Agenda
SCHOOL AND INSTITUTIONAL TRUST FUND
BOARD OF TRUSTEES
Wednesday, April 20, 2016
200 East South Temple
Suite 100
Dial-in Number 888-206-2266
Guest 9426154#

1. Call Meeting to Order (Start time 12:00pm)

2. Approval of Minutes (10 min)
   March 4, 2016

   Attached, Exhibit (A) pages 2-3

3. Work Plan
   a. Review and discuss
   b. Portfolio Construction Questionnaire

   Attached, Exhibits (B) page 4 & (C) pages 5-8

4. Investment beliefs (30 min)
   a. Review and discuss
   b. Adopt current draft

   Attached, Exhibit (D) pages 9-19 & (E) pages 20-32

5. Investment Policy Statement (45 min)
   a. Review and discuss

   Attached, Exhibit (F) pages 33-42

6. Investment Review (10 min)

   Attached, Exhibit (G) pages 43-45

7. Research Update (20 min)

   Attached, Exhibit (H) pages 46-48

8. Adjourn

One or more members of the Board may participate via electronic conference originated by the Chair, and the meeting may be an electronic meeting, and the anchor location shall be as set forth above, within the meanings accorded by Utah law. In compliance with the Americans with Disabilities Act, individuals requiring special accommodations during the meeting may notify SITFO in advance 801-355-3070 or rkulig@utah.gov.

Exhibit A

SCHOOL AND INSTITUTIONAL TRUST FUND
BOARD OF TRUSTEES
200 EAST SOUTH TEMPLE
SALT LAKE CITY, UT
March 4, 2016

Draft Minutes

Board Members Attending: David Damschen, John Lunt, Kent Misener, David Nixon and Duane Madsen.

Others Attending: Peter Madsen, SITFO; Allen Rollo, Treasurer's Office; Michael Green, Utah AG; Natalie Gordon, USOE; Paula Plant, USOE; Margaret Bird, USOE; Tim Donaldson, USOE; Ryan Kulig, SITFO; Nathan Barnard, SITFO.

1. Call Meeting to Order
Mr. Damschen called meeting to order.

2. Investment Consultant Interviews
The two investment consultant finalists, FEG and Cliffwater, were invited to make final presentations to the Board. After a discussion considering the capabilities of both firms, Mr. Misener made the motion to approve FEG as the investment consultant. Mr. Duane Madsen seconded the motion and the Board passed the motion unanimously.

3. Approval of Minutes
Mr. Nixon suggested to update the minutes from the January 28 meeting to clarify which "Madsen" is being referenced. The staff took note to make the changes. Mr. Misener motioned to approve the minutes contingent on the changes, Mr. Duane Madsen seconded the motion. The motion passed unanimously.

4. Investment Beliefs
Mr. Peter Madsen suggested that the Investment Beliefs review be moved to the next meeting. Mr. Damschen agreed to move the review to the next Board meeting.

5. Custody Consultant Search Update
After approaching Mr. Nixon's consultant recommendation, they declined interest in the project. Mr. Peter Madsen suggested we move forward with the previous consultant recommendation. Mr. Nixon made the motion to approve, Mr. Lunt seconded the motion. The Board approved the motion unanimously.

6. Investment Review
Mr. Barnard provided an investment review for Q4 '15 as well as monthly January '16 performances. He noted the fund still has significant equity risk exposure. Mr. Peter Madsen noted that the fund will continue to reduce its equity exposure over the next few weeks.

7. Adjourn

Mr. Misener made the motion to adjourn, Mr. Nixon seconded the motion. The meeting was adjourned.

Exhibit B

April	May	June	July	Aug	Sep
IPS Part I Draft	IPS Part II	AA part II Interim / Final Target Approved	Custody Selection	Custody Implementation	Custody Implementation
Investment Beliefs	Begin AA Discussion	Research - Income Part III Manager Recommendations and "Anti-Equity"	Operations Review & Recommendations	Operations Implementation	Operations Implementation
Research - Income	Research - Income Part II Strategy / Structure	Software / Systems Implementation	Research - Anti-Equity Part II Strategy / Structure	Research - Anti-Equity Part III Manager Recommendations	
	Quarterly Budget Review				
	Software / Systems Implementation				

The following survey questions are designed to provide feedback to assist in formulating an investment strategy and asset allocation that meets the objectives.

Time Horizon

1. What is the time horizon of the Fund? ________ years

2. What time horizon (in years) is adequate to assess the validity of an investment strategy and asset allocation? _________ years

Return Objectives

3. Please insert the payout rate (as a % of market value) and administrative fees (as a % of market value) to calculate the real long-term return objective.

   a. Spending Policy Payout Rate ________ (%)

   b. Administrative Fees* + ________ (%)

   c. Real Long-Term Return Objective = ________ (%)

* Includes expenses to run the Fund (but not investment management fees)

4. What is your expectation for inflation over the next 10 years? ________ (%)

Risk

5. Which "risk" is your primary focus?

   a. Market risk (fluctuations in asset prices)

   b. Shortfall risk (generating a long-term return less than the return objective)

6. What is the maximum decline in portfolio value (in %) you would be willing to withstand in any one year? ______ %

7. Over the next decade, what is the minimum annualized rate of return you would be willing to accept? _______%

8. Please rank (1-3) the following in order of importance:

a. Performance ≥ Long-Term Return Objective (from question #3) _______

b. Performance > peer institutions _______

c. Performance > relevant market benchmarks _______

9. Based on the current asset allocation (47% US Equity, 20% Non-U.S. Equity, 23% U.S. Core Fixed Income, 10% U.S. Real Estate), what do you believe is the probability (0-100%) of achieving the long-term return objective over the next 10 years? ________%

10. On a scale of 1 (too conservative) to 10 (too aggressive), with 5 being "appropriate", how would you characterize the risk of the portfolio today? __________

Liquidity

11. What is the minimum portion of the portfolio that should be invested in liquid securities (e.g., stocks, bonds, and cash) where cash and/or sales proceeds generally would be available within 1-3 days?

    _________%

12. Are you willing to sacrifice liquidity (e.g., with an investment that is illiquid for 7-10 years) with a portion of the portfolio to generate premium performance (e.g., 3-5 percentage points greater than the public markets)? _________ (yes or no)

    If yes, what percent of the portfolio would you allocate to illiquid investments?

    _________%

Asset Allocation

13. How much of the portfolio would you allocate to the following strategies:

    a. Total Return (i.e., higher expected return/higher risk investments) _______%

    b. Low Volatility/Deflation Protection _______%

    c. Inflation Protection _______%

    d. Risk Diversification (i.e., low correlation to financial assets) _______%

14. Would you be willing to invest in the following asset categories?

ASSET CATEGORY	YES	NO	UNSURE
GLOBAL GROWTH			
Public			
U.S. Large/Mid Cap			
U.S. Small Cap			
International Developed Large/Mid Cap			
International Developed Small Cap			
Emerging Markets			
Frontier Markets			
Private			
Venture Capital			
Buyouts			
Hedge Funds			
Directional Equity			
Multi-Strategy			
GLOBAL FIXED INCOME			
Public			
Core Investment Grade Bonds			
High Yield/Bank Loans/Convertibles/Preferreds			
Bank Loans			
International Developed Bonds			
Emerging Market Debt			
Private			
Distressed Debt and Mezzanine Loans			
Hedge Funds			
Credit-Based Strategies			
REAL ASSETS			
Public			
Real Estate (REITs)			
Commodity Futures			
Master Limited Partnerships (MLPs)			
Private			
Real Estate			
Energy (oil & gas partnerships)			
Timber and Agriculture			
DEFENSIVE / DIVERSIFYING STRATEGIES			
Cash			
Treasury Bonds			
Core Investment Grade Bonds			
Inflation Protected (TIPS)			
Managed Futures/CTAs			

Active Management

15. Do you believe active management can add value net of fees?
    a. Yes, in all asset classes
    b. Yes, in some asset classes
    c. No
    d. Unsure

16. Are you willing to reduce constraints on some active managers (to allow the use of shorting, leverage, derivatives, etc.), in order to improve the risk-adjusted returns relative to the public markets? _________ (yes or no)

    If yes, what percent of the portfolio would you allocate to unconstrained active managers? _________%

17. Please provide any comments/suggestions.

Exhibit D

Statement of Investment Beliefs

Utah School & Institutional Trust Fund Office

March 2016

The following document intends to represent the beliefs that the Board and Staff of SITFO agree to use as guiding principles. This document is neither a policy nor a procedural manual. Its primary purpose is to assist in governance and decision-making. Board and Staff should review annually and discuss improvements at any time.

I. Who we are

I. Mission / Objective(s)

II. Behavioral

III. Efficient Markets Response

IV. Risk

V. Asset Allocation

VI. Manager Structure / Selection

I. Who we are

The Utah State Legislature created the School & Institutional Trust Funds Office (SITFO) as an independent agency to invest the revenues from the School Institutional Trust Lands Administration (SITLA) on behalf of the trusts, which are to be managed for the sole benefit of their respective beneficiaries. While the trusts have different underlying beneficiaries, they are managed with ~~a~~ similar asset allocations, as the return and risk objectives are expected to be similar. In addition, there is a significant benefit of scale for the smaller trusts being invested alongside the Utah Permanent School Trust Fund (the "School Trust Fund") (95% of the combined total assets are the School Trust; there are 11 other institutional trust funds). The following trusts are governed by this investment policy statement:

School Fund
Miners Hospital
Institute for the Blind
Reservoirs Fund
Normal School
University of Utah
School of Mines
Utah State University
Utah State Hospital
Deaf School
State Industrial School

The source of financial assets to be invested is the same across all trusts (SITLA). However, the nature of the cash flows differs between the School Trust Fund and the other trusts. The ~~proportional rate of growth~~ relative importance of these contributions is likely to decrease over time for the following reasons; i) the School Trust Fund is expected to grow through compounding of investment returns and ii) a prudent view of the land assets would be to consider them a diminishing revenue source.

A. Characteristics

1. SITFO is an independent state agency with a 5-person Board of Trustees and Staff of 3 professionals. We expect that the Trustees and senior staff will be fluent in the strengths and weaknesses of modern portfolio theory and bring significant investment experience to the effort.

2. An advantage of having a relatively small set of decision makers is the potential to avoid the governance challenges and pitfalls of behavioral finance that seem to prevail with larger institutional investors. In addition to avoiding pitfalls we expect to take advantage of our set of experiences and beneficial structure to implement objective, research-oriented recommendations.

