

Investment Portfolio

for

High Risk Premium Programme (HIRP)

Feb 15, 2021

Portfolio Construction

- 4 Strategic Portfolio
- 5 Tactical Adjustments – Trend Phases
- 6 Tactical Adjustments – Profit Protection Overlay

Strategic Portfolio

- 8 Assumptions/Objectives/Other Inputs
- 9 Allocations
- 11 Expected Short-term Return Distribution

Tactical Adjustments – Trend Phases

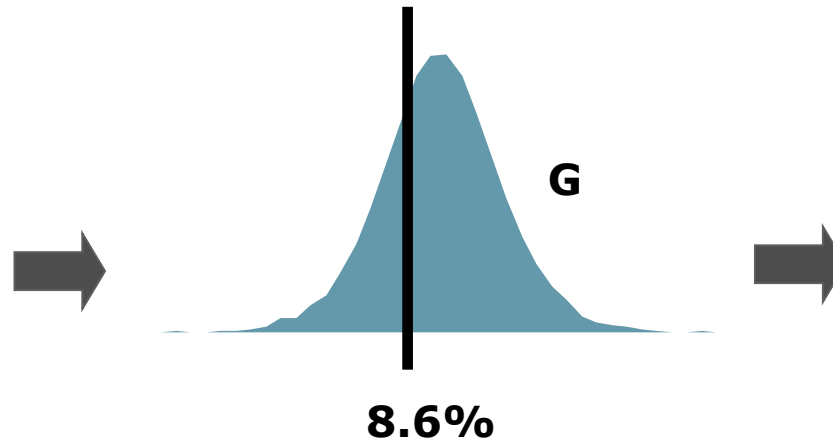
- 13 Trend Phases and Clusters

Portfolio Construction

Inputs

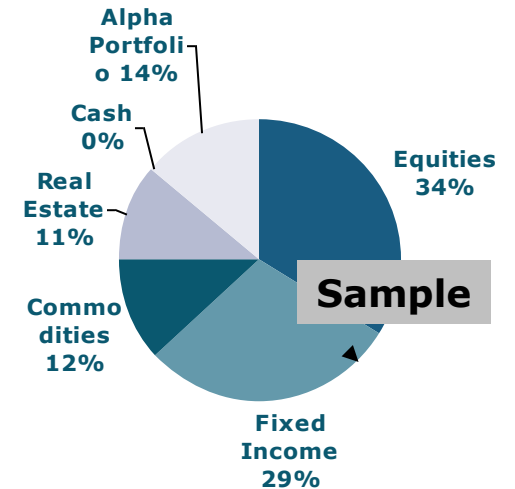
- Asset class return distributions, empirical.
- Correlation estimates between all assets.
- Objective
 - Minimum Return Target ("MRT").
 - Long-term return of global equities, 8.6% p.a.
- Constraints
 - Maximum leverage and borrowing.
 - Minimum allocations.

