

RIVERSIDE ANALYTICS INC

INVESTORS MASTER CLASS
MODULE #4

RIVERSIDE ANALYTICS INC
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RIVERSIDE'S INVESTOR MASTER CLASS

DISCLAIMER

- All trading / investing comes with risk.
- The insights contained in this presentation do not constitute advice, rather are meant for educational purposes from which you may make more educated decisions taking into account your individual risk profile and needs for return.
- At Riverside, we assess probabilities using systematic quantitative methodology. We do not provide advice. There are no guarantees for positive return. All investing/trading is at your own risk.
- Riverside is about helping active and affluent investors learn how to make better decisions in financial markets.
- All charts shown in this broadcast have been referenced from stockcharts.com, Amibroker or eSignal unless otherwise noted.

Good investing is not an "event" like finding the next growth opportunity or catching the next market turn. Rather, good investing is a disciplined process that converts research and training into a well-tested methodology, and then makes a habit of following that approach day after day.

John P. Hussman, Ph.D
President, Hussman Strategic Advisors

MISCELLANEOUS

CLASS BREAKS AND REST PERIODS

- We will be taking breaks during the class!
  - 1:00pm – 5min Break
  - 2:00pm – 5min Break
  - 3:00pm – 10min Break
  - 4:00pm – 5min Break
  - Questions and Answers – 30min

QUESTIONS AND ANSWERS

- We have A LOT of material to cover in the class!
- Please hold your questions until the end of the module;
- Please write down your questions when they arise throughout the class;
- We will be holding a 30min Question and Answer Period Following today's session;



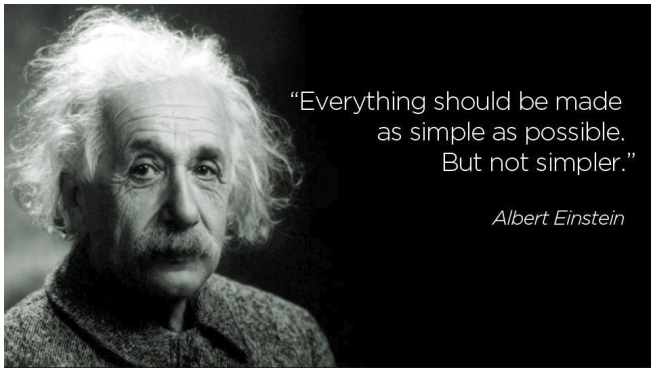
OFFENSE VS DEFENSE

- PAIRED SWITCHING STRATEGIES;
- SIMPLE YET EFFECTIVE STRATEGIES;

LEWIS GLENN'S PAIRED SWITCHING STRATEGY
MIND BENDER

LEWIS GLENN'S PAIRED SWITCHING STRATEGY (LGPSS)

- ❖ Monthly Strategy;
- ❖ Total ETF's used = 2 (SPY & TLT);
- ❖ Strategy Rules: go long at the close on the last trading day of each month the asset that has shown the greatest return over the last three months. (i.e. ROC (3month))



Simple and Effective Market Timing with Tactical Asset Allocation

13 Pages • Posted: 17 May 2014

Lewis A. Glenn
Independent

Date Written: May 14, 2014

Abstract

A simple market timing algorithm is examined that switches from an exchange traded fund representing U. S. equities to one holding treasury long bonds every month on the last day, the switch being made to whichever ETF has the greatest ratio of current adjusted closing price to adjusted closing price μ months earlier. The parameter μ is determined so as to maximize total return and minimize the total number of trades, however the results are relatively insensitive to μ over a fairly wide range. The performance of this scheme is compared to that of an Ivy 5 portfolio consisting initially of equal dollar amounts of ETFs in U. S. equities, foreign large blend, 7-10 year treasuries, real estate, and commodities. As with the paired switching approach, each ETF is purchased only once a month, on the last day, in this case only if its adjusted closing price exceeds the 10-month simple moving average (SMA). Otherwise that portion of the portfolio is invested in a cash surrogate.

Comparison is made over the 10-year period ending on 12/31/13. It is shown that the average annual return of the paired switching algorithm exceeds 30% in this period, which is 3 times greater than that of the Ivy 5. Moreover, only 45 trades were required for the paired switching approach, whereas the Ivy 5 required 70 in the same period. The maximum draw down was 14.6% for the Ivy 5 and 18.8% for paired switching.

Keywords: market timing, tactical asset allocation, paired switching, Ivy 5

JEL Classification: B23, C32,C53,G11,G14

Suggested Citation:

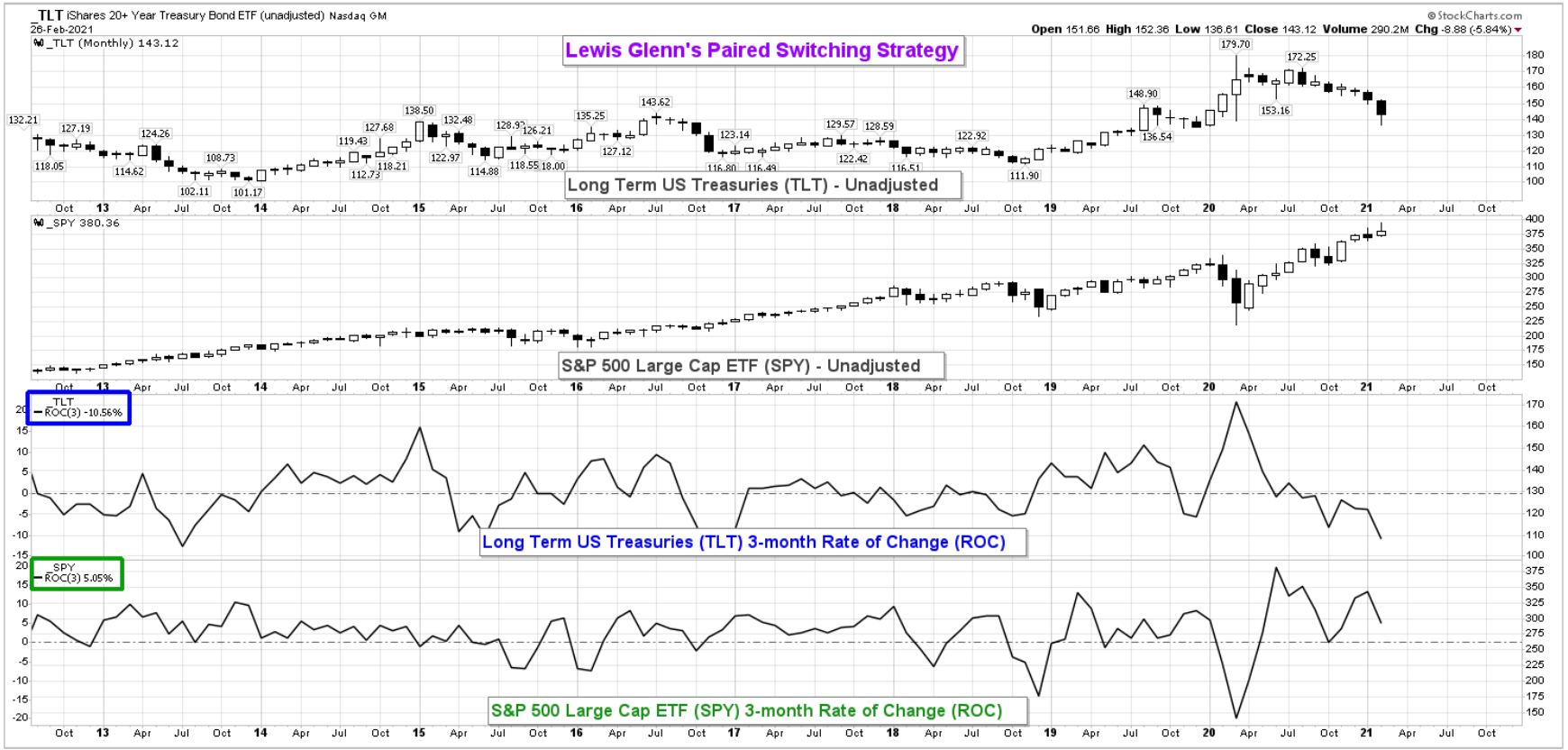
Glenn, Lewis A., Simple and Effective Market Timing with Tactical Asset Allocation (May 14, 2014). Available at SSRN: https://ssrn.com/abstract=2437049 or http://dx.doi.org/10.2139/ssrn.2437049

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2437049

LEWIS GLENN'S PAIRED SWITCHING STRATEGY

US ETF CHART TEMPLATE

STRATEGY SIGNAL AS OF FEBRUARY 26, 2021 – OFFENSIVE (SPY)



LEWIS GLENN'S PAIRED SWITCHING STRATEGY
MIND BENDER

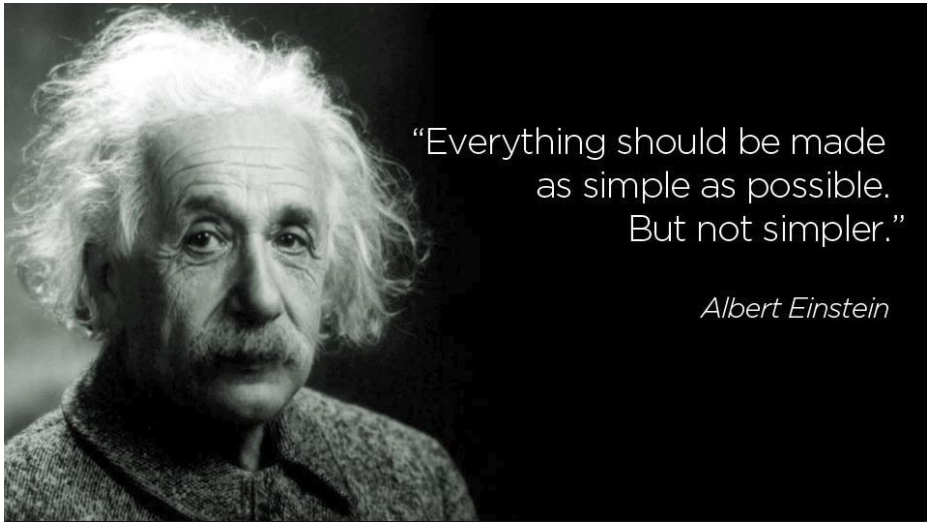
LEWIS GLENN'S PAIRED SWITCHING STRATEGY (LGPSS)

- Initial Equity $100,000;
- 19-year backtest (2000 – 2018);
- Un-adjusted data used;
- Monthly Strategy;
- Total ETF's used = 2 (SPY & TLT);
- Strategy Rules: go long at the close on the last trading day of each month the asset that has shown the greatest return over the last three months;

SPY - BUY AND HOLD
CAGR = 3.27%
Max DD = -56.78%

SPY - BUY > 10 Month MA – Sell < 10 Month MA
CAGR = 6.24%
Max DD = -12.18%

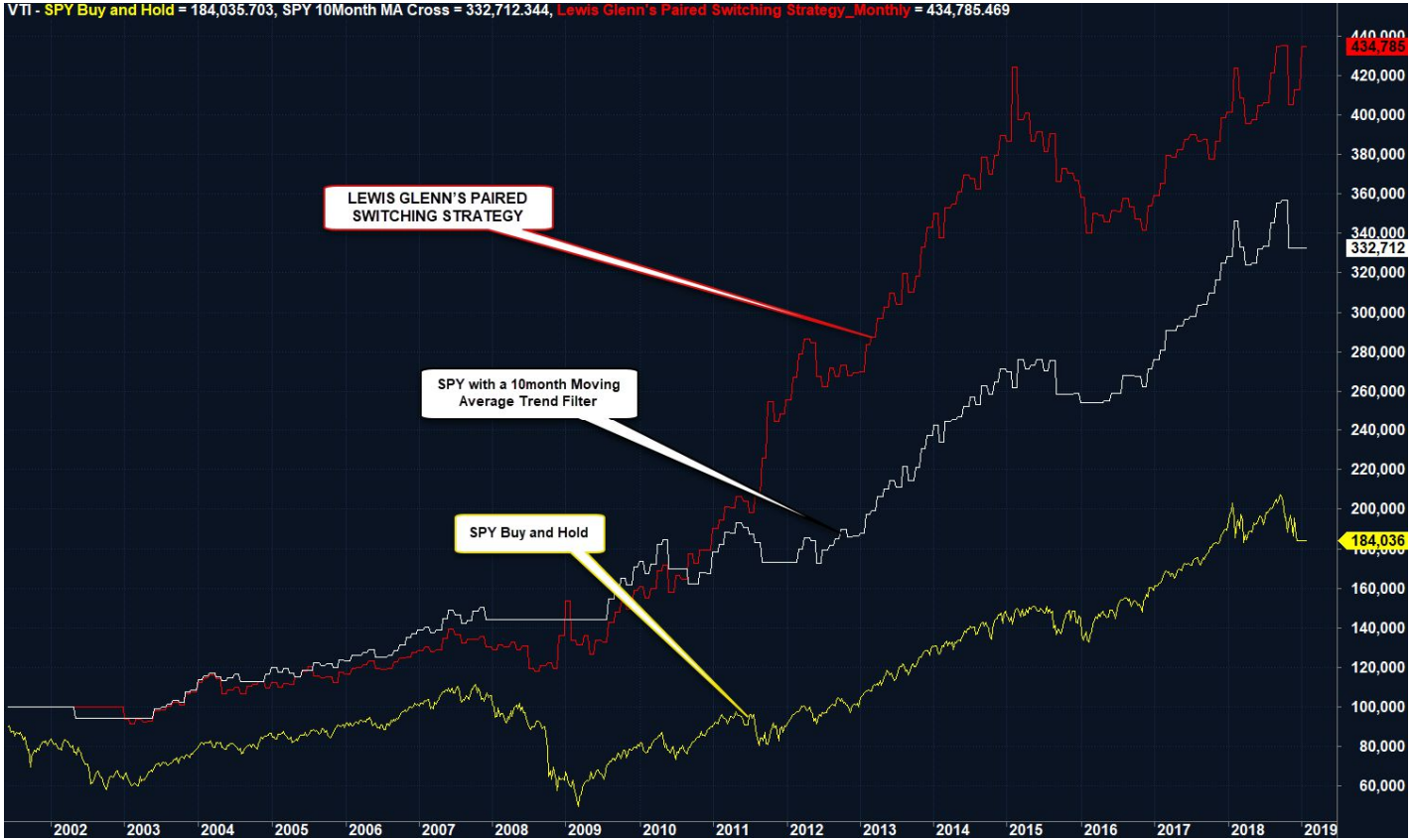
LEWIS GLENN'S PAIRED SWITCHING STRATEGY (LGPSS)
CAGR = 8.07%
Max DD = -19.80% - 68% Win Rate



2018 FUN FACT – THIS STRATEGY RETURNED 9.7%

LEWIS GLENN'S PAIRED SWITCHING STRATEGY

MIND BENDER



44 trades over 19 years
OR
2.3 trades per year

Would have resulted in an additional
250K in Equity



BASIC STRATEGY CONCEPTS

- GTAA_5 to GTAA_13;
- STRATEGY SUMMARY;
- CANADIAN STRATEGY ETF'S;

ALLOCATION STRATEGIES

5 ASSET STRATEGIES

THE IVY PORTFOLIO (MEB FABER)

- This strategy uses a total of five assets.
- This strategy invests 20% each in US equities (SPY), international equities (EFA), intermediate-term Treasuries (IEF), commodities (DBC), and real estate (VNQ).
- Therefore this is an equal weighted asset allocation strategy
- Portfolio rebalancing to be completed on a monthly, quarterly or annual basis
- Reference: The Ivy Portfolio, Faber, 2009

GLOBAL TACTICAL ASSET ALLOCATION (GTAA) – GTAA_5

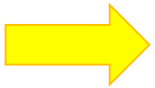
- This strategy invests 20% each in US equities (SPY), international equities (EFA), intermediate-term Treasuries (IEF), commodities (DBC), and real estate (VNQ).
- At the close on the final trading day of the month, go long each asset that will close above its 10-month moving average, otherwise to cash, and hold until the last day of the following month.
- We've assumed that all assets are rebalanced at the end of each month, regardless of whether there's a change in allocation.
- Reference: A Quantitative Approach to Tactical Asset Allocation, Faber, 2013

GLOBAL TACTICAL ASSET ALLOCATION

5 TO 13 ASSETS

GTAA – 5 ASSET BASKET

Asset Class (Subgroup)	Index
US Large Cap	S&P 500
Foreign Developed	MSCI EAFE
US 10 Year Government Bonds	GFD
Commodities	Goldman Sachs Commodity Index
Real Estate Investment Trusts	NAREIT Index



GTAA – 13 ASSET BASKET

Asset Class (Subgroup)	Index
US Large Cap Value	French Fama
US Large Cap Momentum	French Fama
US Small Cap Value	French Fama
US Small Cap Momentum	French Fama
Foreign Developed	MSCI EAFE
Foreign Emerging	MSCI EEM
US 10 Year Government Bonds	GFD
Foreign 10 Year Government Bonds	GFD
US Corporate Bonds	GFD
US 30 Year Government Bonds	GFD
Commodities	Goldman Sachs Commodity Index
Commodities	Gold
Real Estate Investment Trusts	NAREIT Index

A Quantitative Approach to Tactical Asset Allocation, Faber, 2013

GLOBAL TACTICAL ASSET ALLOCATION

13 ASSET CLASSES - PORTFOLIO TYPES

Strategic Asset Allocation (SAA)
i.e. Buy and Re-Balance

GTAA_13 – CONSERVATIVE (CON)

Allocaiton	Asset Class (Subgroup)	Index
3.75%	US Large Cap Value	French Fama
3.75%	US Large Cap Momentum	French Fama
3.75%	US Small Cap Value	French Fama
3.75%	US Small Cap Momentum	French Fama
7.50%	Foreign Developed	MSCI EAFE
7.50%	Foreign Emerging	MSCI EEM
10.00%	US 10 Year Government Bonds	GFD
10.00%	oreign 10 Year Government Bond	GFD
10.00%	US Corporate Bonds	GFD
10.00%	US 30 Year Government Bonds	GFD
7.50%	Commodities	Goldman Sachs Commodity Index
7.50%	Commodities	Gold
15.00%	Real Estate Investment Trusts	NAREIT Index

This allocation broadly follows the allocation of GTAA Moderate, but with more in bonds (40% vs. 20%). Cash is invested in 10 Year US Government Bonds.

GTAA_13 – MODERATE (MOD)

Allocaiton	Asset Class (Subgroup)	Index
5%	US Large Cap Value	French Fama
5%	US Large Cap Momentum	French Fama
5%	US Small Cap Value	French Fama
5%	US Small Cap Momentum	French Fama
10%	Foreign Developed	MSCI EAFE
10%	Foreign Emerging	MSCI EEM
5%	US 10 Year Government Bonds	GFD
5%	Foreign 10 Year Government Bonds	GFD
5%	US Corporate Bonds	GFD
5%	US 30 Year Government Bonds	GFD
10%	Commodities	Goldman Sachs Commodity Index
10%	Commodities	Gold
20%	Real Estate Investment Trusts	NAREIT Index

GTAA_13 - AGGRESSIVE

- 13 Asset Classes
- **TOP SIX** out of the thirteen assets as ranked by an average of 1, 3, 6, and 12-month total returns (momentum). GTAA_13_Agg 6.
- The assets are only included if they are above their long-term moving average, otherwise that portion of the portfolio is moved to cash.
- **TOP THREE** out of the thirteen assets as ranked by an average of 1, 3, 6, and 12-month total returns (momentum). GTAA_13_Agg 3.

