

MINUTES

SOUTH DAKOTA INVESTMENT COUNCIL Sioux Falls, South Dakota June 16 & 17, 2014

1) Roll Call

The meeting was called to order at 1 p.m. on June 16, 2014 by Chair High Bartels. Council members in attendance were Hugh Bartels, David Hillard, Jon Hunter, Steve Kirby, Vern Larson, Jim Means, Rich Sattgast, and Rob Wylie.

Others attending all or part of the meeting included Matt Clark, Brett Fligge, Tammy Otten, Chris Nelson, Sherry Nelson, and Laurie Riss of the Investment Office; Lorin Brass; Senator Phyllis Heinemann; Steve Myers; Susan Jahraus and Jane Roberts of the South Dakota Retirement System; Jim Terwilliger from the Bureau of Finance and Management; Aaron Olson from the Legislative Research Council; and Pierre Lapeyre, David Leuschen, John Lancaster, and Elizabeth Weymouth of Riverstone Holdings LLC. The Riverstone presentation was attended by two of the Investment Office's portfolio managers and four of the summer student interns.

Chair Bartels welcomed Lorin Brass to the Investment Council. The LRC Executive Board appointed Lorin to a five-year term starting July 1, 2014.

(Note: For sake of continuity, the following minutes are not necessarily in chronological order. Documents referenced are on file in the Investment Office, and public access is subject to the provisions of SDCL 1-27.)

2) Minutes

JIM MEANS MOVED, SECONDED BY STEVE KIRBY, TO APPROVE THE MINUTES OF THE APRIL 9, 2014 COUNCIL MEETING. MOTION PASSED UNANIMOUSLY.

3) Investment Update

Tammy Otten reviewed the Motions and Actions report from the April 2014 Council meeting. The estimated fiscal year-to-date return of the SDRS portfolio as of 6/13/14 and the trust funds through 5/31/14 were provided. Upcoming distributions and contributions for the various funds were discussed.

4) Iran Divestment Update

Otten reviewed a memo sent to the Council that outlined compliance with the Iran divestiture law. The memo included the current list utilized by the Council. There were no updates from Florida or Colorado since the April Council meeting. Staff recommended no changes to the current list.

AGENDA ITEMS:

- 1) Roll Call
- 2) Minutes
- 3) Investment Update
- 4) Iran Divestment Update
- 5) SDRS Funded Status – Update
- 6) Asset Allocation & Benchmarks Review
- 7) Hugh Bartels Acknowledgement
- 8) Compensation Committee Update
- 9) Investment Incentive Program-FY14
- 10) Investment Incentive Program Changes-FY15
- 11) Fiscal Year 2016 Budget Request
- 12) Bank Custodian Fee Schedule
- 13) Audit Committee Update
- 14) Higher Education Savings Program
- 15) Election of Officers for FY 2015
- 16) New/Old Business Agenda Items
- 17) Riverstone Energy Fund
- 18) Riverstone Energy Fund Investment
- 19) Future Meeting Dates
- 20) Adjournment

5) SDRS Funded Status

Rob Wylie presented a review of the South Dakota Retirement System Funded Status, Administrative Practices and Plan Governance. He discussed the history of SDRS, stating that SDRS was created 40 years ago in 1974 and consolidated seven separate plans. He noted SDRS was one of the first consolidated public retirement systems. He discussed total membership, annuitants and trust fund assets. He described the fiscally conservative nature of SDRS, the statutorily fixed and matching contribution rates, and the statutorily defined funding thresholds that require the Board to initiate correction action if not met.

Wylie reviewed the actuarial value funded ratio, market value funded ratio, cushion, and contributions as of June 30, 2013 and projections for June 30, 2014. He discussed sustainability measures to maintain a market value funded ratio of 100% and 80% under different return assumptions.

