

3Q2015 IAC Meeting Materials

IAC Meeting – November 17, 2015

SBI Combined Funds Presentation



SBI COMBINED FUNDS

POLICY REVIEW AND PORTFOLIO CONSIDERATIONS



AGENDA

- Preface
- Current Combined Funds Overview
 - Investment Policy
 - Strategic Portfolio Asset Allocation Policy
 - Public Markets - Asset Class Targets and Manager Structure
 - Private Markets Investment Policy and Strategy
- Combined Funds Considerations
- Appendix



PREFACE



STATE BOARD OF INVESTMENT PURPOSE AND OBJECTIVES

■ PURPOSE

- Provide prudent investment management of pension plan assets to support and align with sound pension plan policy
- Provide prudent investment management for non-retirement trusts, defined contribution participants, and state agencies

■ OBJECTIVES

- Pension Assets
 - Match or exceed composite policy index
 - Produce a real return
- Other Assets
 - Achieve investment returns consistent with portfolio benchmarks in concert with fund objectives

INVESTMENT PRINCIPLES

- Strategic asset allocation is most significant driver of portfolio performance
- Risk tolerance is a function of investment horizon
 - Long-term focus enables investor to bear more investment risk
 - Risk is multi-faceted
 - Loss of principal, inflation, deflation, credit, term, illiquidity, default,
- Risk can be rewarding, particularly equity risk premium
- Diversification can mitigate risk
- Capital markets, while mostly efficient, do have inefficiencies which can be exploited by skillful active management
- Private markets / illiquidity can provide a premium
- Management of costs can provide modest return enhancement

SBI COMBINED FUNDS

POLICY AND IMPLEMENTATION CONSIDERATIONS

- Policy is the road map, implementation is the vehicle
 - Both needed to arrive at destination on time and with safety
- Give purpose and objective, Combined Funds require a significant exposure to drivers of economic growth, i.e., equity and equity-like exposure to generate returns sufficient to meet the future needs of the institution
- The two biggest macro risks to global growth – and the most significant to institutional investors – are deflation and inflation.
- Liquidity – cognizant that we have continuous series of short-term obligations that have to be met
 - Recognize we have long-term horizon and able to take advantage of higher level of “illiquid opportunities”
- **Policy portfolios should be structured and managed to provide exposure to growth and to protect against both inflation and deflation. Asset classes should be defined according to return drivers and risk characteristics**

SBI POLICY – RECATEGORIZED BASED ON RETURN/RISK DRIVERS

	Recomposed Current MSBI Policy %	MSBI on Risk Driver Basis %
<u>Economic Growth</u>		
Public Equity (1)	60	
Private Equity (2)	11	
Credit (3) and (4)	16	
Hedge Funds	0	
Total Economic Growth		87
<u>Real Assets</u>		
Real Estate (2)	3	
Natural Resources (2)	3	
Total Real Assets		6
<u>Safety and Liquidity</u>		
Fixed Income (Interest Rates) (3)	5	
Cash	2	
Total Safety and Liquidity		7
<u>Total</u>	100	100

Notes:

- Public Equity (60%) = Domestic Equity (45%) and International Equity (15%)
- Alternatives Asset Class (20%) has been disaggregated into its 4 component parts (approximate weightings based on alternatives asset mix)
 - Private Equity = 11%
 - Yield (Credit) = 3%
 - Resource (Natural Resources) = 3%
 - Real Estate = 3%
- Fixed Income has been disaggregated into Interest Rate exposure (5%) and Credit (13%) based on proportionate weightings from Annual Report
- Credit is the combination of Yield (3%) from Alternatives and the Credit portion of Fixed Income (13%)



CURRENT COMBINED FUNDS OVERVIEW



OVERVIEW

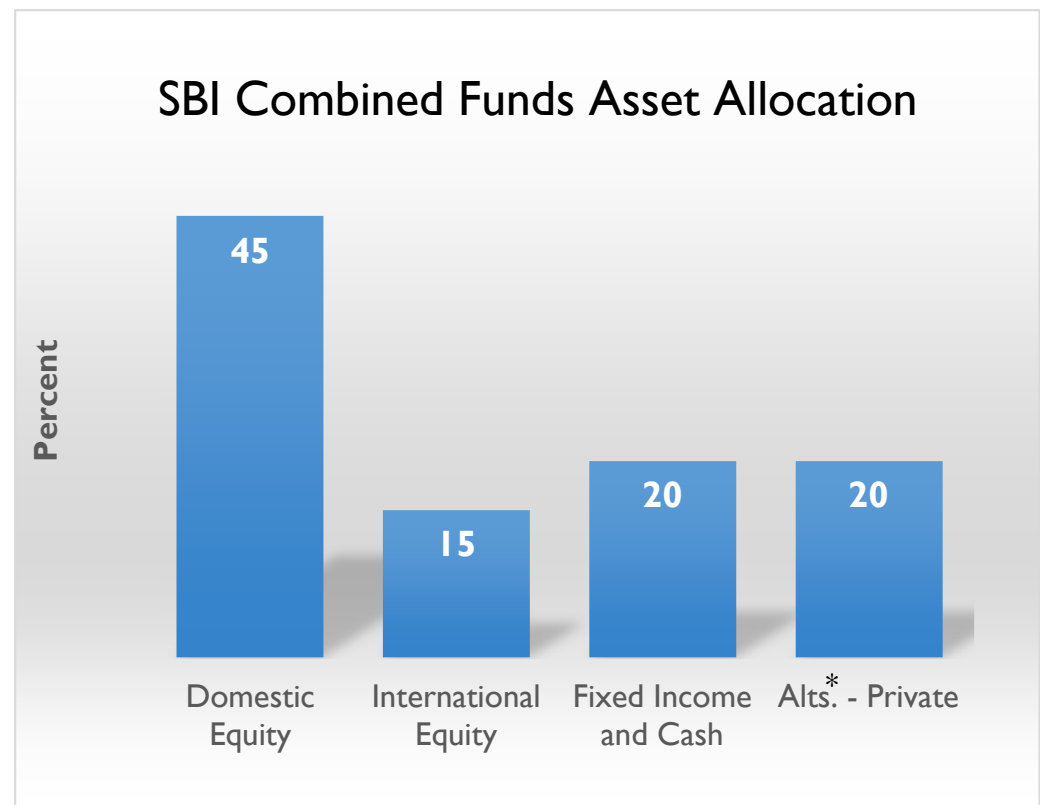
SBI COMBINED FUNDS INVESTMENT POLICY

- SBI Investment Policies and Management Practices was last approved by Board in May 2013

- Review of Current Combined Funds Investment Policies
 - Strategic Asset Allocation
 - Public Markets - Asset Class Targets and Manager Structure
 - Public Equity - Domestic and International Equity
 - Fixed Income
 - Private Markets Investment Policy and Strategy

