Risk Parity & Liability Driven Investing

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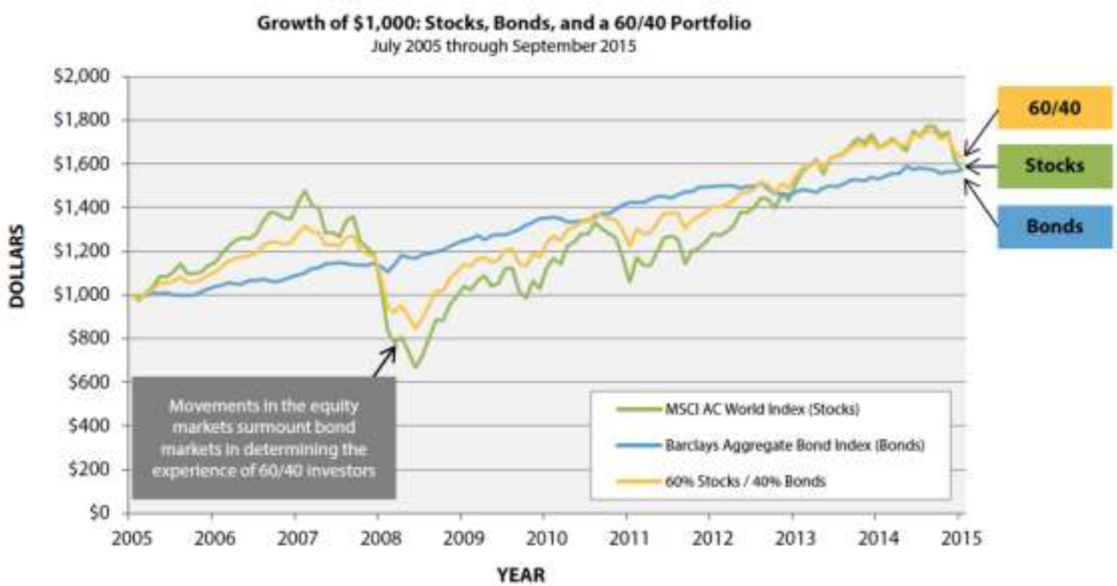
WHAT IS RISK PARITY INVESTING

- Risk Parity is a core, global asset allocation framework that seeks to:
  - Equally weight risk within and across asset classes
  - Allow investors to target a specific level of investment risk
  - Utilize leverage to raise the expected rate of return up to the level of a typical institutional portfolio

EQUITY RISK DOMINATES TOTAL RETURN INVESTING

- A traditional asset allocation framework allocates 60% of an investor's portfolio to stocks and 40% to bonds. Historically, a 60/40 portfolio has had greater dependence on equity risk than dollar allocation implied
- For purposes of this presentation, a 60/40 portfolio is represented by 60% MSCI AC World Index and 40% Barclays Aggregate Bond Index

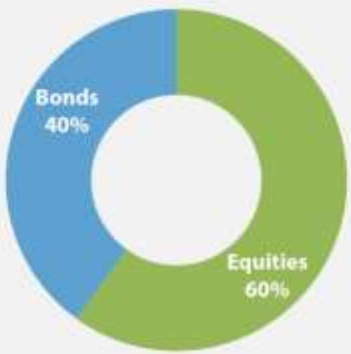


Source Salient

PACIFIC INCOME ADVISERS

- **60/40 Portfolio:** A traditional asset allocation framework that allocates 60% of an investor's portfolio to stocks and 40% to bonds.

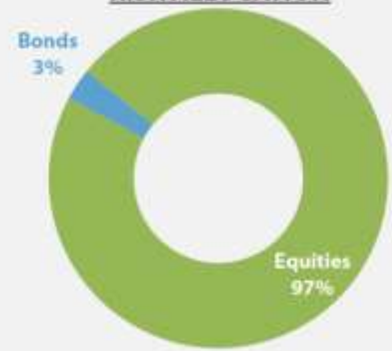
TRADITIONAL 60/40 PORTFOLIO BY
DOLLAR ALLOCATION



PRO

- **Systematic rebalancing over time**, meaning adjustments are made to portfolio to counteract the fact that different assets have performed differently and now comprise different percentages of portfolio than they were intended to

TRADITIONAL 60/40 PORTFOLIO BY
RISK ALLOCATION



CON

- **Often dominated by Equity Risk**, which is the risk that one's investments will depreciate due to stock market dynamics, resulting in loss of investment value