3. In order to mitigate the challenges of a relatively small number of full time professionals, Board and Staff will utilize investment consultants and external investment management to leverage existing resources.

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4. Our long time horizon allows us to tolerate volatility and illiquidity at moderate levels, should those risks be deemed prudent in order to meet our investment objectives. We consider our time horizon to be measured in years or even decades, not months. Specific time horizons can be codified in the investment policy.

5. We believe that ignorance and arrogance are detrimental to good decision making and that humility can be a great antidote to the pitfalls described in behavioral finance literature. Accordingly, we can remind ourselves of the potential weaknesses we live with, prepare thorough analyses, utilize checklists, adhere to disciplines, and be open-minded and ~~available~~ receptive to challenges from one another.

6. We believe that our fiduciary responsibility is to consider all investment opportunities on an objective basis and ground our analysis in portfolio theory. Prudent investment considerations will drive investment decision-making. The risks and the return potential of each investment will be carefully considered~~scrutinized;~~ . ~~political~~ Political considerations will not be allowed to influence the portfolio.

II. Mission/Objective

The focus of the Board and Staff is to ~~grow~~ manage the invested principal of the School and institutional trusts ~~at a rate~~ in a manner that ~~provides for intergenerational equity between current and future beneficiaries. The target rate of return aims to support the distribution policy* with specified return and risk parameters found in the investment policy~~supports the prevailing distribution policy. The growth rate attainable will be subject to several market based factors, as well as the amount of risk the Board agrees as acceptable in setting the portfolio strategy.

~~*Our intention is to modify the current distribution policy from income-only, to a formula based in statute that is approximately 4% annually.*~~

III. Behavioral

This document doesn't provide for a complete review of behavioral finance; however, it merits some attention in order to provide for discussion and a shared understanding. There is an attempt to address the themes of overconfidence, loss aversion, inertia, group behavior, and other cognitive and emotional biases throughout the document. In addition to this document there will be a process-specific document that outlines protocols to mitigate these and other biases.

A. Price and opportunity cost awareness

1. Understanding where we are in a cycle (economic cycle, market cycle, style/strategy cycle) and outlining the portfolio components' range of expected returns in the near to intermediate term (e.g. 3-10 years, not an

abstract horizon like 25+ years) can help to frame investment decisions such as new mandates, rebalancing, etc.

2. Investment opportunities that have a higher expected return may be less common, considered "out of favor", or misunderstood and should not automatically be discarded based on the perceived headline risk or conventional wisdom.

3. Inertia as a result of ignorance, fear, or lack of preparedness isn't significantly different from poorly thought out and poorly executed decisions. Great opportunities most always are accompanied by significant uncertainty.

B. Governance and management

1. Governance is most helpful when it provides robust checks and balances, and is least helpful when it fosters groupthink, is used as a shield from taking responsibility, or is abused for political purposes.

2. Board members have the benefit of not working day-to-day on the portfolio and are an important source of perspective and inquiry.

3. Board members usually are not doing the level of research and due diligence that staff or consultants should be performing, suggesting staff provide additional support where required by Board members.

4. Management should source and promote the best ideas without bias.

5. Management should spend significant time developing and retaining talent. McKinsey & Company summarize two reasons why top tier public institutions are able to attract and retain talent; i) "the ability to deploy patient capital with minimal constraints*" and ii) "higher purpose of furthering a social good". Important for us will be to facilitate the first and communicate the latter. (*"minimal constraints" is understood as avoiding non-investment related constraints and political interference)

C. Performance Measurement

1. We are outcome-oriented investors. Acting (or not acting) out of fear of being different from the past, different from peers, or different from one's own biases is not a constructive source of return.

2. We believe it is important to ~~will~~ use benchmarks and peer groups in our investment analysis ~~and will have multiple frameworks of~~to foster accountability and support objectivity of analysis.

3. We believe that ~~B~~benchmarks and peer performance are important reference points, but have their own weaknesses due to construction and sampling issues. On occasion, approaching extreme points in the market cycle, cap-weighted benchmarks and peer groups can also be measures of herd mentality.

4. ~~B~~Therefore, we believe benchmarking is best done when the factor exposures of the portfolio are well understood, taken into account, and appropriate time horizons are referenced. Additionally, we believe benchmarks at the manager, asset class, and total portfolio level should be constructed to reflect expected outcomes as well as measuring performance relative to relevant factor exposures. ~~Multiple perspectives add insight.~~

5. We believe multiple perspectives add insight, therefore ~~D~~decisions to hire, terminate, or retain investment managers should not be based solely on historical performance. While past performance should be analyzed to better understand the manager's process and capabilities, these decisions should be holistic and comprehensive in nature. Greater weight should be given to factors that are expected to drive future performance, which could include but are not limited to: organizational strength and culture; integrity, talent, and skill of professionals; validity of investment philosophy; soundness and disciplines of investment process; nature of opportunity set; and risk management.

IV. Efficient Markets Response

While we do not believe markets are strictly "efficient" as per the EMH, we understand there are many skilled investors seeking to profit from any inefficiencies, and that competing with those investors for relative performance is a zero-sum game. Passive investing can be an effective way to minimize tracking error and peer risk, reduce fees and business risk, gain efficient access to many markets and to optimize the fee budget between lower and higher expected alpha sources.

We also believe that active management can be an important source of incremental returns, but talent, skill, and discipline are necessary to exploit this potential. Importantly, we believe that it is possible to identify skillful managers in advance through a thorough, disciplined, and objective effort by professionals who have significant experience and skills pertaining to manager research and selection.

A. Passive management

1. Passive investing in a cap-weighted manner can be an effective way to minimize tracking error, peer risk, and reduce fees and business risk. Thus, cap weighted indices can be a fundamentally important way to gain access to many markets. Even in markets that may be considered “inefficient” and

therefore present higher potential for active managers, we may consider passive investments in order to minimize active risks, or simply to gain exposure as needed.

B. Active management

1. We believe active management can play an important role in the portfolio. There are active strategies or styles engineered to deliver specific exposures or investment outcomes that are not provided for in a passive format. ~~Additionally~~ We believe that in these instances, ~~a market or opportunity may be considered "inefficient" or simply may not be available via passive management and thus provide occasions for~~ more favorable consideration of active investment decision making is warranted.

2. As described above, to excel in active management certain traits are ~~expected~~required. We believe uncommon skill, disciplined philosophy and process, rich opportunity set, and appropriate risk management are necessary for an active manager to outperform. In addition, we believe that an investor must be independent-minded and opportunistic, as well as innovative relative to other participants.

~~2.~~3. We ~~also expect of ourselves~~ believe that we ~~will~~ are sufficient qualified hire and work with the highest caliber professionals at the Board level, within Staff, and the through the Consultant with the capability to discover and uncover sufficient evidence of the traits expected of successful active managers.

C. Rules-based management

1. Between active and passive we may find rules-based strategies that serve our needs. Many investment strategies can be explained, and even replicated, by "strategy betas" or factors which are investable. Factor-based investing as demonstrated by French, Fama, Assness, Arnott, and other academics and market participants over the decades, strongly suggest there are cost effective rules-based alternatives to consider.

V. Risk

A simple, but effective definition of risk is the permanent loss of capital. However, risk can be measured in a number of ways and is not limited to quantitative elements alone. Qualitative elements can also represent significant risks. As stated in section I)A)4 above, our long time horizon allows us to tolerate volatility and illiquidity at moderate levels. Because we are an institution with an infinite time horizon, which can benefit from this advantage, it may be appropriate for us to tolerate risks that might not be prudent for individuals or pension plans with finite horizons or specific liabilities different from our own objectives.

A. Defining risk

1. Relevant factors for defining risk may include: high valuations, fees, timing, inflation, fraud, illiquidity, downside volatility/drawdowns, equity beta, interest rate beta/duration, credit risk, operational risk, business risk, opportunity costs, leverage, currency, political, and other~~s risks~~ factors.

2. Volatility as a risk measure is helpful and informative, but alone it is insufficient, as it treats gains and losses identically. Metrics that look at downside volatility and include the skewness and kurtosis of return profiles add value as well as qualitative overlays such as liquidity or political risk.

3. Volatility and high valuations are linked to permanent loss of capital primarily through buying at high valuations and selling at low valuations, which converts an unrealized loss into a permanent loss. It is important to remain objective when selling assets at any point and to consider opportunity costs as well.

4. Risks most likely to lead to permanent loss of capital are inflation, fraud, extremely high valuations, and excessive fees.

B. Managing risks

1. Diversification is one of the most powerful tools in managing risk.

2. Investment correlations and distributions are not typically stable or normal, though most models reduce them to such assumptions. We believe it is important to consider different economic regimes and measure the skewness and kurtosis of investments before committing assets.

3. Monitoring risks on a regular basis is important in order to observe incremental changes that may accrue over time. This includes qualitative elements of an investment manager as well as quantitative metrics.

C. Risk tolerance

1. ~~Specific risk tolerances will be outlined and parameters given in the investment policies.~~ Given the difficulty or nuance in defining risk, ~~these~~ we believe risk tolerances ~~will be~~ are best referenced across several aspects of the portfolio ~~investing~~ such as the quantitative (e.g. volatility, downside volatility, VaR, etc.) and the qualitative (illiquidity, fee levels, counterparty risk, etc.)

2. It bears repeating that risks unfamiliar to the layperson such as complex strategies, uncommon geographies, and illiquidity~~,~~ may be appropriate for SITFO as an organization with an infinite time horizon. We believe we ~~will~~

should hold ourselves and all those responsible to a high standard of due diligence to best manage these risks.

VI. Asset Allocation

We believe asset allocation is the predominant driver of portfolio return and risk. The establishment of a long-term or strategic asset allocation is therefore the most significant method of protecting the portfolio from short-term decisions influenced by unsound investment practices, such as emotional decision-making, political pressure, or performance chasing. Asset allocation decisions should be considered through both a quantitative and qualitative set of frameworks that incorporate a variety of risks, possible scenarios, and resultant outcomes. The asset allocation should reflect the advantage and the ability of the School Trust Fund to withstand a moderate level of risk, including illiquidity, as discussed throughout this document.

A. Defining an Asset Class

1. Asset classes can be defined as a grouping of investment strategies or exposures that perform similarly in most environments, possess relatively high correlations and common risk drivers, are institutionally investable, and add value in a total portfolio framework.