CURRENT COMBINED FUNDS STRATEGIC ASSET ALLOCATION POLICY

- SBI portfolio strategic asset allocation
 - Domestic Equity: 45%
 - International Equity: 15%
 - Fixed Income and Cash: 20%
 - Alternatives*: 20%
- Long-term investment horizon allows the SBI to take advantage of the relatively higher long-term return opportunities of equities
- Over the long run, Combined Funds' target return has been met



* Unallocated alternatives directed to fixed income

Historically, the SBI has maintained a large equity allocation - both in public and private markets - which is appropriate given a long investment horizon

CURRENT COMBINED FUNDS PUBLIC MARKETS - ASSET CLASS TARGETS

- SBI Asset Class Targets
 - Domestic Equity: Russell 3000
 - International Equity: MSCI ACWI ex USA net
 - Fixed Income: Barclays Aggregate
- An asset category target is a diversified collection of securities within a broad asset category
 - Represents the set of feasible investment opportunity set that plan sponsor believes best achieves the purposes for which the asset category was included in the policy asset mix
 - Can be viewed as the ideal index fund

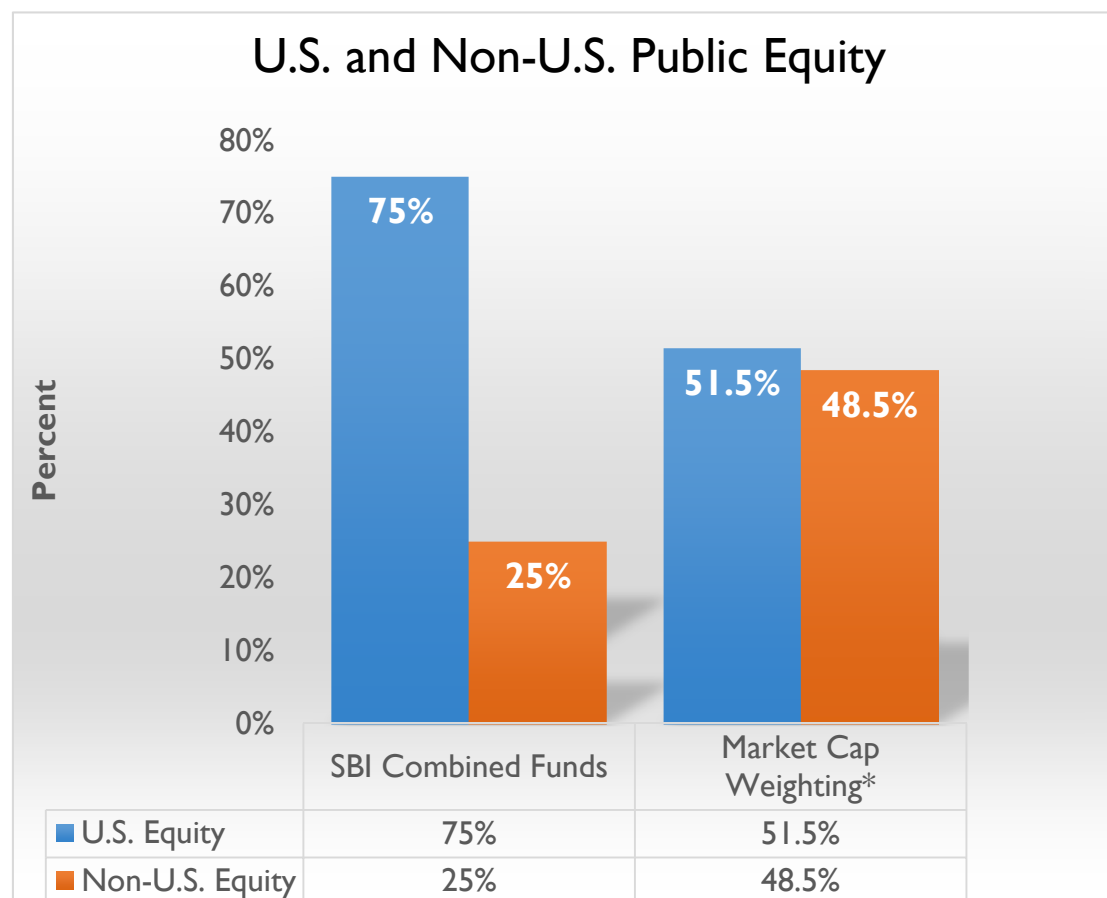
CURRENT COMBINED FUNDS PUBLIC MARKETS ASSET CLASS TARGETS (CONT.)

- A viable asset category target should satisfy three conditions:
 - Consistent with the fund's risk tolerance
 - Its expected long-run risk-adjusted returns are preferred to those of all other alternative targets
 - Offers the plan sponsor an investable alternative
- SBI Restrictions
 - OTC derivatives prohibited
 - Cannot employ leverage - options and futures must be offset with cash
 - Assets are managed by market cap and style to address misfit risk
 - Other Statute or Board Restrictions:
 - Tobacco restriction for active and semi-passive equity managers
 - Sudan restrictions for equity managers
 - Iran restriction for equity and fixed income managers

SBI restrictions have had no meaningful impact on returns over the long-term; SBI asset class targets have been appropriate

