

Investment Committee
Friday, May 12, 2023, 9:00 a.m.

Virtual Only

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AGENDA

- I. **CALL TO ORDER AND ACCEPTANCE OF AGENDA**
- II. **ACCEPTANCE OF MINUTES (APRIL 2023)**
- III. **RISK STRATEGY – MR. VAIDYA**
- IV. **TIMBER PORTFOLIO UPDATE¹ - MR. ZIETTLOW, MR. MOSS**
- V. **COUNTRY RISK MANAGEMENT² - MR. CHIN**
- VI. **DELEGATION MATRIX – MR. ANDERSON**
- VII. **DISCUSSION**
- VIII. **ADJOURNMENT**

¹ Executive session pursuant to NDCC 44-04-18.4(1), 44-04-19.1(9), and 44-04-19.2 to discuss confidential commercial information and contract negotiating strategy.

² Executive session pursuant to NDCC 44-04-18.4(1), 44-04-19.1(9), and 44-04-19.2 to discuss confidential commercial information and contract negotiating strategy.

**STATE INVESTMENT BOARD
INVESTMENT COMMITTEE MEETING
MINUTES OF THE
April 21, 2023, MEETING**

MEMBERS PRESENT: Thomas Beadle, State Treasurer, Chair
Joseph Heringer, Trust Lands Commissioner, Vice Chair
Scott Anderson, CIO
Eric Chin, Deputy CIO
Dr. Prodosh Simlai, External Representative
Dr. Ruilin Tian, External Representative

STAFF PRESENT: Derek Dukart, Investment Officer
Missy Kopp, Exec. Assistant
George Moss, Sr. Investment Officer
Matt Posch, Sr. Investment Officer
Chad Roberts, DED/CRO
Ryan Skor, CFO/COO
Nitin Vaidya, Chief Risk Officer
Jason Yu, Risk Officer
Lance Zietlow, Sr. Investment Officer

GUESTS: Craig Chaikin, Callan
Perry Hopper, Callan
Members of the Public

CALL TO ORDER:

Treasurer Beadle called the State Investment Board (SIB) Investment Committee (IC) meeting to order at 9:03 a.m. on Friday, April 21, 2023, at the Retirement and Investment Office (virtual host), 1600 E Century Ave., Bismarck, ND.

The following Investment Committee members were present representing a quorum, Mr. Anderson, Treasurer Beadle, Mr. Chin, Commissioner Heringer, Dr. Simlai, and Dr. Tian.

AGENDA:

The agenda was considered for the April 21, 2023, meeting.

IT WAS MOVED BY MR. CHIN AND SECONDED BY DR. SIMLAI AND CARRIED BY A VOICE VOTE TO APPROVE THE AGENDA FOR THE APRIL 21, 2023, MEETING AS DISTRIBUTED.

AYES: COMMISSIONER HERINGER, MR. ANDERSON, DR. SIMLAI, DR. TIAN, MR. CHIN, AND TREASURER BEADLE

NAYS: NONE

MOTION CARRIED

MINUTES:

The minutes were considered for the March 10, 2023, meeting.

IT WAS MOVED BY COMMISSIONER HERINGER AND SECONDED BY MR. CHIN AND CARRIED BY A VOICE VOTE TO APPROVE THE MINUTES FOR THE MARCH 10, 2023, MEETING AS DISTRIBUTED.

AYES: DR. SIMLAI, COMMISSIONER HERINGER, MR. CHIN, DR. TIAN, MR. ANDERSON, AND TREASURER BEADLE

NAYS: NONE

MOTION CARRIED

INVESTMENT STRATEGY:

Mr. Anderson presented an overview of the investment strategy for the RIO program. This strategy is an overarching approach with a 5-year time horizon. The RIO Investment Program has \$19.2 billion of assets under management (AUM) across all client funds which include sovereign wealth, pension, and insurance plans. Mr. Anderson reviewed the investment program focus, objectives, core beliefs, and investment process. The current and future state of the investment program were discussed with the next step of the program moving towards advanced funds management. Mr. Anderson outlined an opportunity to add a new capability. Public markets direct would allow staff to keep rebalance cost low while increasing value added. It would enhance indexing and public market strategies, liquidity management, and exposure management.

Mr. Anderson outlined an operating model consisting of compliance, overlays, transitions, liquidity, rebalancing, and valuation. The necessary capabilities to achieve success include governance, talent management, operations, data/technology infrastructure, and research/knowledge management. Governance changes have been made through the creation of the SIB Governance and Policy Review and Investment Committees. Both committees have recommended changes to the Governance Manual which the Board has approved. A near-term timeline of activities was provided. Committee discussion followed.

IT WAS MOVED BY DR. TIAN AND SECONDED BY DR. SIMLAI AND CARRIED BY A ROLL CALL VOTE TO CONCUR WITH STAFF RECOMMENDATIONS.

AYES: MR. ANDERSON, DR. TIAN, MR. CHIN, COMMISSIONER HERINGER, DR. SIMLAI, AND TREASURER BEADLE

NAYS: NONE

MOTION CARRIED

PRIVATE MARKET BENCHMARK WEIGHTS:

Mr. Posch presented information on benchmarking. Benchmarks should be investable, provide clear communication of discretionary performance and risk, reflect the investment objectives and asset allocation of the portfolio, and be easy to measure. Current benchmarks are generally a good representation of the asset allocation but could be enhanced in private markets. The current weighting method causes issues with tracking error and performance attribution. Mr. Posch outlined the current weight method and the proposed weight method. Staff presented the following recommendations:

- Change to portfolio weight equal to a benchmark weight where private equity rebalances through public equity and real asset rebalance through half fixed income and half equity
- Restate the 2022 fiscal year based on this performance method and keep a performance measurement using the old system for comparison
- When a benchmark consultant is hired, choose an appropriate benchmark for the private markets rather than benchmark it against its own performance

Committee discussion followed.

IT WAS MOVED BY MR. ANDERSON AND SECONDED BY DR. SIMLAI AND CARRIED BY A ROLL CALL VOTE TO CONCUR WITH THE STAFF RECOMMENDATION.

AYES: DR. TIAN, MR. CHIN, MR. ANDERSON, DR. SIMLAI, COMMISSIONER HERINGER, AND TREASURER BEADLE

NAYS: NONE
MOTION CARRIED

LEGISLATIVE BILLS:

Mr. Skor reviewed current legislative bills that could have an impact on the investment program. HB 1088, which changes the composition of the SIB is out of conference committee and waiting for floor votes in each chamber. RIO's budget has passed and is waiting for the Governor's signature. Committee discussion followed.

With no further business to come before the Investment Committee, Treasurer Beadle adjourned the meeting at 11:32 a.m.

Prepared by:

Missy Kopp, Assistant to the Board



RISK ALLOCATION AND MANAGEMENT

Enhancing Investment Outcomes

INVESTMENT STAFF
MAY 2023

NORTH
Dakota
Be Legendary.

Retirement & Investment

- I. **Investments and Team Overview**
 - II. **Understanding Risk**
 - III. **Model for Evaluating Outcomes**
 - IV. **Beliefs, Objective and Strategy**
 - V. **Enhancing Investment Outcomes, Transparency**
 - VI. **Sources of Value Added**
 - VII. **Conclusion: Integration and Roadmap**
- Appendices**

Investments Overview

RIO AT A GLANCE

As of December 31, 2022

\$19.2 Billion

AUM across all Client Funds

28 Client Funds

Sovereign wealth, pension
and insurance

43 Managers

Equity, Fixed Income, Private
Equity, and Real Asset

INVESTMENT FOCUS

Global multi-asset public and
private market fund of funds
organization

OBJECTIVE

To maximize after cost return
for risk at a prudent level of
risk for the funds in our care