Wylie described the makeup of the SDRS Board of Trustees and emphasized the importance of the separation of retirement administrative and investment activities with individual boards, different reporting relationships, and representation of SDRS and SDIC on each board. He reviewed the oversight relationship with the legislature through the Retirement Laws Committee and with the executive branch with two appointees on the SDRS Board.

Wylie reviewed the SDRS comprehensive funding policy which reflects the fixed funding rates and includes funding objectives, establishment of the reserve, policy regarding consideration of benefit improvements, and statutory conditions that would require corrective action. He described the hybrid plan design that includes features of both defined benefit and defined contribution plans. He discussed the payoff in FY 2013 of the unfunded liability and its impact to the cushion, risk mitigation and sustainability.

Wylie discussed current Board policies, practices and initiatives. He summarized the current state of SDRS and pending issues, all primarily involving sustainability.

6) Asset Allocation & Benchmarks Review

South Dakota Retirement System

Matt Clark began the presentation with a review of the asset allocation modeling process. The process estimates fair value for equities (S&P500) similarly to how individual companies are valued using estimated future cash flows, based on normal earnings and growth rates, and a risk impacted discount rate. He discussed adjustments to fair value based on monetary conditions and corporate earnings strength.

Normal earnings are estimated using a normal return on equity (ROE) multiplied by book value. This differs from the individual stock valuation process where normal earnings result from a line by line normalization of the income statement. The book value of the index is adjusted for the impact of various items (termed leakages) which may include index constituent changes, mergers, and stock buybacks. The normal ROE is based on historic real ROE plus expected future inflation plus adjustments to reflect the impact on the level of profitability of whether inflation is under control and the degree of contestability of corporate control.

Normal growth is a function of: (1) organic growth resulting from the return on reinvestment applied to the percentage of normal earnings that are reinvested and; (2) acquisition growth resulting from the amount invested in acquisitions and; (3) an assumption of the pass-through to

earnings growth of inflation; and (4) an attrition rate to reflect mortality of normal earnings. Buybacks are treated as a form of dividends for asset allocation valuation purposes.

Equilibrium discount rates are based on a building block approach beginning with expected future inflation. A real yield is added to get equilibrium cash yields. A term premium is added to get equilibrium bond yields. A risk premium is added to get the equity discount rate.

Clark discussed comparison of actual bond yields to equilibrium yields and processes for real estate and high yield. He showed the current and historical valuations of each asset class. The usage of the model would be to overweight undervalued asset categories and underweight overvalued assets categories.

Clark discussed the need for discipline and a long term perspective on the part of both the Council and investment team in implementing the asset allocation process. He referenced communications to the Council each previous year during the asset allocation presentation and throughout recent years regarding the difficulty, but necessity, of sticking to our disciplines during challenging periods.

Clark reviewed the asset allocation risk/return analysis. The first portion focused on long term mean expected returns with conventional expected standard deviation and asset correlations as provided by JP Morgan Asset Management. The incremental return and standard deviation impact of each asset class relative to a 60:40 mix was shown. Internal research on Fat Tail Risk was reviewed. Conventional risk measures are adjusted to better explain the frequency of extraordinary negative events that have occurred in the past and that may recur. The asset allocation analysis using fat tail adjusted standard deviations and both inflation and deflation crisis correlations and using internal asset category expected returns was reviewed.

Clark presented the SDRS Equity-Like Risk analysis which integrates the risk of equities and the alternative asset classes. The analysis was performed three ways: (1) using conventional standard deviations and correlations; (2) using fat tail adjusted standard deviations and inflation crisis correlations; and (3) using fat tail standard deviations and deflation crisis correlations. He said the asset allocation committee focuses on the second and third measures in judging the risk of the portfolio. The target level of equity-like risk is determined by the asset allocation committee on the basis of valuation.

Clark reviewed the SDRS normal asset allocation and minimum and maximum allocations for each category. The capital markets benchmark allocations for fiscal years 2006 through 2014 were shown.