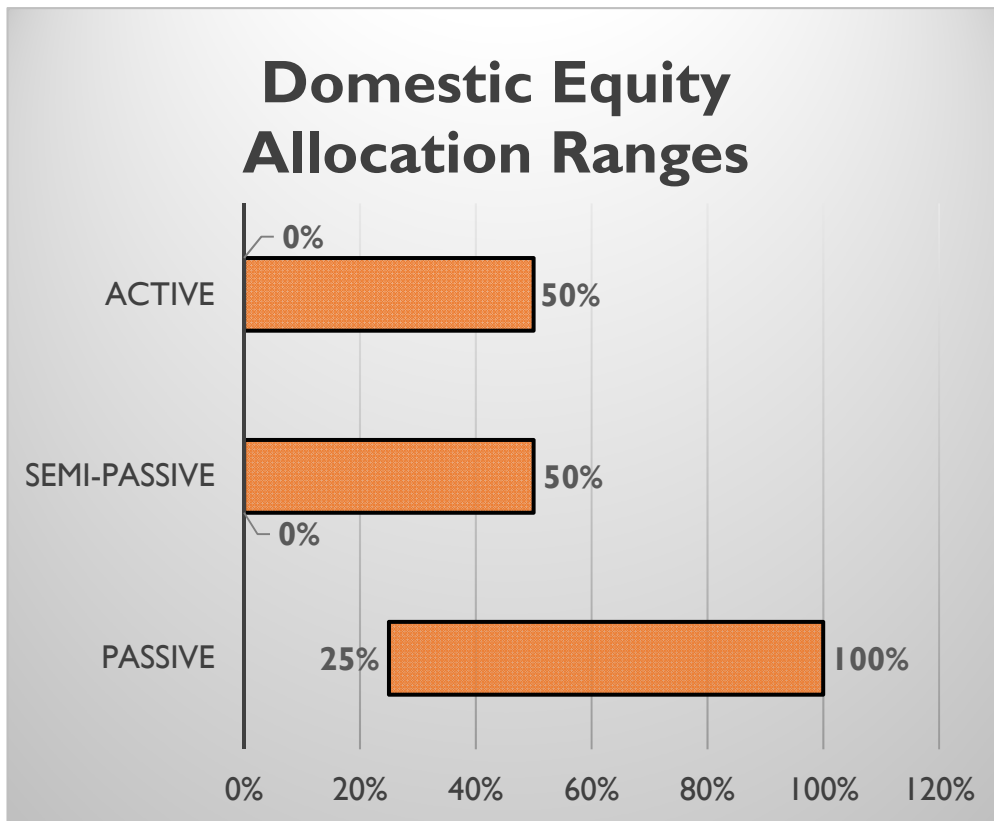
CURRENT COMBINED FUNDS PUBLIC EQUITY ASSET CLASS POLICY

- Within Public Equities the SBI has maintained a strong bias to Domestic Equities
 - U.S. Equity market cap approximately equal to Non-U.S. equity market cap*
 - SBI Domestic Equity is 3 times Non-U.S. Equity
- Historically, the Combined Funds' home country bias has been additive to Combined Funds Portfolio returns
- Increasing non-U.S. exposure may enhance returns by further broadening the investment opportunity set



* Based on ACWI USA Dollar as of June 30, 2015

DOMESTIC EQUITY - CURRENT POLICY AND ALLOCATION RANGES



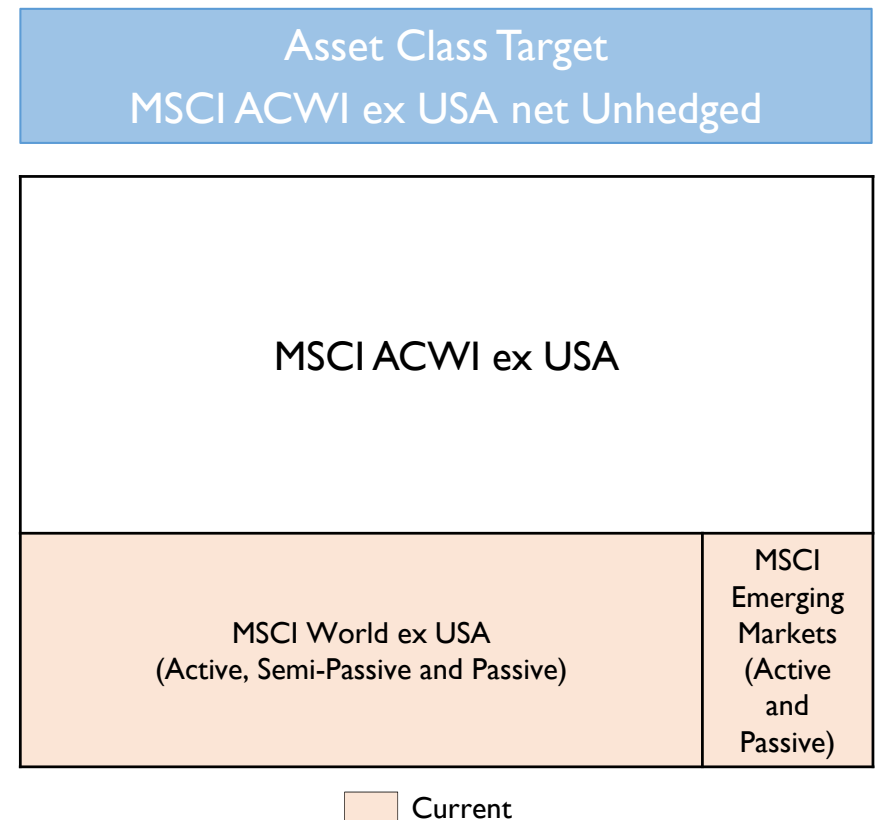
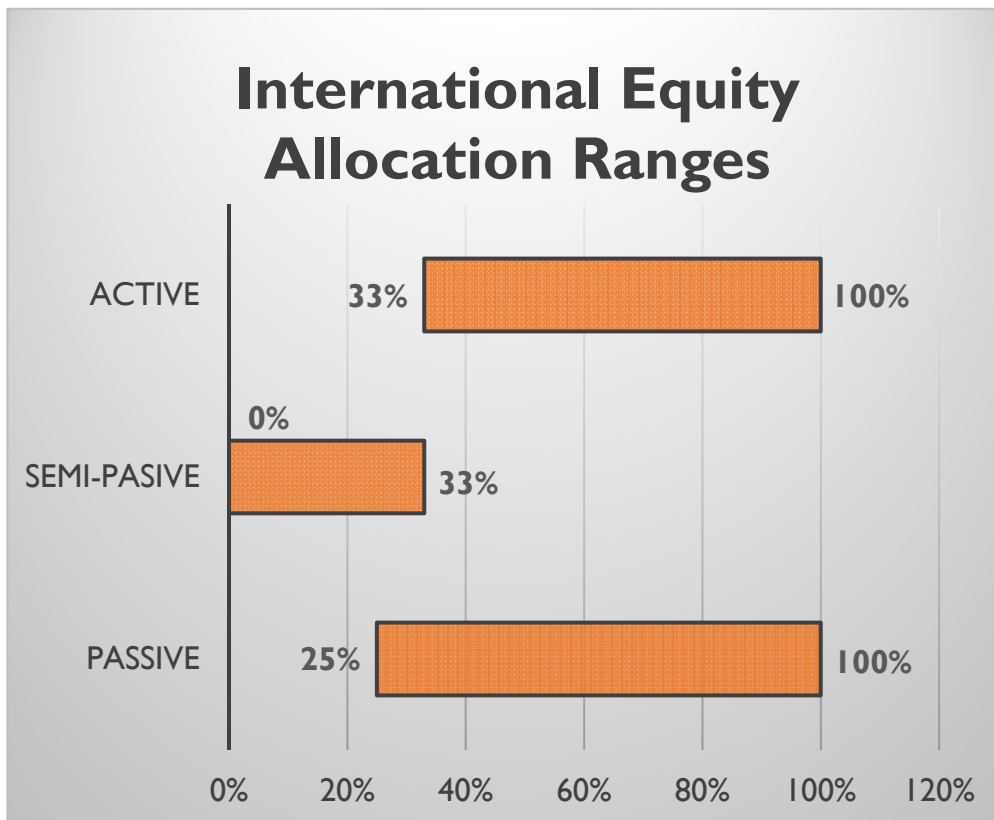
Asset Class Target
Russell 3000

Russell 3000 (Passive)	Russell 1000 (Semi-Passive)	R1000 Value (Active)	R1000 Growth (Active)
	Russell 2000	R2000 Value (Active)	R2000 Growth (Active)