A Quantitative Approach to Tactical Asset Allocation, Faber, 2013

GLOBAL TACTICAL ASSET ALLOCATION
HISTORICAL PERFORMANCE

Buy and Hold vs GTAA_5, GTAA_13

BACKTEST RESULTS (1973 – 2012)

	B & H 5	GTAA 5	B & H 13	GTAA 13
Return	9.92%	10.48%	11.54%	12.04%
Volatility	10.28%	6.99%	10.70%	7.09%
Sharpe (5.41%)	0.44	0.73	0.57	0.94
MaxDD	-46.00%	-9.54%	-42.66%	-10.74%
Inflation CAGR	4.30%	4.30%	4.30%	4.30%

Buy and Hold vs GTAA_13, GTAA_13_Agg_6, GTAA_13_Agg_3

	B & H 13	GTAA 13 CON	GTAA 13 MOD	GTAA 13 AGG Top 6	GTAA 13 AGG Top 3	GTAA 13 2X Leverage
Return	11.54%	12.94%	12.04%	17.76%	19.10%	18.86%
Volatility	10.70%	7.42%	7.09%	11.61%	14.82%	14.45%
Sharpe (5.41%)	0.57	1.01	0.94	1.06	0.92	0.93
MaxDD	-42.66%	-10.72%	-10.74%	-23.43%	-20.29%	-23.67%
Inflation CAGR	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%

Note: B & H = Buy and Hold (without Re-balancing)

A Quantitative Approach to Tactical Asset Allocation, Faber, 2013

ASSET ALLOCATION TYPES AND SUMMARY

A TOTAL OF 15 STRATEGIES

BASIC MONTHLY ASSET ALLOCATION STRATEGIES

- **IVY Portfolio (Module#2)**
  - Five Assets, Equal Weight, Buy and Rebalance (100% Invested at all times)
- **GTAA_13 (Module#4)**
  - 13 Assets, Equal Weight, Buy and Rebalance (100% Invested at all times)
- **GTAA_13_Conservative (Module#4)**
  - 13 Assets, Defined Asset Allocation Percentages, Buy and Rebalance (100% Invested at all times)
- **GTAA_13_Moderate (Module#2)**
  - Defined Asset Allocation Percentages, Buy and Rebalance (100% Invested at all times)
- **GTAA_5 (Module#2)**
  - Equal Weight, Buy and Rebalance with a 10 month Moving average Trend Filter
- **GTAA_13 (Module#4)**
  - Equal Weight, Buy and Rebalance with a 10 month Moving average Trend Filter
- **GTAA_13_ Agg_6 (Module#4)**
  - 10 month Moving average Trend Filter, select the Top 6 Assets Based on Relative Strength

BASIC MONTHLY ASSET ALLOCATION STRATEGIES

- **GTAA_13_ Agg_3 (Module#2)**
  - 10 month Moving average Trend Filter, select the Top 6 Assets Based on Relative Strength
- **Trinity Portfolio (Module#2)**
  - 50% Strategic Asset Allocation (SAA)
  - 50% Dynamic Asset Allocation (DAA)
- **Composite Dual Momentum (Module#3)**
  - 4 Modules, Eight Assets, Monthly ROC (12) vs BIL, select the strongest asset in each module
- **Dual Momentum (GEM) (Module#3)**
  - 3 ETF's Assets, SPY and ACWX Monthly ROC (12) vs BIL, select strongest asset
- **Dual Momentum Sector Rotation (DMSR) (Module#3)**
  - 10 ETF's Sector Monthly ROC (12) vs BIL, select the top 3 strongest ETF's
- **Dual Momentum Fixed Income (DMFI) – Antonacci (Module#3)**
  - 4 Bond ETF's, Monthly ROC (12) vs BIL, select the top ETF
- **Dual Momentum Fixed Income (DMFI) – Novell (Module#3)**
  - 8 Bond ETF's, Monthly ROC (12) vs BIL, select the top 3 ETF's
- **Lewis Glenn's Paired Switching Strategy (Module#4)**
  - 2 ETF's, Monthly ROC (3), select the top ETF

STRATEGY ALLOCATION LEGEND

- Strategic Asset Allocation
- Tactical Asset Allocation
- Dynamic Asset Allocation
- Combined Asset Allocation
- Paired Switching



ETF LIST

US AND CANADIAN ETF EQUIVALENTS

Asset ETF Category	US ETF	CDN Hedged	CDN Un-Hedged
Domestic Equities			
Dow Jones Industrial Average	DIA	ZDJ-TC	
Nasdaq	QQQ	ZQQ-TC	
Total US Market	VTI	VUS-TC	VUN-TC
S&P 500 Large Cap	SPY	XSP-TC	XUS-TC
S&P 400 Mid Cap	IJH	XMC-TC	
S&P 600 Small Cap	IJR	XSU-TC	
Toronto Stock Exchange (TSX)	EWC	XIC-TC	
US Momentum/ Growth	VUG	YXM-TC	YXM.B-TC
US Value	VTV	XXM-TC	XXM.B-TC
US Low Risk		XMU-TC	
US Large Cap Growth	VOOG		
US Large Cap Value	VOOV		
US Small Cap Growth	VBK		
US Small Cap Value	VBR		
CDN Momentum/ Growth		XCG-TC	
CDN Value		XCV-TC	
CDN Low Risk		XMV-TC	
Real Estate			
US Real Estate	VNQ		
CDN Real Estate		ZRE-TC	

Asset ETF Category	US ETF	CDN Hedged	CDN Un-Hedged
Foreign Equities			
All World	ACWI	XWD-TC	
All World ex US	ACWX	VEF-TC	VDU-TC
All World ex Canada		VXC-TC	
International Momemtum	IMTM	ZXM-TC	ZXM.B-TC
International Value	IVLU	VXM-TC	VXM.B-TC
International Low Risk	IDLV	RWW-TC	RWW.B-TC
Emerging Markets (EEM)	EEM	ZEM-TC	
EEM Growth	PIE		
EEM Value	EELV		
EEM Low Risk	EEMV	XMM-TC	RWE.B-TC
European Equities (EFA)	EFA	ZDM-TC	ZEA-TC
EFA Growth	EFG		
EFA Value	EFV		
EFA Low Risk	EFAV	XMI-TC	

ETF LIST

US AND CANADIAN ETF EQUIVALENTS

Asset ETF Category	US ETF	CDN Hedged	CDN Un-Hedged
Fixed Income			
T-Bill	BIL	CMR-TC	
US Short Term Treasuries	SHY		
US Intermediate Term Treasuries	IEF	HTB-TC	HTB.U-TC
US Long Term Treasuries	TLT		
US Aggregate Bonds	AGG	VBU-TC	
US Treasury Inflation Protected Securities (TIPS)	TIPS		
US Floating Rate	FLOT	HUF-TC	HUF.U-TC
US Municipal	MUN		
US Investment Grade (Corporate)	LQD	XIG-TC	
US High Yield	HYG	ZHY-TC	
US Mortgage Backed Securities	VMBS		
International Bonds	BNDX	VBG-TC	
International Treasury	BWX	HAF-TC	
Emerging Market Bonds	EMB	XEB-TC	
CDN Short Federal		ZFS-TC	
CDN Intermediate Federal		ZFM-TC	
CDN Long Federal		ZFL-TC	
CDN Short Provincial		ZPS-TC	
CDN Intermediate Provincial		ZMP-TC	
CDN Long Provincial		ZPL-TC	
CDN Short Corporate		ZCS-TC	
CDN Intermediate Corporate		ZCM-TC	
CDN Long Corporate		ZLC-TC	
CDN Aggregate		ZAG-TC	
CDN Floating Rate		XFR-TC	

Asset ETF Category	US ETF	CDN Hedged	CDN Un-Hedged
Commodities			
Commodity Basket	DBC		
Gold	GLD	CGL-TC	CGL.C-TC
Silver	SLV	SVR-TC	SVR.C-TC
Oil	USO		

ETF LIST

US AND CANADIAN ETF EQUIVALENTS

GTAA_5 – US ETF TO CAD ETF CONVERSION

❖ Unfortunately, as Canadian Investors we don't have access to the same diverse basket of ETF's as our neighbours south of the border

❖ Accordingly, if you are solely investing in Canadian ETF's ($CAD) only…we need to improvise.

Global Tactical Asset Allocation (GTAA_5)			
Asset ETF Category	US ETF	CDN Hedged	CDN Un-Hedged
S&P 500 Large Cap	SPY	XSP-TC	XUS-TC
European Equities (EFA)	EFA	ZDM-TC	ZEA-TC
US Intermediate Term Treasuries	IEF	HTB-TC	
Commodity Basket	DBC		
		CGL-TC	CGL.C-TC
		SVR-TC	SVR.C-TC
		CCX-TC	
US Real Estate	VNQ,XLRE	ZRE-TC	

#1 - We don't have a Commodity Basket ETF here in Canada

DBC FUND DESCRIPTION

DBC tracks an index of 14 commodities. It uses futures contracts to maintain exposure and selects them based on the shape of the futures curve to minimize contango.

https://www.etf.com/DBC#overview

DBC SECTOR BREAKDOWN

	DBC	Segment Benchmark
Energy	47.53%	55.12%
Agriculture	25.28%	20.70%
Industrial Metals	15.17%	9.42%
Precious Metals	12.02%	5.14%
Livestock	0.00%	9.61%

#2 - We don't have a US REIT ETF here in Canada but we do have own REIT ETF

ETF LIST – GTAA_13
US AND CANADIAN ETF EQUIVALENTS

GTAA 13 – US ETF TO CAD ETF CONVERSION

❖ Unfortunately, as Canadian Investors we don't have access to the same diverse basket of ETF's as our neighbours south of the border

❖ Accordingly, if you are solely investing in Canadian ETF's ($CAD) only…we need to improvise.

Global Tactical Asset Allocation (GTAA_13) - List #1			
Asset ETF Category	US ETF	CDN Hedged	CDN Un-Hedged
US Large Cap Growth	VUG	YXM-TC	YXM.B-TC
US Large Cap Value	VTV	XXM-TC	XXM.B-TC
US Small Cap Growth	VIOG	XSU-TC	
US Small Cap Value	VIOV	XMU-TC	
Emerging Markets (EEM)	VWO	ZEM-TC	
European Equities (EFA)	VEA	ZDM-TC	ZEA-TC
US Intermediate Term Treasuries	VGIT	HTB-TC	
International Bonds	BNDX	VBG-TC	
US Investment Grade (Corporate)	VCLT	XIG-TC	
US Long Term Treasuries	EDV	ZPL-TC	
Commodity Basket	PDBC		
Gold	IAU	CGL-TC	CGL.C-TC
Silver	SLV	SVR-TC	SVR.C-TC
Oil	USO	CCX-TC	
US Real Estate	VNQ	ZRE-TC	

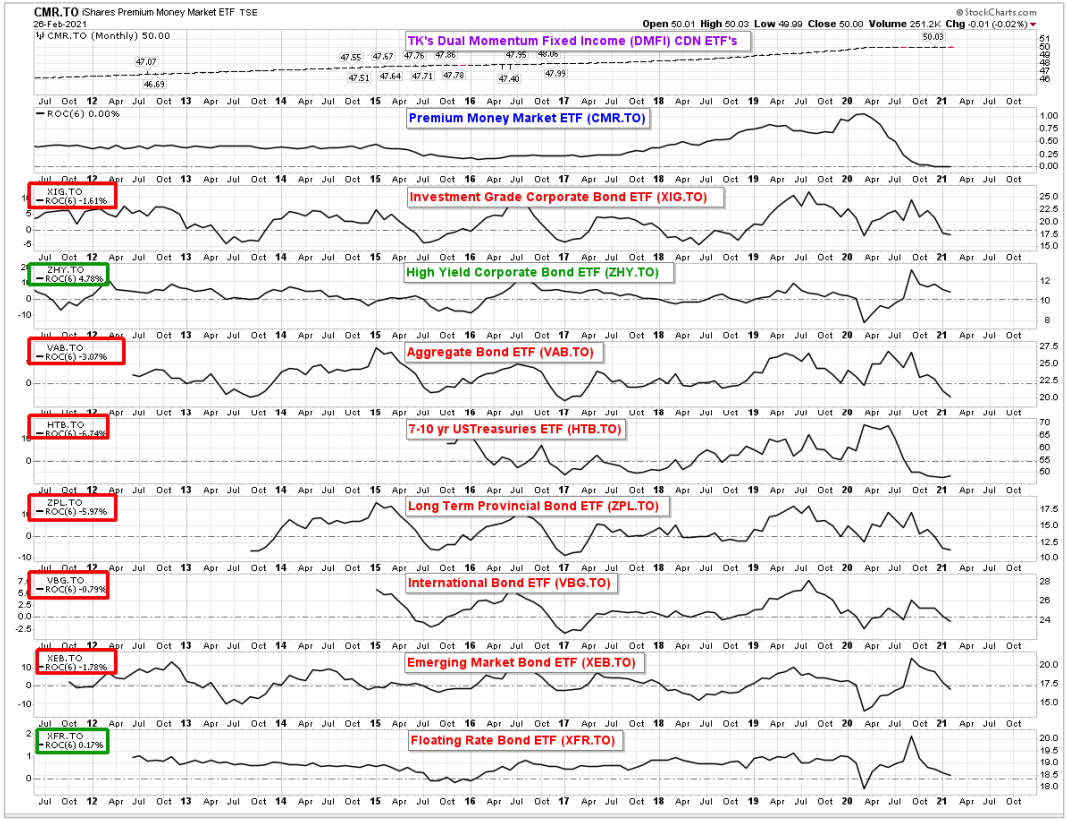
Global Tactical Asset Allocation (GTAA_13) - List #2			
Asset ETF Category	US ETF	CDN Hedged	CDN Un-Hedged
US Large Cap Growth	VUG	ZQQ-TC	
US Large Cap Value	VTV	ZLU-TC	ZLU.U-TC
US Small Cap Growth	VIOG	XSU-TC	
US Small Cap Value	VIOV	XMU-TC	
Emerging Markets (EEM)	VWO	ZEM-TC	
European Equities (EFA)	VEA	ZDM-TC	ZEA-TC
US Intermediate Term Treasuries	VGIT	HTB-TC	
International Bonds	BNDX	VBG-TC	
US Investment Grade (Corporate)	VCLT	XIG-TC	
US Long Term Treasuries	EDV	ZPL-TC	
Commodity Basket	PDBC		
Gold	IAU	CGL-TC	CGL.C-TC
Silver	SLV	SVR-TC	SVR.C-TC
Oil	USO	CCX-TC	
US Real Estate	VNQ	ZRE-TC	

#3 – We need to think outside the box to simulate growth and value assets using CDN ETF's

ETF LIST – DUAL MOMENTUM FIXED INCOME (DMFI)

US AND CANADIAN ETF EQUIVALENTS

Novell's Dual Momentum Fixed Income (DMFI) – US ETF TO CAD ETF CONVERSION

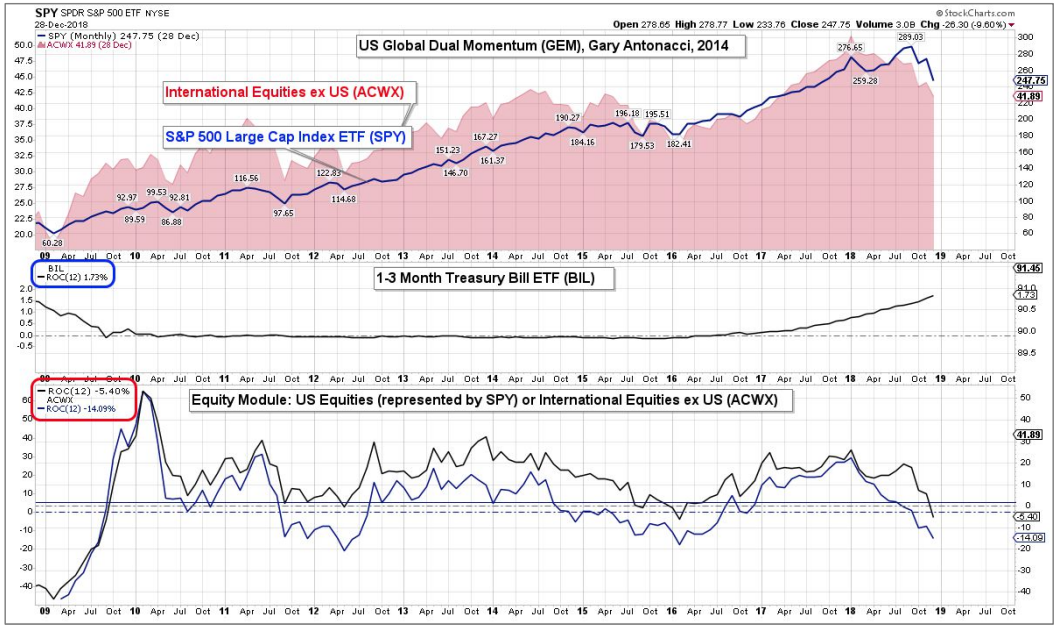


Dual Momentum Fixed Income (DMFI) - Novell			
Asset ETF Category	US ETF	CDN Hedged	CDN Un-Hedged
T-Bill	BIL	CMR-TC	
US Investment Grade (Corporate)	LQD	XIG-TC	
US High Yield	HYG	ZHY-TC	
US Mortgage Backed Securities	VMBS	VAB-TC	
US Intermediate Term Treasuries	IEF	HTB-TC	HTB.U-TC
US Long Term Treasuries	TLT	ZPL-TC	
International Bonds	BNDX	VBG-TC	
Emerging Market Bonds	EMB	XEB-TC	
US Treasury Inflation Protected Securities (TIPS)	TIPS	XFR.TO	

ETF LIST – GLOBAL EQUITY MOMENTUM (GEM)

US AND CANADIAN ETF EQUIVALENTS

Global Equity Momentum (GEM) – US ETF TO CAD ETF CONVERSION

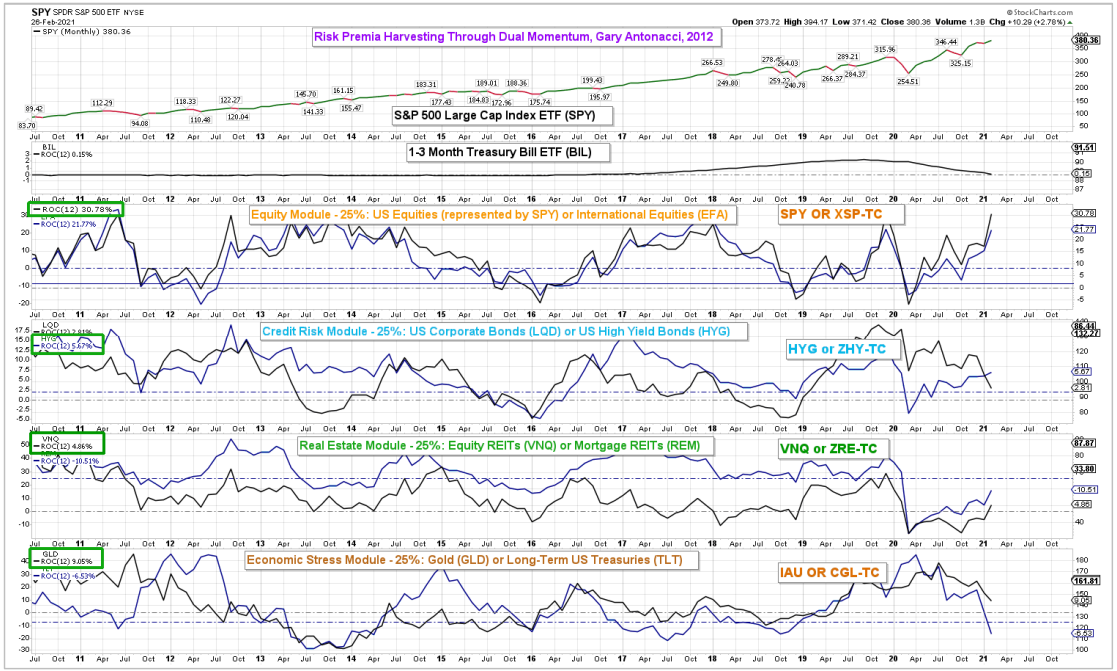


Global Equity Momentum (GEM) - Antonacci			
Asset ETF Category	US ETF	CDN Hedged	CDN Un-Hedged
T-Bill	BIL	CMR-TC	
S&P 500 Large Cap	SPY	XSP-TC	XUS-TC
All World ex US	ACWX	VEF-TC	VDU-TC

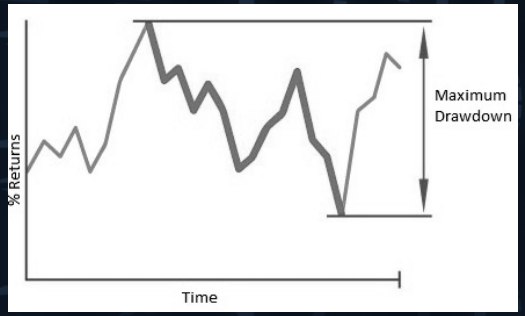
ETF LIST – COMPOSITE DUAL MOMENTUM (CDM)

US AND CANADIAN ETF EQUIVALENTS

Composite Dual Momentum (CDM) – US ETF TO CAD ETF CONVERSION



Composite Dual Momentum (CDM) - Antonacci			
Asset ETF Category	US ETF	CDN Hedged	CDN Un-Hedged
T-Bill	BIL	CMR-TC	
S&P 500 Large Cap	SPY	XSP-TC	XUS-TC
European Equities (EFA)	EFA	ZDM-TC	ZEA-TC
US Investment Grade (Corporate)	LQD	XIG-TC	
US High Yield	HYG	ZHY-TC	
US Real Estate	REM		
US Real Estate	VNQ		
CDN Real Estate		ZRE-TC	
Gold	GLD	CGL-TC	CGL.C-TC
US Intermediate Term Treasuries	IEF	HTB-TC	HTB.U-TC



DRAWDOWNS

- VOLATILITY TO RESPECT;
- VOLATILITY TO IGNORE;

WHY STUDY DRAWDOWNS?