2. We believe we will benefit from aggregating asset classes and sub-asset classes into as few groups as possible by their expected role or purpose in the portfolio (e.g., growth, defensive, inflation protection, etc.). We believe this type of grouping can be a high level simplification that assists in improving governance, decision-making, and provides for more efficient modeling and implementation.

Commented [DRN1]: I think I understand what this is saying, but this is not how I have done things and I am not sure I understand the details or implications. I also think that these might be important. In other words, I think this is a topic that we should discuss as a Board, so that you can lay out the arguments before we sign off on this as a basic belief.

Commented [DM2R1]: We will prepare materials to discuss further

B. Diversification

1. We believe diversification is the key to an optimized portfolio, which maximizes returns for a given level of risk. We believe diversification is to protect against any one portfolio segment causing the total portfolio to exceed expected risk and loss parameters.

~~2. Our goal in diversifying is to maximize long-term returns such that we at least meet our return objectives while also minimizing the risk of falling short of the ability to provide for either current or future beneficiaries.~~

C. Ranges and Rebalancing

1. Rebalancing is essential to achieving the benefits of diversification.

~~1.~~2. Adhering to a predetermined asset allocation with narrow ranges around the target weights avoids common behavioral pitfalls by providing for fewer opportunities to make mistakes.

~~2.Rebalancing provides opportunities to minimize portfolio risk or add value yet should be performed in a rules-based manner that reflects time frames, allocation ranges, and valuations.~~

3. Because of volatility, large one-time additions or redemptions can introduce ~~unnecessary~~ timing risk~~. Therefore~~ that can be diversified through ~~,~~ a multi-tranche approach ~~to changes or additions is preferred~~.

D. Valuations

1. Adding an additional asset class to the portfolio may make sense from a diversification perspective if it exhibits relatively low correlation to the current portfolio for example. However, it may not make sense to add that same asset class at a given point in time due to expensive current valuations. We believe valuations can be incorporated through forward-looking risk and return assumptions in order to judiciously implement new investments.

E. Evolution

1. We recognize the value of adhering to a long-term asset allocation. We also believe it is imprudent to ignore changes in markets and innovations or developments in investment strategies. We believe that it is important to continuously research and examine both our asset allocation as well as the approach to getting there and be willing to make revisions when evidence suggests it may be beneficial.

VII. Manager Structure & Selection

While the risk and return characteristics of the portfolio are largely determined by the overall asset allocation decisions, manager structure and selection will drive performance at the margins. Furthermore, manager structure and selection are the actual implementation methods by which the portfolio will gain exposure to various asset classes.

Selection of managers is akin to security selection at the underlying manager level. We believe manager structure and selection can add value through a rigorous and consistent due diligence process while still allowing flexibility to take advantage of unique strategies.

A. Structure and Bias

1. ~~Within traditional asset classes, b~~Benchmarks represent the neutral position. Therefore, manager biases should be justified by sound investment logic and capture any structural inefficiencies associated with

that asset class. ~~Within alternative asset classes, manager structure should take into account biases or strategies – both on a stated strategy basis and portfolio characteristics basis.~~

B. Manager Diversification

1. Similar to diversification at the security and asset class level, diversification of managers is a tool to minimize firm risk, avoid over concentration of themes, diversify alpha sources, and to reduce the risk of underperformance.

2. Over-diversification only captures asset class betas, as alpha is a zero-sum game. Therefore, it is important to retain alpha generating ability while still diversifying enough to mitigate the risks mentioned above.

C. Manager Selection

1. We believe uncommon skill, disciplined philosophy and process, opportunity set, and risk management will enable an active manager to outperform. We also believe that our experience and a disciplined process allow~~s~~ us to identify, hire and work with the highest caliber professionals and successful active managers who exhibit these traits.

2. We believe both quantitative and qualitative aspects should be assessed in identifying skillful managers, such as but not limited to: strength and stability of the firm, operational support including back office, risk management and compliance functions, investment team experience and integration, investment philosophy and process, as well as portfolio performance and risk characteristics.

3. Each new manager should be additive to the portfolio by enhancing diversification, accessing a new asset class, adding a new and/or differentiated alpha generation source, and/or improving risk and return characteristics.

Exhibit E

Summary

Over reliance on quantitative methods leads to blind spots, e.g.

- Too many inputs for reliable correlation matrix
- Overconfidence in level of precision in estimates and expected outcomes
- Overlapping or concentration of risk drivers

Capital market assumptions are built on *primary market factors*, e.g.

- Inflation
- Interest rates
- Equity risk premium

The industry has sought to improve on the problems of modeling by adding qualitative or fundamental overlays, e.g.

- Illiquidity
- Leverage
- *Intended role/purpose of an asset class*

Evolution of Portfolio Management

"The most promising ongoing work in this area goes one step earlier in the return generation chain...Put another way, it looks at why investors are paid for allocating their capital in a certain way."

"The ideal situation is to come up with a small set (3 to 5) of distinct (and ideally orthogonal) risk factors that command a risk premium. The next step is to assess the stability of the factors and how they can be best captured."

- Mohamed El-Erian, *When Markets Collide*
CEO & Co-CIO of PIMCO and former CIO of the Harvard Management Company

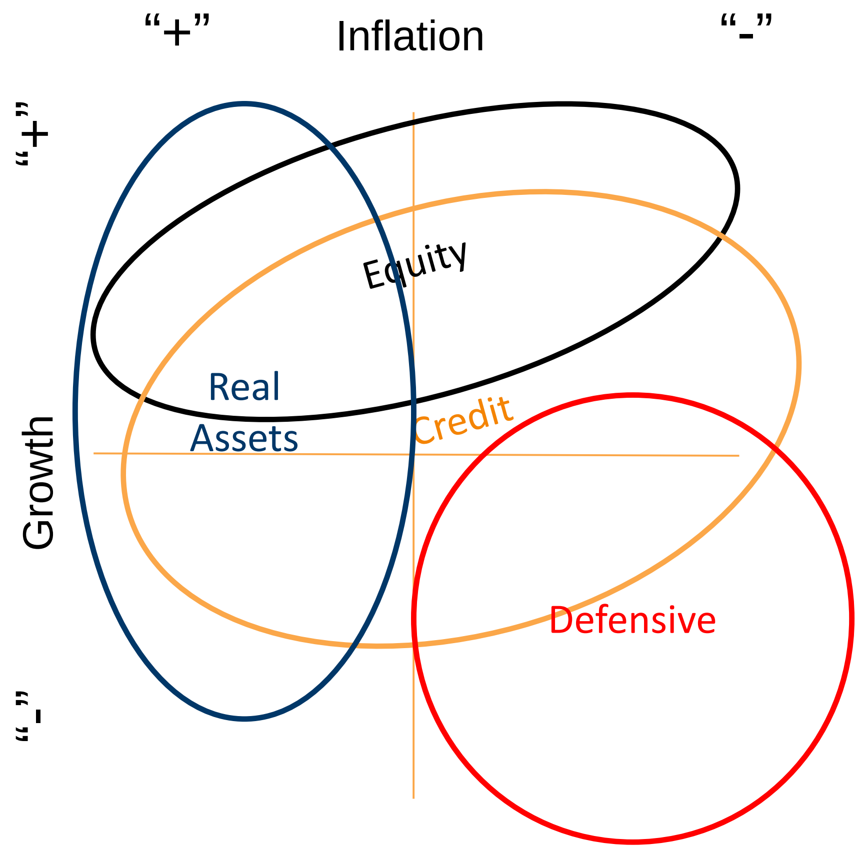
Response to Concerns

- Realization that a robust response to over-reliance on the quantitative is the qualitative / fundamental work, and creating a feedback loop
    - Characterization and aggregation of broad risk drivers to limit spurious data and over confident assumptions (3-5 broad factors)
        - 80/20 rule – what is the elegant explanation of the sources of return/risk?
        - When markets move outside of commonly experienced ranges how does the investment perform?
    - 3-5 Broad factors to frame the conversation about risk and return
        - More granular analysis within a factor grouping
        - Aggregate it up or break it down

Growth/Equity	57%	67%	77%
Domestic Equity	42%	47%	52%
International Equity	15%	20	25%
Hedged Equity	0%		15%
Private Equity	0%		15%

Understanding Drivers of Risk/Return – Asset Class

- The shapes depict the economic environments in which each category typically performs well
- A diversified portfolio should have investments that can perform well in all economic environments

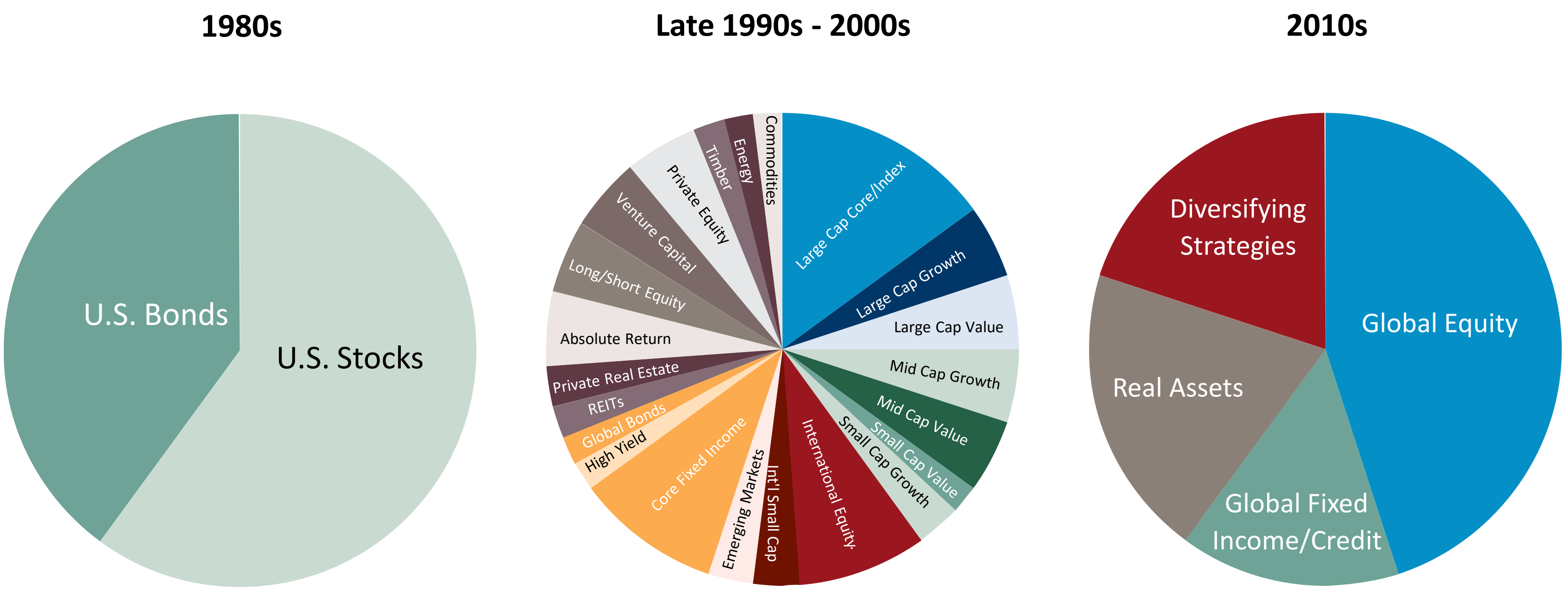


Understanding Drivers of Risk/Return – Strategy Classification

- The evolution of portfolio construction has led to a catch-all category called “alternatives” to include strategies not easily categorized by traditional conventions
  - Private equity is highly dependent on the public equity markets
  - A “hedge fund” is an investment vehicle, not an asset category
    - Long/short equity hedge funds invest in equities, both long and short
    - Credit-oriented hedge funds invest in fixed income securities
  - Private real estate managers and publicly traded REITs both invest in real estate

The most important consideration is how the investment is expected to behave.