Legend: Current

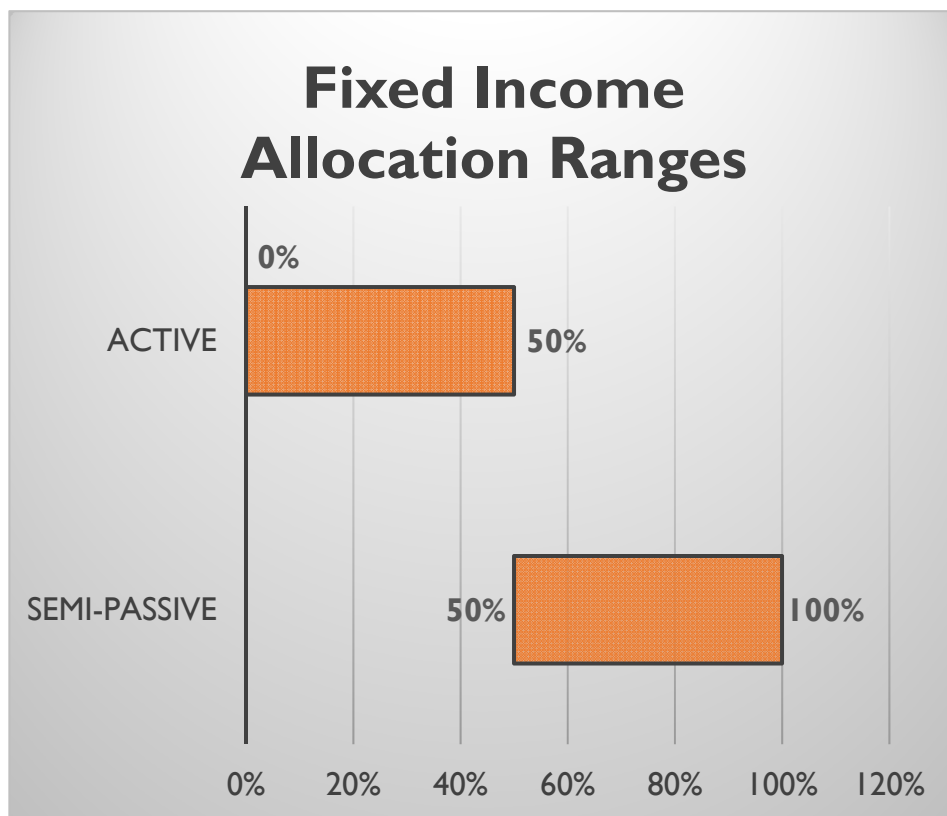
SBI Domestic Equity assets have been managed by current Russell market cap and style boxes to address misfit risk

INTERNATIONAL EQUITY – CURRENT POLICY AND ALLOCATION RANGES



SBI International Equity assets have been managed by current MSCI boxes to address misfit risk

FIXED INCOME – CURRENT POLICY AND ALLOCATION RANGES



- Program has served SBI well
- Program Objectives
 - Diversification
 - Deflation Hedge
 - Risk-Adjusted Return
- Asset Class Target is Barclays U.S. Aggregate, a broad market index comprised of all major sectors of the domestic investment grade fixed income markets
- Select managers may opportunistically invest in high-yield bonds and non-dollar denominated investment grade bonds
- No specialty mandates
- Utilize active and semi-passive management
- At least half of allocation must be to semi-passive managers

PRIVATE MARKETS

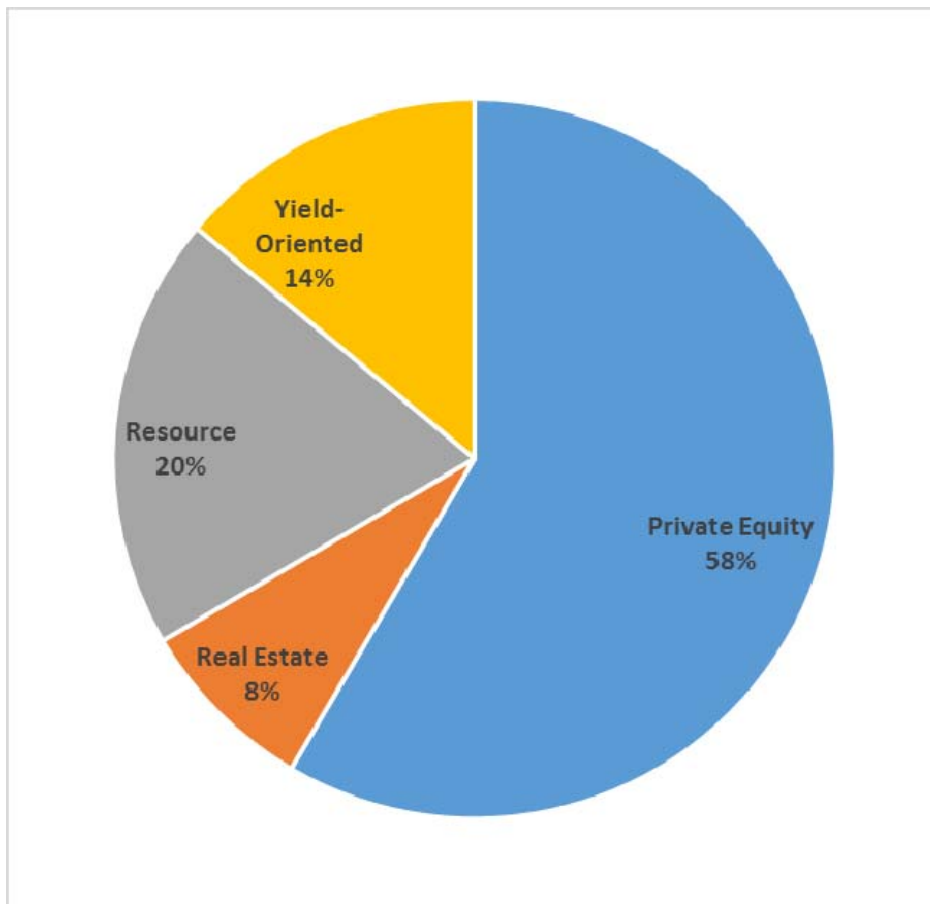
CURRENT INVESTMENT POLICY AND STRATEGY

- Alternative investments include Private Equity, Real Estate, Resource (primarily Energy/Oil and Gas), and Yield-Oriented Investments
- Current allocation is 20% target with unallocated portion directed to fixed income
- Policy allows alternative investments to be committed up to a value where the market value of funded alternative investments and the total of unfunded commitments equal 35% of the market value of the Combined Funds
- Most of the assets within the Alternative Investments portfolio are limited partnerships which must adhere to statute which requires limited participation of 20% and must include at least 4 other unrelated parties