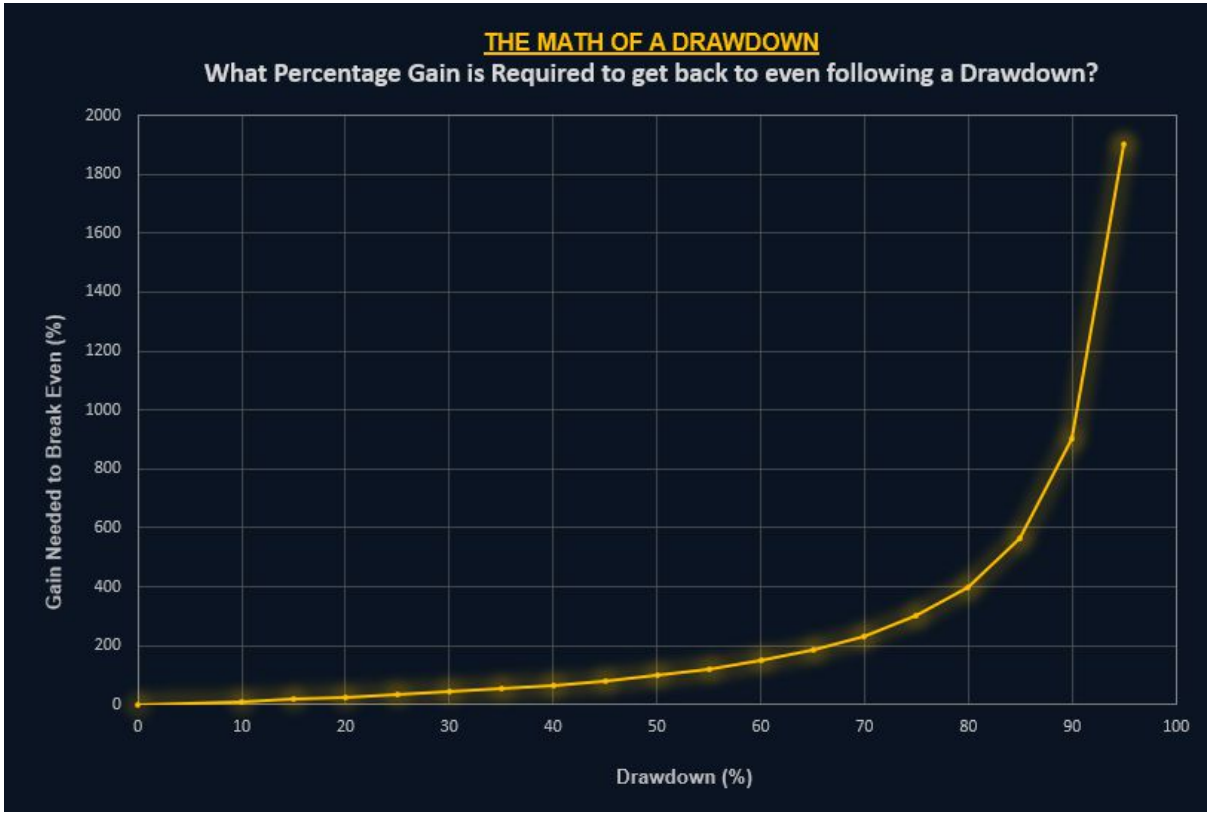
PSYCHOLOGY

> "People and psychology do not change."
>
> Gil Blake
> Market Wizards

WHY STUDY DRAWDOWNS?

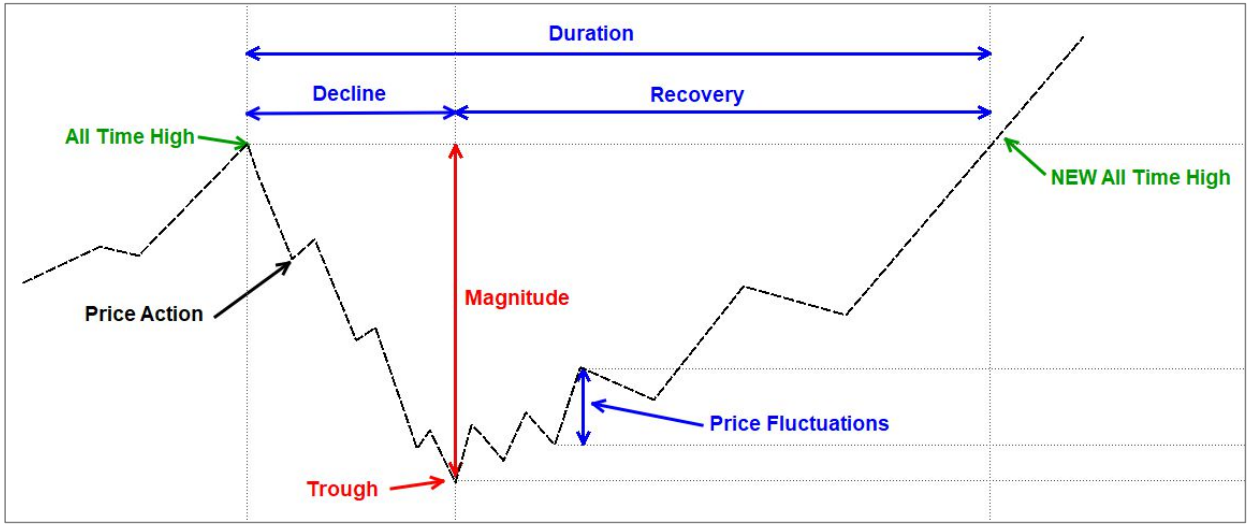
PSYCHOLOGY

Drawdown (%)	Gain Needed to Break Even (%)
0	0
10	11.10
15	17.6
20	25
25	33.3
30	42.9
35	53.8
40	66.7
45	81.8
50	100
55	122.2
60	150
65	185.7
70	233.3
75	300
80	400
85	566.7
90	900
95	1900



ANATOMY OF A DRAWDOWN

BASIC CONCEPTS



DRAWDOWN DEFINITIONS

MAGNITUDE: Drawdown Magnitude is the percentage that price has moved down from it's previous all-time high

DECLINE: Drawdown Decline is the amount of time the market declined from an all-time high to the trough

DURATION: Drawdown Duration is the total amount of time that it took the price to recover from it's previous all-time high.

RECOVERY: Drawdown Recovery is the time it took from the trough to get back to an all-time high.

S&P 500 HISTORICAL DRAWDOWN ANALYSIS

BULL MARKET ANALYSIS





DRAWDOWN EXPECTATIONS

LONGER TERM…..WHAT IS REASONABLE?

STRATEGIES 1 – 10 BELOW HAVE BEEN PROVEN TO RIVAL OR OUTPERFORM THE MARKET OVER LONGER TERM PERIODS OF TIME WITH DRAWDOWNS OF -5.7 TO -33.96%. THESE DRAWDOWNS ARE 17 – 45% BETTER THAN THE MARKET. WHEN LOOKING AT STRATEGY DRAWDOWNS, A LONGER TERM PERSPECTIVE IS REQUIRED.

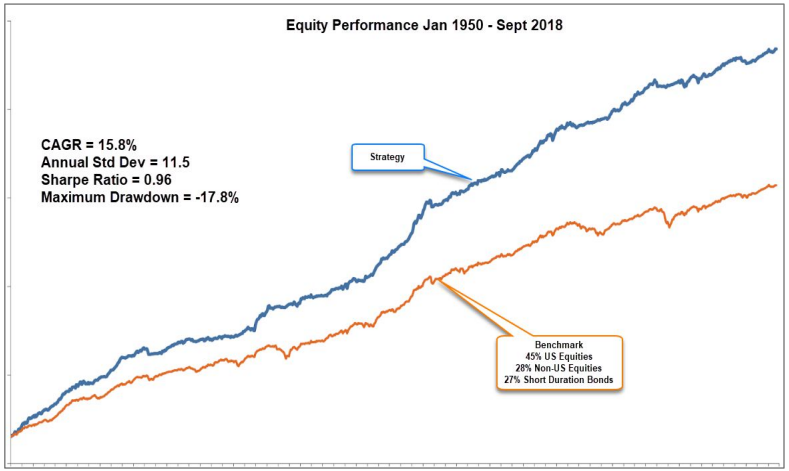
STRATEGIES AND PERFORMANCE RECORDS

NOTE: STRATEGY BACK TEST RESULTS SHOWN RANGE IN DURATION FROM 1973 TO 2018.
ALL STRATEGIES ARE MONTHLY STRATEGIES

Strategy No	Annual Return	Annual Std Dev	Annual Sharpe	Maximum Drawdown	Strategy Name
A	12.21	-15.43	0.42	-50.95	S&P 500 - Buy and Hold
B	10.86	10.77	0.47	-29.32	60/40 - Buy and Hold
C	11.52	7.88	0.72	-13.45	60/40_Abs Momentum

Strategy No	Annual Return	Annual Std Dev	Annual Sharpe	Maximum Drawdown	Strategy Name
1	14.93	7.99	1.07	-10.92	Composite Dual Momentum
2	15.86	14.55	0.67	-33.96	Dual Momentum Sector Rotation (DMSR)
3	17.36	12.32	0.89	-17.84	Global Equity Momentum (GEM)
4	12	5.5	1.43	-5.7	Dual Momentum Fixed Income (DMFI)
5	10.48	6.99	0.73	-9.54	GTAA 5
6	12.04	7.09	0.94	-10.74	GTAA 13
7	17.76	11.61	0.92	-23.43	GTAA AGG Top 6
8	19.1	14.82	0.93	-23.67	GTAA AGG Top 3
9	11.4	12.7	0.51	-23.4	Lewis Glenn's Pair Switching
10	12.99	8.97	1.45	-12.84	Adaptive Asset Allocation

GLOBAL EQUITY MOMENTUM (GEM)

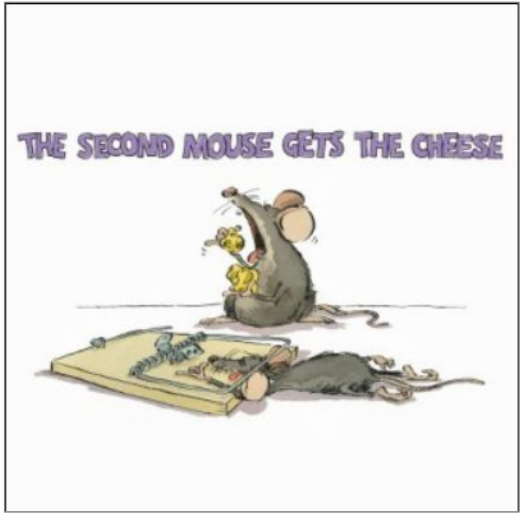


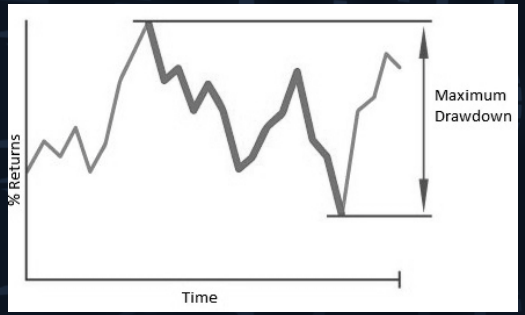
DRAWDOWNS AND TREND FOLLOWING

THE ROUGH ROAD

- Drawdowns are likely to cause technical damage to a number of technical indicators;
- Drawdowns in the Market will likely Trigger Sell Signals on intermediate to longer term Trend following strategies;
- These trend following strategies will not automatically react to changes in price action upon the first oversold bounce;
- Trend following strategies are prone to whipsaw following a drawdown;
- Time is required to heal the market and initiate buy signals on trend following strategies;
- Patience is required during drawdowns to allow the market to reveal the next trend direction (up or down);
- If initiating new positions during periods of Drawdowns, the time frame you are considering will play a very important role in your decision making;

The early bird may get the worm, but…





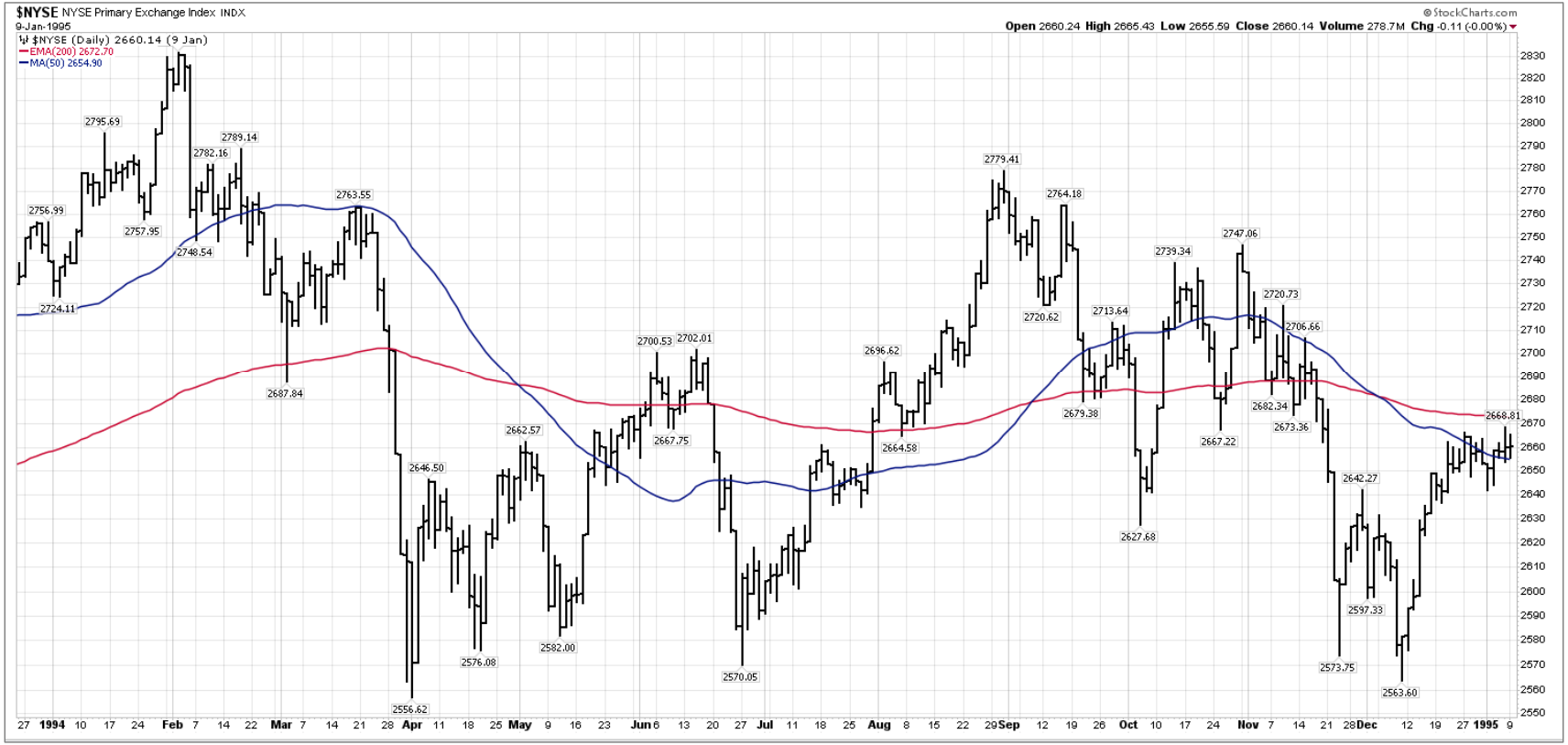
NAVIGATING DRAWDOWNS

- FOLLOWING A DRAWDOWN WHAT DOES AN ENTRY LOOK LIKE TO YOU?;
- EQUAL FIBONACCI RETRACEMENTS / QUAD LINES;
- BEING PATIENT;
- LET THE TREND EMERGE WHEN IT'S READY;

WHAT DOES A LONGER-TERM ENTRY LOOK LIKE?

1994 – 1995 WHIPSAW CITY

THE CHART BELOW SHOWS APPROXIMATELY 13 MONTHS OF PRICE ACTION…. AS AN INVESTOR, WHERE WOULD YOU ENTER?



WHAT DOES A LONGER-TERM ENTRY LOOK LIKE?

WHAT INDICATORS WOULD YOU USE?

VOLUME BASED INDICATORS – 6 Shown



OSCILLATORS – 4 Shown



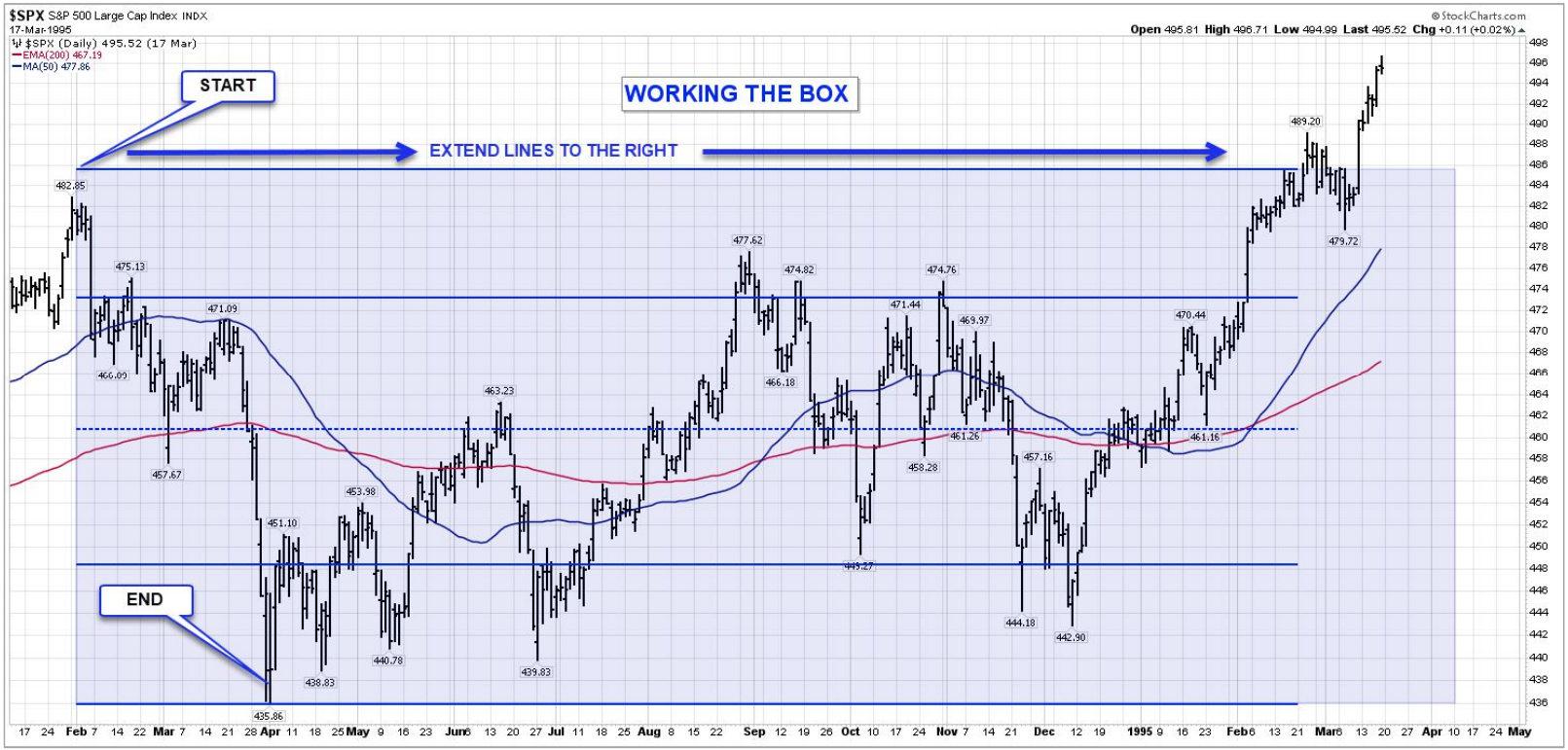
TREND FOLLOWING – 7 shown



WHAT DOES A LONGER-TERM ENTRY LOOK LIKE?

WORKING THE "BOX".....1994 – 1995 WHIPSAW CITY

QUADRANT LINES CAN BE DRAWN USING FIBONACCI RETRACEMENTS OR QUADRANT LINES



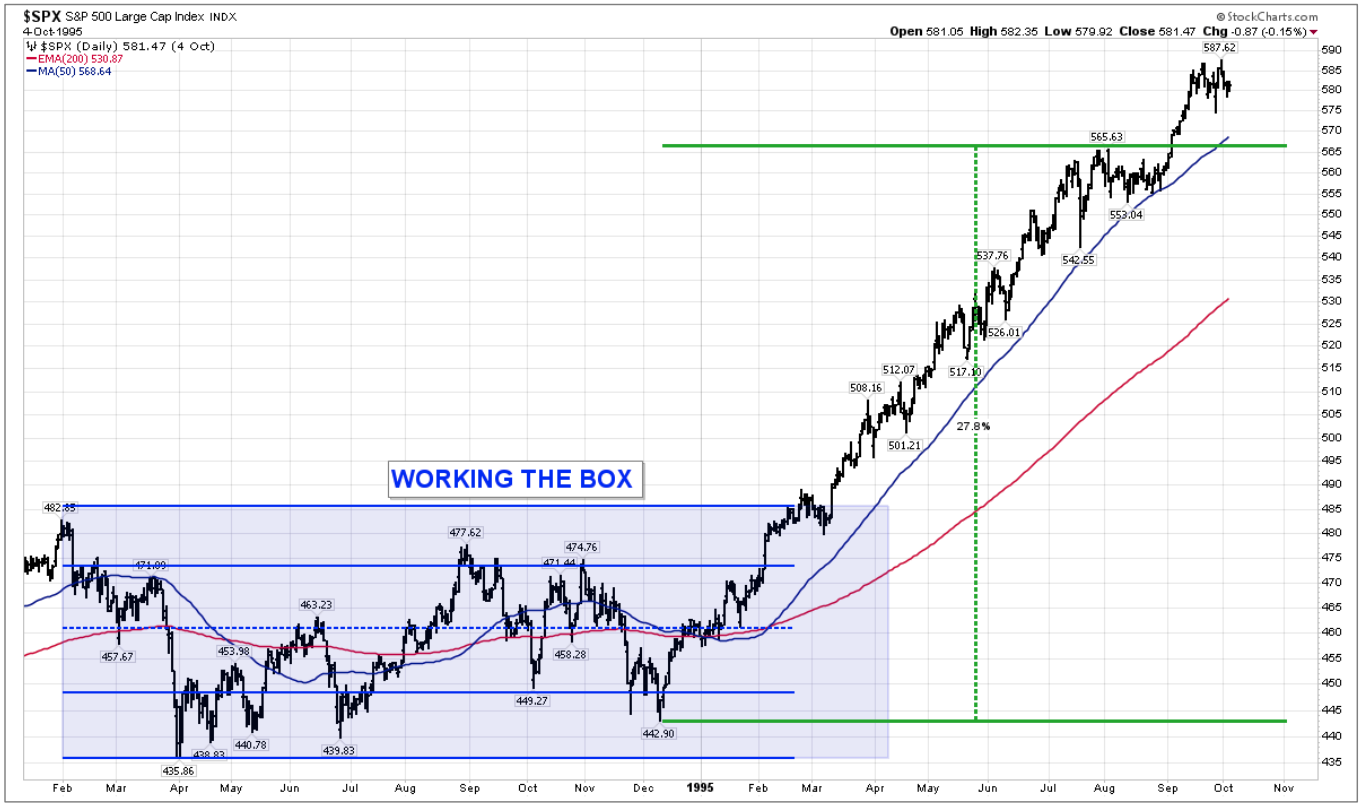
Increase Position Size as price rises

Decrease Position Size as price declines

WHAT DOES A LONGER-TERM ENTRY LOOK LIKE?

