private bank in Germany. Known as Metzler/Payden, this joint venture services both clients of Metzler Bank and Payden & Rygel, combining expertise in global fixed income and equities.

In 2010, Payden established an office in Boston, Massachusetts to expand US presence. Comprising senior investment professionals, the office currently focuses on client service, consultant relations and business development.

Investment Strategy

Payden & Rygel has specialized in providing enhanced cash fixed income strategies for US tax-exempt institutional investors since the firm's inception in 1983. This portion of the business now constitutes over \$27 billion (\$67 billion including all low duration strategies) of the over \$100 billion they manage.

Payden's philosophy for capturing value in enhanced cash strategies is guided by global macro-economic fundamental analysis. Value in markets is based on evaluating the direction of monetary policy, the strength and direction of the global economy, and fundamental company analysis. The process of analysis, beginning with the broad macro-economic environment and filtering down through sectors of the market allows them to compare the expected returns from different asset classes, which in turn determine which areas they feel have the most value given fundamental outlook.

Payden proposes a short-term US Treasury performance benchmark for this mandate, such as the Bank of America Merrill Lynch 0 - 1 Year Treasury Note Index.

With the objectives of capital preservation and liquidity prominent, Payden recommends a portfolio structured to take advantage of the total return opportunities available in investment grade corporate credit, consumer asset-backed securities (ABS), agency mortgage-backed securities (MBS), and government and agency debt, while maintaining a high level of liquidity.

Investment Process and Portfolio Construction

The bottom-up portfolio construction process focuses on the following factors:

Duration and Yield Curve Positioning

The investment team actively makes duration decisions, generally ranging up to +/-25% long/short a benchmark duration, depending upon the outlook for the trend in interest rates. The use of duration is not based on short-term market timing; instead, duration decisions are made based on trends in underlying economic conditions, interest rate policy, and market sentiment. The duration decision is generated at the senior-most level of the firm. The decision is based upon a group consensus for the direction of interest rates over the next 3-6 months. All decisions are fundamentally based and tied to a general macro view of the global economy.

Payden considers yield curve management to be an integral part of the portfolio duration decision. They actively structure portfolios to reflect their views concerning changes in the shape of the yield curve and evaluate the roll-down impact to price return in potential interest rate environments. Steepening or flattening decisions take place relative to the term structure of rates as well as within sectors of the market.

Security Selection

Issue selection, along with sector allocation, represent the relative value aspects of the portfolio. Along with internal credit analysis on individual issuers and issues, the strategy team tracks the relative value relationship between and within sectors to capture incremental return. Bonds are continuously reviewed with regard to credit fundamentals and market pricing, as well as to their suitability to each portfolio. A typical short duration portfolio consists of 75 to 200 issues, and includes fixed-income instruments of U.S. and non-U.S. issuers. Except for US government securities, no more than 3% of the portfolio's market value will be invested in securities of any single issuer to ensure diversification of the portfolio.

Sector Decision

Sector allocation plays a large role in the performance of portfolios. Generally, Payden uses US government notes and bills, money market instruments, as well as mortgage and asset-backed securities, municipals, and corporate bonds in our Low Duration accounts. Sector decisions are based on an assessment of the relative value of each sector vis-à-vis expectation for returns going forward. The low duration strategy team is responsible for these decisions and uses input from the portfolio managers, the individual sector and credit analysts, and trading department.

Research Efforts

The majority of Payden's research is conducted internally. Analysts are organized into teams of sector specialists. The sector specialists are responsible for their sectors and work closely with the senior investment strategists. Once a sector allocation has been made

by the strategy group, the sector specialists/analysts choose the individual bonds within their sector. They work closely with the strategy teams to ensure that securities purchased are considered within the context of the client's risk tolerance. The sector specialists are supported by our economist team, which assesses current economic factors as well as longer term global macro-economic themes.

Implementation

Portfolio structuring takes place at the strategy group level, where the overall investment themes are applied in the appropriate markets. Specific security decisions, which reflect the nature of the portfolio, are made by in-house traders assigned to each account, under the guidance of sector strategists. The buy discipline is similar in that fundamental research forms the basis for the recommendation. The main factors considered are:

- Fundamental evaluation of the opportunity
- Market valuation of the bond
- Assessment of bond liquidity
- Potential headline risk
- Forward looking risk profile
- Relative value versus alternatives

For a security to be purchased, Payden evaluates the risk/reward trade-off and the liquidity required within the portfolio. The security valuation is considered relative to alternatives. They also analyze particular structural elements of the security that may cause the risk profile of the security to change over time.