Global, Multi-asset



Advanced Funds
Management

OUR COMMITMENT

Client Focused

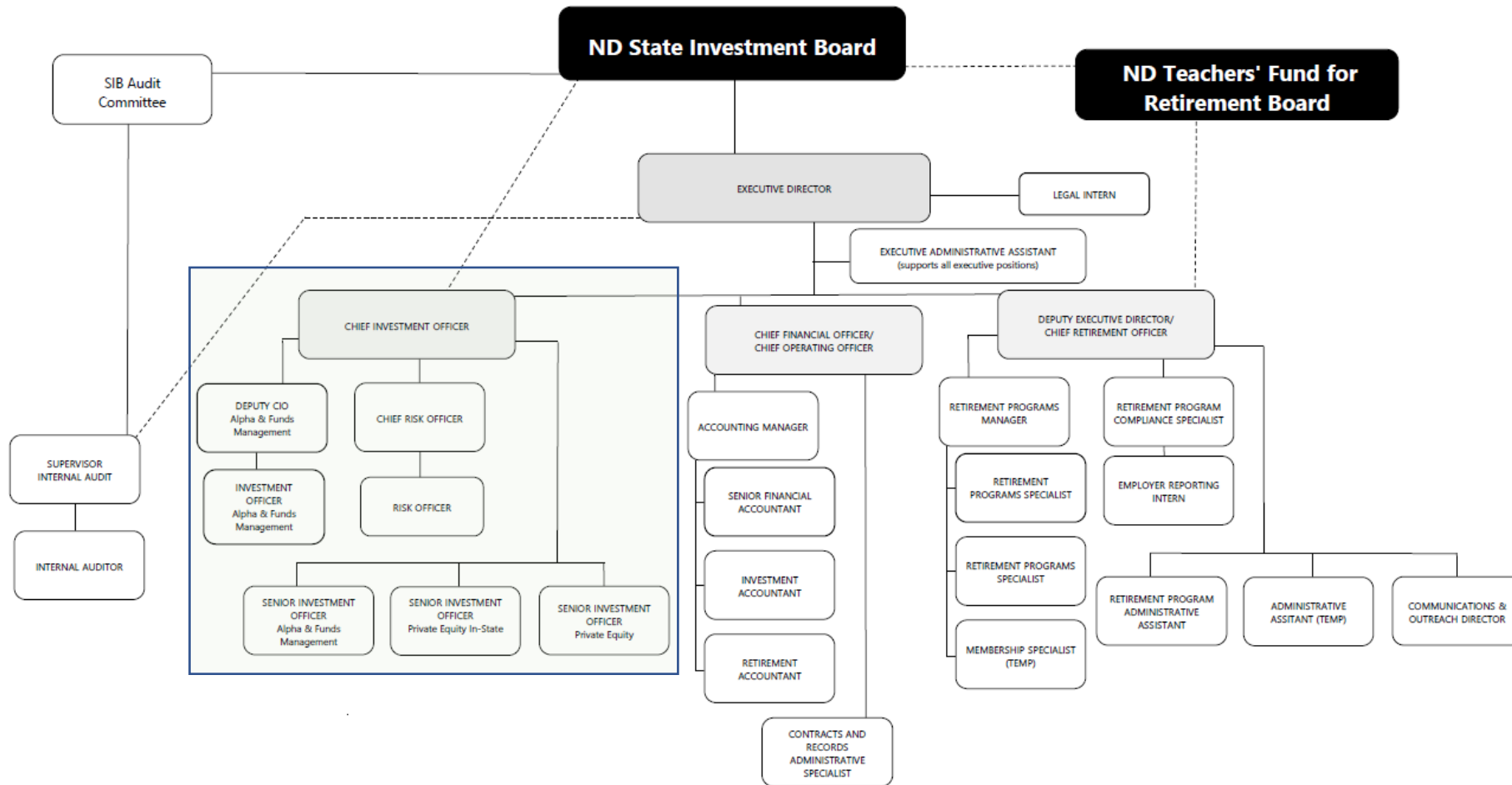
Value Added Results

Efficient Delivery

INVESTMENTS: RISK ALLOCATION AND MANAGEMENT

Retirement and Investment Office Overview

RETIREMENT AND INVESTMENT OFFICE



INVESTMENTS: RISK ALLOCATION AND MANAGEMENT

Team Overview

Scott M Anderson
CFA, CQF, FRM, CIPM
Chief Investment Officer (CIO)



Nitin Vaidya
CFA
Chief Risk Officer



Jason Yu
FRM
Risk Officer



RISK ALLOCATION AND MANAGEMENT

**EXPERIENCE: >20 YEARS
AVERAGE INVESTMENT RISK
EXPERIENCE**

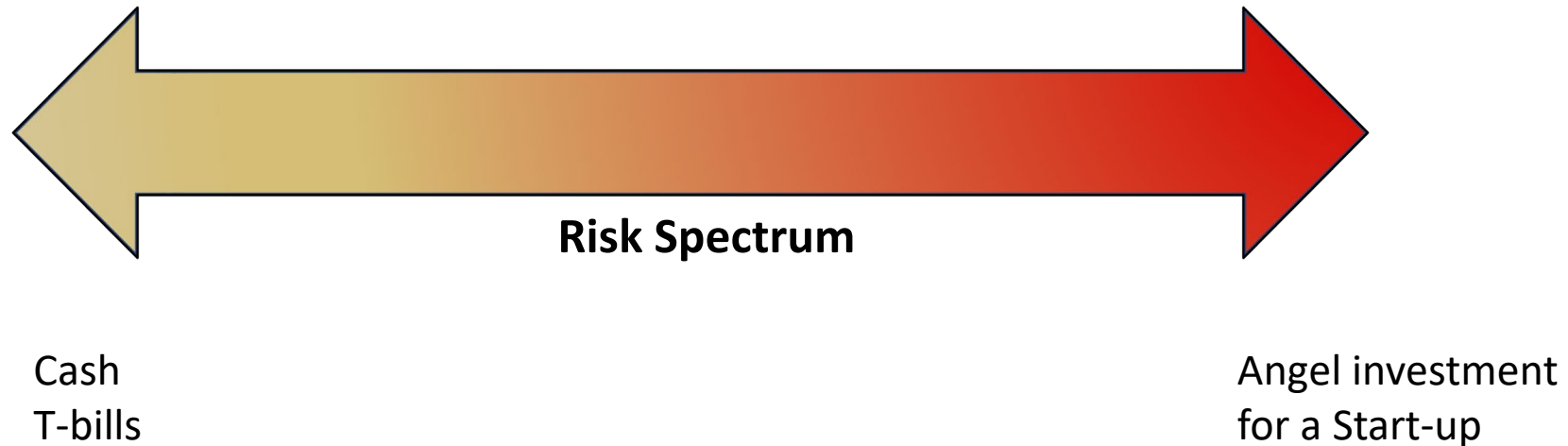
- ASSET AND RISK ALLOCATION
- DIRECT PUBLIC AND PRIVATE INVESTMENT
- FUND AND PORTFOLIO MANAGEMENT
- MANAGER SELECTION
- INVESTMENT OVERSIGHT
- FUND OF FUNDS MANAGEMENT
- QUANTITATIVE ANALYSIS
- RISK MANAGEMENT
- LIQUIDITY MANAGEMENT
- PORTFOLIO CONSTRUCTION
- PENSION, ENDOWMENT AND INSURANCE
- PERFORMANCE MANAGEMENT
- OVERLAYS AND EXPOSURE MANAGEMENT
- MULTI-ASSET PORTFOLIO MANAGEMENT
- PORTFOLIO ANALYTICS

- I. Investments and Team Overview
 - II. **Understanding Risk**
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- Appendices**

“Investment Management is about managing risk not avoiding it”

Benjamin Graham

What is our desired level of risk?



What is investment risk?

Permanent loss of capital

- Stock – bankruptcy
- Bonds – inability to repay debt; example AT1 bonds

Temporary loss of capital, i.e., performance volatility

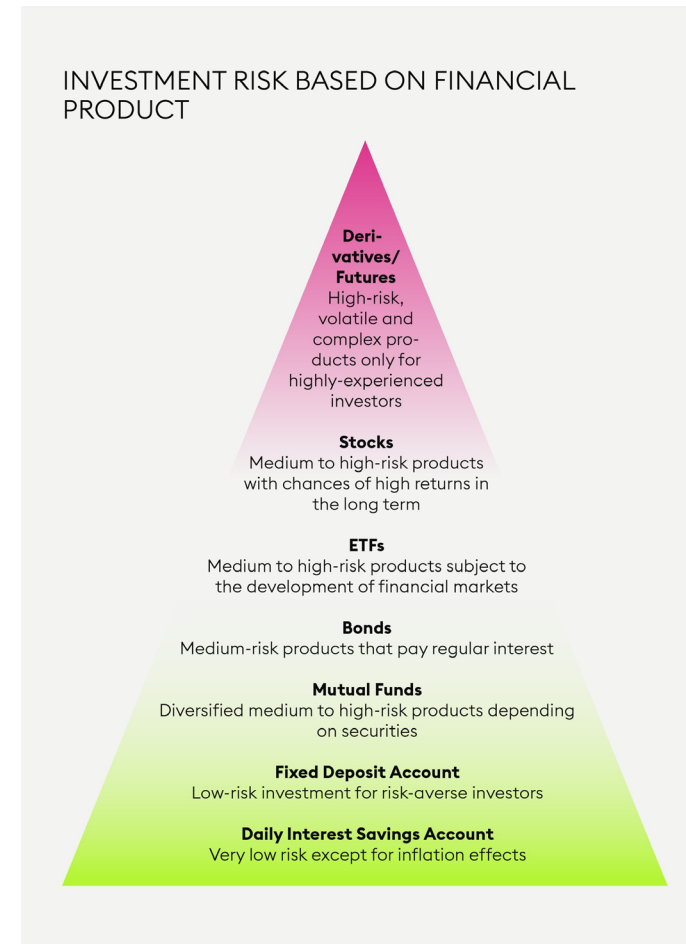
- Portfolio, security level
- Temporary can turn into a period of many years