WORKING THE "BOX"

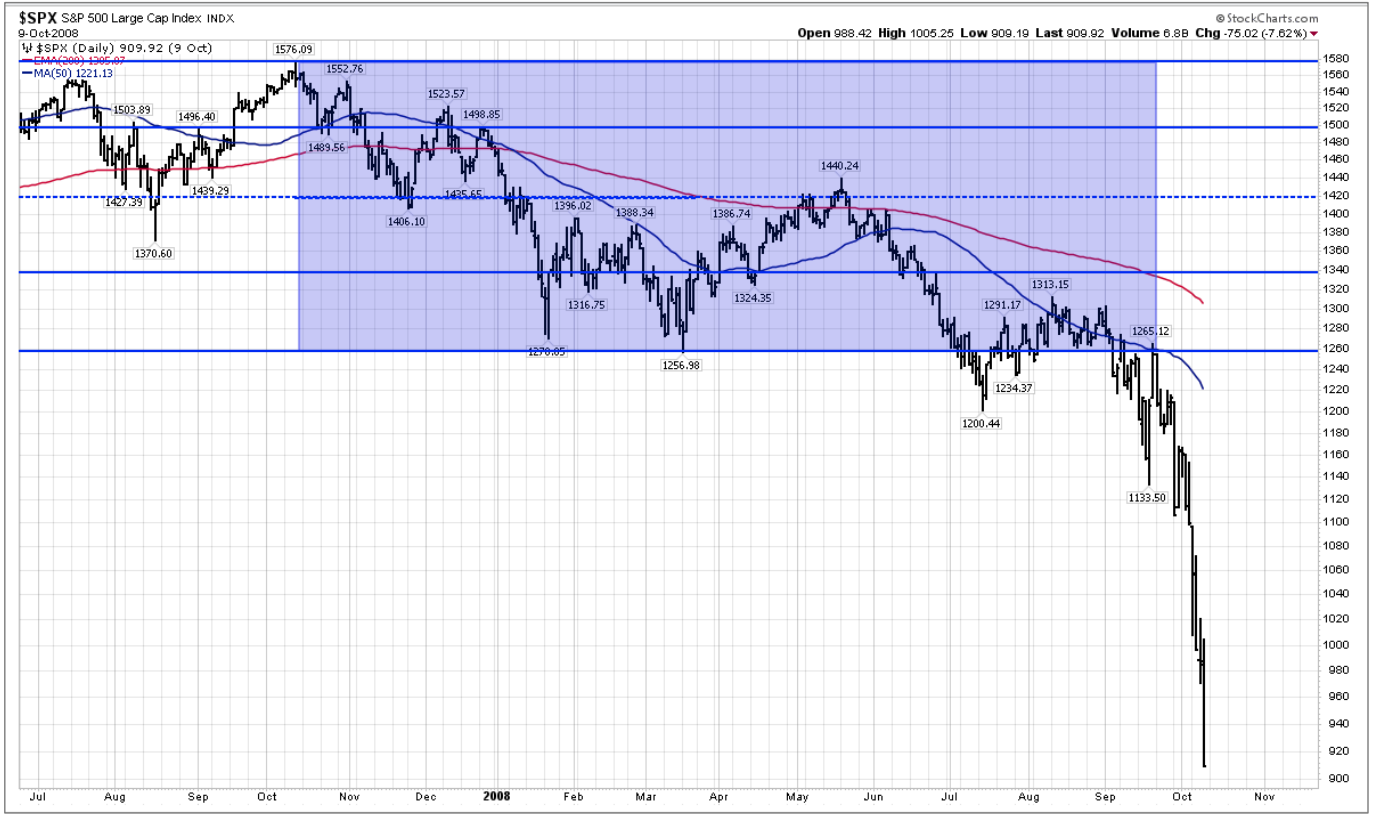
1994- 1995 WHIPSAW CITY AND THEN….THE BREAK OUT



WHAT DOES A LONGER-TERM ENTRY LOOK LIKE?

WORKING THE "BOX"

2008 Bear Market Top



¾ TO FULL POSITIONS

½ TO ¾ POSITIONS

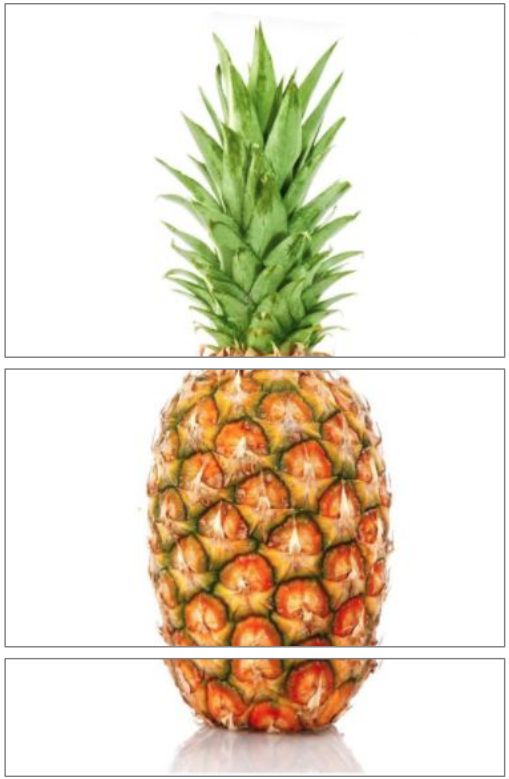
¼ TO ½ POSITIONS

CASH TO ¼ POSITIONS

CASH

THE PINEAPPLE PRINCIPLE

FOR INVESTORS AND TRADERS



THE "TOP"

Provides a nice shade of green to the presentation of the fruit but generally serves no purpose for consumption or interest. We can throw this away.

THE "JUICY, SWEET, DELICIOUS MIDDLE"

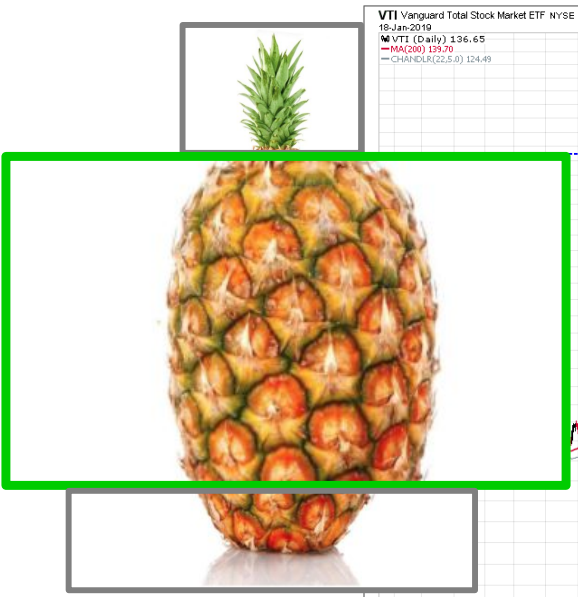
Now we are talking. This is the piece of the fruit we want!

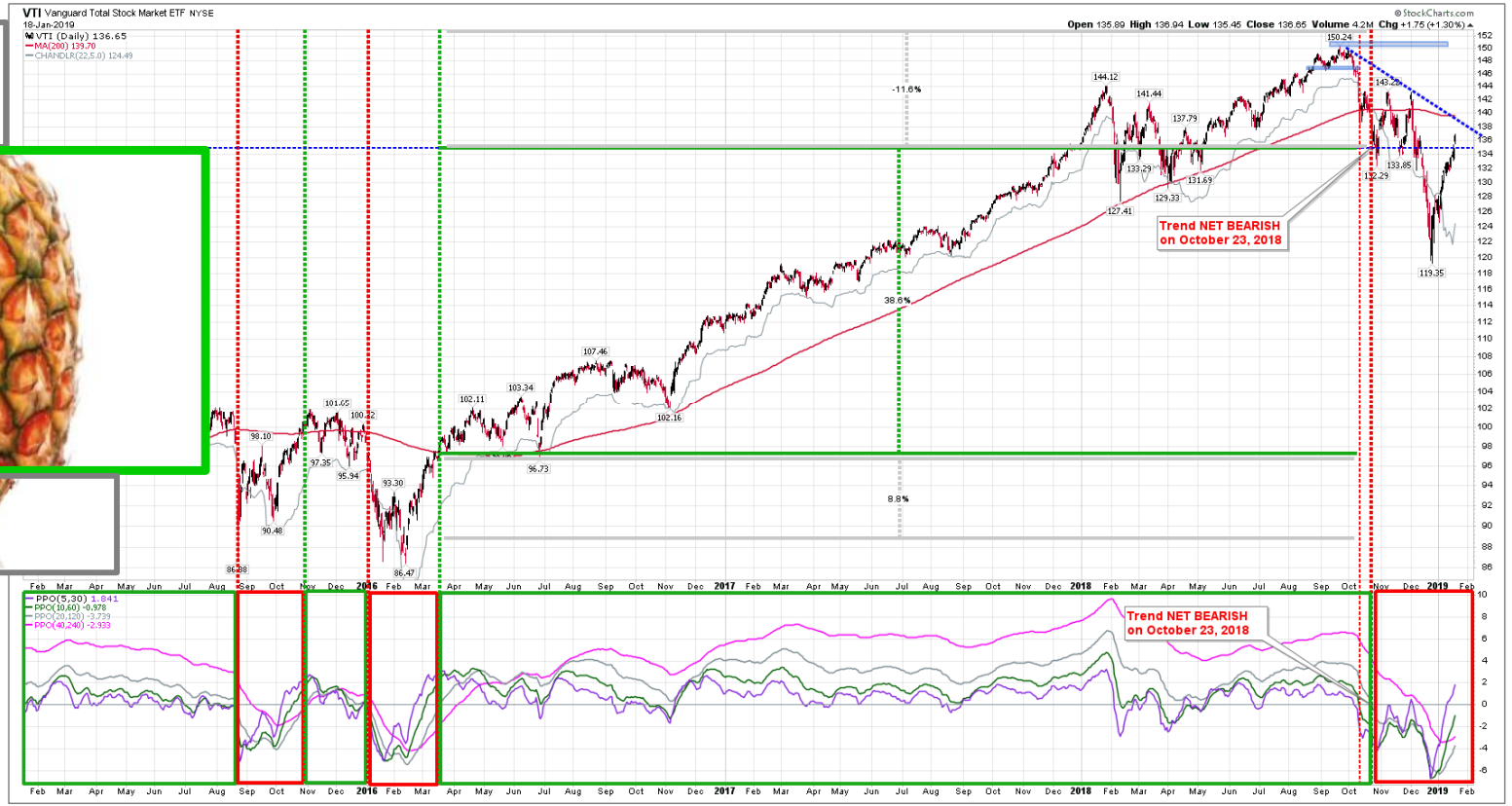
THE "BOTTOM"

The Pineapple has to sit on something on the counter! This piece generally serves no purpose for consumption or interest. We can throw this away.

US TOTAL STOCK MARKET ETF (VTI)

PINEAPPLE PRINCIPLE







UNDERSTANDING YOUR STRATEGY

- DIVING INTO THE DETAILS;

ALLOCATION STRATEGY METRICS

KEY CONCEPTS

TYPICAL STRATEGY METRICS

Statistic	Strategy	Benchmark	Statistic	Strategy	Benchmark
Annualized Return	9.7%	9.2%	Annualized Volatility	9.7%	9.7%
Sharpe Ratio	0.50	0.46	Sortino Ratio	0.76	0.77
Max Drawdown (EOM)	-42.8% 02/2009	-29.5% 02/2009	Longest Drawdown	34 months	40 months
Ulcer Performance Index	0.78	0.74	% Profitable Months	68.4%	64.0%
Best Month Return	8.4%	10.7%	Worst Month Return	-19.0%	-10.7%
Average Trades per Year	0.1	0.0	Annual Turnover	7.5%	12.1%

WHAT STRATEGY WOULD YOU PREFER?

YEARLY RETURN COMPARISON

Year	Strategy #1 Yearly Return %	Strategy #2 Yearly Return %	Difference
1	-5.50%	0.00%	5.50%
2	-12.80%	0.00%	12.80%
3	-22.80%	-5.60%	17.20%
4	25.50%	20.70%	-4.80%
5	8.80%	5.60%	-3.20%
6	2.90%	2.70%	-0.20%
7	13.30%	12.40%	-0.90%
8	3.50%	4.10%	0.60%
9	-37.70%	0.00%	37.70%
10	22.70%	20.30%	-2.40%
11	12.50%	2.60%	-9.90%
12	0.00%	-3.00%	-3.00%
13	13.10%	8.60%	-4.50%
14	29.00%	29.20%	0.20%
15	11.20%	11.30%	0.10%
16	-0.70%	-5.80%	-5.10%
17	9.40%	8.40%	-1.00%
18	19.20%	18.90%	-0.30%
19	-2.70%	1.40%	4.10%

STRATEGY ASSESSMENT

- Initial Equity $100,000
- 19-year backtest
- Strategy #1 is a Buy and Hold Strategy
- Strategy #1 produced a profit of $84,036
- Strategy #2 is an Active Strategy
- Strategy #2 produced a profit of $232,712
- Out of the 15 Bull Market years, Strategy #1 out performs Strategy #2 a total of 13 times
- Strategy #2 loses much less than Strategy #1 during drawdowns

STRATEGY #1 - S&P 500 Large Cap Index Buy and Hold (CAGR = 3.27%)

STRATEGY #2 - S&P 500 Large Cap Index - BUY > 10 Month MA – Sell < 10 Month MA (CAGR = 6.24%)



KEY TAKEAWAYS

IT MAY BE CHALLENGING TO KEEP PACE WITH THE S&P 500 DURING BULL MARKET ENVIRONMENTS
LONG TERM OUTPERFORMANCE COMES FROM STAYING OUT OF BEAR MARKET ENVIRONMENTS
DETERMINING WHAT IS A BEAR MARKET VS A DRAWDOWN IS VERY CHALLENGING UNTIL TIME PASSES

WHAT STRATEGY WOULD YOU PREFER?

EQUITY CURVE COMPARISON



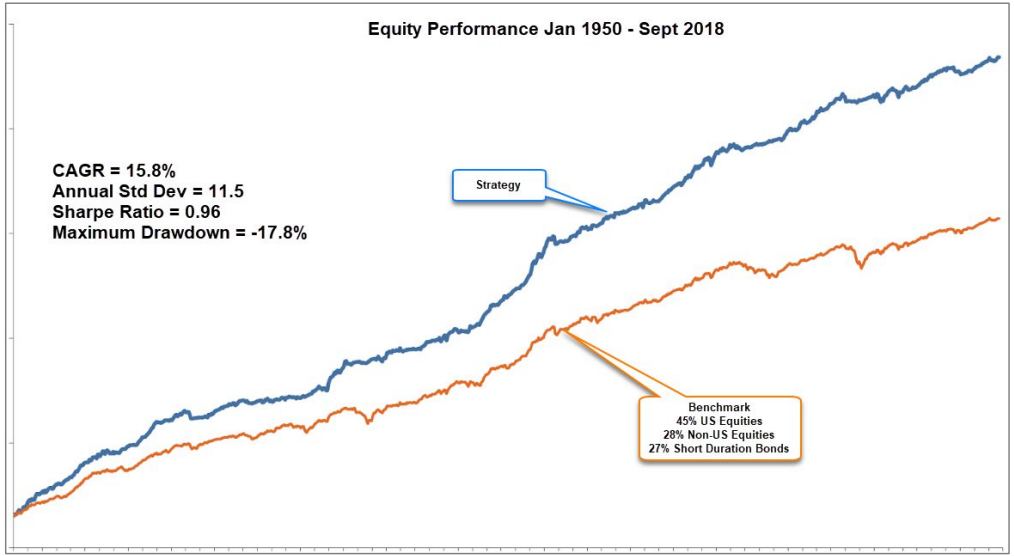


INVESTOR PSYCHOLOGY

- STRATEGY TYPES
- STRATEGY EXAMPLE – STICKING TO THE PLAN
- STICKING TO THE PLAN – GTAA_5 EXAMPLE
- GTAA_5 - ARE YOU INTERESTED IN THE STRATEGY?
- GTAA_5 – WILL YOU FOLLOW THE RULES?
- GTAA_5 – THE RULES
- THE STATS SAY THIS
- GTAA_5 – MONTHLY BUY AND SELL SIGNALS – 2015 – 2016
- GTAA_5 – MONTHLY BUY SIGNALS– 2015 – 2016 – THE DETAILS
- GTAA_5 – MONTHLY SELL SIGNALS– 2015 – 2016 – THE DETAILS
- GTAA_5 – WILL YOU FOLLOW THE RULES? IF YES THEN……
- GTAA_5 – WILL YOU FOLLOW THE RULES? IF NO THEN……

STICKING TO THE PLAN
WILL YOU FOLLOW THE RULES?

SAMPLE MONTHLY STRATEGY - WILL YOU FOLLOW THE RULES?



A FIRST GLANCE….THESE WOULD BE COMMON REACTIONS TO THE CHART (LEFT)

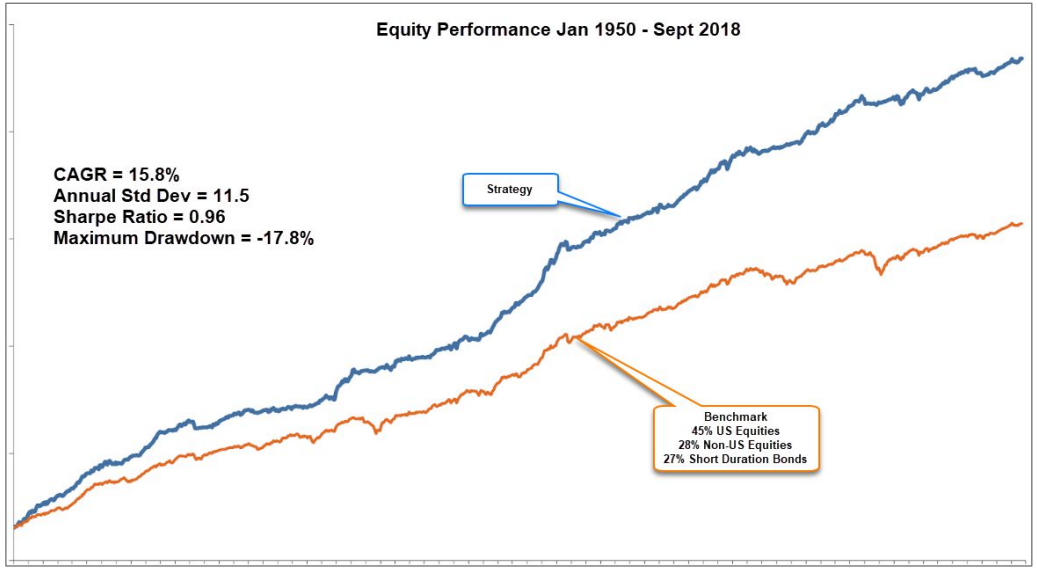
- OH MY…I just found the Holly Grail of Investing!!!!
- I can't wait to start using this strategy
- All I have to do is learn more and then follow the strategy.
- This is easy!!!
- Where has this strategy been all my life??

RED LIGHT
(time to put the brakes on)



STICKING TO THE PLAN
WILL YOU FOLLOW THE RULES?

SAMPLE MONTHLY STRATEGY - WILL YOU FOLLOW THE RULES?