PRIVATE MARKETS

CURRENT INVESTMENT POLICY AND STRATEGY

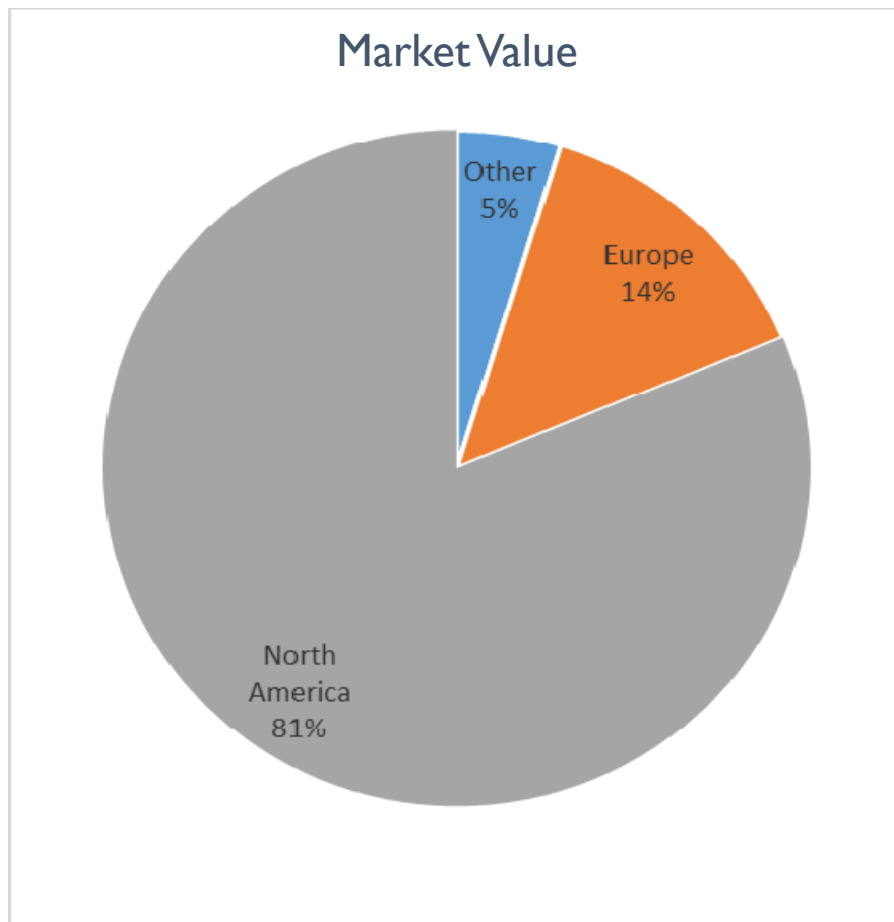
Market Value + Unfunded Commitments




- No target allocations to sub-asset class segments
- Yield-oriented investments
 - A holdover from the period when there were separate Basic and Post funds portfolios
 - Has contained Private Equity, Real Asset and Resource assets
 - Required to have a current income component

PRIVATE MARKETS GEOGRAPHIC DISTRIBUTION


Geographic Distribution



- No stated geographic targets
- Predominately USA focused
- Some exposure to Europe
- Little exposure to rest of the world



COMBINED FUNDS PORTFOLIO CONSIDERATIONS



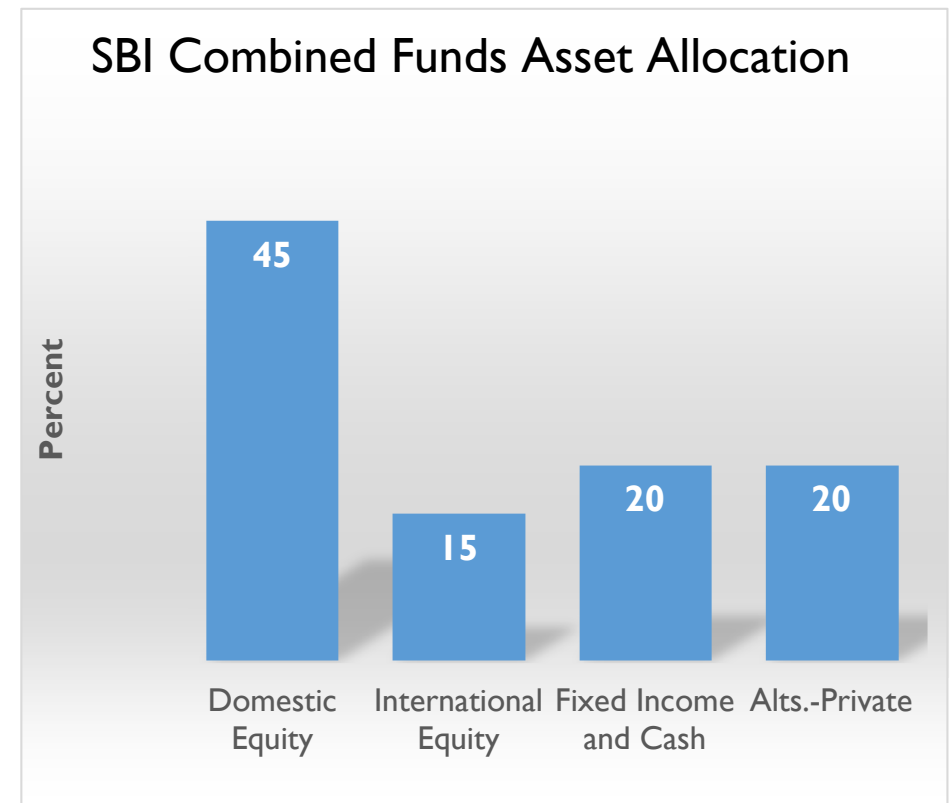
COMBINED FUNDS SUMMARY OF CONSIDERATIONS

- Maintain current Combined Funds strategic portfolio asset allocation
 - Home Country Bias will be addressed in asset allocation study to be completed in FY16/FY17
- Maintain current public market asset class targets
- Maintain current active, semi-passive and passive public market equity policy allocations
- Broaden allowable manager benchmarks within public equities to increase investment flexibility
 - Increase flexibility in investment program to seek potential, new sources of alpha
 - Allow managers with appropriate but non-current benchmarks and strategies
 - Allow utilization of global managers
- Consider modifying fixed income policy allocations
- Broaden opportunity set in Private Markets

SBI Combined Funds investment policy is not broken; Consider changes at the margin

CONSIDERATION MAINTAIN STRATEGIC PORTFOLIO ASSET ALLOCATION

- No change currently recommended to Combined Funds strategic asset allocation
- Long-term investment horizon allows the SBI to take advantage of the relatively higher long-term return opportunities of equities
- Over the long run, Combined Funds' target return has been met
- Home country bias to be addressed with FY16/FY17 Asset Allocation Study
 - Increasing non-U.S. exposure may enhance returns by further broadening the investment opportunity set



CONSIDERATION MAINTAIN PUBLIC EQUITY ASSET CLASS TARGETS

Domestic Equity - Russell 3000

- Russell 3000 is widely recognized and most accepted domestic index by most institutional investors
- Russell 3000 broadly covers 98% of the U.S. equity market and is investable by the SBI
- The data is widely available and provides detailed constituent data and analysis
- Russell provides numerous sub-indexes

International Equity - MSCI ACWI ex USA net Unhedged

- MSCI ACWI is widely recognized as the dominant international index provider in the U.S.
- MSCI covers 88% of all non-U.S. equity market cap
- The data is widely available and provides detailed constituent data and analysis
- While the MSCI ACWI does not include international small-cap it allows the SBI, with its large asset base, to successfully get index exposure that can be difficult with MSCI ACWI IMI due to its lack of sufficient institutional quality international small-cap products