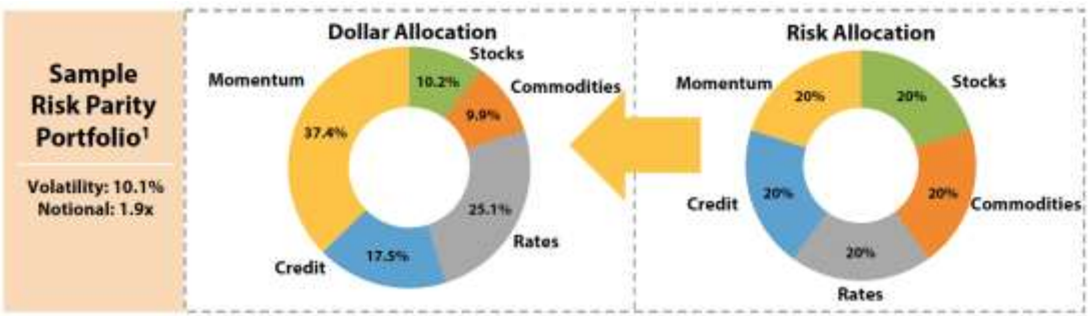
The calculation of risk contribution from equities and bonds is based on modern portfolio theory's calculation of portfolio risk where the contribution of equities and bonds to the portfolio risk are calculated based on the dollar weights, standard deviation, and correlation of equities and bonds.

Source Salient For illustrative purposes only.

RISK PARITY PORTFOLIOS AIM TO DIVERSIFY RISK

- A traditional 60/40 Portfolio targets a specific dollar allocation and allows the risk allocation to float.

- The risk parity investment process starts with a target risk allocation and then allows the dollar allocation to adjust to maintain the risk target.

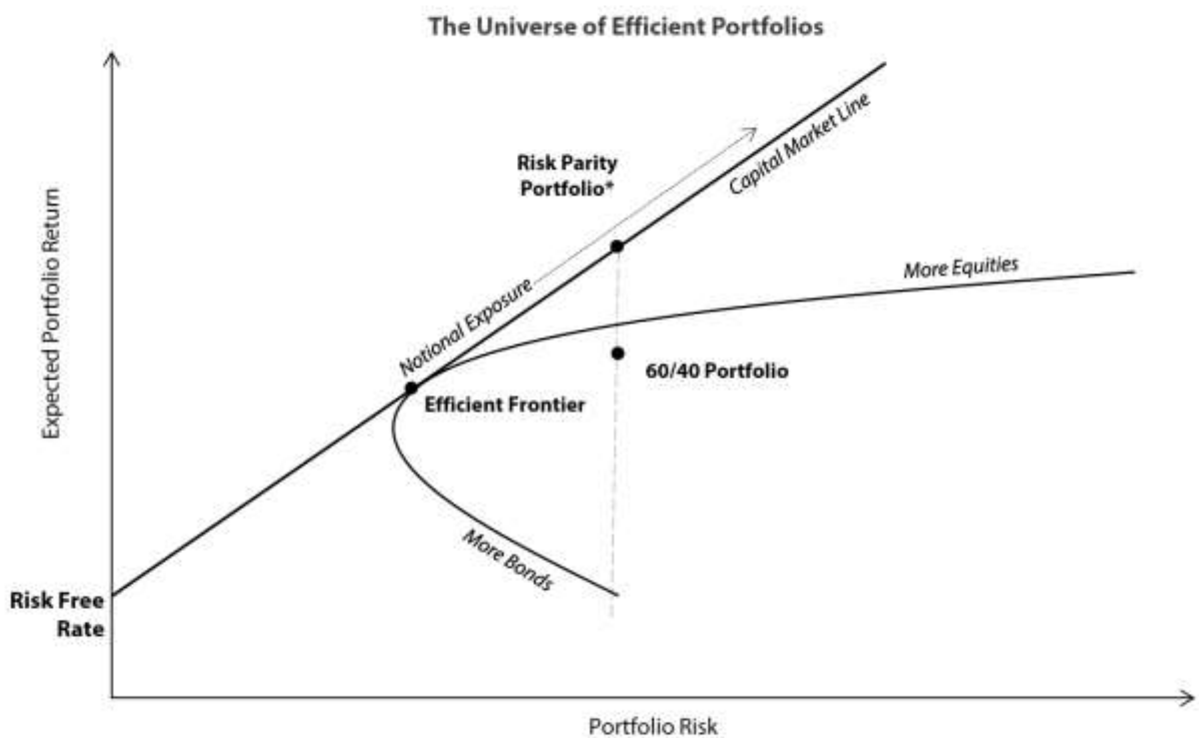


Data shown here represents the historical data of the indices selected to represent each asset class.
[1]The asset allocation percentages have been rounded for illustrative purposes.

Source Salient

RISK PARITY USE OF LEVERAGE

- Borrowing offers the opportunity to increase a portfolio's expected return a the same level of risk.



There can be no assurance that a levered or unlevered Risk Parity Portfolio can provide higher level returns to any other comparable portfolio, including a 60/40 portfolio, at the same level of risk.