Process



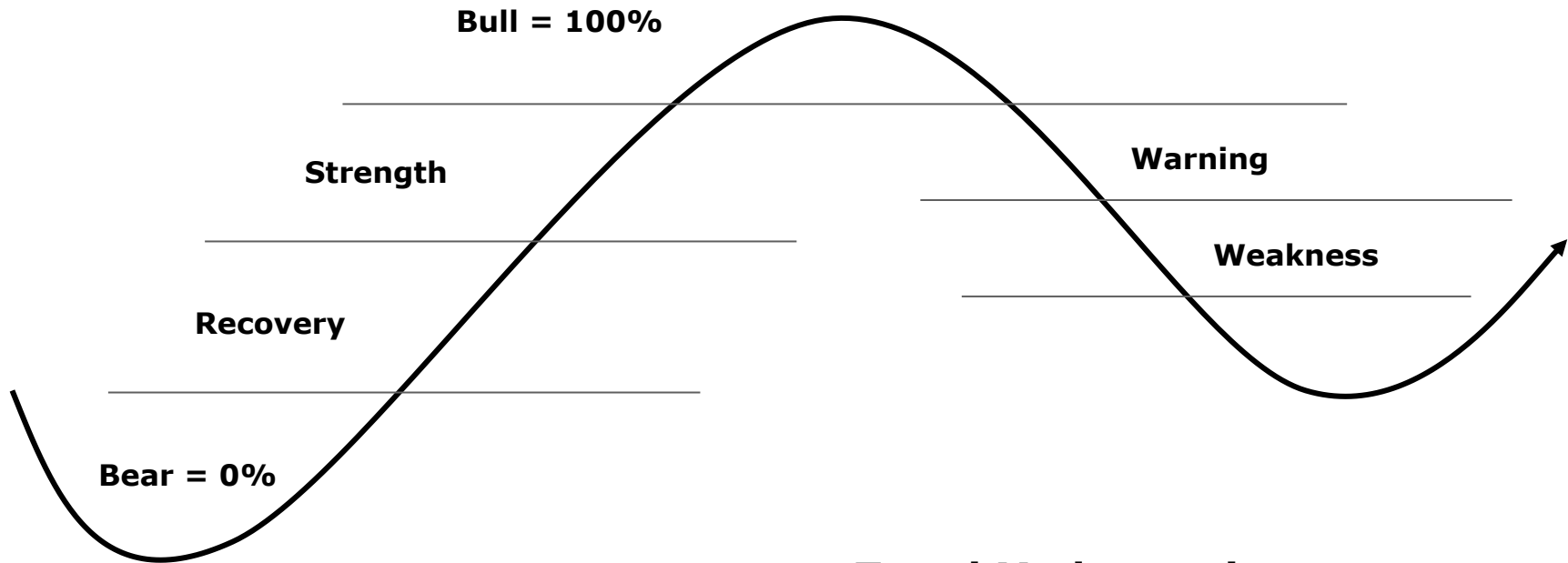
- Gain/Loss Optimization
 - Returns the portfolio that maximizes the probability of achieving a return above the Minimum Return Target.