Clark discussed proposed changes to the Capital Markets Benchmark. He reviewed the reasons for recommending (1) lowering the equity-like risk to 70%; (2) combining the global equity and private equity together using a global index; and (3) redefining real estate in the benchmark to conventional real estate instead of opportunistic with a maximum of 20%. With respect to the real estate maximum, opportunistic real estate would count 133% toward the maximum.

It was noted that private equity was assigned a higher equity-like risk than public equity and that in accomplishing the target level of equity-like risk, increased risk from use of private equity is offset by lowering equity-like risk elsewhere in the portfolio. Opportunistic real estate is assigned a higher equity-like risk than conventional real estate. In accomplishing the target level of equity-like risk, increased risk from use of opportunistic real estate is also offset by lowering equity-like risk elsewhere in the portfolio. Equity-like risk can be lowered by shifting assets to less risky categories, such as by lowering stock exposure and increasing cash.

Rob Wylie asked about illiquidity of private equity and real estate partnerships. Clark indicated the internally developed optimization process scores asset categories on the basis of liquidity with a maximum for illiquid assets and also attempts to price illiquidity. He said liquidity is also considered in assigning equity-like risk. He said he is exploring the pricing of liquidity using yield differences between private placement debt and otherwise comparable tradable debt. He said the difference appears to be small at present but he will continue research into liquidity pricing.

David Hillard asked about prospects of using other hedging opportunity, such as options, as an alternative to using equity futures to reduce the equity-like risk. Clark discussed current levels of option market pricing implied volatility as compared to internal research which suggests long-term equilibrium levels. He said pricing of volatility is low, but that tends to be the case when markets are around fair value. He said it would catch his attention if volatility dropped further or if the markets moved further from fair value and volatility pricing remained the same.

Hugh Bartels asked how using private equity instead of regular equities could impact incentives given that private equity would not have a separate benchmark allocation. Clark said that the risk adjustment puts categories on an equal risk basis such that we cannot increase risk merely by increasing private equity. He added that private equity has an estimated equity-like risk of approximately 110% of public equity. To offset the equity-like risk of investing 9% in private equity requires reducing public equity by 10% with the extra 1% in cash such that the 9% in private equity plus 1% in cash has the same estimated equity-like risk as 10% in public equity. Because the differences in estimated risk of private equity or opportunistic real estate versus the public indexes used in the benchmark are offset by compensating adjustments, use of those categories does not alter the risk of the portfolio. He said the target equity-like risk is determined by the asset allocation committee based on valuation of risky assets, principally stocks. The portfolio would outperform the benchmark as a result of using private equity only if the 9% invested in private equity plus the 1% in cash as a package performed better than had the 10% been invested in public equity.

Following further discussion, Clark said he thought the Council should monitor whether the asset allocation committee is attempting to add value by varying risk in accordance with valuation as opposed to simply always taking more risk than the benchmark and hoping risk taking pays off over the long term. He said he believes the investment team has demonstrated discipline over the long term in following the valuation work acting similarly in response to valuations whether by lowering risk below the benchmark or raising risk above the benchmark. He said the valuation work driving the allocations appears unbiased as markets at times appeared overvalued and at other times undervalued. He said historical results also indicate that on average the portfolio has not taken on more risk than the benchmark.

ROB WYLIE MOVED, SECONDED BY JIM MEANS, TO APPROVE THE FISCAL YEAR 2015 CAPITAL MARKETS BENCHMARK, INDEXES AND MAXIMUM/MINIMUM RANGES FOR THE SOUTH DAKOTA RETIREMENT SYSTEM AS PRESENTED WITH THE ADDITION OF A COLUMN FOR EQUITY-LIKE RISK SHOWING THE BENCHMARK OF 70% AND THE MAXIMUM OF 80%. MOTION PASSED UNANIMOUSLY.

Otten discussed the updates made to the Investment Policy for South Dakota Retirement System Total Fund assets.

