3Q2019 IAC Meeting Materials

IAC Meeting – November 18, 2019

Liquid Alternatives Presentation

Liquid Alternatives Discussion

What are we referring to as liquid alternatives?

- Broad asset class category that can include more common assets like REITs or MLPs or more complex strategies, such as such as equity long-short, market-neutral relative value, trend-following or factor-based investing
- Investment strategies that aim to generate an absolute return and have the ability to take both long and short positions
- Typically benchmark unconstrained, can provide access to unique strategies and utilize non-traditional asset classes such as commodities, currencies, or derivatives
- Primarily invest in marketable securities and provide investors with periodic liquidity (e.g. monthly, quarterly)
- Can be structured as private placement funds (LLC/LLP), separate accounts or commingled vehicles (UCITS, MFs)

Why liquid alternatives for SBI portfolio?

- Further diversify the Combined Funds portfolio beyond public equities, fixed income, and private markets.
- Offer potential for low correlation with equities, downside protection in down equity market
- Exposure to risk premiums not already represented in the Combined Funds' asset allocation
- Widely utilized across institutional investor base, including public plans
- Unique sources of alpha, potentially a more efficient use of active risk budget

Which strategies are of primary interest initially?

Systematic Diversified Macro

- Investment models are predicated on movements in underlying economic variables and the impact these have on equities, debt, commodities and currencies
- Investment process is implemented using mathematical, algorithmic and technical models

Alternative Risk Premia

- Systematically isolate and capture market returns attributable to factors such as value, momentum, quality, carry and trend
- Strategies may focus on a single factor (e.g. trend-following) or may build a diversified portfolio of factor exposures

Risk Parity

- Allocate capital using an approach that allocates in units of risk (volatility) rather than in units of capital
- Typically invest across a broad range of asset classes, including equities, bonds and commodities

Key criteria to evaluate manager/strategies?

- Emphasis on diversifying strategies with consistently low correlation with equities, particularly in down markets
- Favor systematic strategies with more disciplined approach (versus discretionary, go-anywhere strategy)
- Emphasis on risk management and diversification to control drawdown risk
- Focus on larger managers (strategy assets > $1 billion) with long-term track records
- Highly liquid underlying investments, with at least quarterly liquidity

Manager Example: Bridgewater Associates

Manager Background

- Founded in 1975 by Ray Dalio, Bridgewater has growth from a small client advisory business into one of the largest alternatives managers in the world
- Based in Bridgeport, Connecticut, Bridgewater manages over $160 billion for over 220 institutional clients worldwide
- 1,625 employees, with 634 devoted to research, account management and trading
- Known for its highly systematic, rules-based investment approach and a dogged commitment to its culture of “radical transparency” in all its processes
- Firm is employee-controlled, with Mr. Dalio the majority owner. The firm is in the process of converting to a true partnership structure, which will reduce Mr. Dalio’s stake
- Flagship strategies:
  - Pure Alpha, Pure Alpha Major Markets (PAmm) - *Diversified Macro*
  - All Weather - *Risk Parity*

