5/6/2019 - 6/7/2019

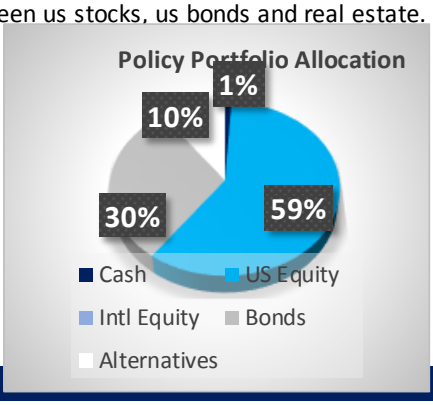
Sim Investment Management

Investment Strategy & Policy Portfolio

Investment Strategy I am planning to divide my portfolio between us stocks, us bonds and real estate.

- **Overall Risk Objective** High
- **Overall Return Objective** 8%
- **Primary Goal** Growth
- **Reason** College tuition and related expenditu
- **Constraints** 10 years time horizon, low taxes from portfolio gains.

Time horizon of 10 years, bonds investments at preferential longer term rate and REITs for the lowest tax burdens relative to their interest income.



Strategy & Implementation

1) Risk Assesment: Willingness and ability to take risk. I would accept 25% of volatility. By the same token, I would require at least 15 % returns on my investments.
I will be willing to take some risk by investing in US Stock markets. I will offset that risk by investing in bonds.
2) Return objectives
I am expecting to get satisfactory returns on real estate and US stock markets provided I will diversify the stocks with negative correlations.

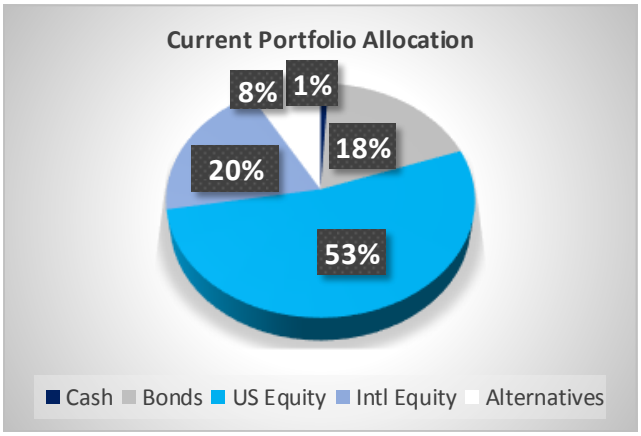
Tactical Shifts / Macro Environment & Current Portfolio

Tactical Shifts

20% of the portfolio will be realocated to Int Equity. Bonds will be reduced by 12% and US

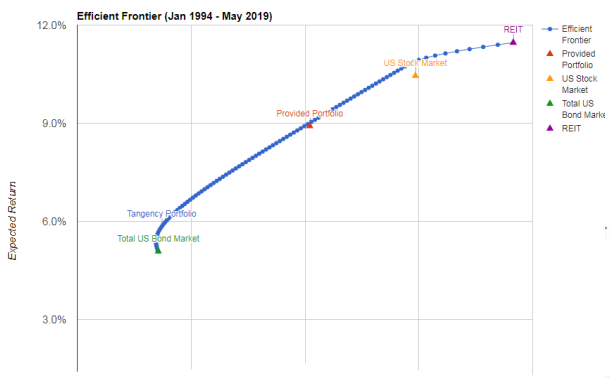
Macro Environment

The inflation is on steady 3 % per year, GDP is higher than few years ago. The unemployment has been at 4.8%. International Trade Wars adding more uncertainty on major stock markets. Brexit and its follow up on the EU markets.

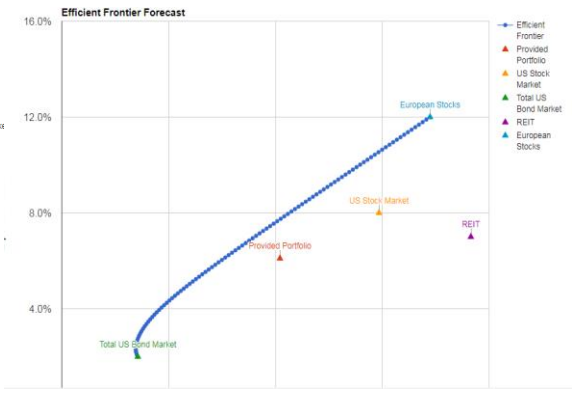


Efficient Frontiers

Historical Efficient Frontier



Forecasted Efficient Frontier



Sim Investment Management

Behavioral Biases

Confirmation Bias - we often pay more attention to information that supports our views, meanwhile ignoring others' opinions. In order to amend this situation, I would look for contradictory information and try to understand its main support.