Underperformance relative to benchmark

- Portfolio level
- Temporary but can turn into a period of many years

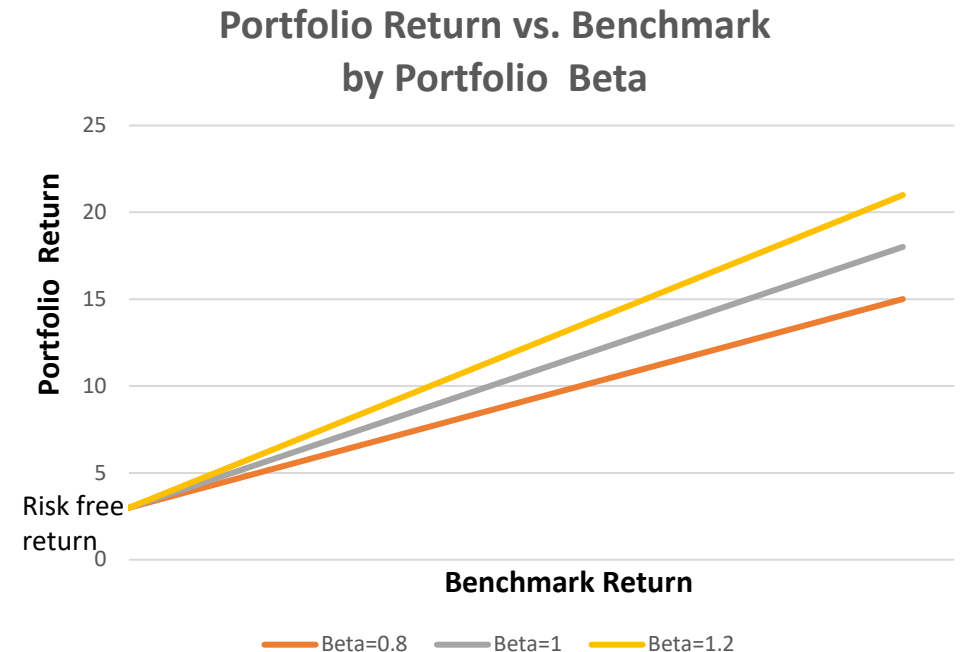
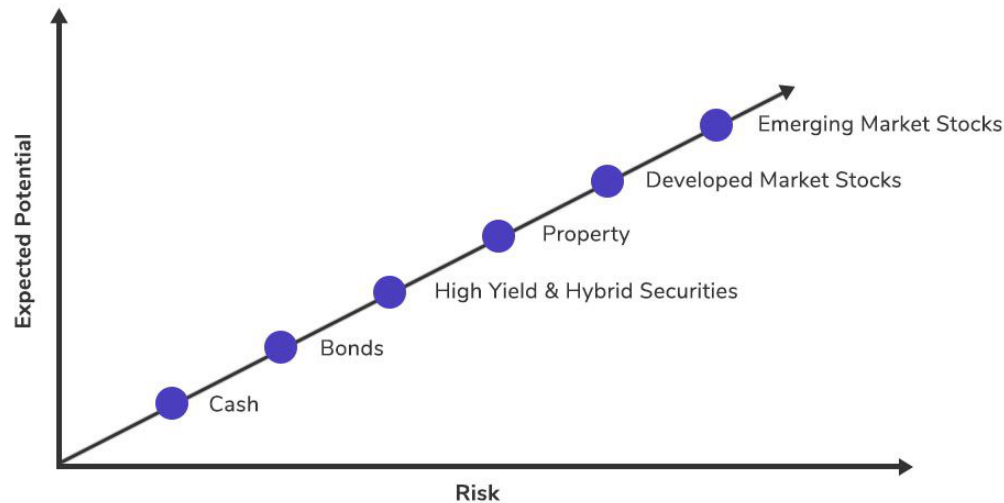
Risk can be layered

- Security Level
- Portfolio Level
- Market level



Higher Compensated Portfolio Risk Corresponds to Higher Long Term Return

There is a tradeoff between increased return and increased risk. Further, a portfolio Beta, i.e. its sensitivity to market, of greater than 1 also suggests a risk greater than that of the market and vice-versa.



Understanding Risk

- **There are multiple measures of risk and return**
- **One size does not fit all; each metric presents a partial view**
- **A more holistic picture emerges from consideration of these separate views**

Measures of Portfolio Return

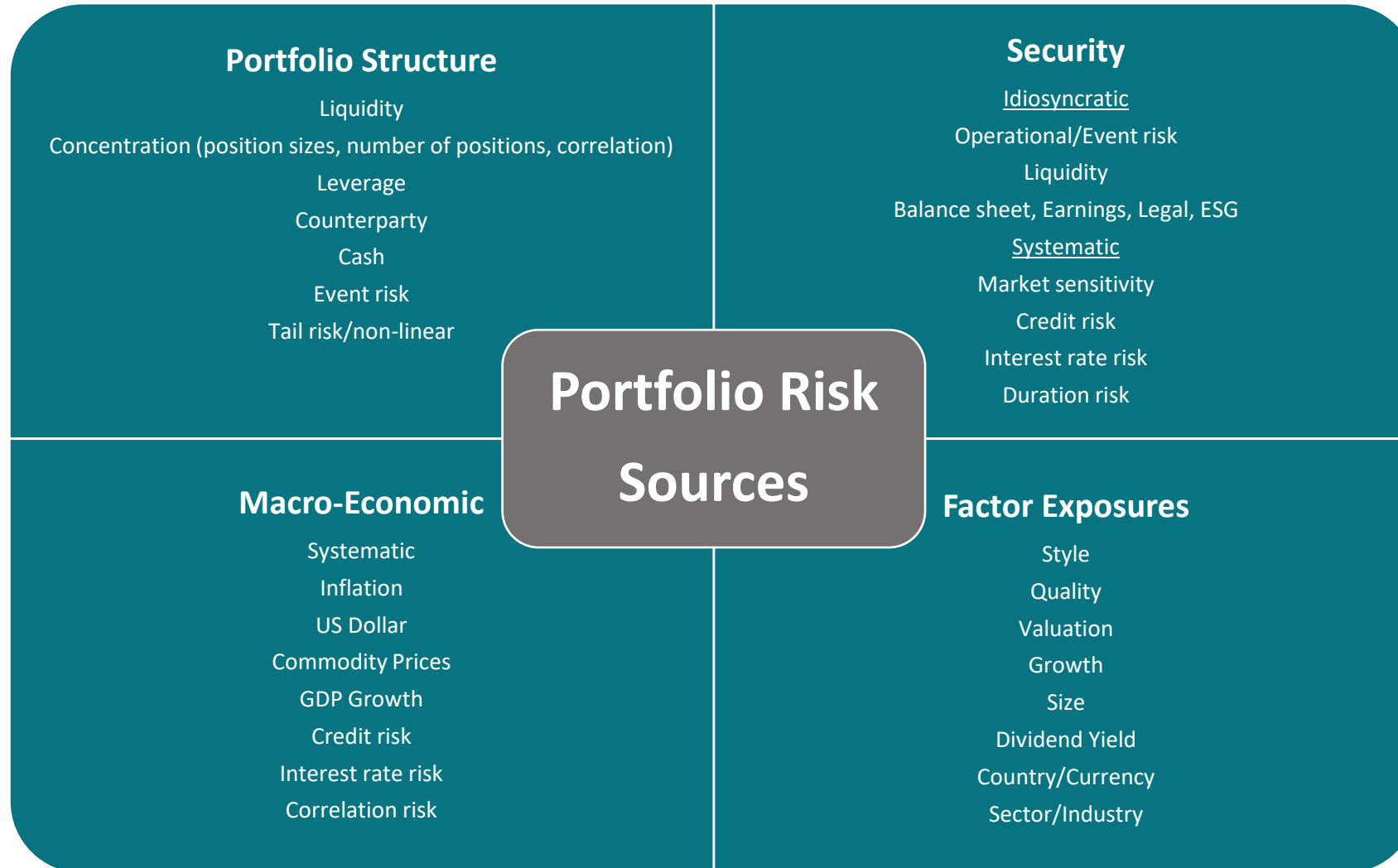
- Return
- Alpha
- Upside/Downside Capture
- Batting Average
- R-squared

Measures of Portfolio Risk

- Volatility
- Downside volatility
- Maximum Drawdown
- Value at Risk
- Tracking Error
- Beta

Measures of Risk Adjusted Return

- Risk Adjusted Return (Sharpe Ratio)
- Information Ratio
- Sortino Ratio
- Omega Ratio



- I. Investments and Team Overview
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- Appendices**

INVESTMENTS: RISK ALLOCATION AND MANAGEMENT

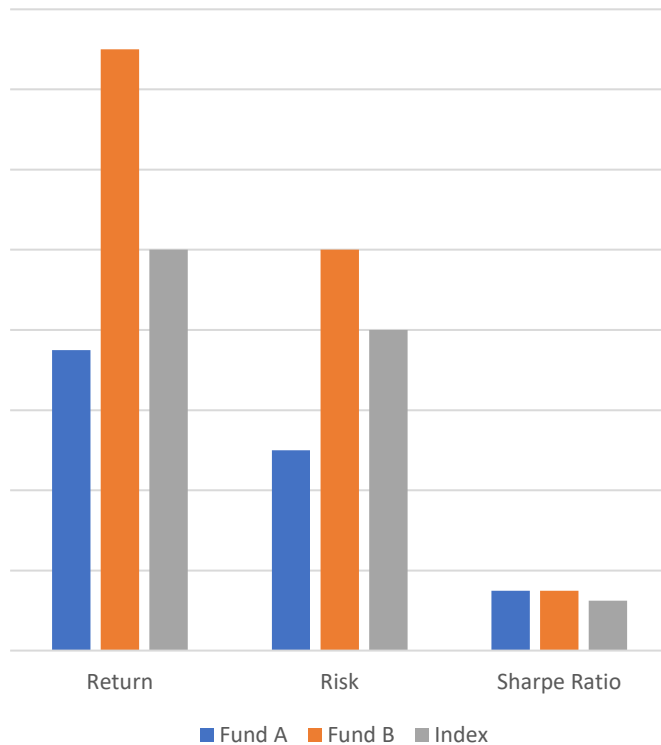
Model for Evaluating Outcomes

Level of risk can result in outperformance, but is that a good result for right reasons or wrong reasons?