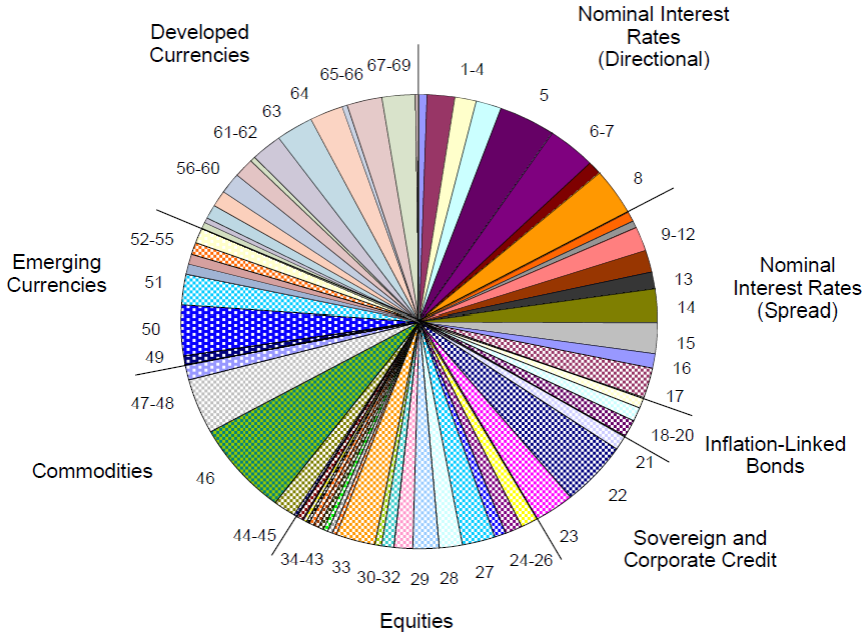
Team and Investment Process

- Mr. Dalio, Bob Prince and Greg Jensen are co-CIOs and have joint responsibility for the Investment Engine: research, account management and trading
- Extensive research effort focused on what the firms calls building a deep, fundamental understanding of economic systems, economies and markets
- Research spans 1) macroeconomic drivers, (2) intermarket action, and (3) capital flows
- Investment process is fundamental, systematic, data-driven and diversified
- Primary output of the process is a data-driven, fully systematized set of rules that produce investment signals for 150+ unique investable markets
- Strategies seek to balance risk across good, unrelated return streams to raise return-to-risk ratios and minimize dependency on any one signal

Pure Alpha Major Markets 14% Vol

- Global active investment strategy designed to generate high and consistent returns that are uncorrelated to markets and other managers
- Strategy targets 12% alpha at 14% volatility (0.85 reward-to-risk ratio)
- Strategy inception November 2010 (simulated back to June 1992)
- $84 billion in Pure Alpha strategies