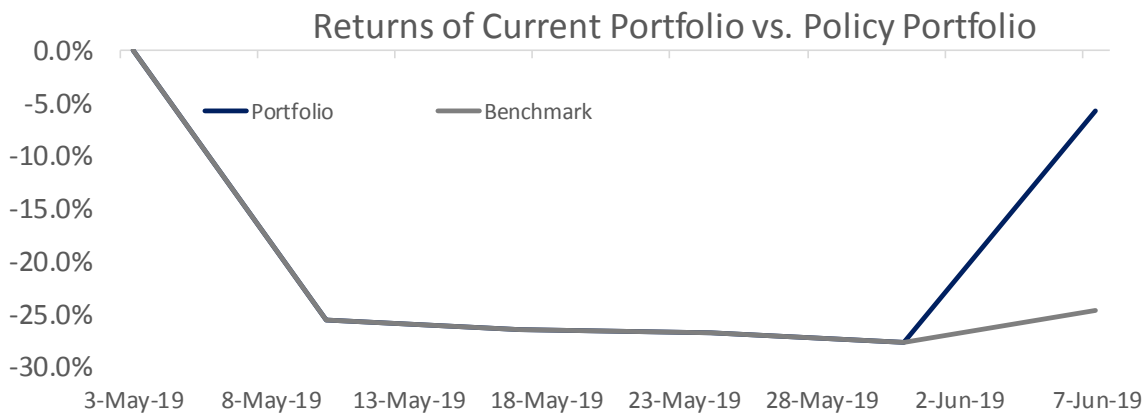
Hindisght Bias- describes a belief in which an investor is convinced past event could have been predicted , even though it could not have been. I would look for ways to find reasons why the past event occured along with information to prove it to myself that I could have not possibly forsee it with high accurracy. Uncertntainty is a part of investment and it will always remain that way.

Trend chasing bias-past performance used to justify future performance. Nothing is linear, and the more information we can combine , the more accurate prediction we can get , but there is no certainty , since there are

Performance & Risks

Total Return:	-5.8%	**Portfolio Standard Deviation:**	19.8%
Policy Portfolio Return:	-24.7%	**Correlation with Benchmark:**	0.85
+ / - Performance:	18.9%	**Beta (Relative to Benchmark):**	1.42

Return vs. Benchmark



Performance Discussion

Document your performance analysis here. Consider the following.

-Return and risk of the Current Portfolio
The portfolio return of 8.3% in the week 5 was not sufficient to my previous expectations.
-Return and risk od the Current Portfolio relative to the Benchmark(Policy Portfolio)
There should be more investment made in International Equities which soared above 100% during the time period.
-How asset class returns performed relative to expectations
They outpreformed expected returns over the time period.
-What were your biggest winners and losers and why?
Intl Equity were the biggest winners and US bonds performed the worst.
-Lessons learned and any plans for rebalancing going forward.
5 weeks was too short period of time to make futher gains on the portfolio.
European equities should have more portfolio allocation.

Sim Investment Management

Reference Page
Policy Portfolio

Policy Weight	Ticker	Name	Asset Class	Avg. Weight	Historical Return	Standard Deviation	Expected Return	Actual Return	Annualized Return
1%	Cash	Cash	Cash	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%
59%	VTI	Vanguard Total Stock Mrkt	US Equity	71.0%	10.4%	15.1%	8.0%	-3.1%	-27.7%
30%	AGG	iShares Core U.S. Aggregate	Bonds	11.4%	5.3%	3.6%	2.0%	-51.5%	-99.9%
10%	IYR	iShares US Real Estate	Alternatives	12.5%	11.9%	19.7%	7.0%	1.7%	19.2%
100%	**<-- Policy Portfolio Total Weighting**			96.3%	**<-- Actual Policy Portfolio Weighting**				

Tactical Positions

	Ticker	Name	Asset Class	Avg. Weight	Historical Return	Standard Deviation	Expected Return	Actual Return	Annualized Return
	EZU	iShares Eurozone	Intl Equity	3.7%	8.3%	17.7%	12.0%	114.0%	272723.5%
				3.7%	**<-- Actual Tactical Positions Weighting**				

Policy Portfolio

Instructions:

1) Beginning in Cell E21, select the Asset Class - (Cash, US Equity, Intl Equity, Bonds, Alternatives)
2) Cash default is 1% to allow for liquidity in trading. You may increase the cash allocation if you need more liquidity (Cell G20)
3) Chose the Category within the Asset Class
4) Typed target weight for each Asset Class and Category
5) If you want to edit selection, delete all the input data in the row and re-enter

Please enter the Monday starting Module 1 - Format (MM/DD/YYYY). If your Excel is not set up for US date format, please see instructions to the right.