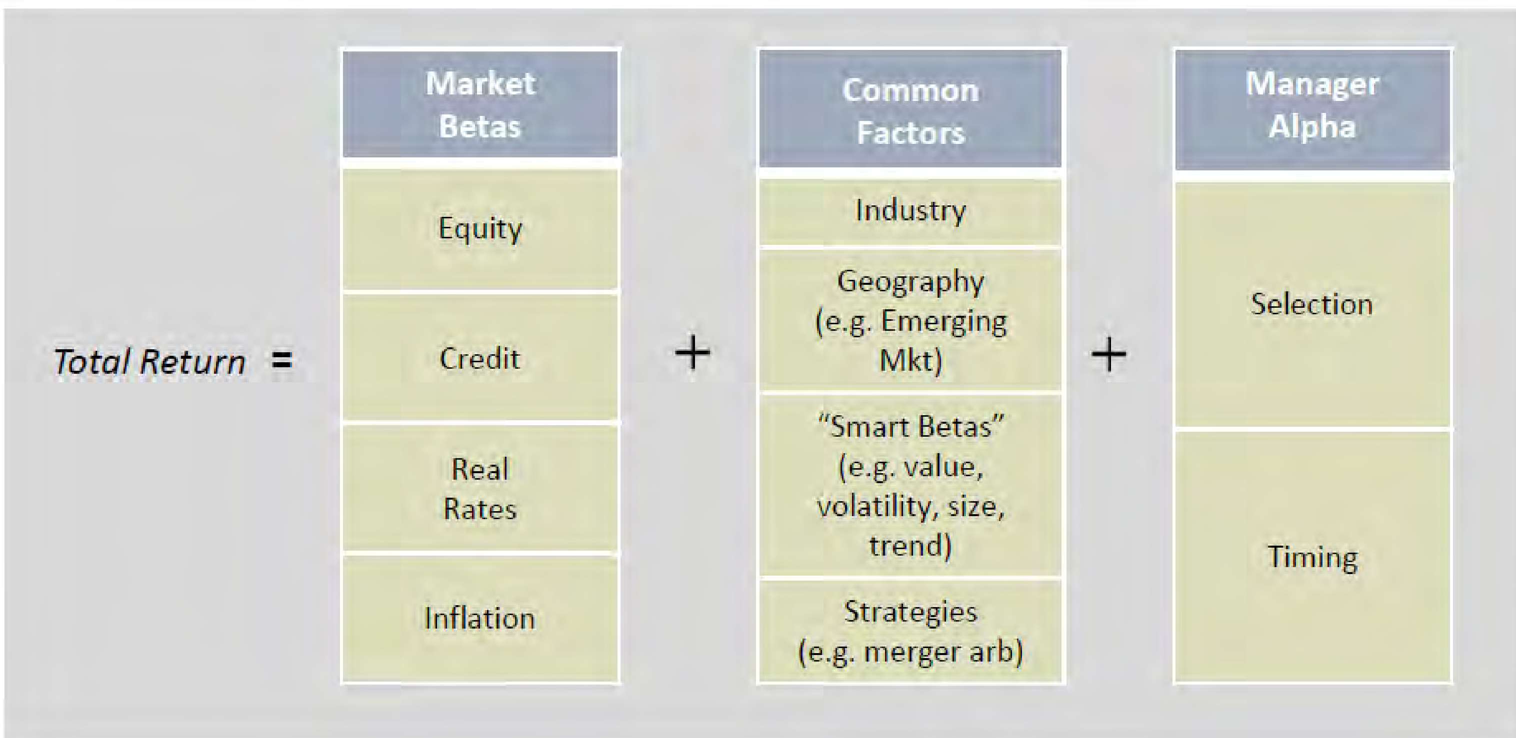
The Evolution of Portfolio Construction



The Evolution of Portfolio Construction

- Samples from industry participants in framing asset classes as reflecting theevolution of portfolio construction

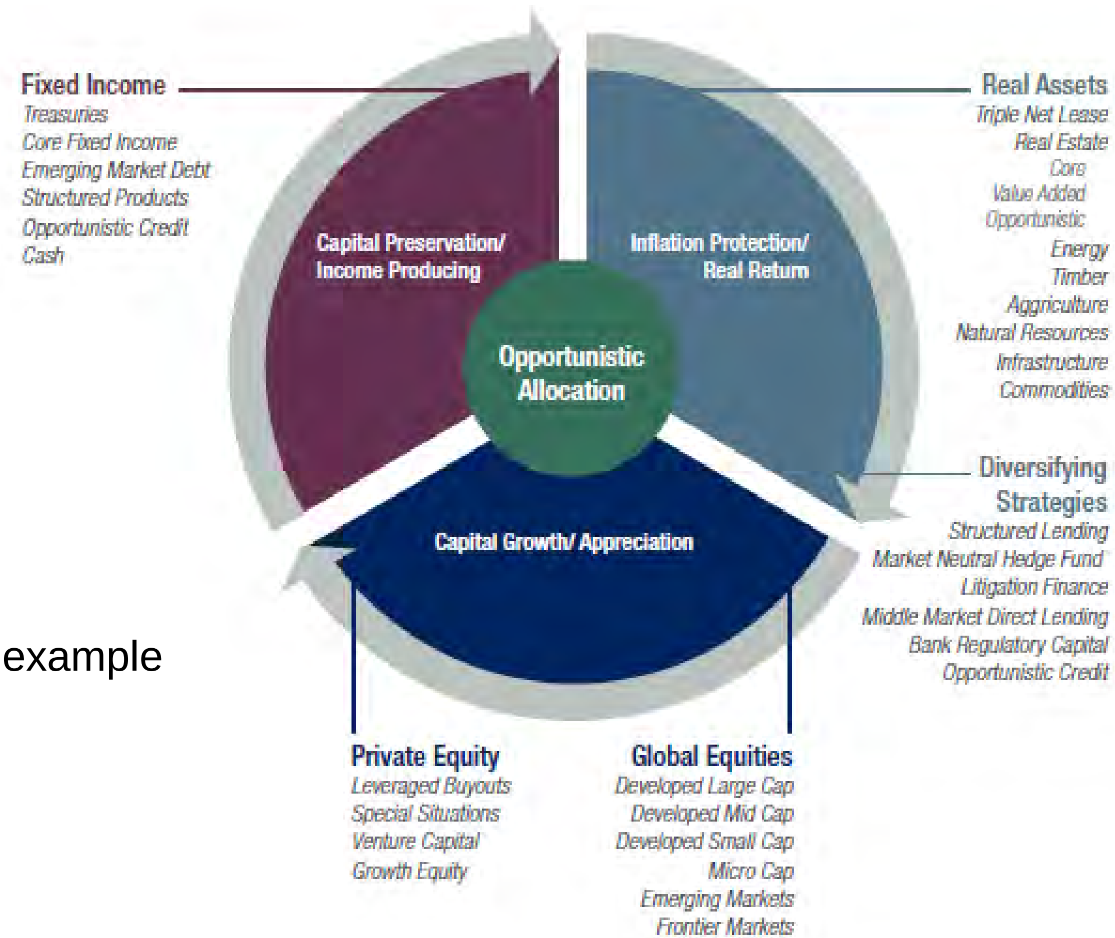
1) Consultant example



The Evolution of Portfolio Construction

- Samples from industry participants in framing asset classes as reflecting theevolution of portfolio construction

2) Public Pension example



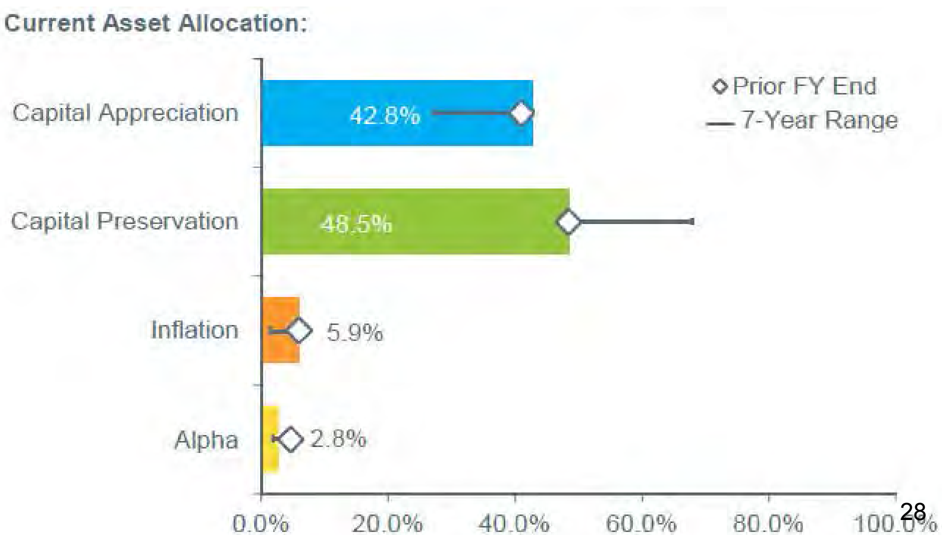
The Evolution of Portfolio Construction

- Samples from industry participants in framing asset classes as reflecting theevolution of portfolio construction