Diversified Alpha Bets Drive Return - and Risk Control



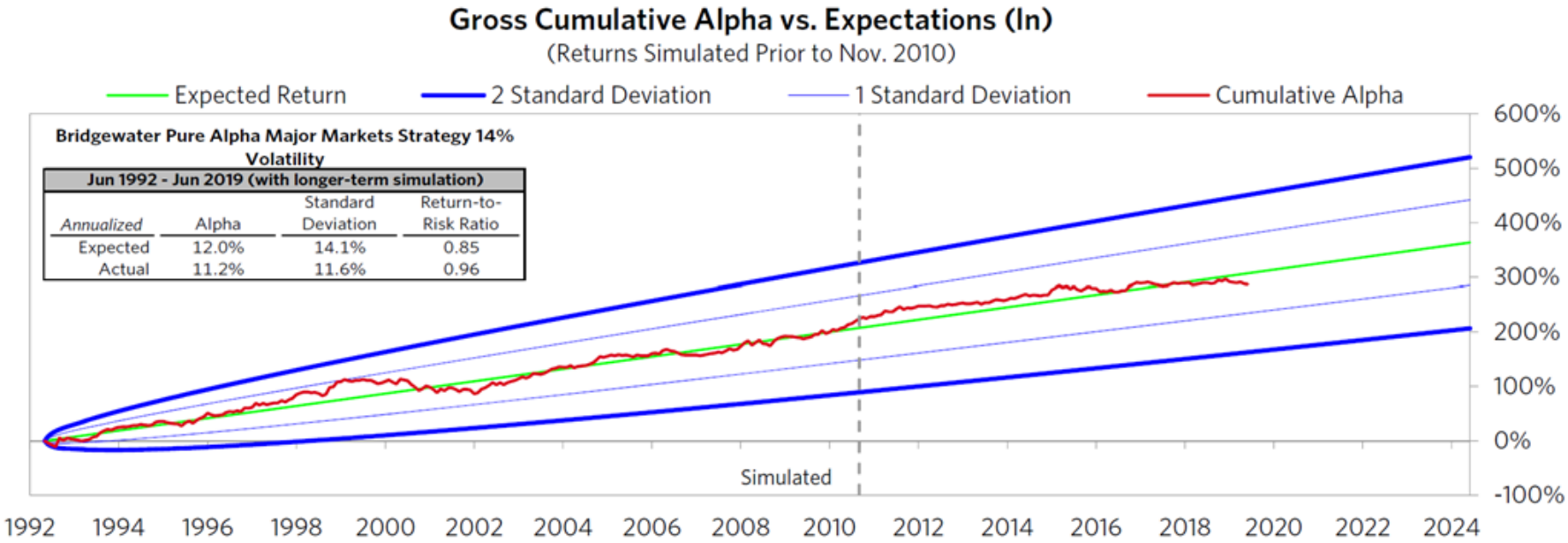
Diversification of Active Opportunities

Long Term Alpha Exposure by Market

1 AUS LR	19 GBR IL Bonds	37 EUR Equity Diff	55 TRYvsUSD
2 EUR LR	20 USA IL Bonds	38 GBR Equity Diff	56 AUDvsUSD
3 JPN LR	21 Dev. Sovereign Credit	39 JPN Equity Diff	57 CADvsAUD
4 GBR LR	22 USA Corporate Credit	40 KOR Equity Diff	58 CADvsEUR
5 USA LR	23 EUR Corporate Credit	41 SWE Equity Diff	59 CADvsUSD
6 EUR SR	24 AUS Equity	42 TAI Equity Diff	60 CHFvsEUR
7 GBR SR	25 CAN Equity	43 USA Equity Diff	61 CHFvsUSD
8 USA SR	26 EM Equity	44 Aluminum	62 EURvsAUD
9 AUS LR Diff	27 EUR Equity	45 Copper	63 EURvsGBP
10 CAN LR Diff	28 GBR Equity	46 Crude Oil	64 EURvsUSD
11 EUR LR Diff	29 JPN Equity	47 Gold	65 GBPvsUSD
12 GBR LR Diff	30 KOR Equity	48 Natural Gas	66 JPYvsAUD
13 JPN LR Diff	31 SWE Equity	49 BRLvsUSD	67 JPYvsEUR
14 USA LR Diff	32 TAI Equity	50 KRWvsUSD	68 JPYvsUSD
15 EUR SR Diff	33 USA Equity	51 MXNvsUSD	69 SEKvsEUR
16 GBR SR Diff	34 AUS Equity Diff	52 RUBvsEUR	
17 USA SR Diff	35 CAN Equity Diff	53 RUBvsUSD	
18 EUR IL Bonds	36 EM Equity Diff	54 TRYvsEUR	

Source: Bridgewater Associates

Pure Alpha Major Markets 14% Vol



Source: Bridgewater Associates

Correlation of Pure Alpha Major Markets to Markets and Managers

(Returns Simulated Prior to Nov. 2010)

CORRELATION TO MARKETS	
Pure Alpha Major Markets 14% Strategy	**Correlation**
vs. Bloomberg Barclays U.S. Aggregate	0.05
vs. S&P 500	0.11
vs. Russell 2000	0.09
vs. Citi WGBI U.S.	0.06
vs. MSCI EAFE Unhedged	0.18
vs. Bloomberg Barclays TIPS (since Mar-97)	0.10
vs. GSCI	0.06
Average	**0.09**

Net of Fees Excess Returns Jun-1992 to Jun-2019

CORRELATION TO ALTERNATIVE MANAGERS	
Pure Alpha Major Markets 14% Strategy	**Correlation**
vs. Convertible Arbitrage	0.02
vs. Emerging Markets	0.03
vs. Equity Market Neutral	0.04
vs. Event Driven	0.03
vs. Fixed Income Arbitrage	0.00
vs. Fund of Funds	0.09
vs. Global Macro	0.07
vs. Multi-Strategy	0.05
vs. Long/Short Equity	0.06
Average	**0.04**

Net of Fees Excess Returns Jun-1992 to Mar-2019

CORRELATION TO TRADITIONAL MANAGERS	
Pure Alpha Major Markets 14% Strategy	**Correlation**
vs. U.S. Equities	-0.01
vs. Global Equities	-0.01
vs. U.S. Fixed Income	-0.01
vs. Global Fixed Income	0.02
Average	**0.00**

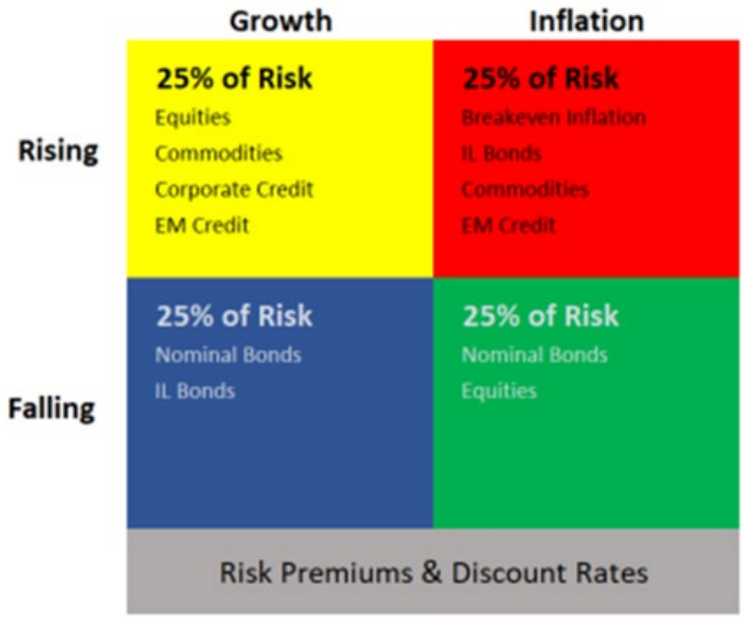
Net of Fees Excess Returns Jun-1992 to Mar-2019