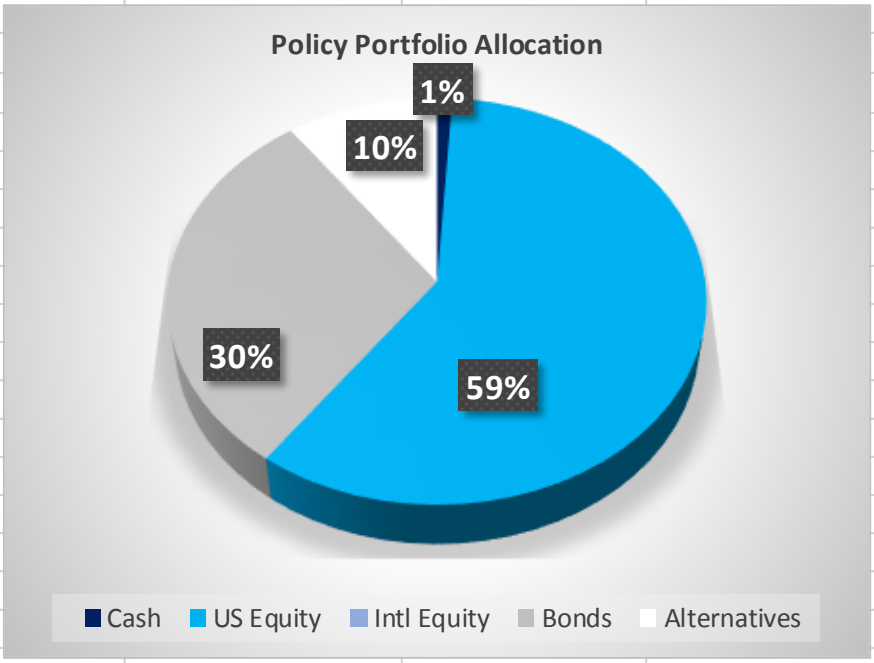
Monday of Portfolio Begin Date:	5/6/2019
- Overall Risk Objective	High
- Overall Return Objective	8%

Cash is automatically set to 1%, but the cell is changeable.

Inputs

Assets	Asset Class	Category	Weighting	ETF-Used	Name
	Cash	Cash	1%		
Asset 1	US_Equity	US Stock Market	59%	VTI	Vanguard Total Stock Mrkt
Asset 2	Bonds	Total Bond Market	30%	AGG	iShares Core U.S. Aggregate
Asset 3	Alternatives	REIT	10%	IYR	iShares US Real Estate
Asset 4					
Asset 5					
Asset 6					
Asset 7					
Asset 8					
Asset 9					
		Total	100%		

Correlations	Column1	Column2	Column3
Asset	US Stock Market	Total Bond Market	REIT
US Stock Market	1	0	0.57
Total Bond Market	0	1	0.18
REIT	0.57	0.18	1
Based on monthly returns from 1994 to 2016			



Total Policy Portfolio	
Asset Class	Weighting
Cash	1%
US Equity	59%
Intl Equity	0%
Bonds	30%
Alternatives	10%

Risk & Returns

*** Portfolio Visualizer website: https://www.portfoliovisualizer.com/

Use PV Data to fill in:
1) Historical Returns (CAGR)
2) Standard Deviation
3) Sharpe Ratio

Using your own forecasts, put the expected return for each asset class in your portfolio.

Change the dates to match the Portfolio Visualizer dataset (L8).