3) Consultant example

Growth	Real Rates	Inflation	Currency	Illiquidity
Domestic Growth	Short Real Rates	Rising Global Inflation	Developed vs. Base	Contractual Illiquidity
Developed Int'l Growth	Intermediate Real Rates	Falling Global Inflation	Emerging vs. Base	Pricing Illiquidity
Emerging Growth	Long Real Rates			
IG Credit Spreads				
HY Credit Spreads				

4) Consultant example



3) Endowment example

Category	Range Min	Range Max
Equities	30%	50%
Diversifying	20%	35%
Excess Return	0%	30%
Defensive	5%	25%

Evolution of Portfolio Construction

FEG's Approach

- Use MPT to support rather than determine long-term target allocation
- Focus on primary sources of risk and diversify among and between them
- Classify investments in broad categories, trying for unique risk premiums and roles

Asset Categories	*Risk Premia*	*Role*
Global Equity (stocks, private equity, long/short hedge funds)	**Equity Risk Premium**	**Total Return**
Global Fixed Income and Credit (bonds, bank loans, credit hedge funds)	**Interest Rates and Credit**	**Equity Risk Mitigation**
Real Assets (real estate, natural resources, commodities)	**Inflation**	**Inflation Protection**
Diversifying Strategies (absolute return hedge funds, trading strategies)	**Active Management**	**Diversification**

SITFO Considerations

- SITFO suggested change: Group more closely by expected behavior in times of stress
  - Modify “Diversifying” to “Defensive” and “Fixed Income” to have a credit risk orientation
  - “Defensive” to deliver returns in bear market and deflationary periods
  - “Income” created to allow for greater diversity of “risk assets”
  - Alternatives fully incorporated, look to the underlying risk drivers

Asset Categories	*Risk Drivers*	*Role*	*Returns**
Global Growth/Equity (stocks, private equity, directional hedge funds)	**Equity Risk Premium**	**Capital Growth**	**CPI + 5%**
Global Growth/Income (high yield, EMD, loans, RMBS, credit hedge funds)	**Credit Risk Premium**	**Income (w Capital**	**CPI + 4%**
Real Assets (real estate, natural resources, commodities)	**Inflation Commodities, Property**	**Inflation Protection**	**CPI + 5%**
Defensive/Diversifying Strategies (cash, core bonds, long duration Treasury, CTAs)	**Active Management**	**Capital Preservation**	**T-Bills + 2.5%**

*Stylized estimates in relative proportions for illustration

Modeling and Benchmarking – Example 1

Policy Benchmark: **60% MSCI ACWI/30% Barclays Aggregate Index/10% Blended Diversification Benchmark**

Asset Class	*Benchmark*	*Target (%)*	*Range (%)*
- Growth:	***MSCI ACWI***	***60.0%***	***50% - 70%***
Public Equities	MSCI ACWI	30.0%	20% - 50%
MLPs EMD	Alerian MLP Index JPM GBI Emerging Markets Global Diversified Index	6.0% 6.0%	0% - 10% 0% - 10%
Private Equity	S&P 500	6.0%	5% - 15%
Private Debt	BofA Merrill Lynch High Yield BB Index	6.0%	0% - 15%
Hedged Strategies	HFRI Equity Hedge Index	6.0%	0% - 10%
- Income:	***Barclays Aggregate Index***	***30.0%***	***10% - 30%***
Public Debt	Barclays Aggregate Index	20.0%	5% - 20%
Private Debt	Credit Suisse Leveraged Loan Index	3.0%	0% - 10%
Relative Value	HFRI Equity Market Neutral Index	3.0%	0% - 10%
Core Real Estate	NCREIF Fund Index Open End Diversified Core Equity (ODCE)	4.0%	0% - 10%
- Diversification:	***20% Barclays U.S. Treasury: U.S. TIPS Index*** ***20% Barclays U.S. Treasury Index*** ***20% Bloomberg Commodity Index TR*** ***20% Dow Jones Credit Suisse Managed Futures HF Index*** ***20% Dow Jones Credit Suisse Global Macro HF Index***	***10.0%***	***10% - 30%***
Inflation	Barclays U.S. Treasury: U.S. TIPS Index	2.0%	0% - 15%
Deflation	Barclays U.S. Treasury Index	2.0%	0% - 15%
Commodities	Bloomberg Commodity Index TR	2.0%	0% - 15%
Tactical Trading Strategies CTAs Global Macro	Weighted Blend of: Dow Jones Credit Suisse Managed Futures HF Index Dow Jones Credit Suisse Global Macro HF Index	4.0%	0% - 15%
Cash	Citigroup 3 Month T-Bill	0.0%	0% - 15%

Modeling and Benchmarking – Example 2

Growth/Equity	**57%**	**67%**	**77%**
Domestic Equity	42%	47%	52%
International Equity	15%	20	25%
Hedged Equity	0%		15%
Private Equity	0%		15%
Growth/Credit	**10%**	**15%**	**20%**
Liquid Non-I/G (≤ 1 quarter)	5%		15%
Illiquid Credit	0%		10%
Inflation/Real Assets	**5%**	**10%**	**15%**
Liquid Real Assets (≤ 1 quarter)	5%		15%
Illiquid Real Assets	0%		10%
Defensive/Diversification	**5%**	**10%**	**15%**
Cash	0%		10%
Core Bonds (or any piece)	5%		15%
TIPS	0%		10%
Long Duration Bonds	0%		10%
CTAs/Global Macro	0%		10%

Exhibit F

INVESTMENT POLICY STATEMENT

FOR THE UTAH SCHOOL

& INSTITUTIONAL TRUST FUNDS

Contents

Governance

The Utah State Legislature created the School & Institutional Trust Funds Office (SITFO) as an independent agency to invest the revenues from the School & Institutional Trust Lands Administration (SITLA) on behalf of the trusts, which are to be managed for the sole benefit of their respective beneficiaries. While the trusts have different underlying beneficiaries, they are managed with a similar asset allocation, as the return and risk objectives are expected to be similar. In addition, there is a significant benefit of scale for the smaller trusts being invested alongside the Utah Permanent School Trust Fund (the "School Trust Fund").

The source of financial assets to be invested is the same across all trusts (SITLA). However, the nature of the cash flows differs between the School Trust Fund and the other trusts. The proportional rate of growth of these contributions is likely to decrease over time for the following reasons; i) the School Trust Fund is expected to grow through compounding of investment returns and ii) a prudent view of the land assets would be to consider them a diminishing revenue source. All of the following trusts are governed by this investment policy statement:

School Fund
Miners Hospital
Institute for the Blind
Reservoirs Fund
Normal School
University of Utah
School of Mines
Utah State University
Utah State Hospital
Deaf School
State Industrial School

This investment policy will adhere to all governing state and national laws. Specific laws of the State of Utah for reference include:

- Utah Code Title 53D (contains the governing statutes, provisions, and authorities in full for SITFO and the Board)
- State of Utah Constitution Article VI, Section 29 and Article X, Sections 5 and 7 (refer to the formation and disposition)
- Utah Code 63G-6a-107 and Utah Code 63E-1-102 (pertain to the governance of SITFO)

Purpose and Fiduciary Duty

The purpose of this Investment Policy Statement ("IPS") is to assist SITFO and the Board in effectively supervising, monitoring, and evaluating the investment of the assets. It is also a mechanism for continuity of approach and institutional knowledge. The IPS has been formulated, based upon consideration by SITFO and the Board of the financial implications of certain policies, and describes the prudent investment process that they deem appropriate. SITFO and its Board have a fiduciary responsibility to make investment decisions and take actions that are in the best interests of the beneficiaries. For further guidance and reference, SITFO and the Board have established their investment beliefs in an accompanying document, titled “Statement of Investment Beliefs”. The investment beliefs are principles, not policy and so are not included in this policy specific document, but may be referenced at various points throughout this document.

In seeking to attain the investment objectives set forth in the policy, the Board, investment consultant, and investment managers shall exercise prudence and appropriate care. All investment actions and decisions must be based solely on the interest of the Trusts. Fiduciaries must provide full and fair disclosure to the Board/Committee of all material facts regarding any potential conflicts of interests.

Responsibilities

Duties and Responsibilities of the Board

The authority for setting investment policy is vested with the School and Institutional Trust Funds Board of Trustees (the “Board”). The Board will determine its own meeting schedule, but will meet no less than nine times annually to:

I. Review the investment performance and the market value of the Trusts

II. Review the actual asset mix of the Trusts relative to the target allocation

III. Review and adjust the target asset allocation as necessary

IV. Review general compliance with the IPS

V.Review investment manager hiring and termination decisions

VI. Review and approve SITFO hiring or termination of consultants and other investment related service providers (i.e. custodians, transition managers, etc.)

VII. Review and approve the modification of the IPS

VIII.Review and approve changes to the budget, staffing, and operations of the SITFO office

Duties and Responsibilities of SITFO

SITFO is charged with the day-to-day responsibility to:

I. Manage and monitor the investments of the Trusts

II. Direct the implementation of rebalancing transactions

III. Prepare an agenda for Board meetings and submit the agenda to the chair for amendments

IV. Coordinate Board meetings, manager presentations and discussions, and consultant activities, presentations, and discussions

V. Identify issues to bring before the Board and prepare recommendations to the Board on those matters.

VI. Ensure that plan administration complies with this document and applicable state regulations.

Duties and Responsibilities of the Consultants

Consultants may be retained and may be responsible to:

I. Attend meetings as needed

II. Advise on investment policy, implementation, and control issues as requested by the Board, after consulting with the Director of the SITFO

III. Prepare comprehensive due diligence monitoring and investment performance reports with respect to the Trusts investments

IV. Recommend changes to the portfolio based on risks and opportunities

V. Assist in the implementation of investment decisions and supporting ongoing investment operations

VI.Provide appropriate education on investment and governance topics as necessary

Duties and Responsibilities of the Investment Managers

The duties and responsibilities of the investment managers include the following:

I. Manage the underlying assets consistent with their stated approach and with this policy, where appropriate

II. Report investment results and meet with the committee, staff, and/or investment consultant as requested

III. Promptly inform SITFO and the consultant regarding all significant and/or material matters and changes pertaining to the investment of the Trusts' assets

IV. Utilize the same care, skill, prudence and due diligence under the circumstances that experienced investment professionals acting in a like capacity and fully familiar with such matters would use in like activities for like trusts with like aims in accordance and compliance with all applicable laws, rules and regulations from local, state, federal and international political entities as it pertains to fiduciary duties and responsibilities.