EQUITY RETURNS WITH FIXED INCOME VOLATILITY

Strategy No	Annual Return	Annual Std Dev	Annual Sharpe	Maximum Drawdown
S&P 500 - Buy and Hold	12.21	-15.43	0.42	-50.95
60/40 - Buy and Hold	10.86	10.77	0.47	-29.32
60/40_ Modified	11.52	7.88	0.72	-13.45

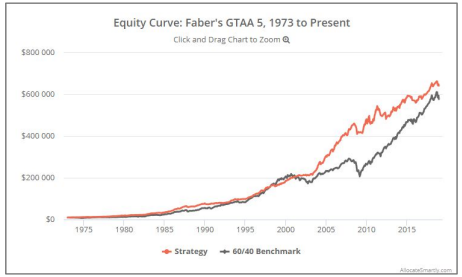
STRATEGIES AND PERFORMANCE RECORDS

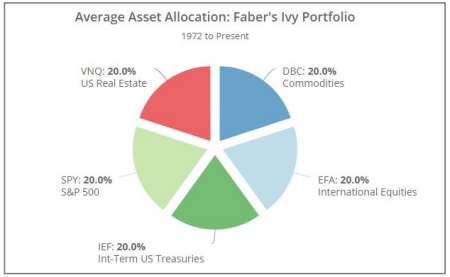
Strategy No	Annual Return	Annual Std Dev	Annual Sharpe	Maximum Drawdown
1	14.93	7.99	1.07	-10.92
2	15.86	14.55	0.67	-33.96
3	17.36	12.32	0.89	-17.84
4	12	5.5	1.43	-5.7
5	10.48	6.99	0.73	-9.54
6	12.04	7.09	0.94	-10.74
7	17.76	11.61	0.92	-23.43
8	19.1	14.82	0.93	-23.67
9	11.4	12.7	0.51	-23.4
10	12.99	8.97	1.45	-12.84

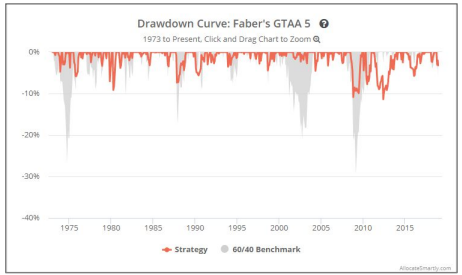
NOTE: STRATEGY BACK TEST RESULTS SHOWN RANGE IN DURATION FROM 1973 TO 2018. ALL STRATEGIES ARE MONTHLY STRATEGIES

STICKING TO THE PLAN

GLOBAL TACTICAL ASSET ALLOCATION (GTAA_5)







Summary Statistics: Faber's GTAA 5

Based on Month-End Data, 1973 to 12/2018

Statistic	Strategy	Benchmark	Statistic	Strategy	Benchmark
Annualized Return	9.4%	9.2%	Annualized Volatility	6.8%	9.8%
Sharpe Ratio	0.68	0.44	Sortino Ratio	1.11	0.75
Max Drawdown (EOM)	-11.4% 05/2012	-29.5% 02/2009	Longest Drawdown	31 months	40 months
Ulcer Performance Index	1.70	0.72	% Profitable Months	69.9%	63.6%
Best Month Return	7.2%	10.7%	Worst Month Return	-9.2%	-10.7%
Average Trades per Year	7.6	0.0	Annual Turnover	151.9%	12.2%

www.allocatesmartly.com

The strategy rules tested here use the same universe of assets as Faber's Ivy Portfolio:

- Divide the portfolio into five equal slices of 20% each, trading US equities (SPY), international equities (EFA), intermediate-term US Treasuries (IEF), commodities (DBC), and real estate (VNQ).
- At the close on the final trading day of the month, go long each asset that will close above its 10-month moving average, otherwise to cash, and hold until the last day of the following month.
- We've assumed that all assets are rebalanced at the end of each month, regardless of whether there's a change in allocation.

WOULD YOU BE INTERESTED IN THIS STRATEGY?

Here's the FACTS....

- The simple GTAA_5 strategy that has been proven to outperform it's benchmark on a return basis;
- Reduced volatility in comparison to it's benchmark;
- Drawdowns of only -11.4% over a 45-year period (benchmark DD is 29.5%)
- Superior Risk-adjusted Returns compared to the benchmark;
- Highly Liquid ETF's with minimal expense ratios;
- Time to manage this strategy in your portfolio = approx. 30min per month;

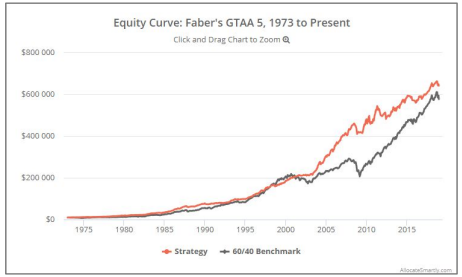


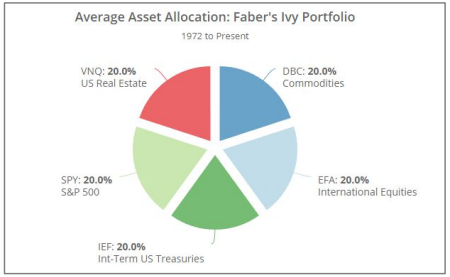
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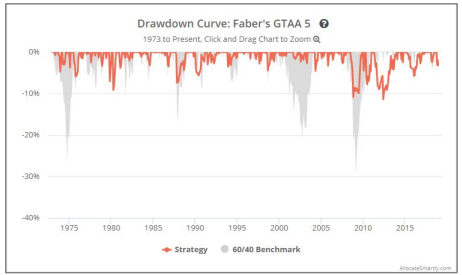
BASED ON THE ABOVE..ALL...INVESTORS SHOULD BE INTERESTED
NOTE: INTERESTED ≠ TRANSACT

STICKING TO THE PLAN

GLOBAL TACTICAL ASSET ALLOCATION (GTAA_5)







Summary Statistics: Faber's GTAA 5

Based on Month-End Data, 1973 to 12/2018

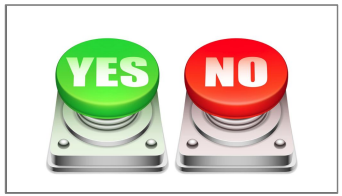
Statistic	Strategy	Benchmark	Statistic	Strategy	Benchmark
Annualized Return	9.4%	9.2%	Annualized Volatility	6.8%	9.8%
Sharpe Ratio	0.68	0.44	Sortino Ratio	1.11	0.75
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Average Trades per Year	7.6	0.0	Annual Turnover	151.9%	12.2%

www.allocatesmartly.com

WOULD YOU FOLLOW THE RULES???

Here's the RULES

- Divide the portfolio into five equal slices of 20% each, trading US equities (SPY), international equities (EFA), intermediate-term US Treasuries (IEF), commodities (DBC), and real estate (VNQ).
- At the close on the final trading day of the month, go long each asset that will close above its 10-month moving average, otherwise to cash, and hold until the last day of the following month.
- We've assumed that all assets are rebalanced at the end of each month, regardless of whether there's a change in allocation.



(ATTENDEE INPUT REQUIRED)

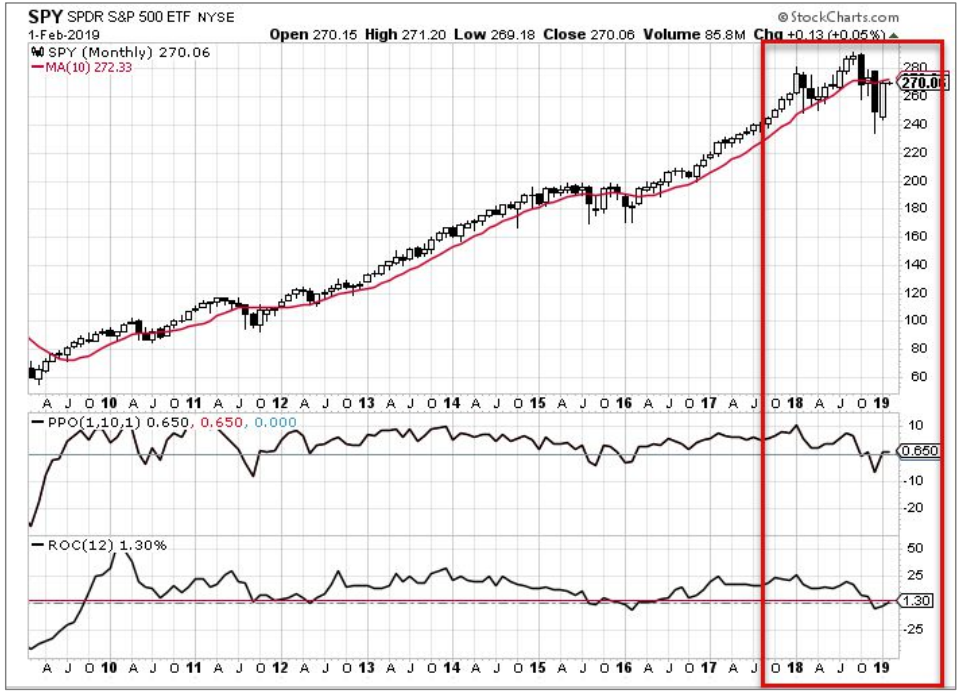
ARE YOU SURE?

GTAA_5 – THE RULES

WILL YOU FOLLOW THE RULES?

CURRENT GTAA_5 ALLOCATION METRICS

- The strategy rules tested here use the same universe of assets as Faber's Ivy Portfolio:
- Divide the portfolio into five equal slices of 20% each, trading US equities (SPY), international equities (EFA), intermediate-term US Treasuries (IEF), commodities (DBC), and real estate (VNQ).
- **AT THE CLOSE ON THE FINAL TRADING DAY OF THE MONTH, GO LONG EACH ASSET THAT WILL CLOSE ABOVE ITS 10-MONTH MOVING AVERAGE, OTHERWISE TO CASH, AND HOLD UNTIL THE LAST DAY OF THE FOLLOWING MONTH.**
- We've assumed that all assets are rebalanced at the end of each month, regardless of whether there's a change in allocation.



ARE YOU SURE YOU WILL FOLLOW THE RULES?

QUANTITATIVE ANALYSIS OF INVESTOR BEHAVIOR

DALBAR'S 21ST ANNUAL – 2015 ADVISOR EDITION

The Average American's Investment Returns -- and How You Can Do Better

You may be surprised at how awful the average American investor's returns have been. Here's how to be better than average.

Matthew Frankel, CFP (TMFMathGuy)
Nov 1, 2015 at 12:10PM

Time Period (ending Dec. 31, 2014)	Average Equity Fund Investor Return	S&P 500 Average Return	Difference	Average Fixed-Income Fund Investor	Barclays Aggregate Bond Index	Difference
1 year	5.50%	13.69%	(8.19%)	1.16%	5.97%	(4.81%)
3 years	14.82%	20.41%	(5.59%)	0.72%	2.66%	(1.94%)
5 years	10.19%	15.45%	(5.26%)	1.21%	4.45%	(3.24%)
10 years	5.26%	7.67%	(2.41%)	0.69%	4.71%	(4.02%)
20 years	5.19%	9.85%	(4.66%)	0.80%	6.20%	(5.40%)
30 years	3.79%	11.06%	(7.27%)	0.72%	7.36%	(6.64%)

"According to the latest research, the average American investor underperforms the market over the long term -- and by a huge margin. And yet the reasons for that poor performance are completely avoidable. Here's what the data tells us about the average investor's returns, along with four easy principles that can ensure you do better.

Wait, the average investor does *how* badly?

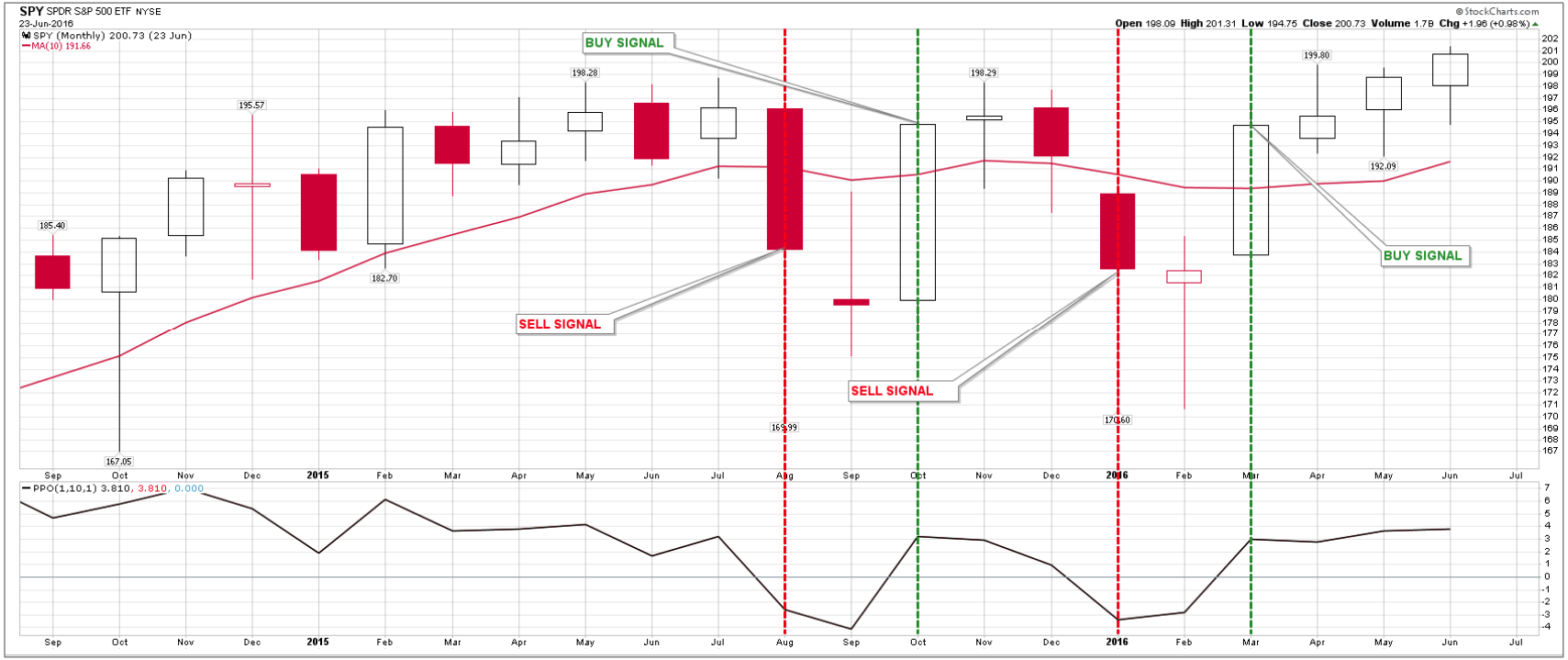
According to Dalbar's 2015 Quantitative Analysis of Investor Behavior, the average mutual fund investor has underperformed the market over all the time intervals that were examined, which range from one year to three decades. And the underperformance is astonishing."

https://www.fool.com/investing/general/2015/11/01/the-average-americans-investment-returns-and-how-y.aspx

STICKING TO THE PLAN

WILL YOU FOLLOW THE RULES?

SPY MONTHLY CHART – 2015 – 2016 - GTAA_5 – BUY AND SELL SIGNALS

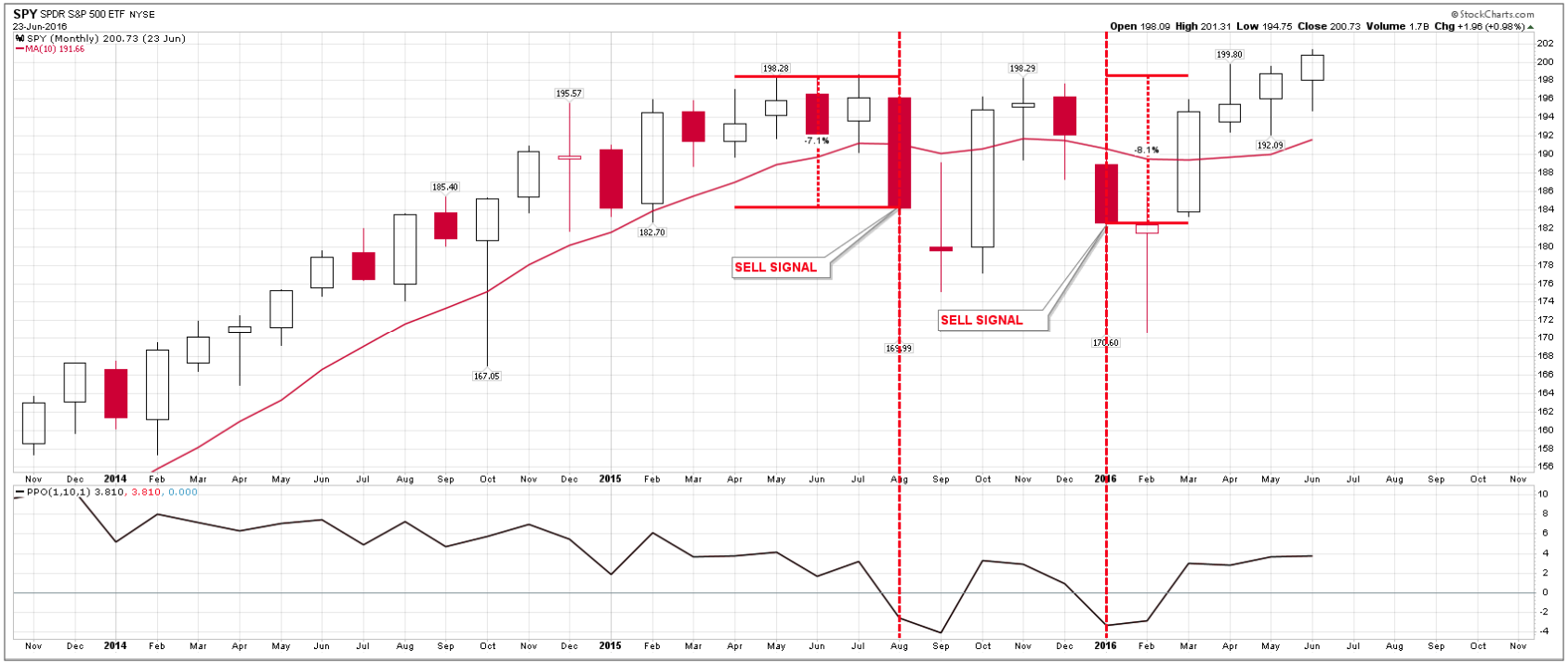


KEY TAKEWAY: THE GTAA_5 IS A MONTHLY STRATEGY USING MONTHLY CHARTS
DAILY AND WEEKLY PRICE FLUCUATIONS ARE IGNORED

STICKING TO THE PLAN

WILL YOU FOLLOW THE RULES?

SPY MONTHLY CHART – 2015 – 2016 - GTAA_5 – SELL SIGNALS

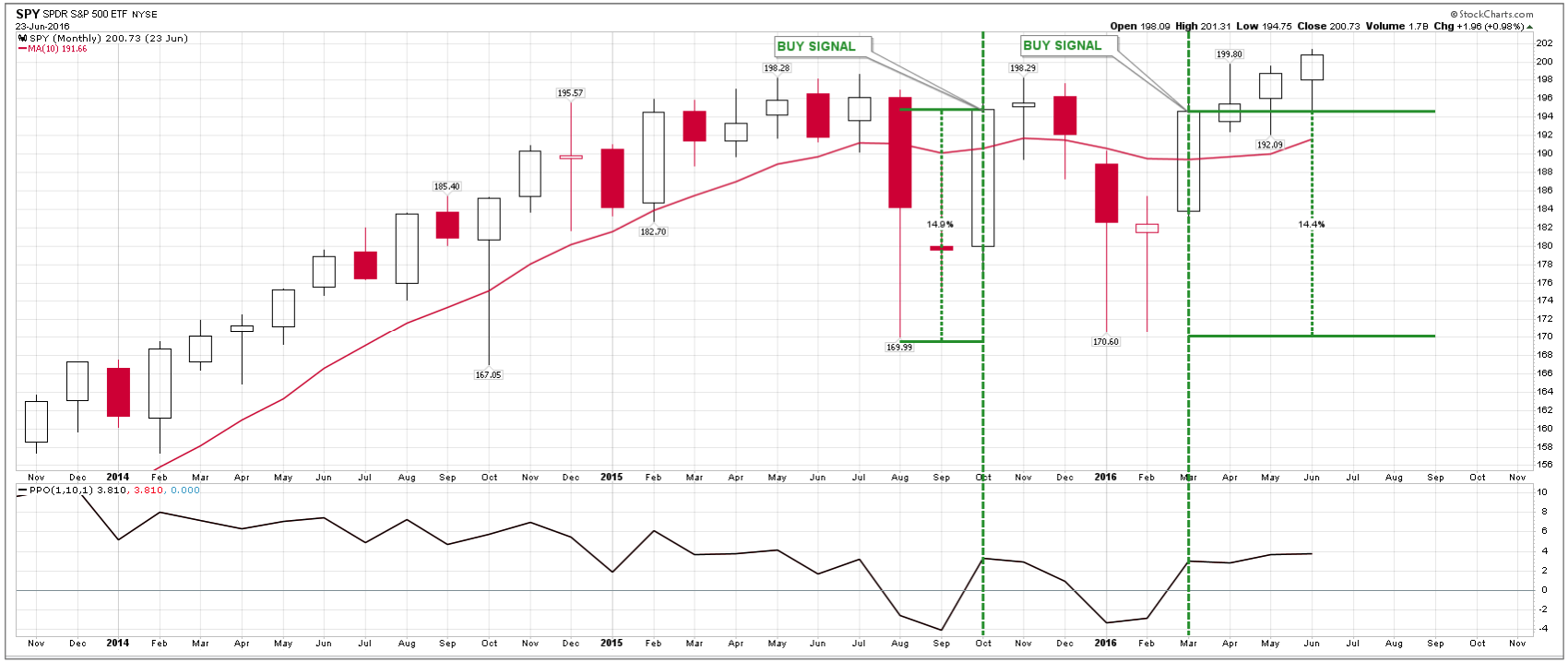


KEY TAKEWAY: THE GTAA_5 IS A MONTHLY STRATEGY USING MONTHLY CHARTS…DAILY AND WEEKLY PRICE FLUCUATIONS ARE IGNORED

STICKING TO THE PLAN

WILL YOU FOLLOW THE RULES?