Paste Policy Portfolio Correlation Matrix Below (Portfolio Visualizer)

Correlation Matrix

Correlatio	Column1	Column2	Column3
Asset	US Stock M	Total Bon	REIT
US Stock M	1	0	0.57
Total Bon	0	1	0.18
REIT	0.57	0.18	1

Based on monthly returns from 1994 to 2016

Policy Portfolio

#	Asset Class	Category	Fund Type	Ticker	Average Weight	Historical 1994-2019 Returns	Standard Deviation	Sharpe Ratio	Expected Return	Actual Returns	Annualized Returns
			Overall Portfolio								
1	US Equity	Broad Mrkt	Broad Mrkt	VTI	71.0%	10.4%	15.1%	0.69	8.0%	-3.1%	-27.7%
2	Bonds	Aggregate Bond	Aggregate Bond	AGG	11.4%	5.3%	3.6%	1.45	2.0%	-51.5%	-99.9%
3	Alternatives	REIT	Real Estate	IYR	12.5%	11.9%	19.7%	0.61	7.0%	1.7%	19.2%
4											
5											
6											
7											
8											
9											

Change the dates to match the Portfolio Visualizer dataset (L24). Example: 1994-2016

Expected Returns optional for New Tactical Positions.

New Tactical Positions

#	Asset Class	Category	Fund Type	Ticker	Average Weight	Historical 1994-2019 Returns	Standard Deviation	Sharpe Ratio	Expected Return	Actual Returns	Annualized Returns
			Overall Portfolio								
1	Intl Equity	Developed Mrkts	European Stocks	EZU	3.7%	8.3%	17.7%	0.47	12.0%	114.0%	272723.5%
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											

Note: If you only buy and sell Policy Portfolio assets, no "New Tactical Positions" will show up in the lower table.

Trades

Initial Cash Position For Trading	$ 990,000
Initial Additional Cash	$ 10,000

Module 1: For Policy Portfolio - Enter in Purchase Price Only

Policy Portfolio (Initial Trades)

Ticker	Name	Asset Class	Category	Buy/Sell	Transaction Date	# of Shares	Purchase Price	Date	Price	Sell Date	Sell Price	Value
	Cash	Cash										$ 9,968.77
VTI	Vanguard Total Stock Mrkt	US Equity	Broad Mrkt	Buy		3,917	$ 150.63	5/3/2019				(590,017.71)
AGG	iShares Core U.S. Aggregate	Bonds	Aggregate Bond	Buy		2,769	$ 108.34	5/3/2019				(299,993.46)
IYR	iShares US Real Estate	Alternatives	REIT	Buy		1,141	$ 87.66	5/3/2019				(100,020.06)

Module 2 & Beyond: For all trades after the initial portfolio, input the following:
- Ticker
- Buy/Sell
- Transaction Date
- # of Shares
- Price

Share Calculator

% Desired	Share Price	# of Shares to Buy / Sell
10.0%	$108.45	913

New Tactical Positions

Ticker	Name	Asset Class	Category	Buy/Sell	Transaction Date	# of Shares	Price	Purchase Date	Purchase Price	Sell Date	Sell Price	Transaction Value
	Cash	Cash										$ 9,967.37
EZU	iShares Eurozone	Intl Equity	Developed Mrkts	Buy	6/7/2019	2,825	$ 35.05	6/7/2019	$ 35.05			$ (99,016.25)
AGG	iShares Core U.S. Aggregate	Bonds	Aggregate Bond	Sell	6/7/2019	913	$ 108.45			6/7/2019	$ 108.45	$ 99,014.85

Price Inputs

Policy Portfolio							
		5/3/2019	5/10/2019	5/17/2019	5/24/2019	5/31/2019	6/7/2019
Ticker	Name	Begin	Week 1	Week 2	Week 3	Week 4	Week 5
VTI	Vanguard Total Stock Mrkt	150.63	145.00	144.00	143.00	142.00	146.00
AGG	iShares Core U.S. Aggregate	108.34	24.00	22.00	22.00	21.00	25.00
IYR	iShares US Real Estate	87.66	86.88	87.98	88.13	86.87	89.15

New Tactical Positions							
		5/3/2019	5/10/2019	5/17/2019	5/24/2019	5/31/2019	6/7/2019
Ticker	Name	Begin	Week 1	Week 2	Week 3	Week 4	Week 5
EZU	iShares Eurozone		74.00	72.00	73.00	74.00	75.00

Current Portfolio Overview

Initial Cash Position For Trading	$ 990,000
Additional Cash	$ 10,000
Prices as of:	Week 5

