

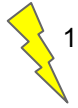


Cumulative Return

On Auto-trading



The practitioner's defence of the use of auto-trading algorithms.



Lightning talk take home points

Just remember this:

Market participants should consider auto-trading.

Changing markets can make a rising rate environment work in the investor's favor.

Be vigilant in recognizing your biases in real-time.

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Bias affects us all

Head of Quantitative Strategies

Sizemore Capital Management (2008) - dba PhysicianCapitalPartners.com (2015)

Dallas, Texas

Family offices, municipal pensions

Background:

Cardiac anesthesiologist by training

U Tx School of Public Health grad school ← Data Science in disguise!

US Citizen & EU resident (Spain)

Result → Different biases and strengths/weakness when approaching the market.

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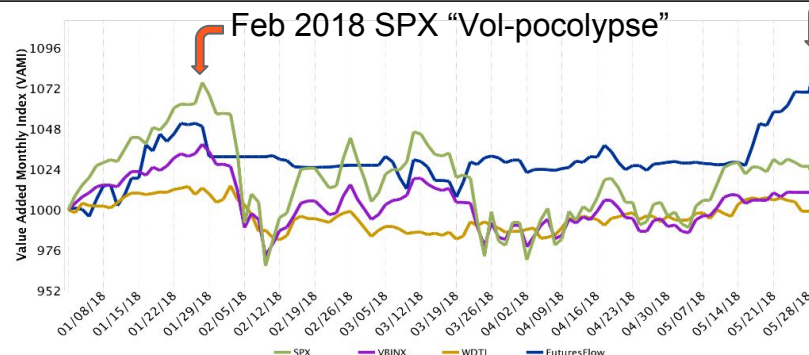
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Street Cred

Risk Measures Benchmark Comparison

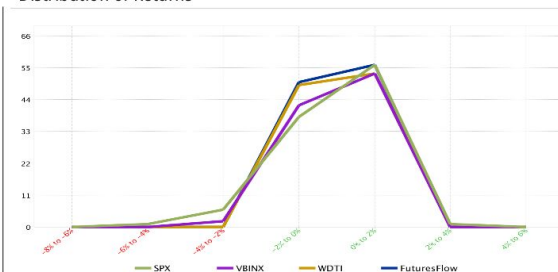
Auto-trading
strategy
(2018-05-29)



Risk Analysis

	SPX	VBINX	WDTI	FuturesFlow
Ending VAMI	1,013.97	1,007.16	1,000.25	1,088.18
Max Drawdown:	10.10%	6.38%	3.16%	4.18%
Peak-To-Valley:	01/26/18 - 02/08/18	01/26/18 - 02/08/18	02/01/18 - 02/12/18	01/23/18 - 03/19/18
Recovery:	Ongoing	Ongoing	Ongoing	45 Days
Sharpe Ratio:	0.27	0.15	-0.17	2.73
Sortino Ratio:	-0.02	-0.44	-1.48	3.78
Calmar Ratio:	0.48	0.39	0.03	8.08
Standard Deviation:	1.09%	0.44%	0.33%	0.54%
Downside Deviation:	0.85%	0.49%	0.24%	0.31%
Correlation:	0.15	0.17	0.09	-
Mean Return:	0.02%	0.01%	0.00%	0.08%
Positive Periods:	61 (57.55%)	62 (58.49%)	57 (53.77%)	62 (58.49%)
Negative Periods:	45 (42.45%)	44 (41.51%)	49 (46.23%)	44 (41.51%)

Distribution of Returns



PortfolioAnalyst

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*But I thought I was diversified?
Sharpe of 60/40 = 0.15*