SPY MONTHLY CHART – 2015 – 2016 - GTAA_5 – BUY SIGNALS



KEY TAKEWAY: THE GTAA_5 IS A MONTHLY STRATEGY USING MONTHLY CHARTS…DAILY AND WEEKLY PRICE FLUCUATIONS ARE IGNORED

WOULD YOU USE MONTHLY CHARTS AND IGNORE THE NOISE?

STICKING TO THE PLAN

WILL YOU FOLLOW THE RULES?

SPY MONTHLY CHART – 2016 – 2019 - GTAA_5 – BUY SIGNALS



KEY TAKEWAY: THE GTAA_5 IS A MONTHLY STRATEGY USING MONTHLY CHARTS…DAILY AND WEEKLY PRICE FLUCUATIONS ARE IGNORED

WOULD YOU USE MONTHLY CHARTS AND IGNORE THE NOISE?

IT'S EASY…
WHEN YOU ALREADY HAVE THE ANSWERS

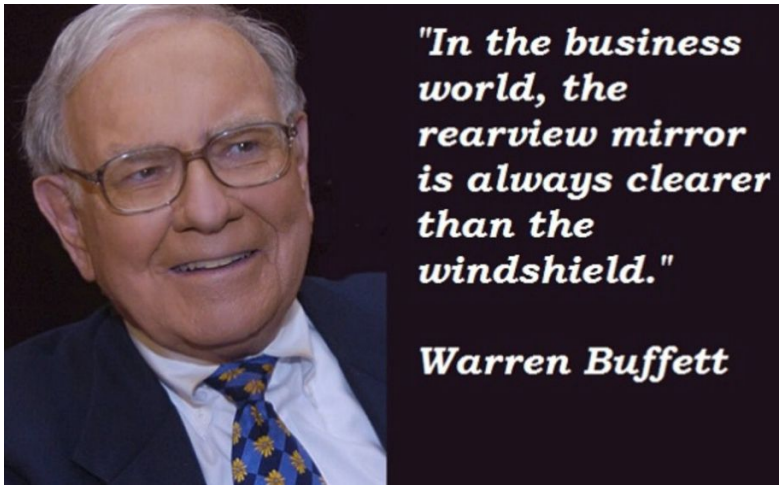
IT'S EASY TO GO BACK IN TIME AND LOOK AT HISTORICAL TRENDS AND SAY;

- I would have…
- I could have…
- I should have…

What cements a methodology/strategy is saying….I DID X,Y,Z

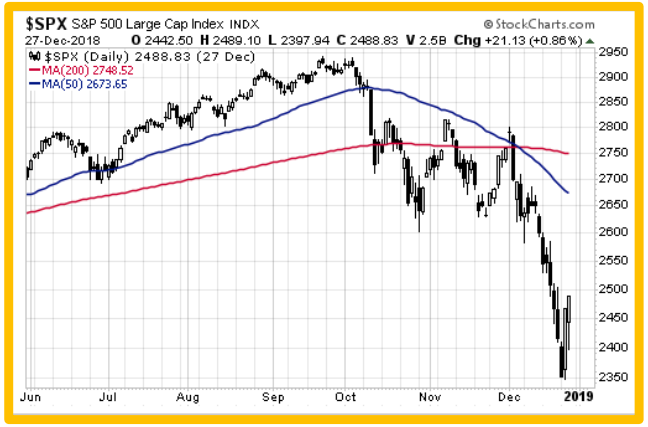
What did I learn? What did I do right? What do I need to improve?

YOU NEED A INVESTMENT PLAN DOCUMENTING YOUR STRATEGY AND YOUR LEARNING EXPERIENCES.

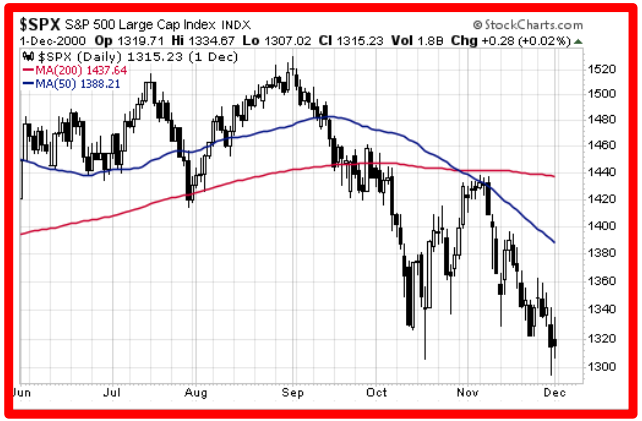


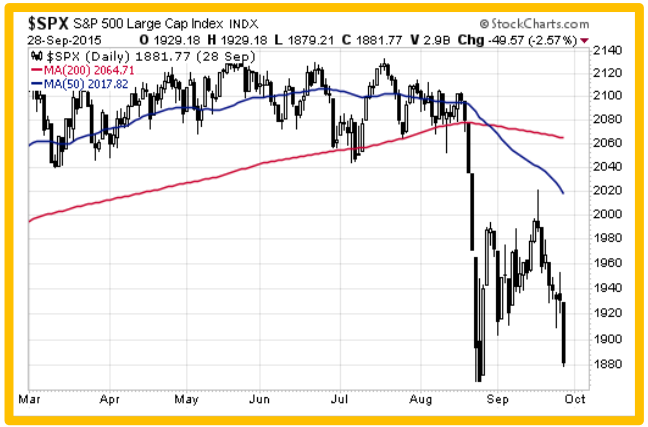
IT'S EASY…

WHEN YOU ALREADY HAVE THE ANSWERS









KEY TAKEAWAY

WE HAVE TO MAKE DECISIONS AT THE HARD RIGHT EDGE BASED ON THE FACTS WE CURRENTLY HAVE IN HAND….WE WILL GET THE ANSWERS LATER

STICKING TO THE PLAN

GLOBAL TACTICAL ASSET ALLOCATION (GTAA_5)

IF YOU ANSWERED YES TO THE STRATEGY AND THE RULES

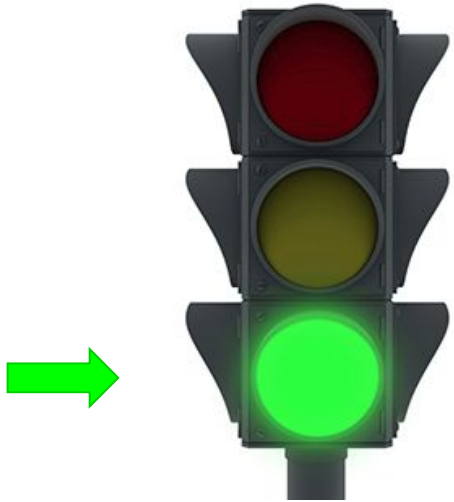


Here's the FACTS….

- The simple GTAA_5 strategy that has been proven to outperform it's benchmark on a longer term return basis;
- This strategy has reduced volatility in comparison to it's benchmark;
- Drawdowns of only -11.4% over a 45 - year period
- Superior Risk-adjusted Returns compared to the benchmark;
- Highly Liquid ETF's with minimal expense ratios;

YOU HAVE SELECTED A SIMPLE STRATEGY THAT WILL REQUIRE APPROXIMATELY 30MIN A MONTH OR LESS TO MANAGE. WE JUST HAD A STRATEGY SIGNAL ON FEBRUARY 26, 2021. DID YOU TAKE THE SIGNAL?

GREEN LIGHT
(time to be on your way)



STICKING TO THE PLAN

GLOBAL TACTICAL ASSET ALLOCATION (GTAA_5)

IF YOU ANSWERED NO TO THE GTAA_5 STRATEGY AND/OR THE RULES



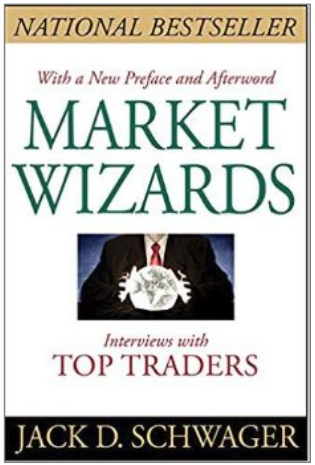
As a self directed independent investor here's additional questions that you need to answer 100% honestly as your financial future depends on it;

❖ Do you have an alternative strategy that you prefer to use? 	IF YES…YELLOW LIGHT (proceed with caution) 	IF NOT…RED LIGHT (INVESTOR BIAS) 
❖ In the alternative strategy above have you have personally employed this strategy for over a 3 - 5year period and has it outperformed the GTAA_5 strategy? 	IF YES…GREEN LIGHT (time to be on your way) 	IF NOT…RED LIGHT (TIME TO MAKE IMPROVEMENTS) 
❖ In the alternative strategy above if you have not used this strategy for 3-5 years yet, will you follow the rules? 	IF YES….GREEN LIGHT (time to be on your way) 	IF NOT…RED LIGHT (TIME TO MAKE IMPROVEMENTS) 
❖ Did you answer NO to the original GTAA_5 question as you will not follow the basic rules? 	IF YES…YELLOW LIGHT (proceed with caution) 	Your Rules, better results?  Your Rules, worse results? 
❖ Did you answer NO to the strategy and rules as you will not follow the rules and do not have a proven personal track record of beating this strategy?? 	IF YES….<u>MAJOR</u> RED LIGHT (PARK THE CAR, PUT THE PARKING BRAKE ON AND THROW THE KEYS OUT THE WINDOW…YOU ARE NOT ALLOWED TO DRIVE)	IF NO…RED LIGHT YOU MAY ARE CONFUSED THIS ISN'T THAT HARD 

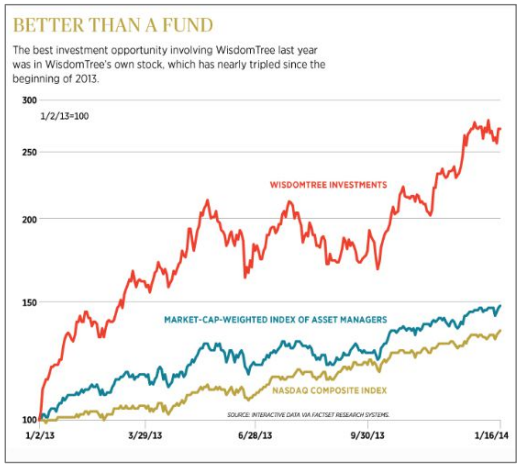
A FRIENDLY REMINDER

WHO OUR COMPETITION IS

When Michael Steinhardt, the renowned Hedge Fund manager was asked what the most important thing an average investor could learn from him, he replied, "I'm their competition".







Other greats worth following; William Eckhardt, Liz Cheval, Richard Dennis, Jerry Parker, Mark Walsh, John Henry, Salem Abraham, Ed Seykota

KEY TAKEAWAY: YOU are giving the top investors in the world (like the ones above) the upper hand in the market if YOU do not have an Investment Plan that you will follow. By developing, trusting and following YOUR Investment Plan, YOU become THEIR competition



THE PORTFOLIO SHIELD

- GENERAL CONCEPT;
- BREADTH, TREND, RELATIVE STRENGTH;
- TACTICAL ALLOCATION SHIFTS;
- CORE VS EXPLORE POSITIONING EXAMPLE;

PORTFOLIO SHIELD

ALLOCATIONS THROUGH MARKET TRANSITIONS
BREADTH AND TREND BASED

GENERAL CONCEPT

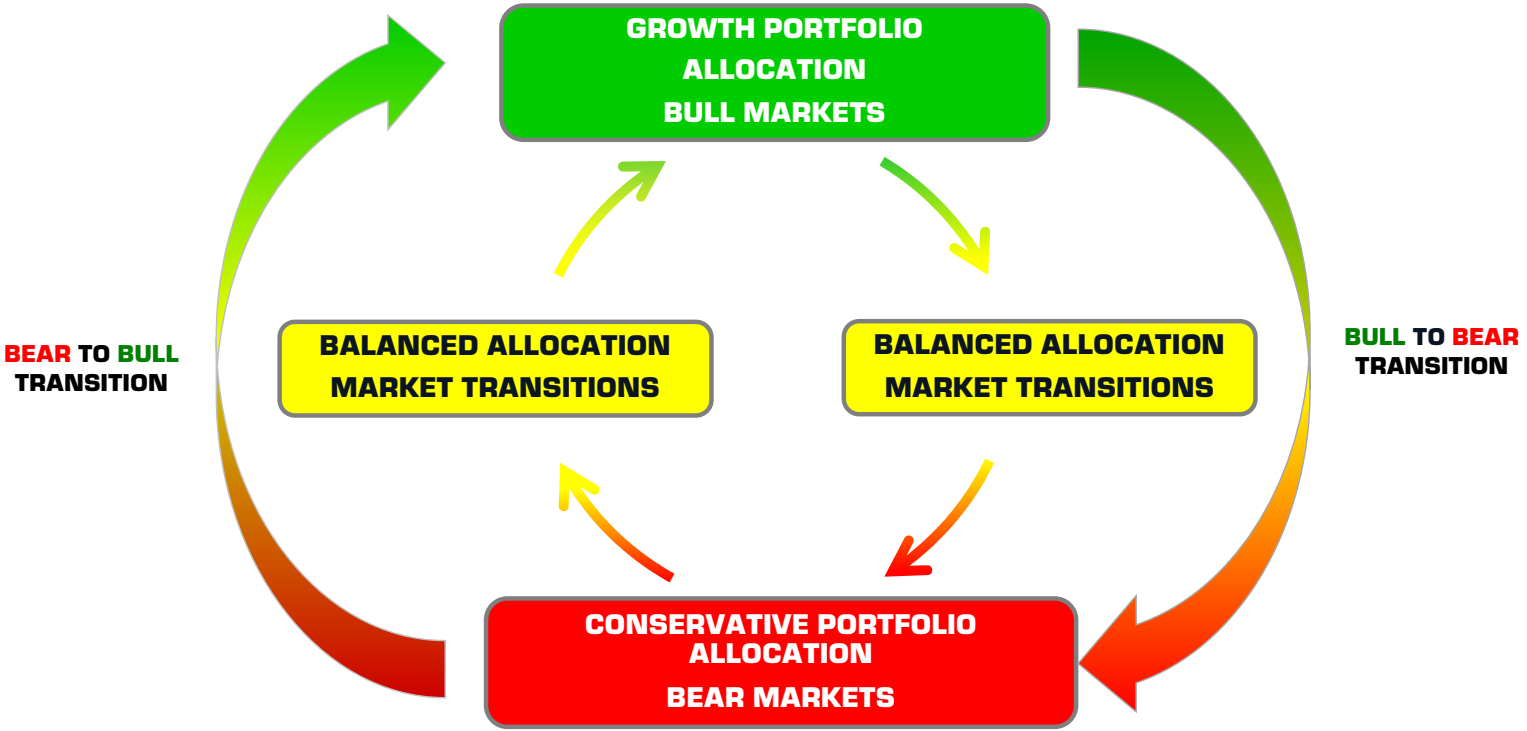
- At Riverside, we understand that there is a discernable difference between Volatility to Ignore vs Volatility to Respect.
- From a Volatility to Ignore perspective, this is the volatility that would occur during normal market fluctuations. These fluctuations would be defined as small to mid drawdowns of up to -15 to -20%. These drawdowns can used to make minor Portfolio changes or adjustments. For example, trimming of a position of a swing high and then re-applying capital at a swing low. Under normal market fluctuations we are looking to stay invested in the markets if possible within our own individual risk tolerance.
- From a Volatility to Respect perspective, there are drawdowns that can create catastrophic damage to Portfolios. These drawdowns would be defined drawdowns larger than -20%. These drawdowns include Bear Markets or periods of intense selling pressure where a long recovery would be anticipated. These are the drawdowns we are looking to avoid if possible.
- To distinguish between Volatility to Ignore vs Volatility to Respect we have created a simple Mechanism to help Investors stay invested in the during periods of normal market fluctuations and while protecting investments from large drawdowns.
- We call this mechanism, the **PORTFOLIO SHIELD.**

THE FOLLOWING SLIDE PROVIDES A CONCEPTUAL REFERENCE OF THE PORTFOLIO SHIELD AND IT'S INTENDED FUNCITON



PORTFOLIO SHIELD

ALLOCATIONS THROUGH MARKET TRANSITIONS
BREADTH AND TREND BASED



PORTFOLIO SHIELD

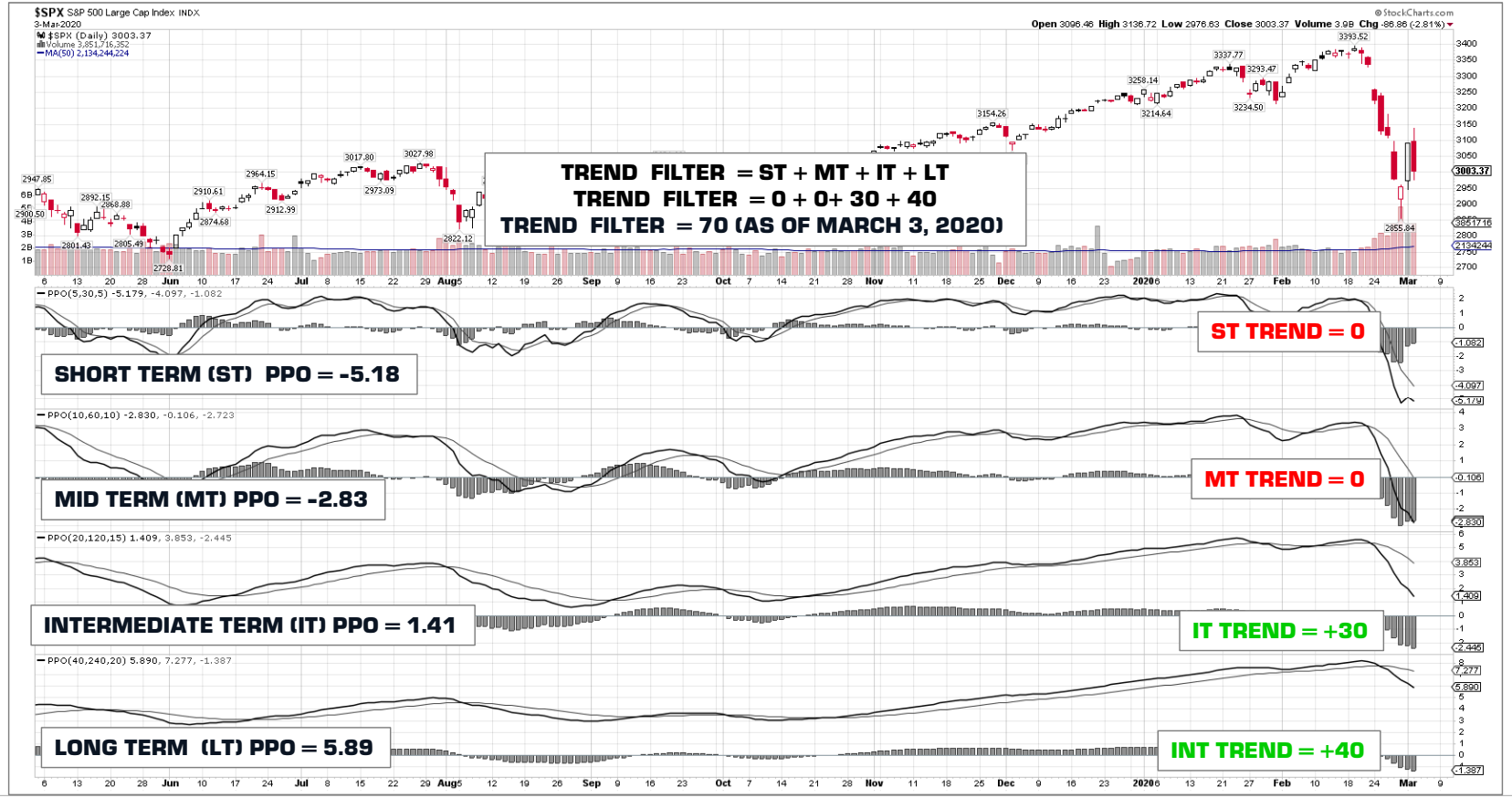
ALLOCATIONS THROUGH MARKET TRANSITIONS
BREADTH AND TREND BASED

PORTFOLIO SHIELD COMPONENTS

- The Portfolio Shield is comprised of two timeless concepts. Trend and Breadth;
- The Portfolio Shield is intended to be applied to the equity market index to which you are invested. At Riverside, we prefer to use the S&P 500 Large Cap Index ($SPX) as this equity index comprises approximately 84% of all equity market value.
- This index is the gorilla in the room that drives the Global Equity Markets.
- In focusing on the S&P 500 Large Cap Index, let's explore the first Portfolio Shield Metric, **TREND.**