Assessment requires understanding the root drivers of the investment edge and market environment, identifying favorable and unfavorable cycles and attributing full-cycle results to skill, structural or market factors.



A comparison of Two Funds with their Index



Which fund has performed better?

- Fund B has outperformed while fund A has underperformed their index
- Fund B also took twice the risk of fund A
- However, both funds have identical Sharpe Ratio, i.e. risk adjusted performance, which is higher than that of the index. How to decide?
- Has fund B outperformed for the right reasons?
- The answer depends on the following:
 - Was the level of risk intended or unintended?
 - Did the clients understand the sources of risk?
 - Was the level of risk acceptable to the clients?



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- Appendices**

- Our mission is to deliver a high return per unit of risk; at a prudent level of risk for our client fund mandates; at an efficient cost
- Risks can be from many sources including currency, liquidity, cash, interest rate, credit, growth, diversification, correlation
- Risk to portfolio performance must be identified, understood, compensated for and managed to acceptable risk appetite
- Risk management includes measurement, monitoring, mitigation, management and reporting of risks that could impact investment outcomes.
- Risk management mitigates the odds of unexpected portfolio failure
- Risk allocation and management improves return per unit of risk in turn leading to better investment outcomes
- Risk allocation and management is a key component of prudent investment management

OBJECTIVE:

- To maximize after cost return for risk at a prudent level of risk for the funds in our care

STRATEGY:

- Develop a world class investment risk allocation and management framework that enhances investment outcomes
- Define portfolio risk appetite
- Structure portfolio to this target risk appetite
- Measure, monitor, mitigate risks and provide transparency on those risks
- Utilize value-added processes to deliver on better risk-adjusted portfolio performance.

WHY?

- Leveraging a comprehensive set of platforms and tools, RIO will be differentiated with dynamic regime-specific risk allocation and management integrated into its investment decisions and implementation

I. Investments and Team Overview

II. Understanding Risk

III. Model for Evaluating Outcomes

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V. Enhancing Investment Outcomes, Transparency

VI. Sources of Value Added

VII. Conclusion: Integration and Roadmap

Appendices



- Develops quantitative analysis and mitigates uncompensated risks to ensure an optimal return for risk at a prudent level of risk in all investment strategies
- Integrated in all investment decisions including allocation of risk capital, portfolio construction and investment manager selection and oversight. Validate investment adherence to optimal risk adjusted return objective.
- Use and develop best in class data sources, analytics and tools to identify risks, measure return per risk and manage risks.
- Provides risk communication and portfolio transparency to policy makers and investment teams.

Portfolio Structural Risk Mitigation

Portfolio Structural Risk Mitigation

- **Define risk appetite**
- **Target, Measure, Monitor, Mitigate and Report**
 - Leverage risk
 - Diversification/concentration risk
 - Liquidity risk
 - Counterparty risk
 - Country risk
 - Cash risk
 - Event risk
 - Non-linear (tail) risk
 - Asset class specific risks (valuation, liquidity)
- **Judicious use of risk targets and limits**
- **Compliance with client guidelines and targets**
- **Escalation process as appropriate**

Portfolio Construction & Asset Allocation

Portfolio Construction & Asset Allocation

- Integrate with Public, Private and Internal investment teams using a lens different from those of such teams
- Diversify the portfolio. Leverage uncorrelated risk weighted portfolio construction where feasible, including at the asset allocation level
- Identify, measure and manage sources of risk at manager, client and pool levels
 - Target and manage risk factor exposures at manager, client and pool levels
 - Manage exposures to macro-economic and fundamental risk factors
 - Actively manage sector/country risks in manager selection
- Dynamic regime/state specific allocation taking into consideration macro-economic environment
- Hedge away unintended risks thru derivative strategies
- Equitize cash to mitigate cash risk
- Leverage dashboard for daily transparency on portfolio exposures and construction

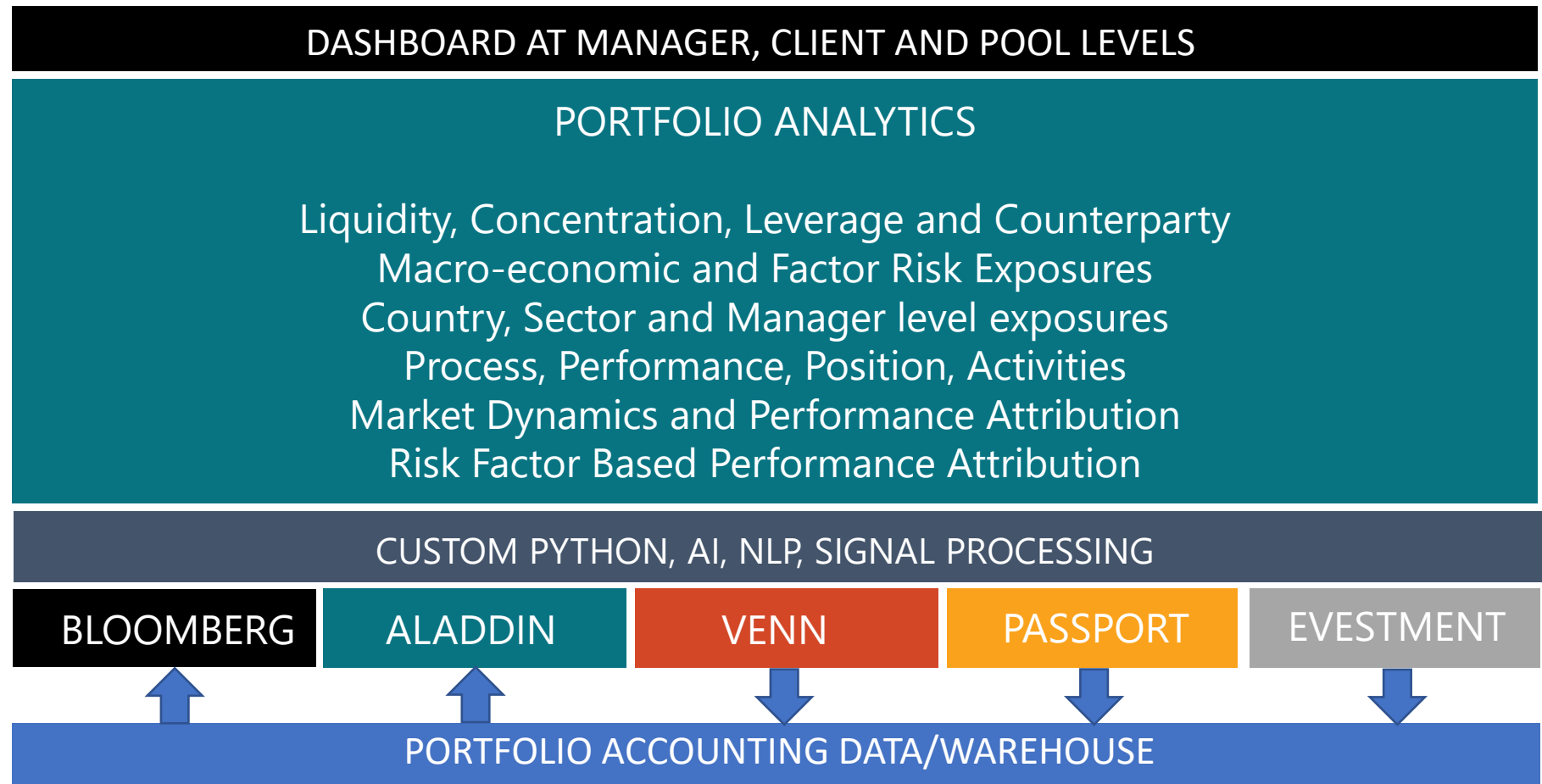
Investment Manager Assessment and Oversight

Investment Manager Assessment and Oversight

- **Leverage sophisticated risk platforms and tools to produce comprehensive manager analysis**
 - Process
 - Performance
 - Risk Exposures
 - Activity
- **Evaluation in context of market dynamics and process. Focus on investment process rather than performance**
 - Was the performance and risk in line with expectations given market dynamics and process?
 - Were the sources of risk and return clearly understood?
 - Was the level of risk and return acceptable?