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Street Cred

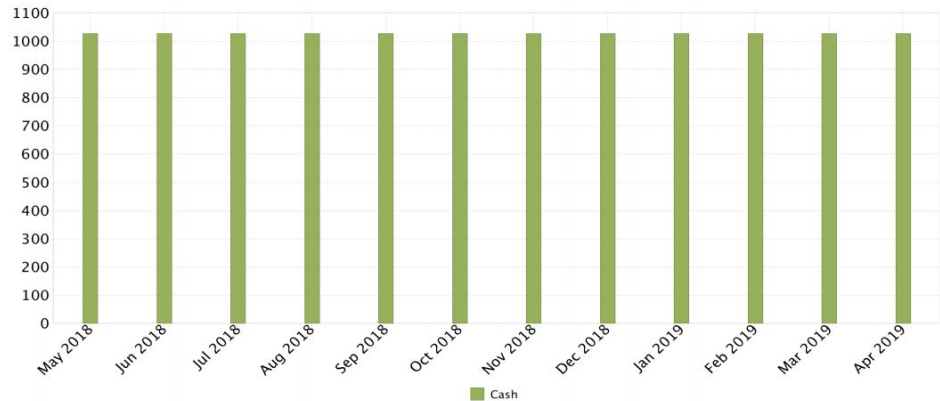
%

Rising interest rates
+
High valuations

Wall of Worry for:

stocks
Bonds
RE
PE
direct investment
gold

Projected Income



Symbol	Description	Frequency	Quantity	Price	Value	Current Yield %	Estimated Annual Income
Cash							
USD	Credit Interest	Monthly		1.00		1.19	12,326.40
Total						1.19	12,326.40

...But **with futures**,
rising rates =
more monthly income.

Current Yield %

1.19

1.19

0

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Goal = “Minimize and Match” (or exceed)

...Drawdowns and S&P 500 performance.

Focus on absolute and risk-adjusted returns

Pay for performance fee structure

Close at \$300MM

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2 kinds of auto-trading algos

YOUR STRATEGY

(insert your backtested code here ... AKA “I’ve never seen a bad backtest.”)



AND

YOUR EXECUTION

(Use Interactive Brokers IBALGO)

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Why you should auto-trade

Because it probably improves performance (anecdotal evidence)

How?

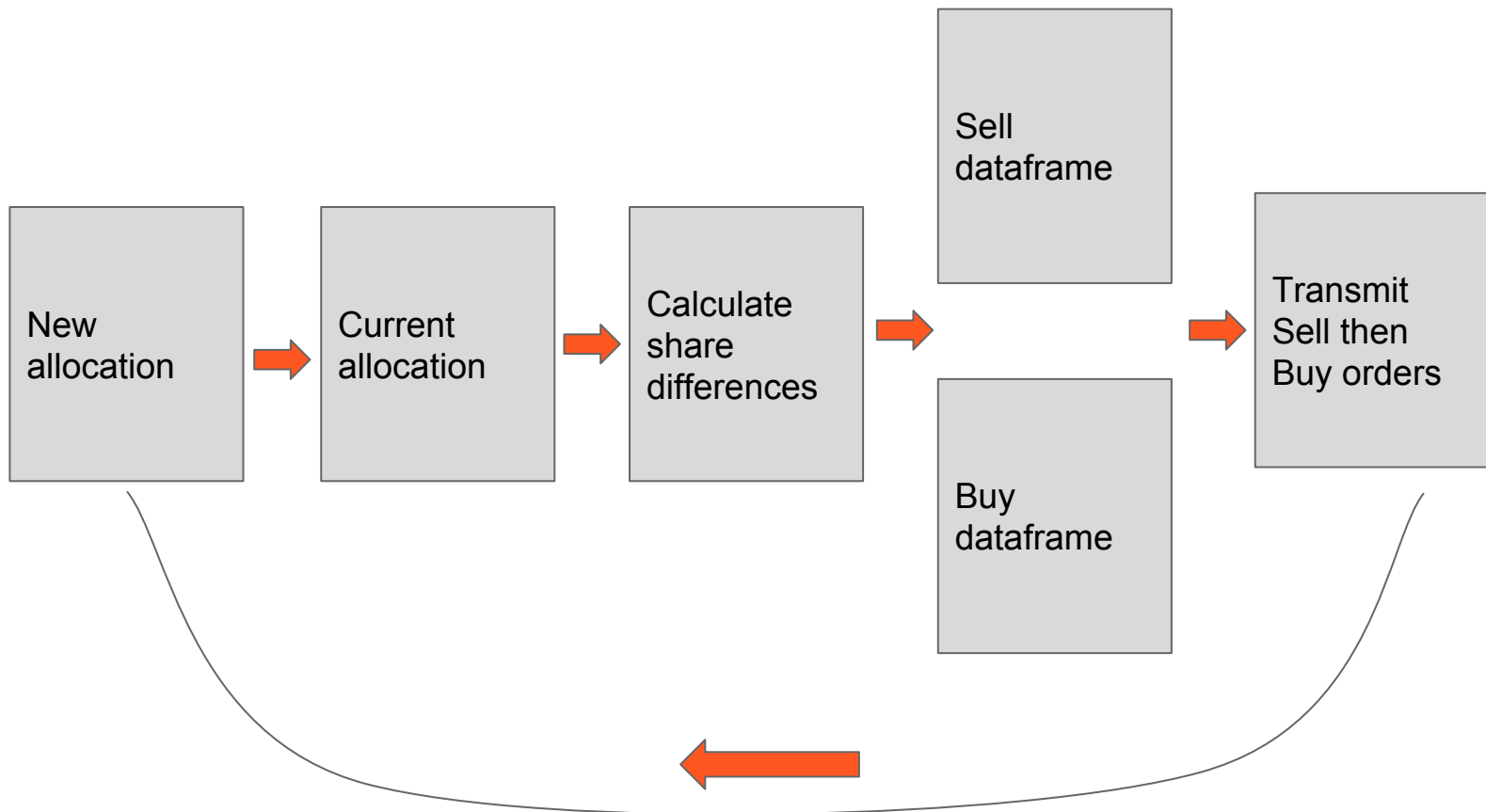
*****Reduces order transmission variance*****