Source: Bridgewater Associates

All Weather Strategy

- Designed to perform well across different economic environments and achieve the highest possible return-to-risk ratio for a strategic portfolio
- Strategy targets 0.60 reward-to-risk ratio, or 6% excess over cash at 10% volatility
- Strategy inception June 1996 (simulated back to January 1970)
- $54 billion in All Weather strategy

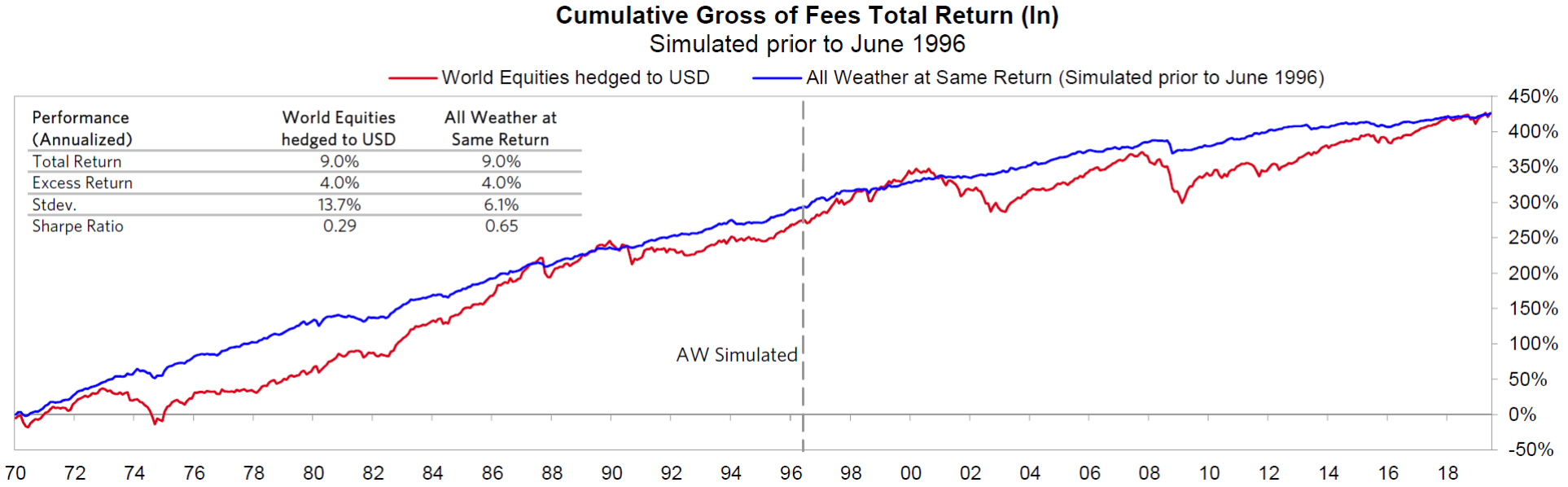
Balanced Allocation to Assets With Structurally Offsetting Biases to Growth, Inflation



Source: Bridgewater Associates

All Weather Strategy

Strategy Simulation: World Equities vs. All Weather at Same Return



Strategy Net of Fees Performance

All Weather Strategy Performance (Net of Fees)

	Total Return in USD
Last 1 Year	6.5%
Last 3 Years	6.4%
Last 5 Years	3.6%
Last 7 Years	4.3%
Last 10 Years	8.0%

Annualized Returns (Jun-96 through Jun-19)

All Weather Simulation Performance (Net of Fees)

	Total Return in USD
Last 1 Year	6.2%
Last 3 Years	5.9%
Last 5 Years	3.3%
Last 7 Years	4.6%
Last 10 Years	8.1%

Annualized Returns (Jan-70 through Jun-19)

Net Since Inception Jun-96 through Jun-19

	Total Return in USD
Annualized Return	7.7%
Standard Deviation	9.8%
Sharpe Ratio	0.56

Net Since Inception Jan-70 through Jun-19

	Total Return in USD
Annualized Return	11.9%
Standard Deviation	10.1%
Sharpe Ratio	0.68