Risk
Platforms and
Tools

Risk Platforms and Tools



Transparency to Board, Investment Committee, Clients

- Seek buy-in on a clear pool and client level risk appetite
- Set pool, client fund risk and performance expectations
- Portfolio Construction Dashboard (Pooled, Client, Fund levels)
- Market Risks Dashboard for context on market behavior
- Comprehensive portfolio analysis at pool, client and fund levels
- Risk Matrix on key risks across managers, clients and pools.
- Foster trust in RIO systems, processes and people

Example of Structural Risk Dashboard

Liquidity



Concentration



Leverage



Cash



Credit



Interest Rate



Duration



Counterparty



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Appendices

INVESTMENTS: RISK ALLOCATION AND MANAGEMENT

Sources of Value Added

Illustration

SOURCES OF VALUE ADDED – RISK ALLOCATION AND MANAGEMENT



Forecast funds flows for liquidity risk, cash, rebalancing and liquidity management	A minimum efficient allocation of 60% World Index and 40% Domestic Fixed Income	Risk aware dynamic regime/state specific uncorrelated sub-asset allocation for optimal risk-return profile	Use comprehensive portfolio analytics focusing on process in manager selection; assess return and risk in context of market dynamics	Uncorrelated risk weighted dynamic portfolio construction to target optimal return per unit risk at specified risk appetite	Choose make versus buy and optimize cost of management, fees, incentives, implementation, operations and exposures	Find best return and costs for security lending, cash management, transaction finance and liquidity risk management	Reduce liability defeasance risk by understanding features of the liability and economic scenarios (local and global)
	VALUE ADDED:	> 100 BP	> 40 BP	> 10 BP	> 10 BP	> 5 BP	

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Appendices

INVESTMENTS: RISK ALLOCATION AND MANAGEMENT

Integrated with Investment Focus

PRIVATE MARKETS FUND OF FUNDS

PUBLIC MARKETS FUND OF FUNDS

RISK ALLOCATION AND MANAGEMENT

PUBLIC MARKETS DIRECT

- Asset class strategies transacted in private markets
- Diversified industry, geography and asset classes such as private debt/loans, real estate, infrastructure, equity, and commodities
- Use of best in class data sources and tools to identify opportunities, construct portfolios and manage risks such as valuation, diversification, currency, liquidity and cash flow
- Manages investments over a life cycle, by pacing investments appropriately based on stage of economic cycle

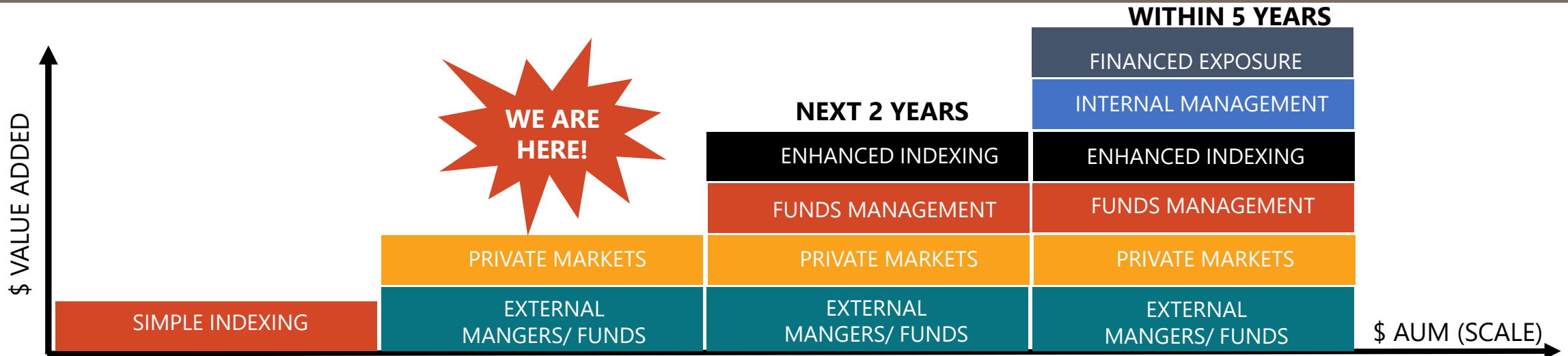
- Asset class strategies transacted in public markets over the counter or on exchanges
- Diversified strategies, geography and asset classes such as global equities, investment grade fixed, high yield, multi-asset class, and commodities
- Use of best in class data sources and tools to identify opportunities, construct portfolios and manage risks such as idiosyncratic, market, credit, currency, liquidity, interest rate, and derivative
- Manages investments with manager selection, advanced portfolio construction, exposure management, dynamic allocation and rebalance

- Develops quantitative analysis and mitigates uncompensated risks to ensure an optimal return for risk at a prudent level of risk in all investment strategies
- Integrated in all investment decisions including allocation of risk capital, portfolio construction and investment manager selection and oversight. Validate investment adherence to optimal risk adjusted return objective.
- Use and develop best in class data sources, analytics and tools to identify risks, measure return per risk and manage risks.
- Provides risk communication and portfolio transparency to policy makers and investment teams.

- Asset class strategies directly transacted in the public markets over the counter or on exchanges
- Diversified low risk strategies that enhance portfolio return but at a lower cost and risk for the same return as available with external managers
- Facilitate portfolio operations like proxy voting, overlays, security lending, exposure management, alpha beta separation, cash and liquidity management
- Use and development of best in class data sources, analytics and tools to identify opportunities, construct portfolios, transact and manage portfolio risks

INVESTMENTS: RISK ALLOCATION AND MANAGEMENT

Roadmap for Success

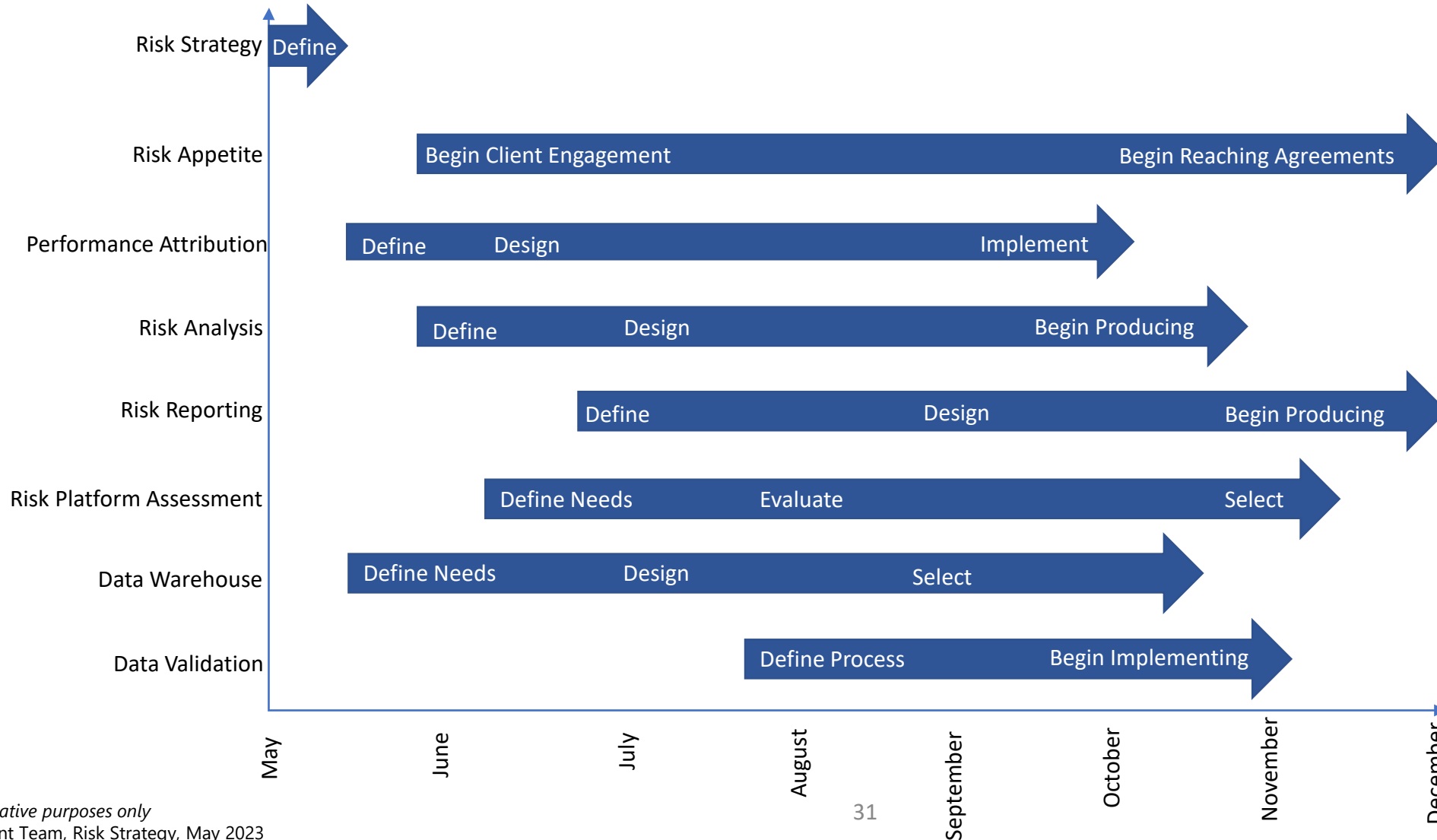


CAPABILITIES FOR SUCCESS

- RISK APPETITE
- FUND DYNAMICS EXPECTATIONS
- PERFORMANCE ATTRIBUTION
- DASHBOARDS
- RISK PLATFORMS
- BOARD RISK REPORTING
- RISK PROBABILITY-IMPACT MATRIX
- COMPREHENSIVE PORTFOLIO MANAGEMENT ANALYTICS
- FUND AND LIQUIDITY MANAGEMENT
- DERIVATIVES OVERLAYS
- VALUATION AND EXPOSURE MANAGEMENT
- KNOWLEDGE MANAGEMENT SYSTEM & INVESTMENT DATA WAREHOUSE
- CLIENT GUIDELINES COMPLIANCE