Outputs

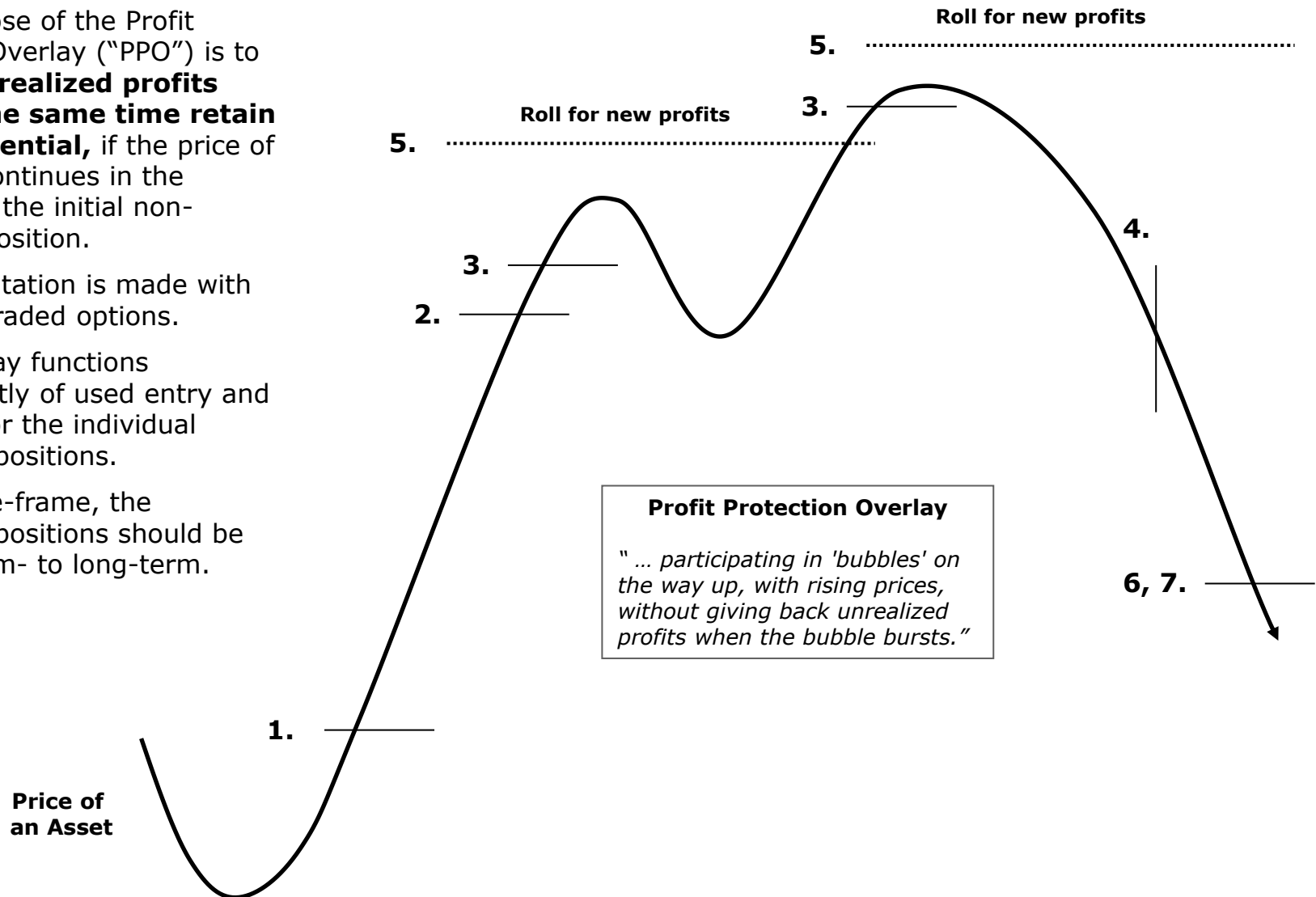


- Portfolio weights; how much?
 - Expectation.
 - Probability of outperformance.
 - Risk of loss.
 - ...

Price cycle for an asset



- The purpose of the Profit Protection Overlay (“PPO”) is to **protect unrealized profits while at the same time retain upside potential**, if the price of the asset continues in the direction of the initial non-protected position.
- Implementation is made with exchange-traded options.
- The overlay functions independently of used entry and exit rules for the individual underlying positions.
- As to time-frame, the underlying positions should be held medium- to long-term.



Strategic Portfolio

Objectives

- Maximize the Gain/Loss of the distribution of expected return. Gain in the meaning of surpassing the Minimum Return Target, loss in the meaning of not.

Constraints

- Minimum Return Target equal to long-term return of global equities – currently 8.6% p.a.
- Maximum leverage at 50%.
- Maximum borrowing at 50%.
- Minimum allocation to every Asset and Asset Class 3%.

Investment Universe

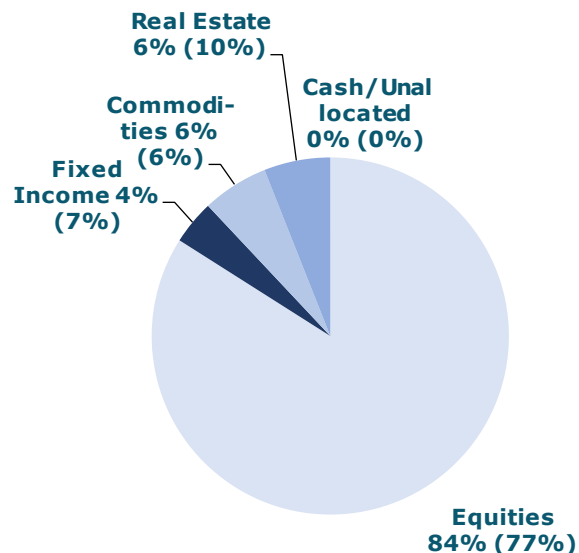
- Viable Asset Categories
 - Equities, Fixed-income, Commodities, Real Estate, Cash.
- Assets and Asset Classes
 - 18 different, all with **high risk premium**.
- Pure beta exposure in the portfolio, i.e. no alpha components.
- Exchange-traded options, with adequate liquidity, should be available for all assets and asset classes.

Other

- Cost of funding
 - 1.6% p.a.