These continue to be the most appropriate equity asset class targets benchmarks for the
Combined Funds

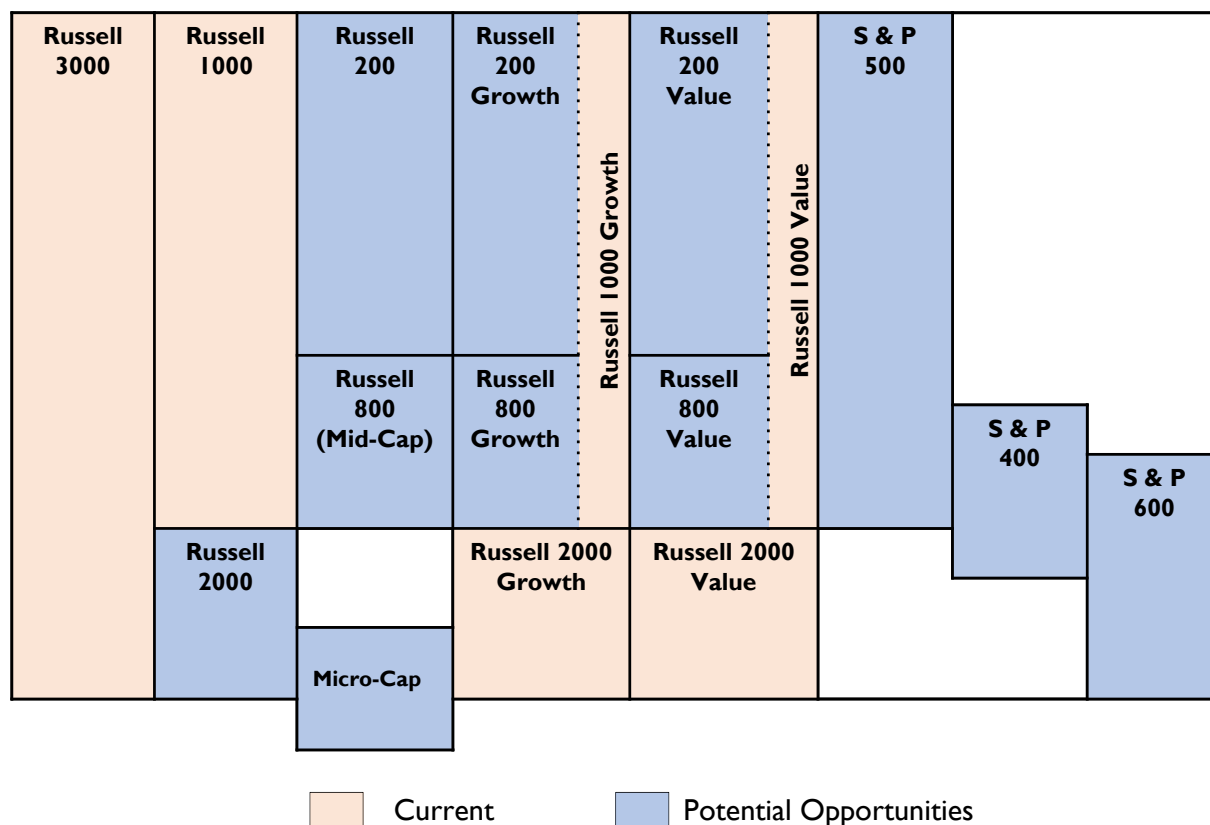
CONSIDERATION MAINTAIN PUBLIC EQUITY POLICY ALLOCATIONS

- SBI Staff believes that the current policy allocations to active, semi-passive and passive allow for construction of appropriate portfolio active risk
- For example, research* has shown there is a higher probability of and greater expected alpha from investing in active managers in domestic mid, SMID, small and micro-cap spaces versus mega-cap large-cap spaces
 - In general, Staff will take advantage of less efficient equity markets with relatively more active management compared to more efficient markets in seeking excess return opportunities
 - Conversely, staff may use a higher level of indexing in more efficient sub-asset classes in public equities
 - Therefore, some modifications to current active, semi-passive and passive allocations within domestic and international equity structure may be forthcoming
- Any recommended manager changes will be brought to the IAC for review and the Board through the regular quarterly review process

*Historical Active Management Premiums by Asset Class and Style, Callan, Third Quarter 2015

CONSIDERATION BROADEN DOMESTIC EQUITY OPPORTUNITY SET

- Appropriately seek additional sources of alpha by moving away from current rigid Russell 1000 and 2000 style manager benchmarks
- Consider other appropriate strategies/benchmarks: such as Russell 200, Russell Mid-Cap, Russell 2000 core, S&P 500, S&P 400 index managers, for example
- Opportunistically consider other micro-cap benchmarked managers



CONSIDERATION BROADEN INTERNATIONAL EQUITY OPPORTUNITY SET

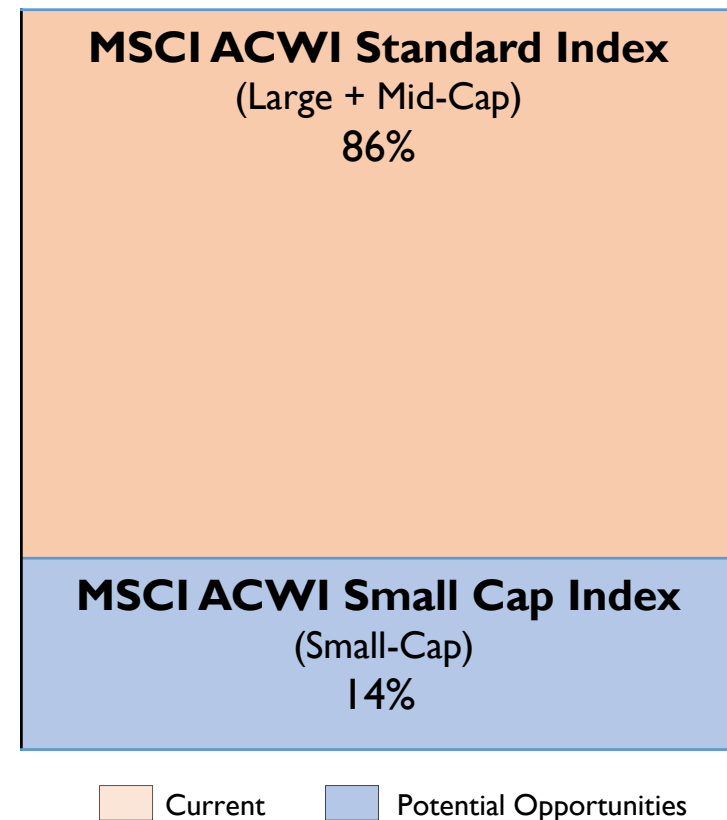
- Asset Class Target:
 - MSCI ACWI ex USA
- Current manager benchmarks:
 - MSCI World ex USA Index
 - MSCI Emerging Markets Index
- Appropriately seek additional sources of alpha by moving away from current rigid MSCI boxes
- Consider other appropriate strategies/benchmarks such as: MSCI EAFE, MSCI ACWI ex USA value or growth