IBALGO probably fills better than human trader

Reduces costs - slippage, human trader time

Auto-trading logic

Download full code - <https://github.com/PhilGuerra/autotrader>.





R and Python with Reticulate & ib_insync

```

1 Sys.setenv(RETICULATE_PYTHON = "/opt/Python-3.6.3")
2 library(reticulate)
3 insync <- import("ib_insync")
4 ib <- insync$IB()
5 ib$connect( port = "4001" )
6 #####
7 ### SELL ORDERS ###
8 #####
9 if (nrow(sell.df) > 0 ) {
10
11   for (i in 1:nrow(sell.df)) {
12     conContract = insync$Contract()
13     conContract$symbol = sell.df[i,1]
14     conContract$secType = "STK"
15     conContract$exchange = "SMART"
16     conContract$currency = "USD"
17     ib$qualifyContracts(conContract)
18     print(conContract)
19
20     order = insync$MarketOrder(action = 'SELL',
21                               totalQuantity = sell.df[i,4],
22                               algoStrategy = 'Adaptive',
23                               algoParams = list(insync$TagValue('adaptivePriority', 'Normal'))) ### R and Python! ###
24
25     print(order)
26     trade = ib$placeOrder(conContract,order)
27   }
28 }
29
30 }

```



 (How to say "TagValue" in R & IBAPI)



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Thank you

Who

Charles Sizemore CFA

Our clients

R Finance Committee

R Studio

Interactive Brokers

Quandl

Hull Investments

All package authors &
maintainers

For

Sizemore Capital CIO

Developing a thought partnership that works

Opportunity to present and share code

R Studio and Reticulate package

IBAPI written in native Python, IBALGO

Futures data

High-caliber research

Quantmod, XTS, twsInstrument, IBrokers, SIT, quantstrat,
rtsviz, Ib_insync, FinancialInstrument, zoo,
PerformanceAnalytics, dplyr, psych, many more

DISCLOSURES = NONE

PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RETURNS.