Duties and Responsibilities of the Custodian (Custody Policy)

The custodian's primary function will be to hold in custody the assets of the portfolio including individual securities and shares or other interests invested in commingled vehicles. In addition, the custodian will:

I. Facilitate cash flows and transactions

II. Reconcile account positions and activity

III. Account for the collection of interest and dividends, security transactions

IV. Prepare periodic (e.g., monthly) account statements

V. Provide ongoing sub-accounting for various Trust ownership interests

Statement of Objectives

The overall, long-term investment objective of the trusts is to achieve an annualized net of fees total return of CPI + 5% over a full market cycle, or approximately 7 years.

The primary return objective is twofold; maintain purchasing power while sustaining the distribution rate. Portfolio growth in excess of the distribution and inflation is a secondary, but important objective. Although we do not target volatility, it is expected to be similar or less than or less than the volatility of a portfolio comprised of broad equity/bond indices that reflects the target asset allocation.

In summary, the objectives are to:

- Maintain purchasing power while providing for current distributions
- Secondarily, to provide portfolio growth in excess of the distribution and inflation
- Minimize volatility to be no greater than what is necessary to achieve the return objective
- To maintain an asset allocation that is compatible with these objectives

Distribution Policy

As of the writing of this document, the distribution policy is under review. At present, interest and dividends are the only source of distributions and all interest and dividends shall be distributed.

Asset Allocation

Asset allocation will be the key driver of returns over the long-term. The target asset allocation should provide an expected total return equal to or greater than the primary investment objective of the Trusts, while avoiding undue risk concentrations in any single asset class or category, thus reducing risk at the overall portfolio level.

Investing in a diversified manner, so as to sufficiently provide for future purchasing power and the possibility of growth, is likely to include investments that are volatile or illiquid on their own. Other investments will be used to reduce volatility, provide liquidity, or protect the portfolio in inflationary or deflationary environments. In determining the appropriate asset allocation, the inclusion or exclusion of investments shall be based on the impact to the total portfolio, rather than judging investments on a stand-alone basis.

The current target allocation and the minimum and maximum ranges as established by the Board:

Asset Class	Minimum Target	Neutral Target	Maximum Target
Domestic Equity	42%	47%	52%
International Equity	15%	20%	25%
Fixed Income	18%	23%	28%
Real Estate	5%	10%	15%

Time Horizon

Our time horizon is theoretically infinite and we have described our horizon as "being measurable in years or even decades" in our beliefs statement. This long-term thinking influences our decision making heavily, yet we understand geopolitical, global macroeconomic and operational realities require us to implement and manage to a shorter time frame.

The asset allocation is formulated, implemented and managed to achieve our investment objectives of CPI+5% over 7 years or a full market cycle.

Rebalancing of Strategic Allocation

SITFO will use a countercyclical rebalancing approach. Portfolio values relative to their target allocations will be monitored by the consultant and staff. If, at the end of any quarter, the allocation to any asset class deviates from its target by more than 20% of the allocation, with a minimum deviation of 2% of the total portfolio, the portfolio shall be rebalanced. For those asset classes with a target allocation of less than 10%, a nominal deviation of 2% from the target is required to trigger rebalancing.

Example: An asset class with an allocation of 20% that has a 4 point change in value would be required to rebalance. For an asset class with an allocation of 8% (or anything less than 10%), a 2 point change would be required to trigger rebalancing.

SITFO will employ cash flows to manage allocations towards the target allocation. If cash flows are insufficient to bring the portfolio towards the target, SITFO may effect transactions to rebalance.

At any point in time, the actual asset mix may diverge from the target allocations as a result of market fluctuations, cash contributions, or capital calls. The role of the ranges is to allow for these short-term fluctuations, and to provide limits for any strategic shifts. The Board will review asset allocations relative to policy targets at least quarterly. Explicit decisions to move away from the target require Board approval.

Diversification & Risk Management

The Board and SITFO recognize the difficulty of achieving the investment objectives in light of the uncertainties and complexities of investment markets. In establishing the asset allocation, the ability to withstand volatility and illiquidity are considered and managed as they present themselves in the objective analysis for an efficient portfolio.

Volatility

Consistent with the desire for adequate diversification, the asset allocation is based on the expectation that volatility will be similar to, or less than, the volatility of a portfolio comprised of broad equity/bond indices required to achieve our investment objectives such as 80% MSCI ACWI and 20% Barclays US Aggregate.

Liquidity

Given the long time horizon and the expected distributions of no more than 4% annually, the portfolio is able to tolerate a reasonable amount of illiquidity in order to support higher returns and to further diversification efforts. We will seek to maintain a balance between investment goals and liquidity needs given that liquidity is necessary to meet the distribution policy payout and to manage internal portfolio needs such as capital calls, investment opportunities, and expenses. In some instances, the most appropriate investment option may be one that comes with liquidity constraints. The Board and SITFO will review periodically the effectiveness of the liquidity allocation in meeting the short-term and the long-term objectives with the following limits at the time of investment:

- 15% of the portfolio, or greater, shall be available at least weekly
- No greater than 35% of the portfolio (at the time of new commitments) shall have liquidity longer than annual redemptions

Position Sizing

Investments shall be diversified with the intent to minimize the risk of large investment losses. Consequently, the total portfolio will be constructed and maintained to provide prudent diversification with regard to the concentration of holdings in individual issues, issuers, or industries. Capital will be deployed in tranches whenever possible to avoid market-timing risks. Specifically:

- No investment shall exceed 5% of the portfolio at the time of initial purchase, except in circumstances of exchanging managers or vehicles of like strategy / style
- No investment shall exceed 10% of the portfolio at market value excluding passive investments.

Performance Monitoring

Investment performance will be reviewed and comprehensive performance reports will be provided quarterly to the Board. Investment objectives are intended to be achieved over a full market cycle (e.g. 7 years or peak to trough to peak). It is not expected that investment objectives will be attained each year. The Board recognizes that over various time periods, the portfolio may produce over or under performance relative to indices or peer groups.

Benchmarking

The primary objective of the portfolio is to achieve a total return, net of fees of CPI + 5%

and is therefore the best outcome oriented reference.

Investment objective:
CPI + 5% over a full market cycle or 7 years

An additionally important investment objective is to measure the performance or value added from decisions targeting specific asset classes or regions. The asset specific benchmark is weighted by the target allocations.

Target Weighted Benchmark:

U.S. Equity	Target Allocation	Russell 3000
Non-U.S. Equity	Target Allocation	FTSE Global All Cap ex US
Fixed Income	Target Allocation	Barclays US Aggregate
Real Estate	Target Allocation	NCREIF Property Index

Active Allocation Index:
Finally, we seek to measure the performance of taking on active management. The active allocation index will use the manager specific benchmarks weighted by the actual manager weights. The performance differential is intended to reflect the value added from active management. This index will be updated based on manager weights, keeping previous history linked over time.

Sample: (as of Feb 2016)
22.7% S&P 500 Index, 19.3% Gl All Cap ex US Index, 18.0% Russell 3000 Index, 12.0% Barclays Credit 1-5, 12.0% Barclays Credit 5-10 Index, 5.4% MSCI US SMID 2200, 5.2% NCREIF Total Index and 5.2% NFI-ODCE Equal Weight Net.

Manager Evaluation

Qualitative Measures
Each investment manager will be reviewed by SITFO on an ongoing basis and evaluated based upon the non-exhaustive criteria listed below. SITFO will report the results of reviews to the Board and provide recommendations as warranted.

1. Maintaining a stable organization
2. Retaining key personnel
3. Avoiding regulatory actions against the firm, its principals, or employees
4. Avoiding significant deviations from the manager’s stated investment philosophy

Although there are no set criteria that will be utilized in selecting managers, STIFO will consider the criteria above, as well as the unique role the manager may play, the length of time the firm has been in existence, its track record, assets under management, and the amount of assets SITFO already has invested with the firm.

Summary of Quantitative Measures

Public Liquid and Semi-Liquid Active Managers

Liquid and semi-liquid active managers will be measured against an appropriate market index and a peer universe of portfolios managed in a similar investment style. SITFO and the Board expect the managers to outperform their respective benchmarks, and rank above average in a peer group over a full market cycle. We do not expect that all investment objectives will be attained each year. Investment returns will be measured over a full market cycle (for measurement purposes: 7 years).

However, managers will be subject to review on a regular basis as SITFO and the Board perform regular monitoring exercises. Failing to meet criteria over a 5-year period will trigger an analysis to determine suitability and probability of meeting the objectives.

Public Liquid Passive Managers

Passive (or index) managers are expected to approximate the total return of its respective benchmark quarterly, net of fees.

Private Illiquid Managers

Private partnerships typically range from 7-10 years in life, during which time the Trusts may not be able to sell the investments without recognizing a substantial loss. Additionally, the partnership may not produce meaningful returns for 3-5 years (depending on the strategy). New investments and investment fees may create a drag on fund performance (known as the J-curve) in the early years (3-5 years) until these investments begin to mature.

Private, illiquid manager performance will be measured utilizing investment multiples, internal rate of return (IRR) from the inception of the partnership and compared to an appropriate peer group and/or public market equivalent benchmark.