INVESTMENTS: RISK ALLOCATION AND MANAGEMENT

Near Term Timeline of Activities



INVESTMENTS: RISK ALLOCATION AND MANAGEMENT

How to Determine Success – Thru December 2023

PROJECTS PROGRESS	FIVE YEAR PLAN RETURNS BY POOL	EXPECTED RETURNS
	FIVE YEAR RETURN/RISK	0.35 SHARPE RATIO
	FIVE YEAR ACTIVE RETURN	0.30%
	FIVE YEAR ACTIVE RETURN/ACTIVE RISK	0.40
	DEFINITION OF RISK APPETITES	COMPLETED
	RISK AND ANALYTICS PLATFORM ASSESSMENT	COMPLETED
	PRODUCE MANAGER LEVEL ATTRIBUTION	COMPLETED
	FIRST PHASE PRODUCTION OF RISK ANALYSIS	COMPLETED



RISK ALLOCATION AND MANAGEMENT

Enhancing Investment Outcomes

INVESTMENT STAFF
MAY 2023

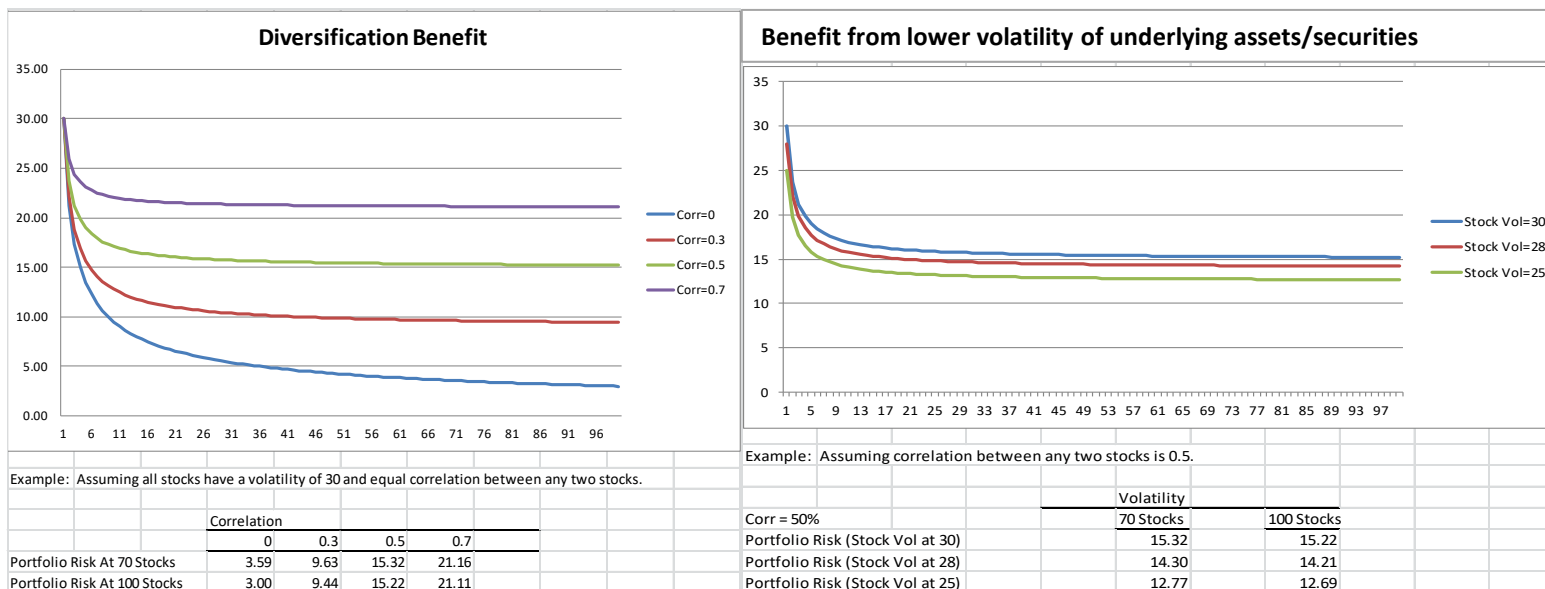
NORTH
Dakota
Be Legendary.

Retirement & Investment

APPENDICES

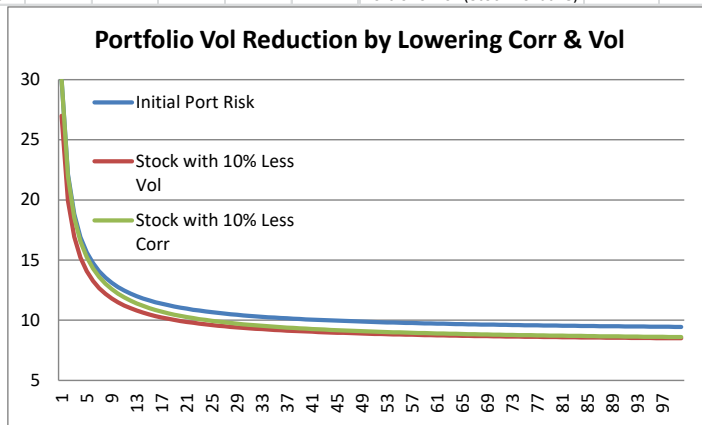
Examples of Risk Value Proposition

Example of Portfolio Construction: Achieving Lower Volatility



Portfolio Construction & Asset Allocation

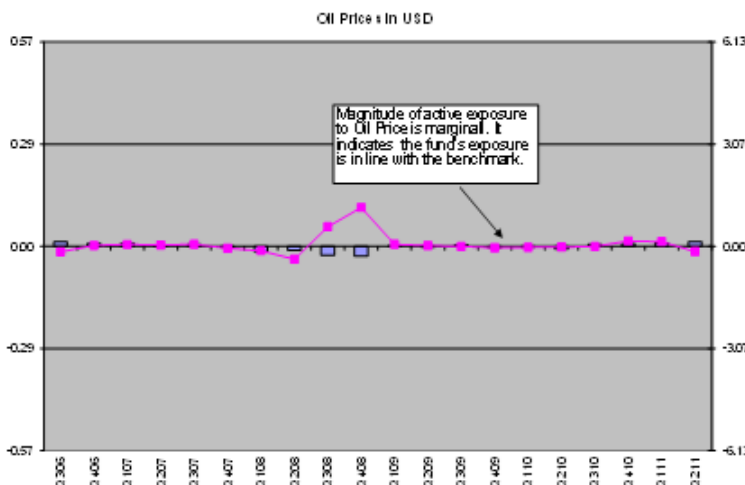
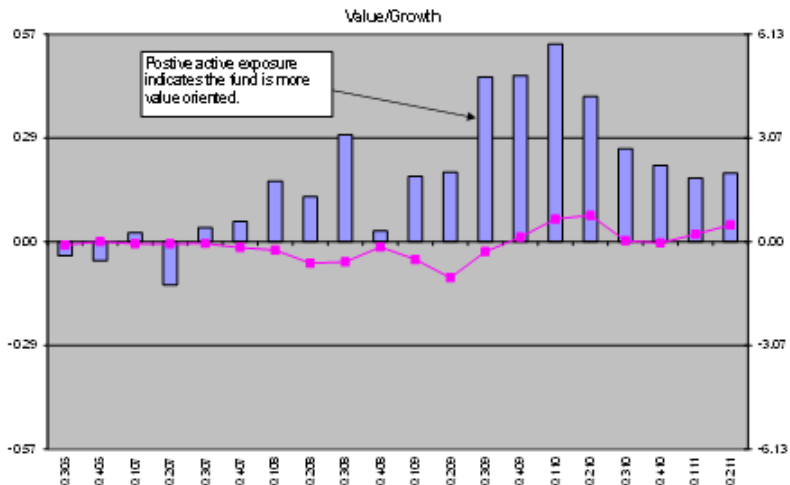
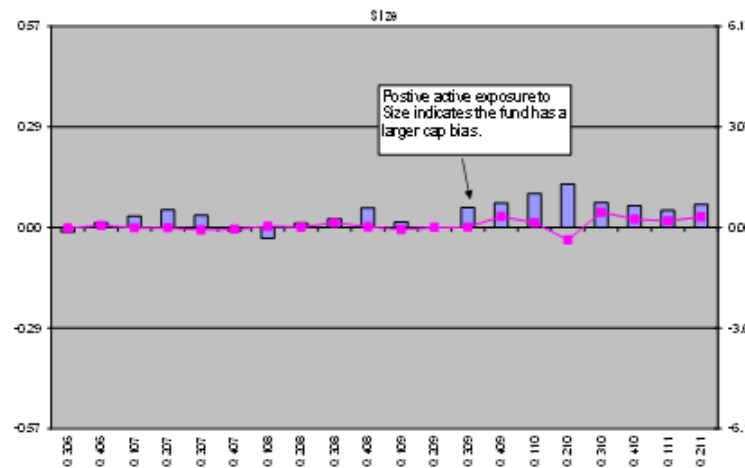
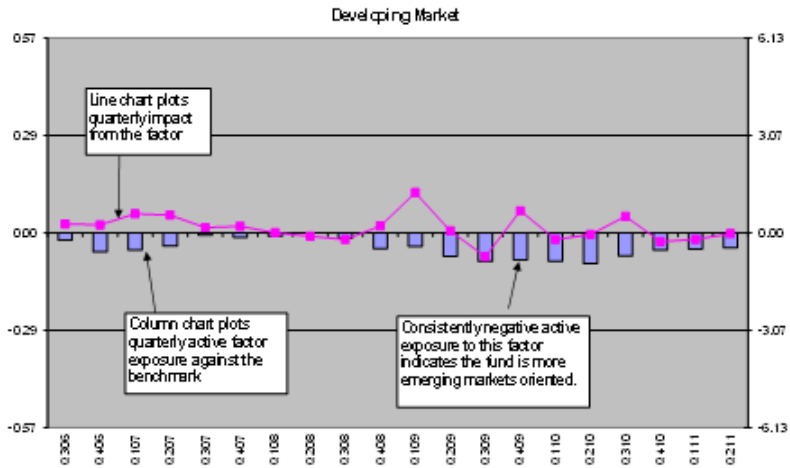
- Large number of managers/assets only reduces portfolio volatility marginally
- Low volatility of assets only marginally reduces portfolio volatility but matters more for concentrated portfolios
- Lower correlation has a bigger impact on reducing volatility