STEVE KIRBY MOVED, SECONDED BY JON HUNTER, TO APPROVE THE UPDATED INVESTMENT POLICY FOR THE SOUTH DAKOTA RETIREMENT SYSTEM TOTAL FUND ASSETS. MOTION PASSED UNANIMOUSLY.

Trust Funds Asset Allocation

Otten provided a presentation handout for each of the four trust funds, including the Dakota Cement Trust, Healthcare Trust, Education Enhancement Trust, and School and Public Lands. The presentations described the establishment of each fund, the laws that allow for investment in “stocks, bonds, mutual funds and other financial instruments as provided by law”, the annual distribution calculation, the inflation adjusted principal, the 5/31/14 estimated fund fair value, and the June & July 2014 distribution amounts.

Otten reviewed the asset allocation analysis which shows the long term mean expected return, expected standard deviation and correlation for conventional and two fat tail adjustments. The expected return and standard deviation compared to select prior year benchmark allocations were shown.

Staff proposed similar changes for the various trust fund Capital Markets Benchmark weights for FY 2015 as were made for the SDRS CMB. Staff recommended the indexes used in the CMB calculation be the same as approved for SDRS. The only exception would be the tax-exempt fixed income asset allocation for the Education Enhancement Trust.

Following a discussion on the risk level of the trust funds, it was decided that the equity-like risk level be moved to approximately 90% of the equity-like risk for SDRS.

JIM MEANS MOVED, SECONDED BY RICH SATTGAST, TO APPROVE THE FISCAL YEAR 2015 CAPITAL MARKETS BENCHMARK, INDEXES AND MAXIMUM/MINIMUM RANGES FOR THE DAKOTA CEMENT TRUST, HEALTH CARE TRUST, EDUCATION ENHANCEMENT TRUST, AND SCHOOL & PUBLIC LANDS AS PRESENTED. MOTION PASSED UNANIMOUSLY.

DAVID HILLARD MOVED, SECONDED BY STEVE KIRBY, TO APPROVE THAT ASSET ALLOCATION ADJUSTMENTS IN THE RETIREMENT AND TRUST FUNDS MAY BE IMPLEMENTED IN THE CASH AND/OR DERIVATIVES MARKETS. MOTION PASSED UNANIMOUSLY.

Cash Flow Fund

Sherry Nelson provided an overview of the Cash Flow Fund. The allowed investments are specified in SDCL 4-5-26 legal list. The fund is divided into a short-term money market fund for daily needs of the state, the 1-year CD program with state financial institutions, and the larger duration portfolio. The duration portfolio's asset allocation benchmark, maximum maturity, and position sizes were reviewed. The annual payout is outlined in SDCL 4-5-30 and is based on receipted income to the fund. Projected payouts for FY 2014 and FY 2015 were provided, and the fund's long-term expected return was discussed.

Nelson reviewed the cash flow fund monthly average balances noting that the balance varies throughout the year. Historically the variation has been within a \$200 million band, but the composition of the fund could change in the future.

Nelson discussed a sensitivity analysis for the return impact of credit spreads depending on spread and default rate changes. Matt Clark reviewed the results of a sensitivity analysis of various maturities to interest rate increase over several time periods.

Clark discussed the possibility of amending SDCL 4-5-26 to state that all holdings in the Cash Flow Fund be rated as investment grade at the time of purchase only rather than throughout the holding period. This would allow the Fund to continue to hold bonds that have been downgraded below

investment grade and not be required to sell at an inopportune time. He said if the change is made he expected to recommend that the Council establish a limit on such holdings. Clark noted that work will continue on these issues and a proposal may be presented at the next regular Council meeting.

The Investment Council recessed at 5:45 p.m. and reconvened at 8 a.m. on June 17, 2014.