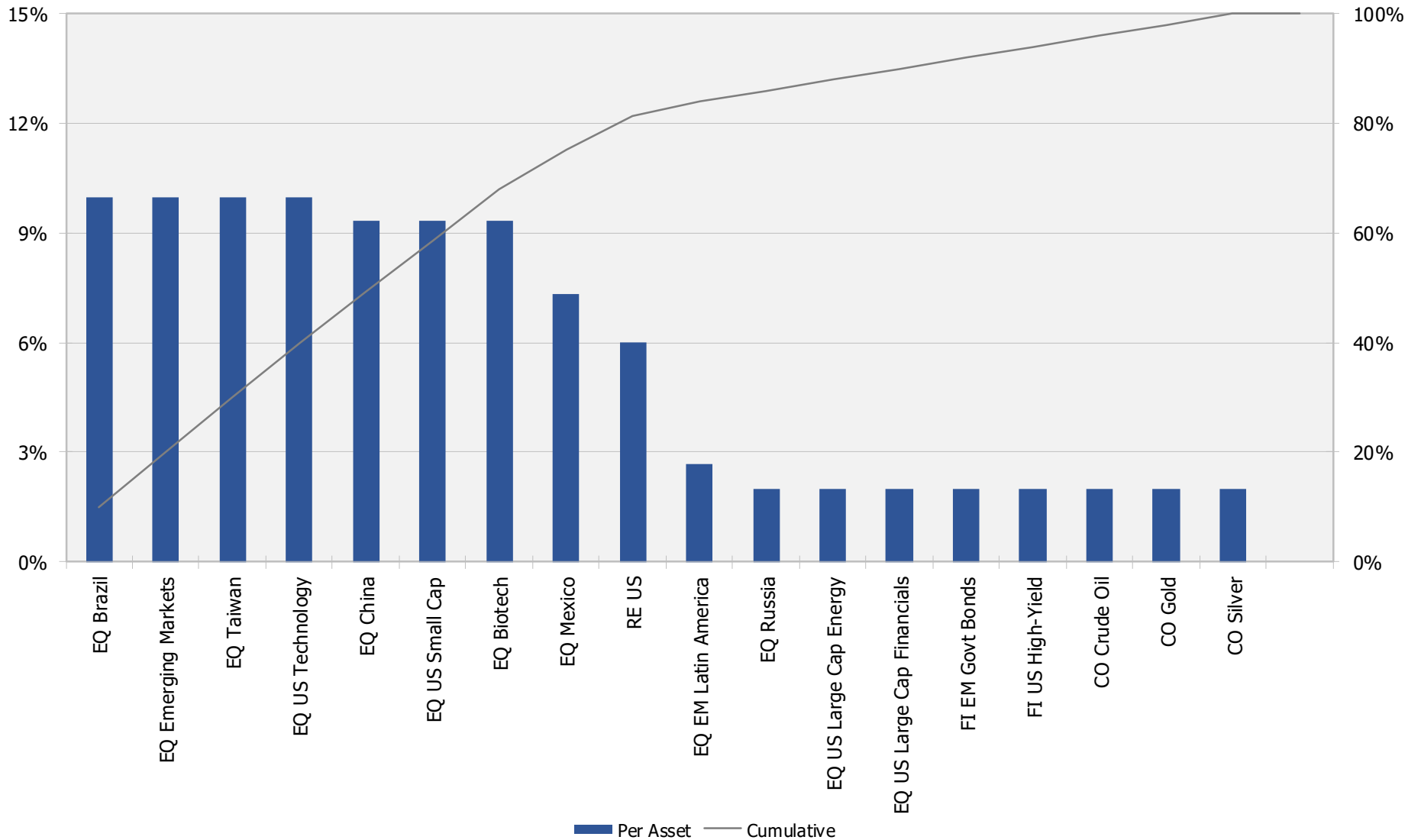
Allocation % Trading Level

Previous allocation in parantheses

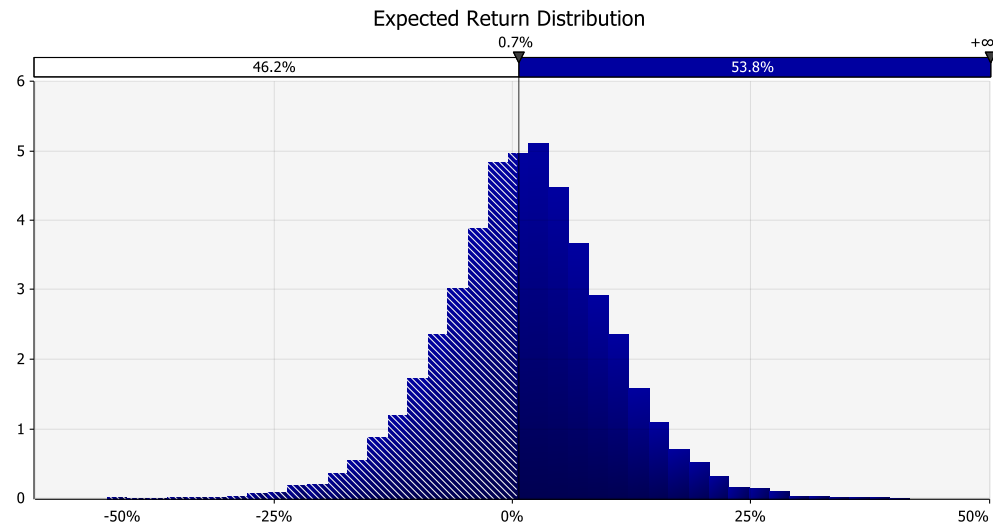


Asset Category and Asset Class	Allocation % NAV	Current Allocation % Trading Level	Change in Allocation	Previous Allocation % Trading Level
Total	150	100		100
Equities	126	84	+7	77
EQ Brazil	15	10	+1	9
EQ China	14	9	+7	2
EQ EM Latin America	4	3	+1	2
EQ Emerging Markets	15	10	+0	10
EQ Mexico	11	7	-3	10
EQ Russia	3	2	+0	2
EQ Taiwan	15	10	+0	10
EQ US Large Cap Energy	3	2	+0	2
EQ US Large Cap Financials	3	2	+0	2
EQ US Small Cap	14	9	-1	10
EQ US Technology	15	10	+0	10
EQ Biotech	14	9	+1	9
Fixed Income	6	4	-3	7
FI EM Govt Bonds	3	2	+0	2
FI US High-Yield	3	2	-3	5
Commodities	9	6	+0	6
CO Crude Oil	3	2	+0	2
CO Gold	3	2	+0	2
CO Silver	3	2	+0	2
Real Estate	9	6	-4	10
RE US	9	6	-4	10
Cash	0	0	+0	0
CA Cash	0	0	+0	0