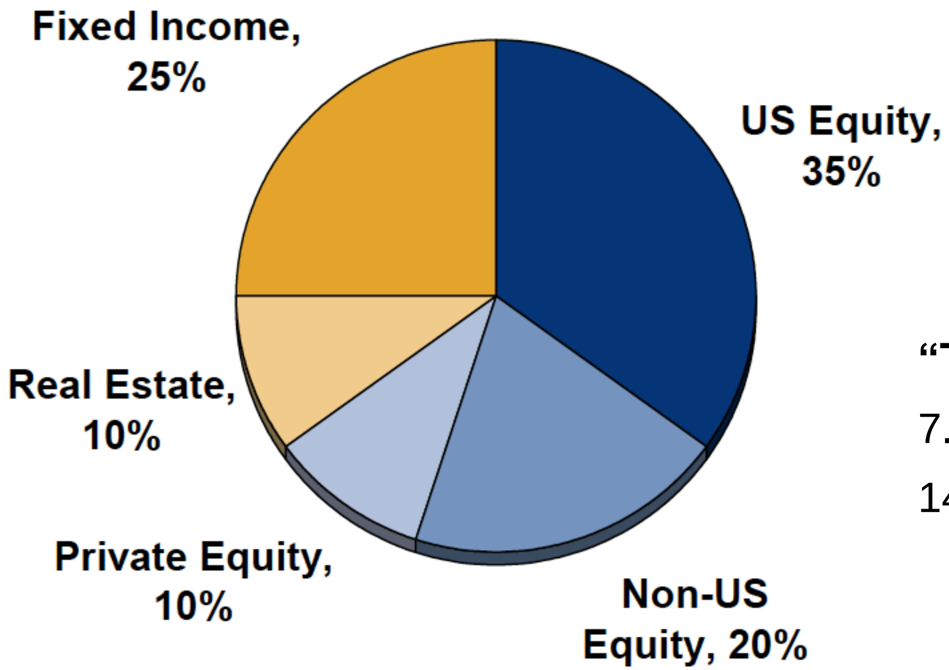
Source Salient

WHAT IS LIABILITY DRIVEN INVESTING

- Liability-driven investing is a strategy based on the cash flows needed to meet current and future liabilities, typically where these liabilities are largely predictable.
  - Most commonly used by corporate pension funds
  - Dedicated portfolios can be used to fund business projects
  - Individuals planning for retirement or college funding

TRADITIONAL TOTAL RETURN MODEL

- Asset allocation and performance measurement is all relative to selected benchmark indices.



"Total Return"

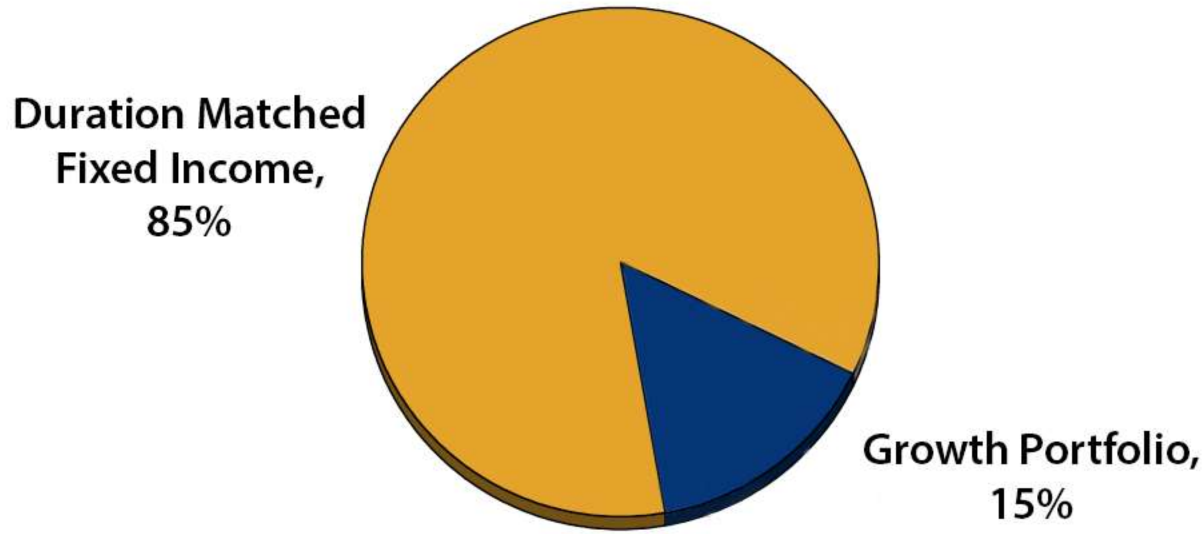
7.50% Projected Return

14.00% Standard Deviation

Source Callan

LDI MODEL

- Asset allocation and performance measurement is solely needs based.
- Portfolio rebalancing to fully hedge future liability.



Source Callan