7) Hugh Bartels Acknowledgement

Hugh Bartels will be completing his five years on the Investment Council effective June 30, 2014. Matt Clark thanked Hugh for his dedication and contributions during his term. A plaque was presented to Hugh on behalf of the Investment Council and Office in recognition and appreciation of his outstanding service.

8) Compensation Committee Update

Jon Hunter discussed the progress the Council has made over the last three years on compensation and incentive issues. He reviewed the recent meetings with the LRC Executive Board Compensation Subcommittee and the full Executive Board. The Council's recommended total compensation for the Investment Officer for FY 2015 was approved by the Executive Board.

9) Investment Incentive Program – FY 2014

The breakpoint matrix for the investment incentive program was distributed and reviewed. Clark indicated a modest change in the existing breakpoints for high yield was included as part of the breakpoints for 4/10 year and stretch incentives. He also discussed using total fund only for the stretch incentives for the fixed income investment grade and the cash flow fund portfolio managers as opposed to their individual portfolios because of the low-risk nature of those portfolios.

The Council discussed the outperformance breakpoints, appropriate benchmark comparisons, and possibility of program changes in the future to allow for stretch incentives for investment grade fixed income. Clark noted work was continuing on the memorandum to detail formulas for each investment portfolio manager's incentive plan and will be provided to the Council prior to July 1.

JIM MEANS MOVED, SECONDED BY ROB WYLIE, TO APPROVE THE BREAKPOINT SCHEDULES FOR THE NEW STRETCH AND 10-YEAR INCENTIVES AS PRESENTED, AS WELL AS THE USE OF TOTAL FUND RESULTS AND BREAKPOINT SCHEDULE FOR STRETCH INCENTIVES FOR THE INVESTMENT GRADE FIXED INCOME AND CASH FLOW FUND PORTFOLIOS EFFECTIVE BEGINNING FY 2014. MOTION PASSED UNANIMOUSLY.

10) Investment Incentive Program Changes – FY 2015

Clark stated that the high yield portfolio is going to be separated into individual portfolios for the three current portfolio managers. The plan is to increase the high yield area to five portfolio managers, but until then about three-fourths of the universe will be covered with most industries double covered. He discussed the plans for filling the positions over the next two years.

Clark discussed a change in the portfolio responsibilities of Darci Haug. Effective 7/1/14, she will be moving from global equity to small/midcap portfolio management.

STEVE KIRBY MOVED, SECONDED BY RICH SATTGAST, TO APPROVE THE INCENTIVE PROGRAM CHANGES RELATING TO THE DIVISION OF THE HIGH YIELD PORTFOLIO INTO SEPARATE PORTFOLIOS AND THE SHIFT OF A GLOBAL EQUITY MANAGER TO SMALL/MIDCAP EQUITY EFFECTIVE BEGINNING FY 2015. MOTION PASSED UNANIMOUSLY.

11) Fiscal Year 2016 Budget Request

Clark reviewed the FY 2014 budget received versus actual expenditures. He noted that any unspent funds will offset next year's budget authorization, essentially reverting back to the funds under management. He reviewed the FY 2015 budget received which begins July 1, 2014, and includes funding for the expansion of the incentive program.

Clark reviewed the budget request for FY 2016. In discussing the personal services budget, he indicated that an assumed salary policy of 3% was applied to base salaries to give the Council a total picture of costs. The budget submitted to the Executive Board, Governor/BFM and Appropriations will not include salary policy. The personal services budget includes two new FTEs for research analyst positions. Also included are increases for the investment positions transitioning over 18 to 20 years from entry level to senior portfolio managers after which time the long-term plan increase is used. He noted that he was recommending a change to the FY 2016 budget request distributed to the Council to include funding for a 1/4 FTE legal person on staff. Discussion continued on the new FTEs.

Clark noted that the contractual services budget includes funding for an additional 340 square feet of office space, as well as some modest price adjustments to investment services. No changes are being requested for the travel and office supplies budget. The capital assets budget includes funding for remodeling space for new FTEs, as well as related furniture, computers and phones.