Risk Controls

Risk management forms an integral part of the investment process, and involves qualitative and quantitative aspects. Below is a list of risk controls, categorized by specific types of risk:

- **Event Risk:** Payden views event risk as the single most important variable that can lead to quick, large losses. As a result, Payden incorporates the potential for event risk into internal credit ratings and issue selection decisions.
- **Sector/Credit Risk:** Sector and credit risk is measured and managed by quantifying the contribution to duration from each industry and sector. This allows Payden to measure the impact on portfolio returns relative to the index in spread widening environments for any particular industry or sector. The credit process is the key control over specific credit losses.
- **Liquidity Risk:** Liquidity comes at a price and their goal is to ensure that they are compensated for foregoing liquidity in the form of adequate additional yield. The key to our success in this area is to make intelligent trade-offs between the desired

amount of portfolio liquidity and its associated costs. The goal is to ensure that portfolios are structured with adequate liquidity in today's market as well as in a liquidity-stressed environment.

- **Default Risk:** Default risk is analyzed carefully in each credit, and worst-case liquidation scenarios are used for the appropriate credits. Emphasis on industries and credits with stable to improving cash flow prospects and the avoidance of "business plan"-type (i.e., speculative) issuers limits default risk.
- **Yield Curve Risk:** Payden quantifies the risk associated with changes in the shape of the yield curve by measuring "key rate durations". This insures that yield curve exposure is either consistent with that of the index or different from the index given the strategic objectives.
- **Interest Rate Risk:** The most important factor in developing interest rate forecasts is understanding and determining the risk/reward balance. Payden regularly performs portfolio-specific risk/return analyses to determine the impact of various interest rate scenarios on portfolio performance. This quantitative measurement is especially useful in structuring portfolios in uncertain environments when the Federal Reserve might be raising/lowering rates, and in properly evaluating the risk characteristics of bonds with call features.

Track Record

As of September 30, 2016

Gross of Fees

	2008	2009	2010	2011	2012	2013	2014	2015
Payden Enhanced Cash	4.3	5.1	2.0	1.1	2.0	0.9	0.8	0.6
BOA 0 - 1 Year Treasury Note	4.8	0.8	0.8	0.6	0.2	0.3	0.2	0.2
<i>Difference</i>	-0.5	4.3	1.2	0.5	1.8	0.6	0.6	0.4

Firm Name	MRQ	1-yr	3-yr	5-yr	10-yr
Payden Enhanced Cash	0.4	1.7	1.1	1.2	2.4
BOA 0 - 1 Year Treasury Note	0.1	0.5	0.3	0.3	1.5
<i>Difference</i>	0.3	1.2	0.8	0.9	0.9

Source: Payden

Investment Team

For the proposed product, there are three investment portfolio managers and 19 client portfolio managers. The senior investment professionals have worked together for two decades, bringing stability to the process and discipline to risk controls. The following table highlights the key product management team's background and experiences.

Name	Title	Highest level of education	Institutional	Years with Firm	Years involved with which product	Years in current capacity	Years of investment experience
Mary Beth Syal, CFA	Managing Principal, Head of Low Duration Strategies	BA	Smith College	26	26	26	32
Lawrence M. Manis	Senior Vice President, Strategist	BA	Columbia College	3	3	3	16
Amy K. Marshall, CFA	Vice President	BS	University of Notre Dame	6	6	6	14
Adam M. Χονγδον, ΧΦΑ	Vice President	BBA	University of Wisconsin-Milwaukee	3	3	3	6
Davy K. Sim, CFA	Portfolio Analyst	BS	University of California, Berkeley	4	4	4	9
Irene N. Manousiouthakis	Portfolio Analyst	BSE	University of Southern California	3	3	3	3

Management Fee (best and final fee proposal)

Market Value of Total Assets Under Management	Annual Fee in Basis Points
Up to \$150 million	12
Next \$100 million	10
Thereafter	8

The annual fee in dollars for a \$259 million portfolio based on the above fee schedule would be \$289,000 (11.2 bps)

Merits:

- 100% employee-owned
- Offer clients cash management “solutions” not products
- Large public fund client base in cash management
- Strong client service model – extension of staff
- Investment philosophy has appropriate focus on preservation of capital, liquidity and value-added for the ERSRI mandate

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