PORTFOLIO SHIELD

PPO TREND FILTER
GENERAL INFORMATION



PORTFOLIO SHIELD – MARKET BREADTH

In its most basic form, Market breadth indicators analyze the number of stocks advancing relative to those that are declining or the number of stocks producing new highs vs the number of stocks producing new lows. At Riverside we use 8 custom Market Breadth indicators, in various time frames including;

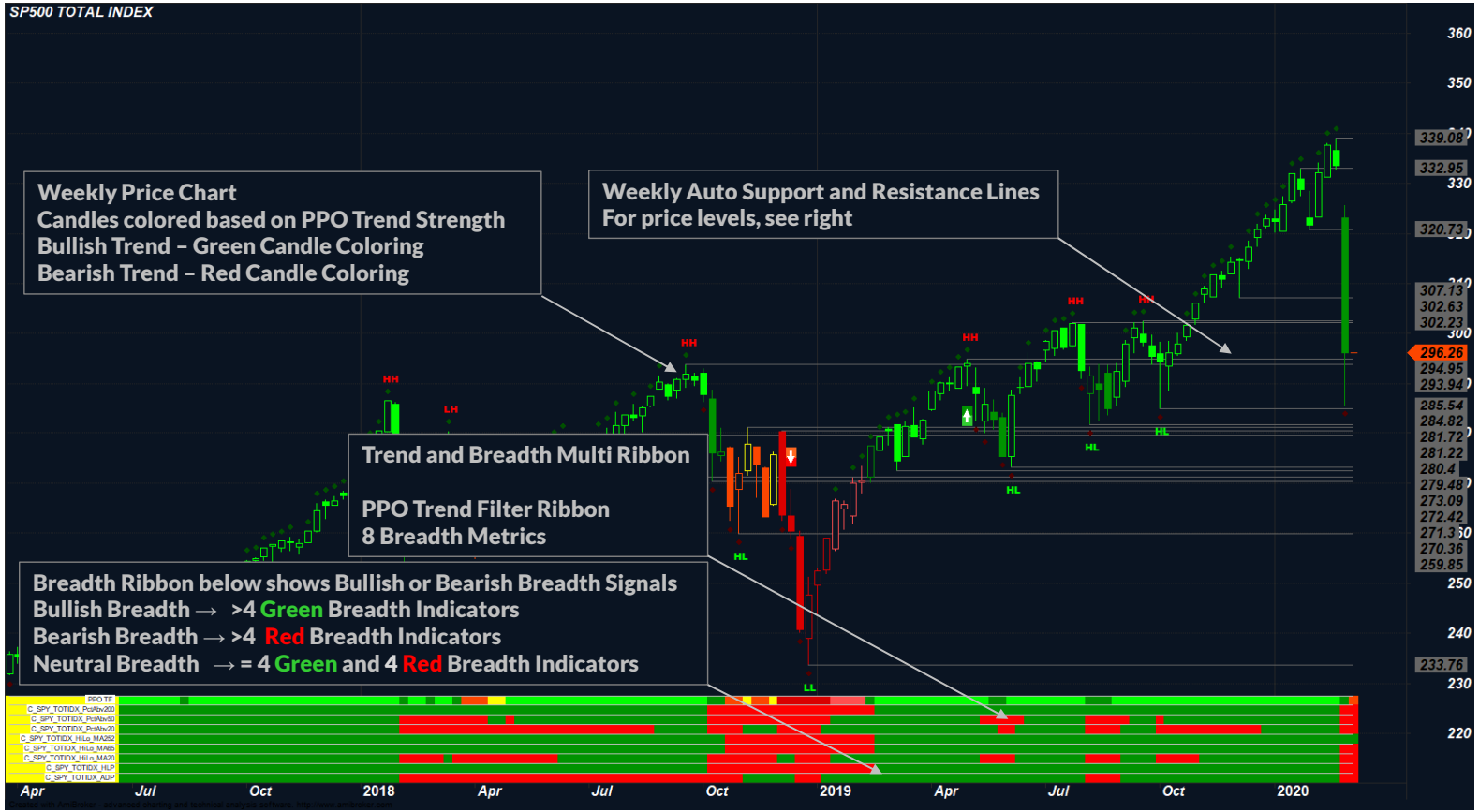
- Advance Decline Percent;
- Volume Advance Decline;
- New High, New Low percent
- Percentage of stocks above a Moving Average;

Our Breadth indicators are graphically represented by a Binary Ribbon at the bottom of Weekly Price Charts.

The chart on the next slide below illustrates our Custom Breadth Indicators on the S&P 500 Large Cap Index.

PORTFOLIO SHIELD

MARKET BREADTH
GENERAL INFORMATION

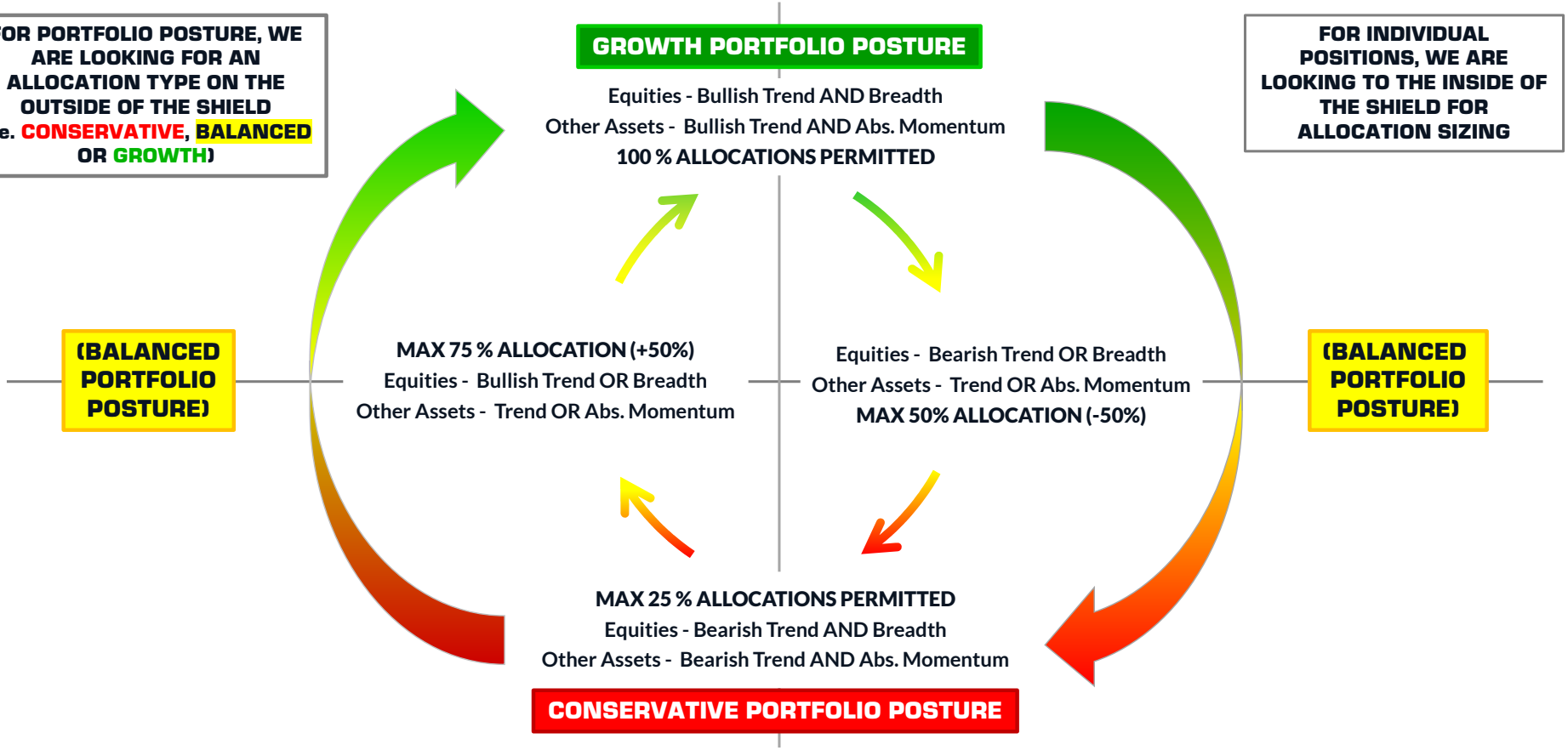


PORTFOLIO SHIELD

PORTFOLIO POSTURE
GROWTH, BALANCED, CONSERVATIVE

FOR PORTFOLIO POSTURE, WE ARE LOOKING FOR AN ALLOCATION TYPE ON THE OUTSIDE OF THE SHIELD (i.e. CONSERVATIVE, BALANCED OR GROWTH)

FOR INDIVIDUAL POSITIONS, WE ARE LOOKING TO THE INSIDE OF THE SHIELD FOR ALLOCATION SIZING



PORTFOLIO SHIELD
ALLOCATIONS THROUGH MARKET TRANSITIONS
ASSET ALLOCATION MODEL

SAMPLE ASSET ALLOCATION MODEL

- The asset allocation table (right) is a sample allocation table based on three risk tolerance levels, namely; Offensive, Conservative and Defensive;
- Offensive Assets (Equities) have been shown in blue;
- Defensive Assets (Fixed Income and Commodities) have been shown in orange
- This table has been configured with three allocation types to match the three Portfolio Shield Configurations;
- If market conditions are favorable, the Portfolio Shield will reside under an Offensive Asset Allocation;
- If market conditions are NOT favorable, the Portfolio Shield will reside under a Defensive Asset Allocation;
- If market conditions are in a transitionary period, the Portfolio Shield will reside under a Conservative Asset Allocation;

ASSET CLASS	DEFENSIVE ALLOCATION (%)	CONSERVATIVE ALLOCATION (%)	OFFENSIVE ALLOCATION (%)
Domestic Equities	10	30	37.5
Foreign Equities	5	15	20
Real Estate	5	7.5	15
Commodities	2	5	7.5
Bonds	78	42.5	20
TOTAL	100	100	100
Offense Defense Ratio	20 / 80	45 / 55	72.5 / 27.5

AS OF THE CLOSE ON MARCH 3, 2020

- S&P 500 Trend = Bullish
- S&P 500 Breadth = Bearish (March 3, 2020)
- Portfolio Shield Allocation = **CONSERVATIVE**

THE NEXT SLIDE ILLUSTRATES THE PORTFOLIO SHIELD POSITIONING

TIM'S PORTFOLIO SHIELD

EXAMPLE

THE BEST OFFENSE IS A GOOD DEFENSE!







EXAMPLE INVESTMENT STRATEGY

- PUTTING THE METHODOLOGY TO WORK;

INVESTMENT CLASS MODULES #1 - #3

MODULE SUMMARY

MODULE #1

Investor Psychology
- Every investor should be aware that their investment decisions have both a financial and emotional consequence.

Emotions
- Emotions Defined
- Confidence
- Fear
- Greed
- Ego's
- Behavioral Biases
- The Need to be Right

Influencing Factors
- The News
- Facts vs Opinions
- What vs Why
- Fundamentals vs Technicals
- Analysis Paralysis
- Percentages vs Dollars
- Forecasting

MODULE #2

Asset Allocation and Time Horizon
- What time frame is best for you?
- Time horizon and investment impact
- Young Investors
- Mid Life Investors
- Experienced Investors

Asset Allocation
- Asset Allocation Introduction
- Strategic Asset Allocation (SAA)
- Tactical Asset Allocation (TAA)
- Dynamic Asset Allocation (DAA)

Portfolio Asset Allocation Concepts
- Diversification vs Allocation
- Rebalancing
- Benchmarks

Standard Portfolio Metrics
- Beta
- Alpha
- Correlations and degree of fit

Standard Portfolio Measures of Risk
- Defining Risk
- Sharpe and Sortino Ratios
- Ulcer Index and Ulcer Performance Index

MODULE #3

Asset Allocation and Time Horizon
- Why use Technical Indicators?
- Things to keep in mind
- Developing a toolbox
- How Many do you need?

Indicator Timeframes
- The Zoom Lens
- Investor Perception
- What time frame is right for you?
- Examining time frames
- Short term vs Long Term

Trend Following
- Characteristics of a Trend
- Do Markets Trend? Analysing the facts
- The Visual Trend Follower
- Trend Following – biases
- Putting the Indicators to work

Relative Strength
- Relative Price Ratio (RPR)
- RS Using Indicators
- Does Relative Strength Really Work?

Relative Strength
Market Breadth
Momentum

INVESTMENT CLASS MODULES #4

MODULE SUMMARY

MODULE #1

MODULE #2

MODULE #3

IN MODULE #4 WE HAVE REVIEWED THE FOLLOWING;

- So far in the class we have discussed a total of 15 strategies;
- All strategies are long term investment strategies;
- Transactions are based on Monthly signals;
- These are simple strategies to follow and manage;
- These strategies have a long term proven track record through various full market cycles;
- The Strategies all use Highly liquid ETF's;
- The strategies can be transacted in both US and Canadian Currencies;
- These strategies fall under the "get rich slow program", they are not intended to be traded;
- It is easy to review the strategies, it is another matter to follow the strategy;
- Would you follow the rules? Fully understanding the strategies are key to developing the confidence to stick with strategies over long term periods of time.
- A Portfolio Shield can be used a Transition guide through various market conditions



Time to build a Personalised Investment Strategy

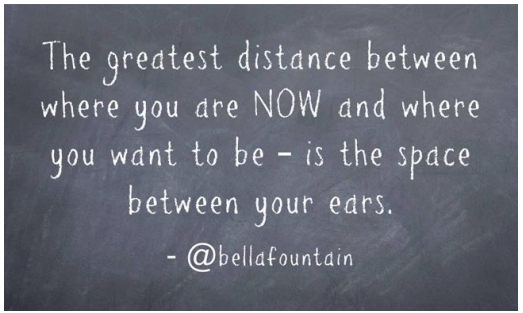


SAMPLE INVESTMENT STRATEGY
STARTING WITH THE BASICS

SAMPLE INVESTMENT STRATEGY

- The following is a sample Investment Strategy compiled based on the material presented in this class;
- This is simple, yet powerful example of how you can combine the best of strategy worlds;
- This strategy may or may not be right for you;
- If the strategy does have an appeal, would you change anything to suit your individual investment needs?;
- If the strategy does not appeal to you, what would you change? Why would you change it?;
- Portfolio Construction is a highly personalised process;
- YOUR portfolio needs to be constructed for YOU and YOU ALONE. It will not pay to ask what everyone else is doing;
- You need to be 100% honest with yourself at this stage of the process. If you will not follow YOUR Investment Plan, you will most likely fall victim to the Dalbar statistics each year;
- I'm not sure what an edge is in the market, but having the determination to develop an Investment plan that is right for you, may be your edge in the market;
- **CAN YOU DO IT? I BELIEVE YOU CAN!!! HOWEVER, ITS NOT ABOUT FUNDAMENTALS OR THE TECHNICALS, IT'S ABOUT LEARNING TO NAVIGATE THE SPACE BETWEEN YOUR EARS!**





SAMPLE INVESTMENT STRATEGY
STARTING WITH THE BASICS

SAMPLE INVESTMENT STRATEGY

- Name: JOHN DOE
- Do you have my Personal Affairs Checklist Completed? Yes
- Are you a Young, Mid Life or Experienced Investor? Mid life
- Do you have to maintain a portion of capital invested in the markets at all times for income purposes? Yes
- If so, how much? (determine as a percentage) 50%
- What is your Risk Tolerance? (Conservative, Moderate, Aggressive) Depends on market conditions
- What is your Portfolio Shield? Rules that you will not break regardless of conditions – Breadth and Trend
- How much time do you want to spend managing your investments? 3 - 4 hrs a month
- How much additional time could you spend managing your investments? Maybe an 1hr a week
- What role with Fundamental or Technical Analysis play in your portfolio? Consider technical analysis for position management
- What types of Asset Allocation will you use? What percentages? 100% Dynamic Asset Allocation (50% Offensive assets and 50% Defensive assets). We will use different strategies to manage both.

MID LIFE INVESTORS
GROWTH AND PRESERVATION

PROFILE: investors are in their middle to late working years. Time horizon is still relatively long, need for increased retirement savings and educational savings is high. In this stage income begins to exceed expenses and ability to increase retirement savings goes up. Many folks in this category are in their peak earning years.

GOALS: peaking in their career, putting children through college, increasing contributions for retirement savings, upgrading to a new home, eliminating un-secured debt, deciding when and how best to retire

RISKS: Failing to increase contributions for retirement savings, spending more money than what is earned, not drafting estate planning documents, failing to no obtain adequate insurance coverage, not giving thought to desired retirement lifestyle and expenses





MID LIFE INVESTORS: GROWTH AND PRESERVATION			
Asset Class	**Conservative**	**Balanced**	**Growth**
Domestic Equities	25	30	35
Foreign Equities	12.5	15	17.5
Real Estate	5	7.5	12.5
Commodities	2.5	5	5
Bonds	55	42.5	30
Total	100	100	100

MID LIFE INVESTORS
EXAMPLE ALLOCATION'S BASED ON RISK TOLERANCE

THE TABLE TO THE RIGHT IS AN EXAMPLE, WOULD YOU CHANGE ANYTHING??

SAMPLE INVESTMENT STRATEGY

STARTING POINT

SAMPLE INVESTMENT STRATEGY

- Name: John Doe
- Do you have my Personal Affairs Checklist Completed? YES
- Are you a Young, Mid Life or Experienced Investor? MID LIFE
- Do you have to maintain a portion of capital invested in the markets at all times for income purposes? Yes
- If so, how much? (determine as a percentage) 50%
- What is your Risk Tolerance? (Conservative, Moderate, Aggressive) Depends on market conditions
- What is your Portfolio Shield? Rules that you will not break regardless of conditions – BREADTH AND TREND
- How much time do you have to manage your investments? 3 - 4 hrs a month
- How much additional time could you spend managing your investments? Maybe an 1hr a week
- THE ABOVE TWO QUESTIONS WILL DETERMINE HOW MANY POSITIONS YOU CAN COMFORTABLY MANAGE

BASED ON THE INFORMATION, LEFT, ONE COULD MANAGE THE TRINITY PORTFOLIO OR SLIGHT COMBINATION OF THE TRINITY AND DUAL MOMENTUM PORTFOLIO'S WITHIN A FEW HOURS A MONTH OR LESS

WOULD THIS WORK FOR YOU?
WHY OR WHY NOT?

GOLF CLUBS
HOW MANY DO YOU REALLY NEED?

THE BIG TAKEAWAY…

- You don't need many golf clubs to produce an excellent round of golf
- You don't need many technical indicators to produce satisfying gains in the market
- YOU DO NEED TO KNOW HOW YOUR CLUBS/INDICATORS WORK TO BE ABLE TO EXTRACT THEIR TRUE POWER



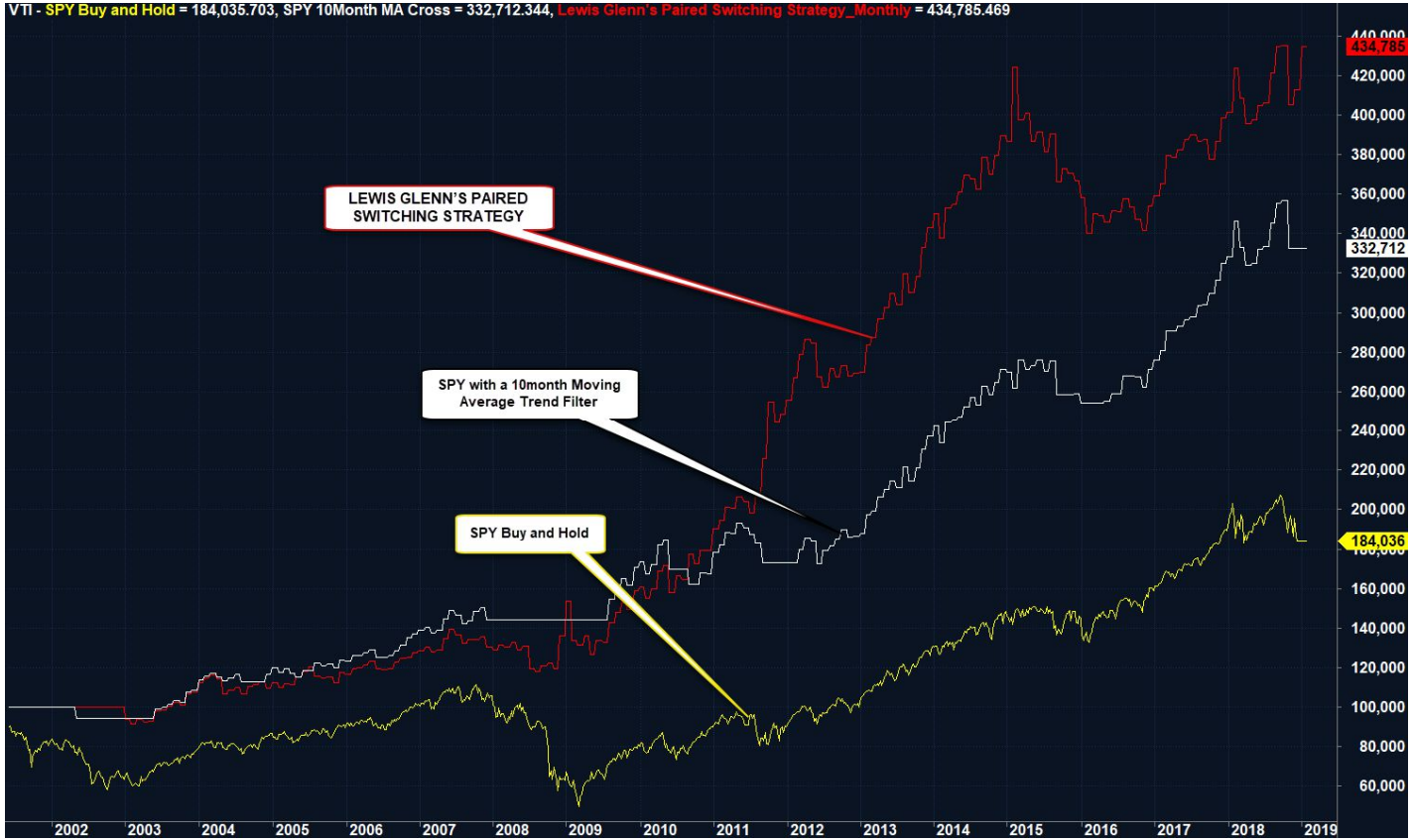




ALTHOUGH WE DISCUSSED THE ABOVE IN RELATION TO TECHNICAL INDICATORS….SIMPLICITY CAN ALSO BE APPLIED TO YOUR INVESTMENT PLAN

LEWIS GLENN'S PAIRED SWITCHING STRATEGY

SIMPLICITY DOES WORK!!!