Allocations, Sorted

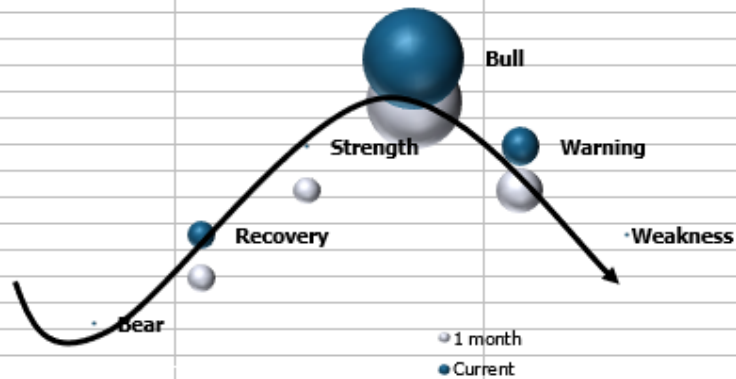


- Outlook is 1 month.
- To note
 - The probability of surpassing the Minimum Return Target is roughly 54%.
 - The probability of actually losing money (the return ending up being below 0%) on a monthly basis is 43%.
 - **Gain/Loss 1.2.**
- Statistical moments
 - Mean 1.4%.
 - Standard deviation 8.8%.
 - Skewness -0.1.
 - Kurtosis 3.9.



Tactical Adjustments – Trend Phases

Bear 0%	Recovery 6%	Strength 0%	Bull 83%	Warning 11%	Weakness 0%
	CO Crude Oil		EQ US Small Cap EQ US Large Cap Energy EQ China EQ Emerging Markets EQ Biotech EQ Taiwan EQ US Technology EQ US Large Cap Financials CO Silver RE US EQ Russia EQ EM Latin America EQ Brazil FI US High-Yield EQ Mexico	FI EM Govt Bonds CO Gold	



CO = Commodities, EQ = Equities, FI = Fixed Income, RE = Real Estate, AP = Alpha Strategies