Exhibit G

Benchmark Returns 3/31/2016

Most Commonly Used Fixed Income Indices	1 Mo.	QTD	YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Barclays US Aggregate	0.92	3.03	3.03	1.96	2.50	3.78	4.90
Barclays Intermediate US Aggregate	0.58	2.31	2.31	2.20	2.14	3.11	4.53
Barclays US Government/Credit	1.17	3.47	3.47	1.75	2.42	4.04	4.93
Barclays US Universal	1.23	3.07	3.07	1.75	2.51	3.95	5.03
Barclays US Government	0.16	3.12	3.12	2.37	2.11	3.42	4.52
Barclays MBS Fixed Rate	0.29	1.98	1.98	2.44	2.71	3.27	4.88
Barclays US Credit	2.52	3.92	3.92	0.93	2.86	5.00	5.70
BofA Merrill Lynch 1-3 Year Treasury	0.17	0.90	0.90	0.92	0.77	0.87	2.48
BofA Merrill Lynch US High Yield, Master II	4.42	3.25	3.25	(3.99)	1.75	4.71	6.85
BofA Merrill Lynch US High Yield BB-B Rated	3.59	3.15	3.15	(2.42)	2.48	5.16	6.54
BofA Merrill Lynch US High BB-B 2% Constrained	3.60	3.15	3.15	(2.34)	2.51	5.15	6.52
Credit Suisse Institutional Leveraged Loan	1.80	1.53	1.53	1.70	3.34	4.21	3.21
Citigroup Broad	0.96	3.04	3.04	1.93	2.49	3.78	4.98
Citigroup Mortgage	0.26	1.97	1.97	2.38	2.68	3.26	4.88
Citigroup Treasury	0.15	3.15	3.15	2.35	2.09	3.53	4.60
Citigroup 3 Month T-Bill	0.02	0.05	0.05	0.08	0.05	0.06	1.07
BofA Merrill Lynch 3 Month Libor Constant Maturity	0.05	0.14	0.14	0.37	0.29	0.33	1.59
Global Fixed Income Indices	**1 Mo.**	**QTD**	**YTD**	**1 Yr.**	**3 Yr.**	**5 Yr.**	**10 Yr.**
Barclays Global Treasury	2.69	7.29	7.29	6.14	0.49	1.16	4.18
Barclays Global Aggregate (USD Hedged)	0.82	3.28	3.28	2.44	3.68	4.59	4.77
Barclays Global Aggregate Credit (USD Hedged)	1.97	3.30	3.30	1.04	3.28	4.97	5.07
Barclays Global Credit (USD Hedged)	2.33	3.33	3.33	0.87	3.28	5.13	5.43
JPM Non-US GBI Unhedged	3.68	9.08	9.08	8.22	0.08	0.34	4.21
JPM Non-US GBI Global Hedged	0.68	4.27	4.27	3.66	5.27	5.53	4.95
JPM GBI Global Unhedged	2.24	6.74	6.74	5.85	0.93	1.54	4.51
JPM GBI Global Hedged in USD	0.46	3.91	3.91	3.18	4.16	4.84	4.79
Citigroup Non-US WGBI Unhedged	3.91	9.10	9.10	7.74	(0.16)	0.24	3.97
Citigroup WGBI Unhedged	2.66	7.09	7.09	5.92	0.49	1.16	4.19
Citigroup WGBI Hedged	0.52	3.82	3.82	3.07	4.23	4.86	4.68
Citigroup G-5 Unhedged	1.64	6.75	6.75	6.20	0.14	0.89	4.14
JPM Emerging Markets Bond Index+	3.22	5.94	5.94	5.88	2.78	6.08	7.12
JPM EMBI Global in USD	3.34	5.22	5.22	4.36	2.43	5.97	7.11
JPM Emerging Local Markets Index+	6.07	5.46	5.46	(0.17)	(3.92)	(2.63)	2.68
JPM GBI-EM Global Diversified Unhedged	9.06	11.02	11.02	(1.65)	(6.72)	(2.00)	4.95
JPM EMBI Global Diversified	3.27	5.04	5.04	4.19	3.44	6.22	7.20
JPM CEMBI Diversified	3.56	4.36	4.36	2.84	2.89	5.48	6.94
JPM Global Hedged to Euro	0.36	3.67	3.67	2.57	3.93	4.80	4.58
JPM Global Unhedged to Euro	(2.52)	1.75	1.75	(0.24)	5.03	6.10	5.14
BofA Merrill Lynch Global High Yield Index (USD Hedged)	4.36	3.24	3.24	(1.47)	2.69	5.56	7.39
BofA Merrill Lynch Global High Yield BB-B (USD Hedged)	3.84	3.29	3.29	(0.56)	3.22	5.96	7.10
BofA Merrill Lynch Global BB-B 2% Constrained (USD Hedged)	3.84	3.29	3.29	(0.53)	3.23	5.96	7.08
Barclays US Indices	**1 Mo.**	**QTD**	**YTD**	**1 Yr.**	**3 Yr.**	**5 Yr.**	**10 Yr.**
1-3 Year US Government/Credit	0.36	0.98	0.98	1.04	0.95	1.14	2.80
Intermediate US Government/Credit	0.72	2.45	2.45	2.06	1.83	3.01	4.34
Long US Government/Credit	2.84	7.30	7.30	0.39	4.81	8.51	7.57
US Government: 1-3 Year	0.17	0.89	0.89	0.93	0.79	0.90	2.56
US Government: Intermediate	0.19	2.28	2.28	2.21	1.52	2.48	3.97
US Government: Long	0.00	8.06	8.06	2.80	6.04	9.52	7.88
US Treasury	0.16	3.20	3.20	2.39	2.13	3.59	4.64
US Treasury: Long	(0.00)	8.15	8.15	2.77	6.14	9.67	7.97
Global Real U.S. TIPS	1.80	4.46	4.46	1.51	(0.71)	3.02	4.62
US Agency	0.20	2.04	2.04	1.88	1.71	2.37	3.95
Investment Grade CMBS	1.37	3.56	3.56	2.63	2.88	4.54	5.36
Asset-Backed Securities	0.12	1.36	1.36	1.71	1.39	2.46	3.40
US Corporate Sector: Industrial	3.49	4.71	4.71	0.39	2.77	4.96	6.09
US Corporate Sector: Utility	1.26	4.98	4.98	0.91	3.74	6.20	6.84
US Corporate Sector: Financial Institutions	1.72	2.26	2.26	1.78	3.31	5.34	5.45
Aaa Credit	0.50	2.51	2.51	2.00	1.88	2.98	4.09
Aa Credit	1.47	3.70	3.70	2.53	3.01	4.59	5.15
A Credit	2.02	3.89	3.89	2.21	3.41	5.35	5.53
Baa Credit	3.66	4.33	4.33	(0.82)	2.56	5.31	6.39
US High Yield	4.44	3.35	3.35	(3.69)	1.84	4.93	7.01

Benchmark Returns 3/31/2016

Barclays US Indices (Continued)	1 Mo.	QTD	YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Ba US High Yield	3.45	3.86	3.86	0.13	3.73	6.14	7.75
B US High Yield	3.60	2.46	2.46	(4.88)	1.13	4.52	5.71
Caa US High Yield	9.27	3.76	3.76	(10.60)	(1.00)	3.22	5.50
Ca-D US High Yield	28.84	4.68	4.68	(52.76)	(33.19)	(20.80)	(6.12)
Non-Rated US High Yield	6.32	(3.55)	(3.55)	(19.35)	(5.67)	1.73	0.47
California Exempt	0.34	1.60	1.60	4.02	4.24	6.51	5.11
New York Exempt	0.24	1.66	1.66	4.10	3.73	5.33	4.82
Muncipal Bond	0.32	1.67	1.67	3.98	3.63	5.59	4.86
Municipal Bond: 1 Year (1-2)	(0.14)	0.32	0.32	0.71	0.68	0.84	2.10
Municipal Bond: 5 Year	(0.38)	1.15	1.15	2.82	2.24	3.36	4.24
Municipal Bond: High Yield	1.05	2.74	2.74	3.45	3.33	7.81	4.83
1-10 Yr Blend (1-12)	(0.07)	1.24	1.24	2.86	2.50	3.68	4.21
US TIPS 1-10 Years	1.44	3.60	3.60	1.84	(0.72)	1.88	4.00
US TIPS 10+ Years	3.17	7.79	7.79	0.76	(0.56)	5.66	6.03
US Long Credit	4.77	6.82	6.82	(1.08)	4.10	7.77	7.25
Municipal GO Bond	0.20	1.51	1.51	3.75	3.25	5.01	4.84
California Intermediate Municipal Bond	(0.12)	1.45	1.45	3.69	3.46	5.20	5.14
California 1 Year Municipal Bond	(0.14)	0.28	0.28	0.65	0.65	0.88	2.08
New York Insured Municipal Bond	0.11	1.60	1.60	4.30	4.10	5.14	4.65
GNMA	0.26	1.75	1.75	2.40	2.35	3.28	4.85
Equity Indices	**1 Mo.**	**QTD**	**YTD**	**1 Yr.**	**3 Yr.**	**5 Yr.**	**10 Yr.**
S&P 500	6.78	1.35	1.35	1.78	11.82	11.58	7.01
S&P 400	8.52	3.78	3.78	(3.60)	9.46	9.52	7.78
S&P 600	8.20	2.66	2.66	(3.20)	10.39	10.41	6.99
Russell 1000	6.97	1.17	1.17	0.50	11.52	11.35	7.06
Russell 1000 Value	7.20	1.64	1.64	(1.54)	9.38	10.25	5.72
Russell 1000 Growth	6.74	0.74	0.74	2.52	13.61	12.38	8.28
Russell 2000	7.98	(1.52)	(1.52)	(9.76)	6.84	7.20	5.26
Russell 3000	7.04	0.97	0.97	(0.34)	11.15	11.01	6.90
Wilshire 5000 (Full Cap) Total Market	7.04	0.83	0.83	(1.16)	10.74	10.73	6.95
MSCI EAFE (Net Return)	6.51	(3.01)	(3.01)	(8.27)	2.23	2.29	1.80
MSCI Emerging Markets (Price Return)	13.03	5.37	5.37	(14.14)	(6.84)	(6.50)	0.61
MSCI Emerging Markets (Net Return)	13.23	5.71	5.71	(12.03)	(4.50)	(4.13)	3.02
MSCI ACWI (Price Return)	7.16	(0.28)	(0.28)	(6.24)	3.42	2.99	1.90
MSCI ACWI (Net Return)	7.41	0.24	0.24	(4.34)	5.54	5.22	4.08
MSCI ACWI ex-US (Net Return)	8.13	(0.38)	(0.38)	(9.19)	0.32	0.31	1.94
Dow Jones Industrial Average (Price Return)	7.08	1.49	1.49	(0.51)	6.65	7.50	4.76
Commodity Indices	**1 Mo.**	**QTD**	**YTD**	**1 Yr.**	**3 Yr.**	**5 Yr.**	**10 Yr.**
Bloomberg Commodity	3.82	0.42	0.42	(19.56)	(16.87)	(14.15)	(6.16)
S&P GSCI Commodity	4.93	(2.50)	(2.50)	(28.67)	(24.49)	(17.43)	(10.66)
Credit Suisse Commodity	5.58	(0.72)	(0.72)	(24.25)	(20.32)	(14.84)	(4.99)
REIT Indices	**1 Mo.**	**QTD**	**YTD**	**1 Yr.**	**3 Yr.**	**5 Yr.**	**10 Yr.**
Dow Jones U.S. Select REIT Total Return	10.43	5.12	5.12	4.88	11.09	11.99	6.17
S&P Global REIT Total Return	9.63	7.22	7.22	3.85	8.07	10.17	5.47

Source: PIMCO; Morningstar; Various Index Providers as listed above

NOTE: All performance is in US$ and reflect total return, unless otherwise noted.