MONTHLY STRATEGY

2 ETF's

44 trades over 19 years
OR
2.3 trades per year

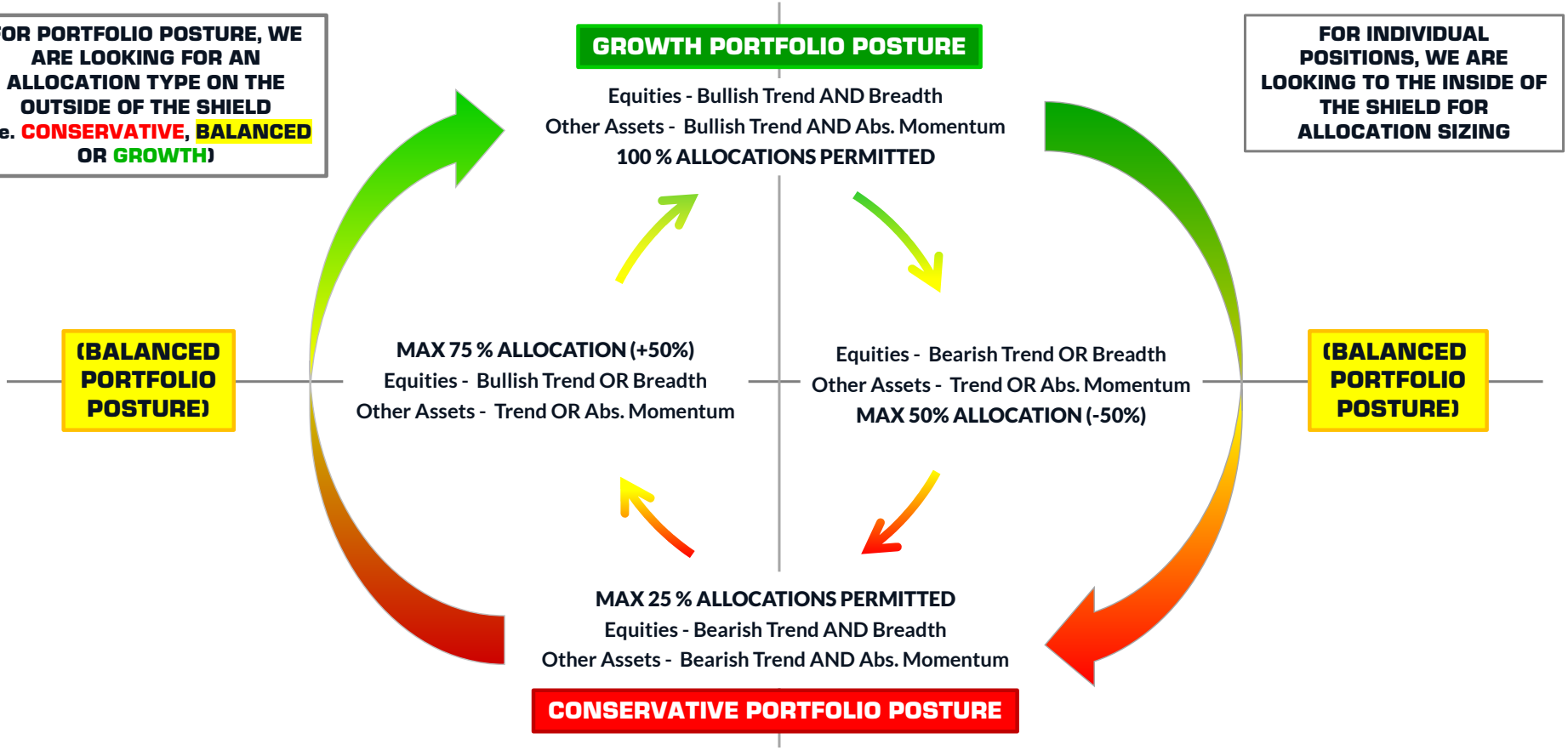
Would have resulted in an additional
250K in Equity Over buy and hold

PORTFOLIO SHIELD

PORTFOLIO POSTURE
GROWTH, BALANCED, CONSERVATIVE

FOR PORTFOLIO POSTURE, WE ARE LOOKING FOR AN ALLOCATION TYPE ON THE OUTSIDE OF THE SHIELD (i.e. CONSERVATIVE, BALANCED OR GROWTH)

FOR INDIVIDUAL POSITIONS, WE ARE LOOKING TO THE INSIDE OF THE SHIELD FOR ALLOCATION SIZING



SAMPLE INVESTMENT STRATEGY

MID LIFE INVESTOR – ADVANCED STRATEGY

PORTFOLIO SHIELD

Non-Optimal Conditions → Indecisive Conditions → Optimal Conditions

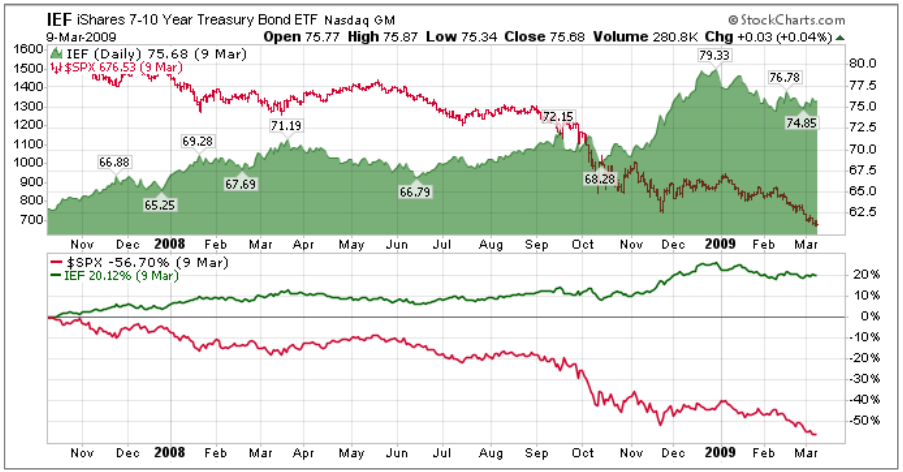
Asset Class	Conservative Investors	Balanced Investors	Growth Investors
Domestic Equities	25	30	35
Foreign Equities	12.5	15	17.5
Real Estate	5	7.5	12.5
Commodities	2.5	5	5
Bonds	55	42.5	30
TOTAL	100	100	100
Equity Bond Ratio	45 / 55	57.5 / 42.5	70 / 30
Offense Defense Ratio	37.5 / 62.5	45 / 55	52.5 / 47.5

A PORTFOLIO SHIELD CAN REDUCE BEAR MARKET DRAWDOWNS

Start	End	2008 % Drawdowns				
		SPY	IEF	70 / 30	57.5 /42.5	45 / 55
11-Oct-07	9-Mar-09	-56.7	20.12	-33.65	-24.05	-14.45

PORTFOLIO SHIELD

- Set allocation percentages that work for you. The example left is an example and only an example. Would these percentages for you? If not, what would you change?
- What Shield Metrics would be applicable for you? These are rules outside of any strategy to ensure you grow your capital when market conditions and protect from drawdowns;
- Based on the Shield Metrics, you now have a simple methodology to adapt to changing market conditions;



SAMPLE INVESTMENT STRATEGY

MID LIFE INVESTOR – ADVANCED STRATEGY

COMPOSITE STRATEGY OBJECTIVE

- Grows and protects capital when warranted;
- Adapts allocations to suit market conditions;
- Maintains a portion of capital invested in Fixed Income Assets for income;
- Invests in highly liquid ETF's to minimize transaction concerns;

PORTFOLIO SHIELD

Non-Optimal Conditions ← Indecisive Conditions → Optimal Conditions

Asset Class	Conservative Investors	Balanced Investors	Growth Investors
Domestic Equities	25	30	35
Foreign Equities	12.5	15	17.5
Real Estate	5	7.5	12.5
Commodities	2.5	5	5
Bonds	55	42.5	30
TOTAL	100	100	100
Equity Bond Ratio	45 / 55	57.5 / 42.5	70 / 30
Offense Defense Ratio	37.5 / 62.5	45 / 55	52.5 / 47.5

PORTFOLIO ALLOCATION: Domestic Equities and Foreign Equities

ALLOCATION %: Portfolio Shield Determined

STRATEGY ALLOCATION: **40% GEM, 60% GTAA_Agg.6**

PURPOSE: Growth when market conditions are right

WATCHLIST: GTAA_Agg.6 Equity Basket, GEM - 16 ETF's Total

SELECTION METRIC: 40% GEM (Abs and Rel Momentum), 60% GTAA_13 Agg 6 – (RS and Trend). Rebalance monthly.

OBJECTIVE: Invests with strength if conditions are right, avoids weakness at all costs

TOTAL ETF'S INVESTED EACH MONTH: 0 – 7 ETF's Based on market Conditions

PORTFOLIO ALLOCATION: Real Estate, Commodities and Fixed Income Assets

ALLOCATION %: Portfolio Shield Determined

PURPOSE: Income and Overall Defense

WATCHLIST: **Novell's DMFI List (8 ETF's), IAU, XLU and VNQ – 11 ETF's total**

SELECTION METRIC: Use RS to select the top three ETF's each month, rebalance monthly

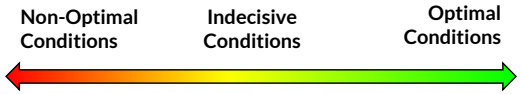
OBJECTIVE: Stays invested but stays invested with strength and avoids weakness

TOTAL ETF'S INVESTED EACH MONTH: 0-3 ETF's

SAMPLE INVESTMENT STRATEGY

OFFENSIVE PORTFOLIO ALLOCATION – GTAA_AGG_6 AND GEM

PORTFOLIO SHIELD



Asset Class	Conservative Investors	Balanced Investors	Growth Investors
Domestic Equities	25	30	35
Foreign Equities	12.5	15	17.5
Real Estate	5	7.5	12.5
Commodities	2.5	5	5
Bonds	55	42.5	30
TOTAL	100	100	100
Equity Bond Ratio	45 / 55	57.5 / 42.5	70 / 30
Offense Defense Ratio	37.5 / 62.5	45 / 55	52.5 / 47.5
Total Portfolio Equity	$1,000,000		
Offensive Allocation	$375,000	$450,000	$525,000
GEM (40%)	$150,000	$180,000	$210,000
GTAA_Agg.6 (60%)	$225,000	$270,000	$315,000

OFFENSIVE PORTION OF THE PORTFOLIO

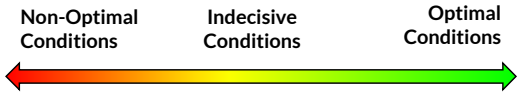
- *PORTFOLIO ALLOCATION*: Domestic Equities and Foreign Equities
- *ALLOCATION %:* Portfolio Shield Determined
- *STRATEGY ALLOCATION:* 40% GEM, 60% GTAA_Agg.6
- *PURPOSE:* Growth when market conditions are right;
- *WATCHLIST:* GTAA_Agg.6 Equity Basket, GEM - 16 ETF's Total
- *SELECTION METRIC:*
  - 40% GEM (Abs and Rel Momentum), 60% GTAA_13 Agg 6 – (RS and Trend).
- REBALANCE PERIOD: Monthly
- *OBJECTIVE:* Invests with strength if conditions are right, avoids weakness at all costs;
- *TOTAL ETF'S INVESTED EACH MONTH:* 0 – 7 ETF's Based on market Conditions

THIS PORTION OF THE PORTFOLIO IS ONLY OFFENSIVELY POSITIONED IF MARKET CONDITIONS ARE FAVORABLE. IF CONDITIONS ARE NOT FAVORABLE, THIS PORTION OF THE PORTFOLIO ALSO PLAYS DEFENSE.

SAMPLE INVESTMENT STRATEGY

DEFENSIVE PORTFOLIO ALLOCATION - DMFI

PORTFOLIO SHIELD



Asset Class	Conservative Investors	Balanced Investors	Growth Investors
Domestic Equities	25	30	35
Foreign Equities	12.5	15	17.5
Real Estate	5	7.5	12.5
Commodities	2.5	5	5
Bonds	55	42.5	30
TOTAL	100	100	100
Equity Bond Ratio	45 / 55	57.5 / 42.5	70 / 30
Offense Defense Ratio	37.5 / 62.5	45 / 55	52.5 / 47.5
Total Portfolio Equity	$1,000,000		
Defensive Allocation	$625,000	$550,000	$475,000
Novell's DMFI	$625,000	$550,000	$475,000

DEFENSIVE PORTION OF THE PORTFOLIO

- *PORTFOLIO ALLOCATION:* Real Estate, Commodities and Fixed Income Assets
- *ALLOCATION %:* Portfolio Shield Determined
- *PURPOSE:* Income and Overall Defense
- *WATCHLIST:* DMFI List (8 ETF's), DBC,IAU and VNQ – 11 ETF's total
- *SELECTION METRIC:* Use RS to select the top three ETF's each month based on Dual Momentum
- REBALANCE PERIOD: Monthly
- *OBJECTIVE:* Stays invested but stays invested with strength and avoids weakness
- *TOTAL ETF'S INVESTED EACH MONTH:* 3 ETF's

SAMPLE INVESTMENT STRATEGY

REITS AND GOLD





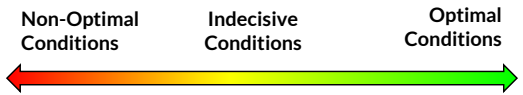




SAMPLE INVESTMENT STRATEGY

CURRENT ALLOCATION

PORTFOLIO SHIELD



Asset Class	Conservative Investors	Balanced Investors	Growth Investors
Domestic Equities	25	30	35
Foreign Equities	12.5	15	17.5
Real Estate	5	7.5	12.5
Commodities	2.5	5	5
Bonds	55	42.5	30
TOTAL	100	100	100
Equity Bond Ratio	45 / 55	57.5 / 42.5	70 / 30
Offense Defense Ratio	37.5 / 62.5	45 / 55	52.5 / 47.5
Total Portfolio Equity	$1,000,000		
Offensive Allocation	$375,000	$450,000	$525,000
GEM (40%)	$150,000	$180,000	$210,000
GTAA_Agg.6 (60%)	$225,000	$270,000	$315,000
Defensive Allocation	$625,000	$550,000	$475,000
Novell's DMFI	$625,000	$550,000	$475,000

CURRENT ALLOCATION – FEB 26, 2021

- *SAMPLE PORTFOLIO EQUITY = $1,000,000*
- *SHIELD METRICS : **GROWTH***

OFFENSIVE PORTFOLIO ALLOCATION

- Note: the Offensive Portfolio has the ability to be Offensive if conditions warrant. If market conditions are not favorable, this section of the portfolio will remain Defensive
- GEM signal – SPY ($210,000)
- GTAA_Agg_6 = VIOV, VIOG, DBC, VWO, VUG, VEA ($315,000)

DEFENSIVE PORTFOLIO ALLOCATION

- Novell's Dual Momentum Fixed Income (DMFI) = VNQ, HYG, FLOT ($475,000)

Total ETF'S Invested as of February 22, 2021 = 10 ETF's

NOTE:

- IF YOU WANTED TO BE MORE ACTIVE…USE THE ABOVE AS A BENCHMARK.
- HOWEVER, SO YOU KNOW….THE WAY THE ABOVE PORTFOLIO IS CONSTRUCTED, THIS WILL BE HARD TO BEAT THROUGH LONGER TERM ACTIVE MANAGEMENT

NOT INTERESTED IN ETF's?

YOU WILL NEED A SCREEN FOR STOCKS

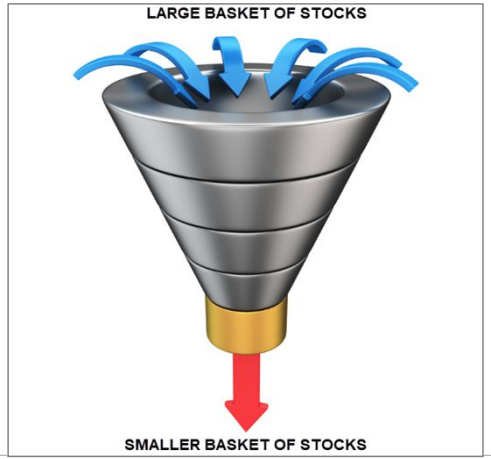
```
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
//////////////
#1
// Index Filter
[exchange is TSX]
//and [type is stock]
//[group is SP500]
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
//////////
#2
// Liquidity Filter
and[SMA(20,volume) > 200000]  // average volume is greater than 200,000 shares
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
//////////
#3
//Price Filter
and [Close > 5] // weed out low cost stocks
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
//////////
#4// Trend Filter
AND [Close > SMA(200,Close)] // close is above 200-day MA (uptrend)

////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
//////////
// #5 Volatility
Filter (VLT)and [[ATR(14) / Close] < 0.05] // 14 day ATR divided by the Close < 5.0%
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
//////////
#6
// Yield Filter
and [yield > 3.0]
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
//////////
#7
// Rank Filter
RANK by SCTR
```

This is a simple stockcharts.com scan code to filter the stock universe of the TSX. The scan is comprised of five primary metrics;

- ❖ Index Filter
- ❖ Liquidity Filter
- ❖ Price Filter
- ❖ Trend Filter
- ❖ Volatility
- ❖ Yield

This scan code is a start. What would you change?



OVERALL CLASS TAKEAWAYS

THINGS TO THINK ABOUT

THINGS TO THINK ABOUT

- The more moving parts you have in your portfolio, the more time it will take to manage;
- More moving parts has it's advantages however this additional time may or may not be rewarded;
- Shooting for a number, may be a losing endeavor;
- When to buy is not as important as when to get out;
- What type of investor are you? (the market will let you know)
- Will you follow the rules? Why or why not?
- Will you spend the time?
  - To Develop Your Investment Plan
  - To Learn about yourself
  - To learn about the markets
  - To adapt your plan to suit your needs as you change

- **YOU CAN DO THIS!! IF…… YOU CAN FOLLOW YOUR INVESTMENT PLAN!**



KEY TAKEAWAYS

THIS CLASS HAS PROVIDED THE BASIC BUILDING BLOCKS FOR CONSTRUCTING A TECHNICAL INVESTMENT PLAN AND STRATEGY ONLY.

THIS CLASS IS A STARTING POINT ONLY.

ADDITIONAL TIME IS REQUIRED ON YOUR PART TO DEVELOP AND REFINE YOUR PLAN

DEVELOPING YOUR PLAN BY YOU, FOR YOU, WILL BECOME YOUR GREATEST INVESTMENT

THAT'S IT FOR TODAY!



RIVERSIDE'S INVESTOR MASTER CLASS

DISCLAIMER

- All trading / investing comes with risk.
- The insights contained within this class do not constitute advice, rather are meant for educational purposes from which you may make more educated decisions taking into account your individual risk profile and needs for return.
- This class does not provide advice. There are no guarantees for positive return. All investing/trading is at your own risk.
- Under no circumstances does the information in this class represent a recommendation to buy, sell, or hold any security.
- This class is about helping active and affluent investors learn how to make better decisions in financial markets.
- You, and you alone, are solely responsible for any investment decisions that you make.
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Good investing is <u>not</u> an "event" like finding the next growth opportunity or catching the next market turn. Rather, good investing is a disciplined process that converts research and training into a well-tested methodology, and then makes a habit of following that approach day after day.

John P. Hussman, Ph.D
President, Hussman Strategic Advisors