## Investing ... I

## The 5-Step Investment Process

## 1. Personal Investor Profile, PIP

Answers the question "Who am I?" First know thyself!
Personal data: Age, Marital status, Children, Home ownership, etc.
Time Horizon: Short-term or long-term goals, Planned retirement date, Legacy, etc.
Risk tolerance: Eat well or sleep well? Questionnaires on most financial websites.
Tax status: Federal and state tax brackets, Alternative minimum tax.

## 2. Investment Policy Statement, IPS

Answers all the "What? Where? When? Why? and How?" questions
Written agreement on the details of how the portfolio will be managed
General philosophy and objectives
Passive strategy: Which asset classes, Asset allocation policy, When to rebalance
or ... Active strategy: Which securities, Rules for when to buy, when to sell
Prohibitions, if any; e.g. no buying on margin, no short sales, no alcohol/tobacco stocks, etc.

## 3. Design the portfolio

For passive investors: Pick the specific index funds for the asset classes and the allocation defined in your IPS above.
For active investors: Pick the specific stocks and bonds which match the parameters defined in your IPS above.

## 4. Implement the portfolio

Go online or call your broker
Purchase all the securities selected in the portfolio designed in Step 3 above.

## 5. Review as appropriate

For passive investors: Review annually and rebalance back to the asset allocation defined in your IPS above
For active investors: Follow the trading rules defined in your IPS above.
Note: Your PIP and IPS can be very simple documents, perhaps half a page each. However they should be written down. When the market crashes (not if !) refer back to your written documents instead of panicking.
Don't even think of skipping Steps 1 and 2 above and jumping straight into Steps 3, 4 and 5 .
You can do all this yourself, but you may prefer to seek professional help. If so, the portfolio manager you hire should spend at least an hour interviewing you before working with you to write an appropriate PIP and IPS.

## Asset Classes

## Fixed income:

Cash and cash equivalents, money market funds, short-term CDs, T-bills, etc.
Very low return, but also low risk: no negative years
Bonds, Bond funds, etc.
Higher return, but down in 2 years out of past 20.

## Equities:

Stocks and stock mutual funds, ETFs, Commodities, Real estate and REITs, etc.
Higher long-term returns than bonds, but down in 4 or 5 years out of past 20.

## Modern Portfolio Theory, MPT

Developed by Harry Markowitz in 1952, also Bill Sharpe et al over the following decades. Recognizes that the lack of correlation between certain assets is a powerful advantage
Building a portfolio of uncorrelated assets minimizes the risk for a given return,
or maximizes the return for a given risk.

## The Brinson Study

Survey of 82 major pensions in 1986, updated in 1991
Asset allocation decisions account for $>91 \%$ of variance in portfolio performance Stock picking accounts for $<5 \%$, and market timing for $<2 \%$.

Asset Class Correlations: May 2009 thru September 2019 \{PortfolioVisualizer.com\}

|  |  | BND | $\underline{\text { VTI }}$ | $\underline{\text { VEU }}$ | $\underline{\text { VNQ }}$ | DBC |
| :--- | :--- | :---: | :--- | :---: | :---: | :---: |
| Vanguard Total Bond Market | BND | - | -0.17 | -0.04 | 0.31 | 0.55 |
| Vanguard Total Stock Market | VTI | -0.17 | - | 0.85 | 0.65 | -0.14 |
| Vanguard All-World Ex US | VEU | -0.04 | 0.85 | - | 0.58 | 0.63 |
| Vanguard REIT | VNQ | 0.31 | 0.65 | 0.58 | - | 0.23 |
| Invesco DB Commodity Tracking | DBC | -0.14 | 0.55 | 0.63 | 0.23 | - |

Simple Portfolios: Data from January 1994 thru September 2019 (>25years)

|  | Tot.Bond.Mkt | Tot.Stock.Mkt | Portfolio 1 | Portfolio 2 | Portfolio 3 | Portfolio 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average Return | 5.1\% | 9.4\% | 5.7\% | 7.7\% | 8.9\% | 9.5\% |
| Standard Deviation | 3.6\% | 14.8\% | 3.5\% | 7.5\% | 11.8\% | 11.6\% |
| Sharpe Ratio | 0.76 | 0.53 | 0.92 | 0.72 | 0.58 | 0.64 |
| Best year | 18.2\% 1995 | 35.8\% 1995 | 19.9\% 1995 | 27.0\% 1995 | 32.3\% 1995 | 29.8\% 1995 |
| Worst year | -2.7\% 1994 | -37.0\% 2008 | -2.7\% 1994 | -16.0\% 2008 | -28.6\% 2008 | -30.1\% 2008 |
| Max draw-down | -5.0\% | -50.9\% | -6.0\% | -25.2\% | -41.2\% | -43.6\% |
| \# Down years | 3 | 5 | 2 | 5 | 5 | 5 |

where Portfolio $1=90 \%$ Tot.Bond $+10 \%$ Tot.Stock (Very conservative)
Portfolio $2=50 \%$ Tot.Bond $+50 \%$ Tot.Stock (Moderate)
Portfolio $3=20 \%$ Tot.Bond $+80 \%$ Tot.Stock (Aggressive)
Portfolio $4=20 \%$ Tot.Bond $+40 \%$ LargeCap $+30 \%$ MidCap $+10 \%$ REIT
Vanguard Lazy Portfolios \{Google: Lazy portfolios\}
Paul Farrell \{Marketwatch.com\}: Portfolios with 2 to 9 index funds; 10yr CAGR $=6.0 \%-9.5 \%$.
Rick Ferri, Bill Schulteis, Scott Burns, William Bernstein, etc.
Taylor Larimore, The Bogleheads' Guide to the Three-Fund Portfolio
40\% VBMFX, BND Vanguard Total Bond Market Index
42\% VTSMX, VTI Vanguard Total Stock Market Index
18\% VGTSX, VXUS Vanguard Total International Index

Matt Hougan's really cheap 6-asset portfolio
$\begin{aligned} \text { 15\% SCHZ } & \text { Schwab Aggregate Bond } \\ 40 \% \text { SCHB } & \text { Schwab U.S. Broad Equity } \\ \text { 30\% SCHF } & \text { Schwab International Equity } \\ \text { 5\% SCHE } & \text { Schwab Emerging Markets Equity } \\ \text { 5\% SCHH } & \text { Schwab U.S. REIT } \\ \text { 5\% DJCI } & \text { UBS Commodity ETN }\end{aligned}$

Expense Ratio 0.04\% 0.03\% 0.06\% 0.13\% 0.07\%
$\underline{0.50 \%} \quad$ Weighted total $=0.07 \%$

Next month, November 13 ${ }^{\text {th }}, 2019$
Investing...II Efficient market hypothesis, Capital asset pricing model, Can you beat the market? My email: fred.svaaii@gmail.com

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