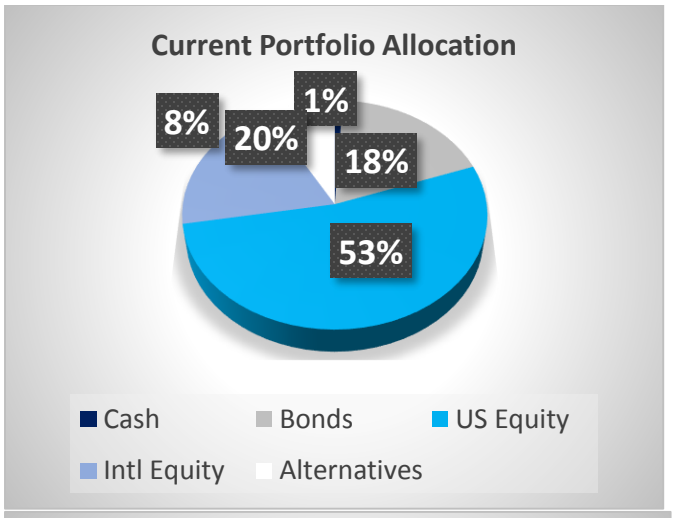
For portfolio pricing to be accurate, the correct week needs to be displayed.

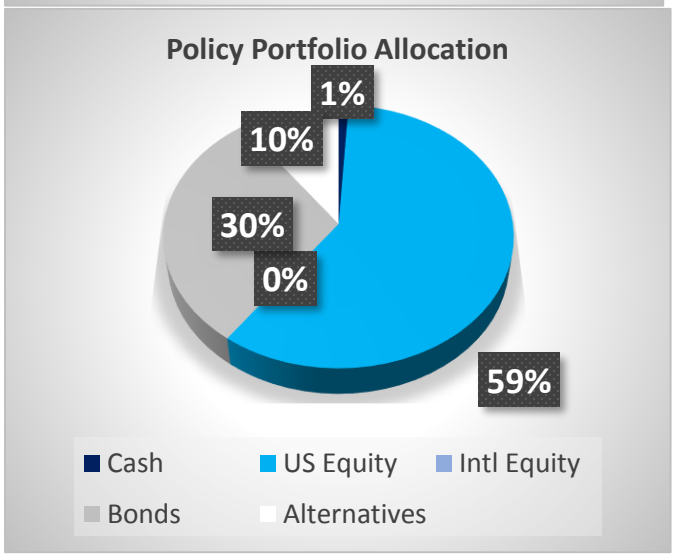
* Current Price is equal to the weekly price from the Price Inputs page or the purchase price if no other price is available.

Make sure you are in the correct week. Otherwise, the portfolio value will be off if securities were bought or sold.

Current Portfolio

Portfolio Total Value	$ 1,083,050						Return	8.3%
Ticker	Name	Policy/ Tactical	Asset Class	Category	# of Shares	* Current Price	Market Value	Percentage of Entire Portfolio
	Cash		Cash				$9,967	0.9%
AGG	iShares Core U.S. Aggregate	Policy	Bonds	Aggregate Bond	1,860	$108.01	$200,899	19.9%
EZU	iShares Eurozone	Tactical	Intl Equity	Developed Mrkts	2,825	$75.00	$211,875	10.0%
IYR	iShares US Real Estate	Policy	Alternatives	REIT	1,141	$77.50	$88,428	8.2%
VTI	Vanguard Total Stock Mrkt	Policy	US Equity	Broad Mrkt	3,917	$146.00	$571,882	52.8%





Unrealized Returns

Portfolio Total Value	$ 941,845						Return		-5.8%
Ticker	Name	Policy/ Tactical	Asset Class	# of Shares	Average Historical Cost	Adjusted Cost Basis *	Current Price **	Market Value	Unrealized (+/-)	% Unrealized Return
	Cash		Cash					$9,967		
AGG	iShares Core U.S. Aggregate	Policy	Bonds	1,856	$108.34	$201,079	$25.00	$46,400	($154,679)	-76.92%
EZU	iShares Eurozone	Tactical	Intl Equity	2,825	$35.05	$99,016	$75.00	$211,875	$112,859	113.98%
IYR	iShares US Real Estate	Policy	Alternatives	1,141	$87.66	$100,020	$89.15	$101,720	$1,700	1.70%
VTI	Vanguard Total Stock Mrkt	Policy	US Equity	3,917	$150.63	$590,018	$146.00	$571,882	($18,136)	-3.07%

Realized Returns For Entire Period

Ticker	Name	Asset Class	# of Shares Sold	Average Historical Cost	Average Sell Price	Realized (+/-)	% Realized Return
AGG	iShares Core U.S. Aggregate	Bonds	913	$108.34	$108.45	$100	0.10%
EZU	iShares Eurozone	Intl Equity					
IYR	iShares US Real Estate	Alternatives					
VTI	Vanguard Total Stock Mrkt	US Equity					