VERN LARSON MOVED, SECONDED BY DAVID HILLARD, TO APPROVE THE FISCAL YEAR 2016 BUDGET REQUEST AMENDED TO INCLUDE A 1/4 FTE FOR LEGAL SERVICES. MOTION PASSED UNANIMOUSLY.

12) Bank Custodian Fee Schedule

Otten stated that the custodian bank updated fee agreement schedule had been signed and would be attached to the BNY Mellon custodial contract. The agreement will be in effect for at least three years. The Council was reminded that by law the State Treasurer is to maintain physical custody of all securities. However, the Treasurer may place the assets with a fiscal agent with the approval of the State Investment Council. The fiscal agent is BNY Mellon.

13) Audit Committee Update

Jim Means, Chair of the Audit Committee, stated that the Audit Committee would be meeting with the auditors from the Department of Legislative Audit to review the scope of the annual audit. The auditors will be in the Investment Office to begin the on-site audit the week of August 25, 2014.

14) Higher Education Savings Program

Sherry Nelson reviewed the Higher Education Savings Plan summary of accounts, quarterly compliance schedule, and minutes from the quarterly conference call with Allianz that had previously been provided to the Council. She added that approximately \$1,400,000 will be transferred to the Dakota Corp scholarship plan which is administered by the Board of Regents. Nelson noted that the Program Management Agreement was extended to December 1, 2021.

15) Election of Officers for FY 2015

The election of officers for FY 2015 was deferred to the next Council meeting.

16) New/Old Business Agenda Items

No new or old business was brought before the Council.

17) Riverstone Energy Fund

David Leuschen, Pierre Lapeyre, John Lancaster and Elizabeth Weymouth of Riverstone Holdings LLC joined the Council to discuss their global energy and power funds, and in particular Fund VI for which they are currently fundraising. Weymouth discussed the history of Riverstone, highlighting their industry expertise, global scale, alignment with partners and superior performance. She reviewed Riverstone's four-sector approach which includes exploration and production, midstream, energy services, and power and coal.

David Leuschen discussed Riverstone's investment team and the strengthening of the senior investment team since Fund V. He discussed the key trends in the global energy markets and the large volume of opportunities they see in the industry. He reviewed in depth the exploration and production sector, as well as the sector strategy options involving backing management teams, acquiring and developing high-quality assets, operating business, and finding high-value ways to exit.

Pierre Lapeyre discussed in depth the midstream and infrastructure sector strategies involving acquiring legacy assets, re-tasking existing infrastructure, and capitalizing on unique circumstances to acquire assets at significantly discounted valuations. John Lancaster discussed in-depth one of Riverstone's co-investments.

Leuschen discussed their focus on best practices and what sets them apart from other energy investors. He discussed several representative investments in Fund IV. Lapeyre provided a detailed update of Fund V. Weymouth reviewed performance results for their five global energy and power funds. She reviewed the summary of terms for Fund VI.

Bartels thanked Riverstone for their presentation.

18) Riverstone Energy Fund Investment

Following Riverstone's presentation, the Council continued discussion on Riverstone and the private equity sector.

Chris Nelson reviewed the amount invested in Riverstone Energy funds IV and V. He discussed the current allocation to the private equity area, and the energy area in particular.

Clark stated that the Riverstone Fund VI is not closing for several months and suggested delaying an investment decision until the next Council meeting when we might have a better sense of the appropriate size of an investment. Action on a Riverstone investment was deferred to the August Council meeting.

19) Future Meeting Dates

The next Investment Council meeting will be held in Pierre in August in conjunction with the investment performance and budget presentation to the LRC Executive Board. The date has not yet been set by the Executive Board but will be provided to the Investment Council as soon as it is known.

20) Adjournment

Chair Bartels declared the meeting adjourned at 12:30 p.m.