INVESTMENTS: RISK ALLOCATION AND MANAGEMENT

Enhancing Investment Outcomes

Example of Portfolio Construction and Manager Oversight: Factor Exposures and Impact Time Series



Portfolio Construction & Asset Allocation

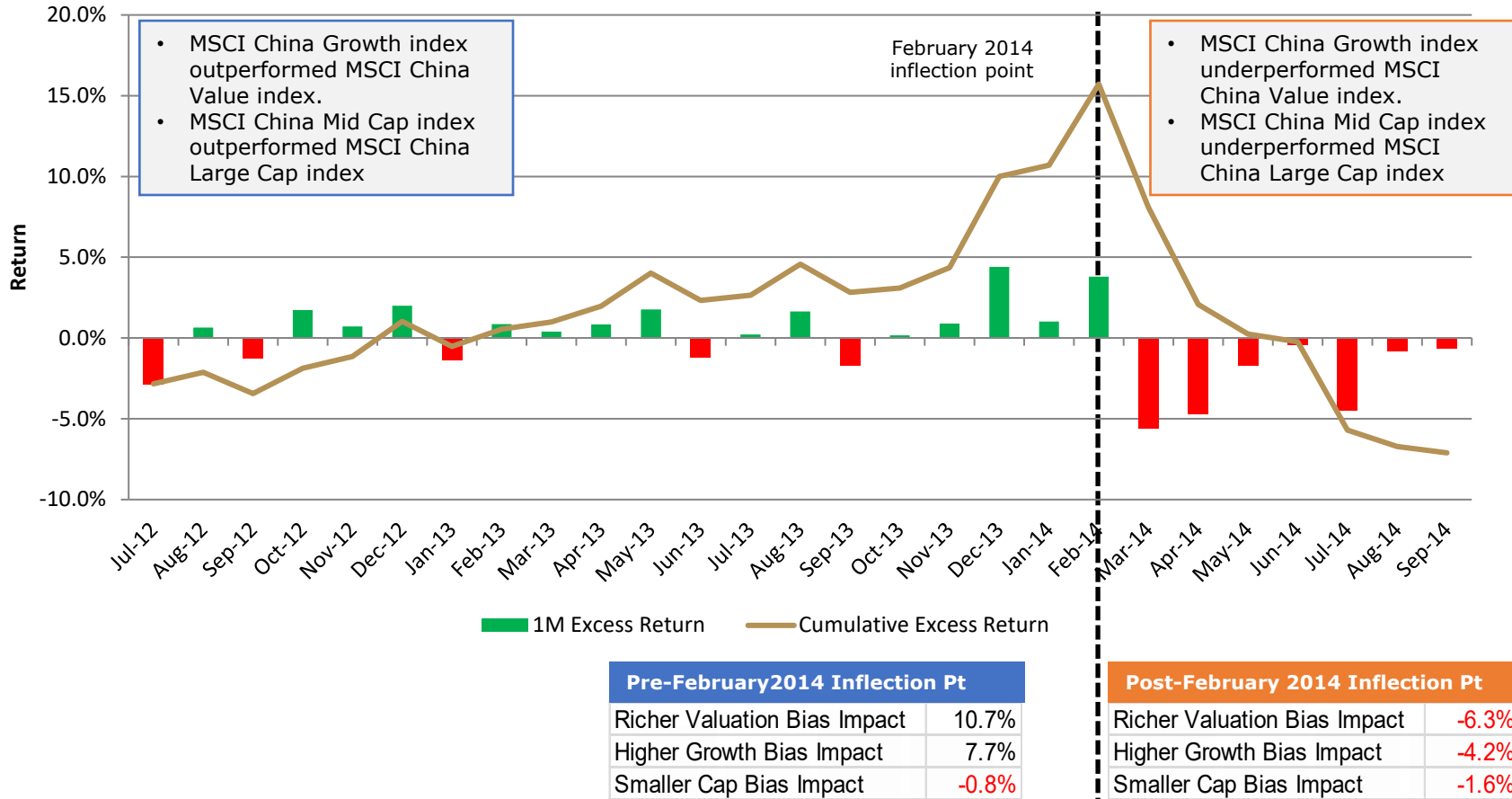
Investment Manager Assessment and Oversight

- What are the largest factor exposures?
- How have the exposures changed with time?
- Are these exposures expected for the portfolio? If not, should these exposures be changed?
- How have these exposures impacted performance?

INVESTMENTS: RISK ALLOCATION AND MANAGEMENT

Enhancing Investment Outcomes

Example of Manager Assessment and Oversight: Performance Analysis and Context of Market Dynamics



Note: These attribute impacts do not add up linearly and do not explain the entire underperformance.

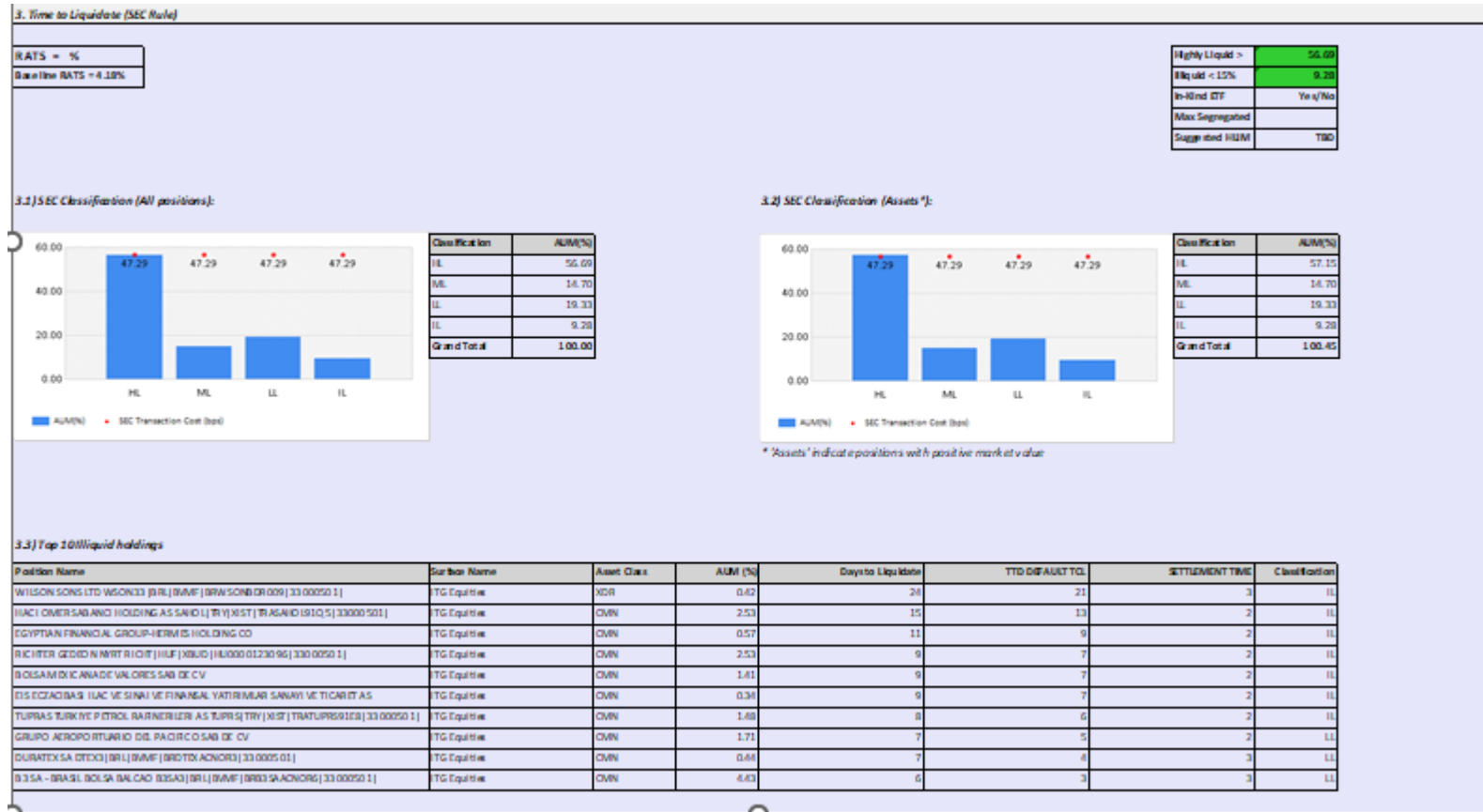
Investment Manager Assessment and Oversight