USA	Europe, Australasia, & Far East	Canada	Emerging Markets	Frontier
MSCI ACWI Index				MSCI Frontier Markets Index
MSCI USA Index	MSCI ACWI ex USA Index			
	Value		Growth	
MSCI USA Index	MSCI World ex USA Index		MSCI Emerging Markets Index	
MSCI World Index			MSCI Emerging Markets Index	
MSCI USA Index	MSCI EAFE Index (plus specific country indices)	MSCI Canada Index	MSCI Emerging Markets Index	

Current
 Potential Opportunities
 N/A

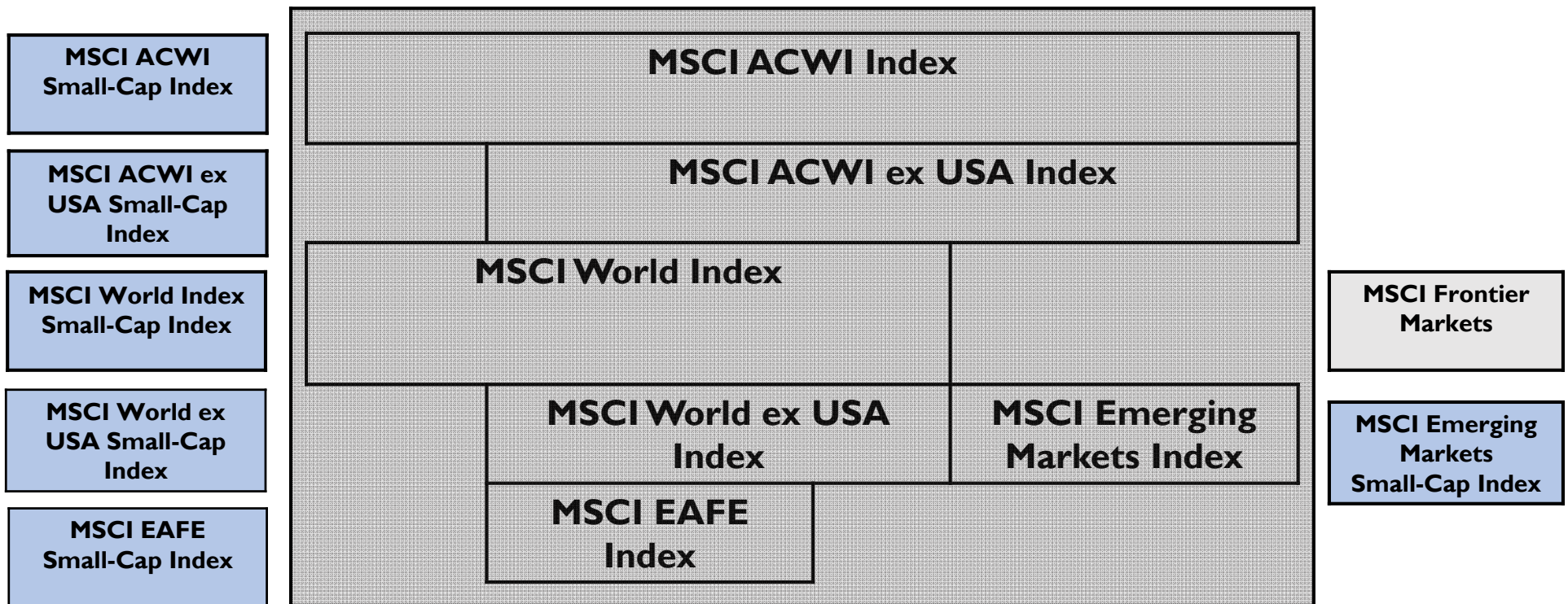
CONSIDERATION STANDARD MSCI ACWI INDICES AND SMALL-CAP

- Standard MSCI ACWI indices capture stocks managed by large and mid-cap managers
 - Small-cap stocks are excluded from the standard MSCI ACWI indices
- Opportunistically consider appropriate MSCI small-cap index strategies



CONSIDERATION

EXPAND OPPORTUNITY SET TO INCLUDE INTERNATIONAL SMALL-CAP AND EAFE PLUS



In some cases, we may want to allocate to EAFE Plus strategies, which use the MSCI EAFE Index as their benchmark but opportunistically allocate to Emerging Markets

Opportunistically consider MSCI ACWI ex USA Small-Cap, EAFE Small-Cap, and MSCI World ex USA Small-Cap strategies

CONSIDERATION

INCREASE INTERNATIONAL FLEXIBILITY – GLOBAL MANAGER

- Increase flexibility to hire a Global Manager benchmarked to MSCI ACWI or MSCI World indices as a potential source of value add to the public equity program
- A global assignment could be funded to maintain current U.S. and non-U.S. approved policy allocations
- Example:
 - Initial Portfolio Position: Total Public Equity \$36.0 billion; Policy allocation - 75%(\$27 B) U.S.; 25%(\$9 B) Non-U.S.
 - Goal: Fund a Global Manager with 5% Public Equity
 - Assume Global manager benchmark is 50% U.S. / 50% non-U.S.
 - Global Manager is funded \$1.8 billion with 50% from U.S. Equity and 50% from non-U.S. Equity assets
 - Domestic/International Policy allocation: maintained at 75% U.S.; 25% non-U.S.

MN SBI Total Equity Assets \$B

	U.S.	NON U.S.	Total
5% Global Manager	0.9	0.9	1.8
95% U.S./Non-U.S. Equity Pool	26.1	8.1	34.2
Total Public Equity	27.0 (75%)	9.0 (25%)	36.0

Global Manager: Potential source of value-add to the SBI public equity program that is managed to maintain approved U.S. and non-U.S. policy allocations

CONSIDERATION MAINTAIN ASSET CLASS TARGET BENCHMARK IN FIXED INCOME

Fixed Income - Barclays U.S. Aggregate

- Dominant fixed income index provider in the U.S.
- Widely accepted public index
- Covers approximately 90% of the U.S. fixed income market
 - Does not include U.S. high-yield and 144A securities
- The data is widely available and detailed provides detailed constituent data and analysis
- Barclays Aggregate is a strong diversifier to U.S. equity
- Barclays Aggregate overall is more liquid than a global benchmark

This continues to be the most appropriate fixed income benchmark for SBI

CONSIDERATION FIXED INCOME RE-EXAMINE FOR ADDITIONAL OPPORTUNITIES

- SBI Fixed Income program has been managed to broad domestic investment grade bond indices for past three decades
- Served the SBI well and remains an appropriate asset class target
- However, fixed income investment opportunity set for institutional investors is significantly larger than that covered by Barclays Aggregate
- Staff will re-examine fixed income universe to determine if there are additional opportunities for the SBI
 - Bank loans
 - Global/International fixed income
 - Non-cap weighted benchmarks
 - Sector/specialty managers
 - TIPS and other inflation-linked bonds
 - Unconstrained market debt
 - Long/short strategies