Past performance is not a guarantee or a reliable indicator of future results. It is not possible to invest directly in an unmanaged index. This material has been distributed for informational purposes only and should not be considered as investment advice or a recommendation of any particular security, strategy or investment product. Information contained herein has been obtained from sources believed to be reliable, but not guaranteed.

For Institutional Investors Only

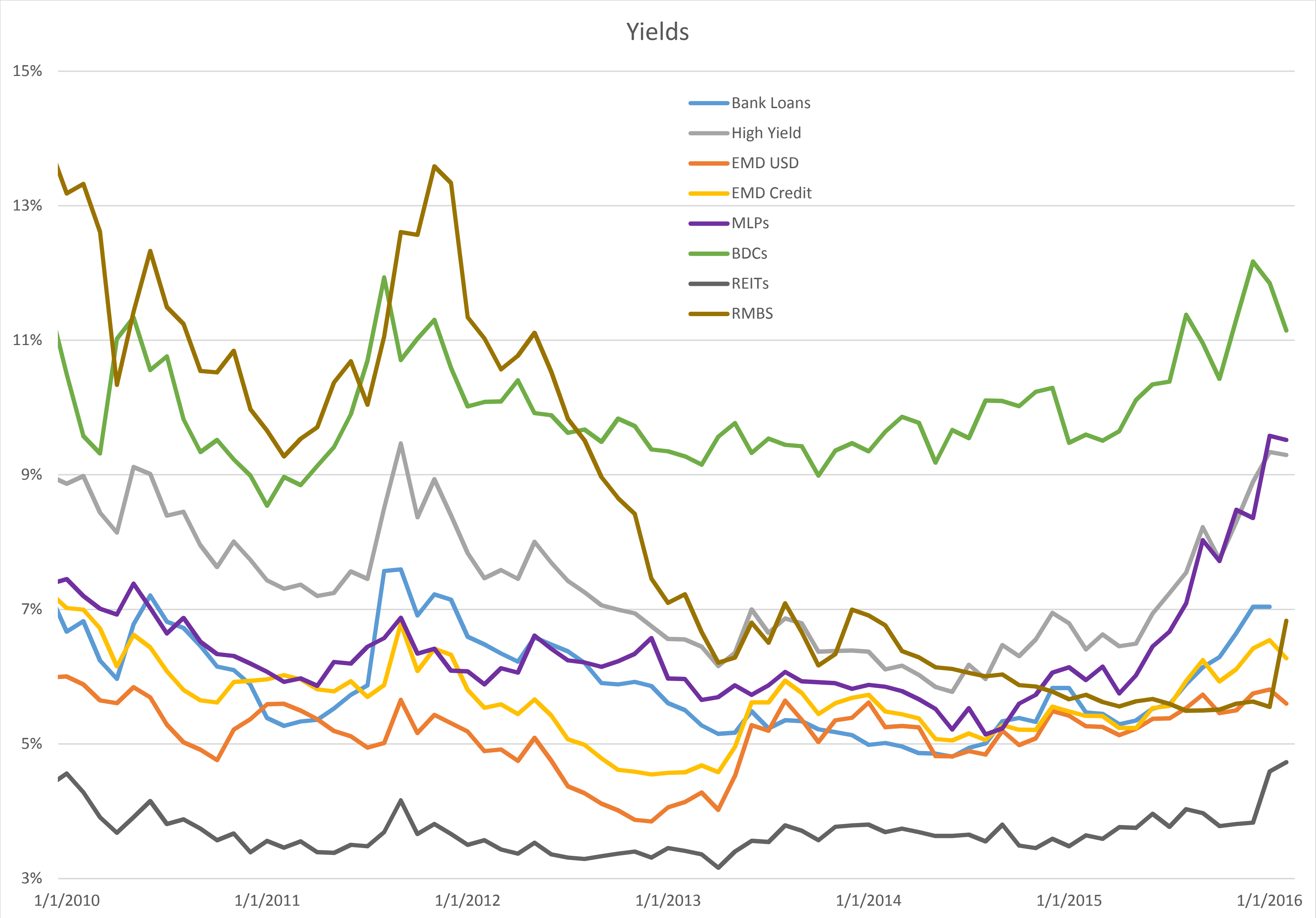
SITFO Asset Allocation vs Target

	As of 2/29/2016		As of 3/31/2016		Target Range			Over (Under)
	Market Value	Weight	Market Value	Weight	Min	Target	Max	Weight
Domestic Equity	**$ 893,985,878**	**43.7%**	**$ 931,119,627**	**43.4%**	**42%**	**47%**	**52%**	**-3.6%**
Vanguard Structured Large-Cap Index	$ 437,065,918	21.3%	$ 458,989,814	21.4%				
Vanguard Structured Broad Market	$ 350,105,843	17.1%	$ 359,750,860	16.8%				
Vanguard Strategic Equity Fund	$ 106,814,117	5.2%	$ 112,378,952	5.2%				
International Equity	**$ 342,845,835**	**16.7%**	**$ 369,911,603**	**17.3%**	**15%**	**20%**	**25%**	**-2.7%**
Vanguard Total International Stock Index	$ 342,845,835	16.7%	$ 369,911,603	17.3%				
Fixed Income	**$ 457,244,614**	**22.3%**	**$ 462,464,930**	**21.6%**	**18%**	**23%**	**28%**	**-1.4%**
Vanguard Short-Term Investment Grade	$ 262,712,050	12.8%	$ 264,942,624	12.4%				
Vanguard Intermediate Term Investment Grade	$ 194,532,564	9.5%	$ 197,522,306	9.2%				
Real Estate	**$ 280,858,774**	**13.7%**	**$ 282,543,412**	**13.2%**	**5%**	**10%**	**15%**	**3.2%**
UBS Trumbull Property Fund	$ 52,646,654	2.6%	$ 52,646,654	2.5%				
UBS Trumbull Property Income Fund	$ 76,134,294	3.7%	$ 76,134,294	3.6%				
LaSalle Income & Growth Fund V	$ 3,014,345	0.1%	$ 3,048,752	0.1%				
Fidelity Real Estate Growth Fund III	$ 2,603,432	0.1%	$ 2,511,675	0.1%				
Colony Realty Partners III	$ 15,108,100	0.7%	$ 14,868,000	0.7%				
Long Wharf Real Estate Partners IV	$ 44,241,984	2.2%	$ 44,407,960	2.1%				
Colony Realty Partners IV	$ 44,342,700	2.2%	$ 44,641,600	2.1%				
LaSalle Income & Growth Fund VI	$ 37,900,000	1.9%	$ 37,358,333	1.7%				
Long Wharf Real Estate Partners V	$ 3,549,195	0.2%	$ 5,608,075	0.3%				
Coral Canyon Town Center	$ 1,318,069	0.1%	$ 1,318,069	0.1%				
Cash	**$ 73,032,991**	**3.6%**	**$ 97,589,416**	**4.6%**	**0%**	**0%**	**5%**	**4.6%**
Total	**$ 2,047,968,091**		**$ 2,143,628,988**					

Exhibit H

Income-Oriented Research Priorities

	Income	Valuations	Correlation to Current Portfolio	Staff's Manager Knowledge/ "Index-ability"		Research Priority
High Yield/ Bank Loans	Moderate	Attractive	Moderate	High/Index?		Moderate
Securitized	Low	Semi-attractive	Low	High/No Index	=>	High
MLP	High	Very Attractive	Moderate	Low/Index?		Low
BDC	High	Very Attractive	High	Low/Index?		Low



Source: FEG, St. Louis FED, Cliffwater. Data as of 2/29/2016.

The potential benefits of balance sheet diversification

Correlations of monthly hedged excess returns since 2009

	IG	HY	Loans	AAA	AA	A	BBB	BB	B	CCC	EM USD	S&P	NA RMBS	Agency IO	CMBS	Agency MBS
IG	—															
HY	0.90	—														
Loans	0.84	0.89	—													
AAA	0.67	0.44	0.37	—												
AA	0.97	0.82	0.75	0.73	—											
A	0.99	0.88	0.82	0.68	0.97	—										
BBB	0.99	0.92	0.87	0.58	0.93	0.97	—									
BB	0.89	0.97	0.88	0.40	0.80	0.86	0.92	—								
B	0.90	0.99	0.87	0.43	0.82	0.88	0.92	0.98	—							
CCC	0.86	0.97	0.86	0.46	0.78	0.84	0.87	0.89	0.94	—						
EM USD	0.81	0.87	0.71	0.46	0.73	0.78	0.84	0.897	0.86	0.82	—					
S&P	0.51	0.63	0.40	0.44	0.49	0.50	0.49	0.52	0.58	0.70	0.61	—				
NA RMBS	**0.41**	**0.30**	**0.30**	**0.36**	**0.43**	**0.40**	**0.39**	**0.33**	**0.31**	**0.25**	**0.30**	0.12	—			
Agency IO	**0.37**	**0.46**	**0.49**	**0.18**	**0.29**	**0.34**	**0.41**	**0.43**	**0.41**	**0.51**	**0.40**	0.25	**0.19**	—		
CMBS	**0.57**	**0.45**	**0.46**	**0.40**	**0.63**	**0.56**	**0.56**	**0.42**	**0.45**	**0.41**	**0.37**	0.20	**0.33**	**(0.06)**	—	
Agency MBS	**0.24**	**0.25**	**0.26**	**(0.03)**	**0.22**	**0.19**	**0.29**	**0.27**	**0.27**	**0.21**	**0.32**	(0.01)	**0.20**	**0.17**	**0.28**	—

Higher Correlations ≥ 0.6

Credit sectors commonly used for equity diversification do not achieve that goal

Lower Correlations < 0.6

Lower Correlations < 0.6

Source: Barclays, Putnam as of 9/30/15, most recent available. For illustrative purposes only. Indices used in the above calculation include the Barclays U.S. Corporate Index, Barclays U.S. High Yield Index, Barclays U.S. High-Yield Loans Index, Barclays U.S. Credit: AAA, Barclays U.S. Credit: AA, Barclays U.S. Credit: A, Barclays U.S. Credit: BBB, Barclays U.S. Credit: BB, Barclays U.S. Credit: B, Barclays U.S. Credit: CCC, and the Barclays EM USD Sovereign Indices. Where there is no available representative index, data is based on a universe of securities selected by Putnam that are representative of various fixed-income sectors and subsectors within the mortgage market.