- Was the performance in line with expectations given market dynamics?
- Did the clients understand the sources of return ?
- Was the level of relative return acceptable to the clients?

INVESTMENTS: RISK ALLOCATION AND MANAGEMENT

Enhancing Investment Outcomes

Example of Portfolio Structural Risk Monitoring: Liquidity Risk



Portfolio Structural Risk Monitoring

- Does the portfolio have the ability to withstand unexpected redemptions?
- Are any positions difficult to sell?
- Is any action needed to improve liquidity?

Confidential materials will be sent directly to Committee members via secure link.

Delegation Matrix

ACTIVITY	RECOMMEND	APPROVE FOR RECOMMENDATION	APPROVE	OVERSIGHT	IMPLEMENT
Investment Policy	Staff/IC	IC	Board	IC and Board	Staff
Asset Allocation	Staff	IC	Board	IC and Board	Staff
Third Party Performance Assessment	Third Party			IC and Board	
Program Updates/Training				IC and Board	Staff/IC
Benchmarks	Third Party	IC	Board	IC and Board	Staff
IC Proceedings		IC	Board	Board	Staff
Any Authority			Board	Board	Staff/IC
Manager Guidelines	IC/Staff	IC		IC and Board	Staff
Monitor Funds and Portfolios				IC and Board	Staff
New Investment Strategies	Staff		IC	IC and Board	Staff
New Investment Portfolios	Staff		IC	IC and Board	Staff
New Investment Instruments	Staff		IC	IC and Board	Staff
Compliance	Staff		IC	IC and Board	Staff
Waivers	Staff		IC	IC and Board	Staff
Transitions			Staff	IC and Board	Staff
Rebalance			Staff	IC and Board	Staff
Hire/Terminate Managers	Staff		IC	IC and Board	Staff
Hire/Terminate Benchmark, Hurdle Rate Consultants	Staff	IC	Board	IC and Board	Staff
Hire/Terminate Custodians, Staff Consultants	Staff		Staff	IC and Board	Staff
Negotiate Manager Contracts				IC and Board	Staff
Manage Approved Direct Strategies				IC and Board	Staff

Guideline Changes to Accommodate Direct Investment and Incentive Comp

SIB

1. Invest funds entrusted by statute and contracted entities, delegating investment authority when deemed appropriate.
2. Set policies for appropriate investments and investment practices of entrusted funds.
3. Approve asset allocation and investment policies of participating trust funds or establish pool asset allocation previously approved by the Investment Committee.
4. Monitor the progress of the implementation of the investment strategy.
5. Monitor the performance and risk of the investment program provided by an independent third-party performance appraisal.
6. The Board will receive program updates, training regarding investment topics, market updates, investment performance/risk, investment procedures, program costs and updates on investment execution of investment strategies from Investment Committee representatives.
7. Approve benchmark recommendations from an independent third-party benchmark consultant previously approved by the Investment Committee.
8. Review summaries of Investment Committee proceedings.
9. Review updates regarding specific investment strategies, manager selection, termination, guideline changes and changes to instrument usage.
10. The Board may choose to have decision authority over specific Investment Committee decisions when deemed appropriate including new investment programs, strategies, techniques, instruments, and initiatives.

Investment Committee

1. The Committee will suggest and recommend changes to the SIB Investment Policy, as necessary including any delegation of authority to RIO investment staff.
2. The Committee will review periodically and approve changes and additions to the IC Guidelines and will report any revisions to the SIB.
3. The Committee may examine internally direct management portfolios and externally managed portfolios, individual investments, correlation among portfolios, and such other matters as the Committee deems appropriate for the purpose of understanding, measuring, controlling, monitoring, and reporting SIB investment exposure.

4. The Committee will review and approve for recommendation new investment strategies (both internal direct and external), portfolios, and the use of new investment instruments prior to their implementation.
5. The Committee will oversee the review and implementation of any other new investment programs or initiatives in all SIB portfolios and will coordinate any necessary related SIB approvals.
6. For purposes of fulfilling its risk management and oversight responsibilities, the Committee will act as liaison between the RIO investment Staff and the SIB on issues concerning investment risk management.
7. The Committee will review subset of asset class strategies at least quarterly to assess established risk limits and evaluate strategy and will approve such strategies annually. The relevant Investment Staff shall be responsible for the specific investment decisions and implementations including internally and externally managed mandates that are used to execute the approved strategies.
8. The Committee will review all compliance-related issues including compliance with statutes, administrative rules, internal and external manager investment guidelines or as otherwise requested.
9. The Committee will review asset allocation plans and strategies and will review and approve for recommendation to the board any proposed changes to SIB's strategic asset allocations and fund-level active risk objectives before they are presented to the Board for approval. The Committee will provide consultation and assistance to the SIB, ED and staff concerning total fund allocation changes or rebalance decisions, as needed.
10. The Committee will review and act on all requests from investment managers, both internal and external for waivers to provisions in their investment guidelines. On an emergency basis when it is impractical to timely convene a meeting of the Investment Committee, either the Chair or Vice Chair of the committee with the concurrence of the Chief Investment Officer of the Committee or the Executive Director, may approve a waiver. That waiver will be brought to the Committee for ratification at its next regularly scheduled meeting.
11. The Committee may review and analyze other compliance-, risk- or derivative-related matters that are directed to the attention of the Committee by the SIB, external auditors, the Internal Audit group, and RIO investment and accounting staff.
12. The Committee will receive quarterly reports regarding transitions (if any) and shall review with the applicable Investment Staff the costs and impacts associated with the transitions. It will also from time-to-time review reports on the trading effectiveness of investment execution of internal investment strategies (if approved).
13. The Committee will review annual benchmark recommendations from a Board-appointed benchmark consultant and will provide its evaluation and recommendation to the Board.
14. The Committee will review and approve revised portfolio guidelines as necessary.
15. The Committee will establish procedures for the methodology and frequency of review of (i) fund, asset class and portfolio performance, (ii) performance attribution, (iii) allocation

within asset classes and (iv) risk levels. Procedures will be shared with the Board.

16. The Committee will conduct periodic round table discussions of the economic and investment environment.

Chief Investment Officer and RIO Staff

1. Participate on the Investment Committee and report to the Board as required.
2. Implement investment policies approved by the Investment Committee and the Board.
3. Provide research and administration for SIB client funds and client projects.
4. Recommend investment policies and procedures appropriate for governing the investment of entrusted funds.
5. Lead the development of asset allocations, investment strategies, manager mandates, manager guidelines, investment implementations and investment policies to be approved by the Investment Committee and Board.
6. Recommend to the investment committee the hiring or terminating of money managers, custodians, consultants, and other outside services needed to effectively manage the investment funds.
7. Hire and terminate money managers, custodians, and consultants as delegated by the Investment Committee and Board.
8. Negotiate manager contract terms and conditions as delegated by the Investment Committee and Board.
9. Evaluate money manager adherence to investment objectives, mandate requirements and guidelines.
10. Provide performance reports to the Investment Committee, the Board and Boards of participating funds as a representative of the Investment Committee and the SIB.
11. Develop and maintain appropriate accounting policies and investment systems for the funds entrusted to the SIB.
12. Recommend to the investment committee new investment strategies (both internal direct and external), portfolios, and the use of new investment instruments prior to their implementation.
13. Manage direct investment strategies approved by the investment committee including the allocation of capital within the strategies, as well as security selection, weighting, and trading.
14. Provide rebalance instructions to the fiscal team that comply with client policy statements.