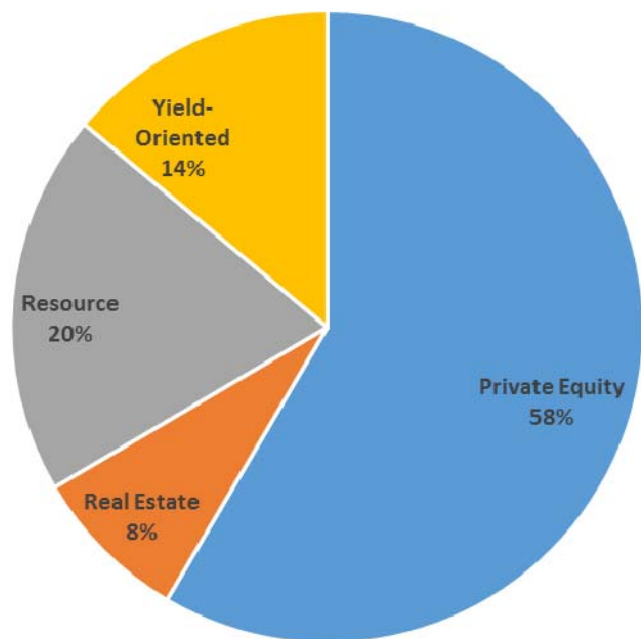
CONSIDERATION PRIVATE MARKETS RECLASSIFICATION OF SUB-ASSET CLASSES

- Reclassifying sub-asset classes to better clarify investments in portfolio
 - **Private Equity:** Equity oriented strategies; e.g., buyouts, growth equity, venture, consolidations, secondaries, etc.
 - **Distressed:** Sub-investment grade debt; turnaround equity; debt-for-control; restructurings, etc.
 - **Credit:** Mezz lending; direct lending
 - **Natural Resources:** Upstream oil & gas; midstream energy infrastructure; power generation metals & mining; agricultural land; timber; project finance; mezz lending; MLPs
 - **Real Estate:** Core, value-added, opportunistic, REITs; investing in: office, multi-family, industrial, hospitality, retail

CONSIDERATION PRIVATE MARKETS RECLASSIFICATION OF SUB-ASSET CLASSES

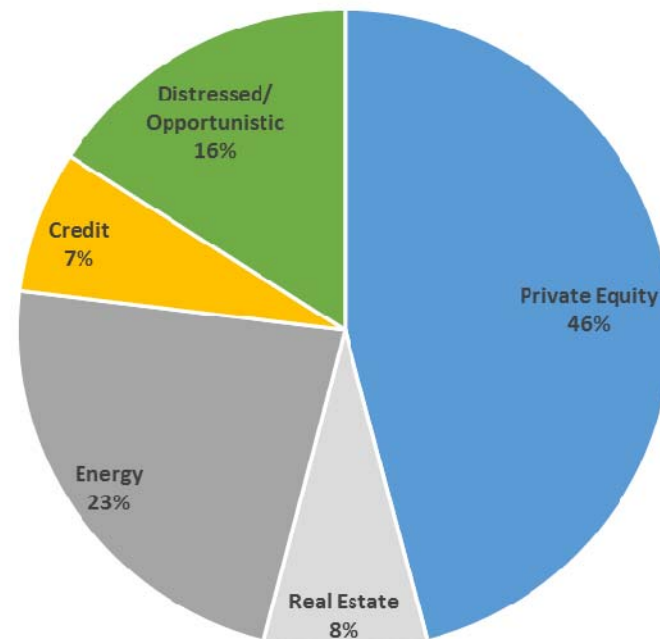
Current Classification

Market Value + Unfunded



Reclassification

Market Value + Unfunded



CONSIDERATION PRIVATE MARKETS PORTFOLIO COMPOSITION

- Staff expects makeup of alternatives portfolio to shift
 - Some legacy relationships may end
 - Not “flipping a switch” - this transition will occur over time
 - Average commitment size may be lower than in recent years
- Some changes expected in asset class allocation
 - Private Equity will continue to make up majority of commitments
 - Credit expected to grow
 - Real Assets will continue to make up significant piece of portfolio
 - Oil & Gas exposure to shrink over time
 - Real Estate likely to grow
 - Liquid alternatives may be recommended

CONSIDERATION PRIVATE MARKETS FUND SIZE

- Recall alternative investment restrictions:
 - Must have 4 other LPs, and SBI can be no more than 20%
- Target commitment pacing of \$2 to \$2.5 billion per year
- Small group of very large funds raise a large share of private equity capital
- SBI has committed to several large managers
 - Not all large funds are focused on large LBOs
 - Some pursue mid-market deals and growth equity
 - SBI does not make outsized commitments to large managers
- Large managers more likely to provide exposure to non-U.S. markets (Europe, Asia, Latin America)
- Additionally focus on smaller funds which provide niche opportunities

CONSIDERATION PRIVATE MARKETS GEOGRAPHIC DIVERSIFICATION

- Private equity markets are significantly more developed in the U.S. and Western Europe than the rest of the world
- Even with this consideration we believe the portfolio is overweight to the U.S., and will seek ways to responsibly diversify
- Given the challenges posed with managers based in other countries (e.g. legal documents, onsite due diligence costs dedicated allocations to small markets) it is likely that any additional near term exposure to Asia, Latin America and Africa will come from U.S./EU-based managers with global mandates
- Over time we hope to get to know a broader spectrum of managers from around the world. In addition to achieving such exposure from “Global” managers, we will explore different approaches to seek local exposure regions other than the U.S. or Europe



APPENDIX



MSCI ACWI: STANDARD AND INVESTABLE MARKET INDEX (“IMI”)

- Standard and IMI: Applicable to all MSCI Indices.
- MSCI ACWI IMI:
 - Represents equity markets around the world across the market cap spectrum.
 - Captures large, mid and small capitalizations.
 - Includes 23 developed markets* and 23 emerging markets.**
 - Comprehensive index with 8,645 constituents.
 - Covers approximately 99% of the global equity investment opportunity set.

MSCI ACWI IMI Index (Large + Mid + Small-Cap)	MSCI ACWI Standard Index (Large + Mid-Cap) 86%
	MSCI ACWI Small-Cap Index (Small-Cap) 14%

* Developed: Canada, United States (Americas); Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Israel, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom (Europe & Middle East); Australia, Hong Kong, Japan, New Zealand, Singapore (Pacific).

**Emerging Markets: Brazil, Chile, Columbia, Mexico, Peru (Americas); Czech Republic, Egypt, Greece, Hungary, Poland, Qatar, Russia, South Africa, Saudi Arabia, Turkey, United Arab Emirates (Europe, Middle East & Africa); China, India, Indonesia, South Korea, Malaysia, Philippines, Taiwan, Thailand (Asia).