

# Systematic Investing - Knowledge Sharing

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# Disclaimer

- Personally applying Systematic Strategies
- This is NOT a strategy recommendation or any form of advise
- Amit Rupani, CFA is not a registered advisor. Kindly do your own due diligence and/or consult a registered investment advisor before making any investment decisions.

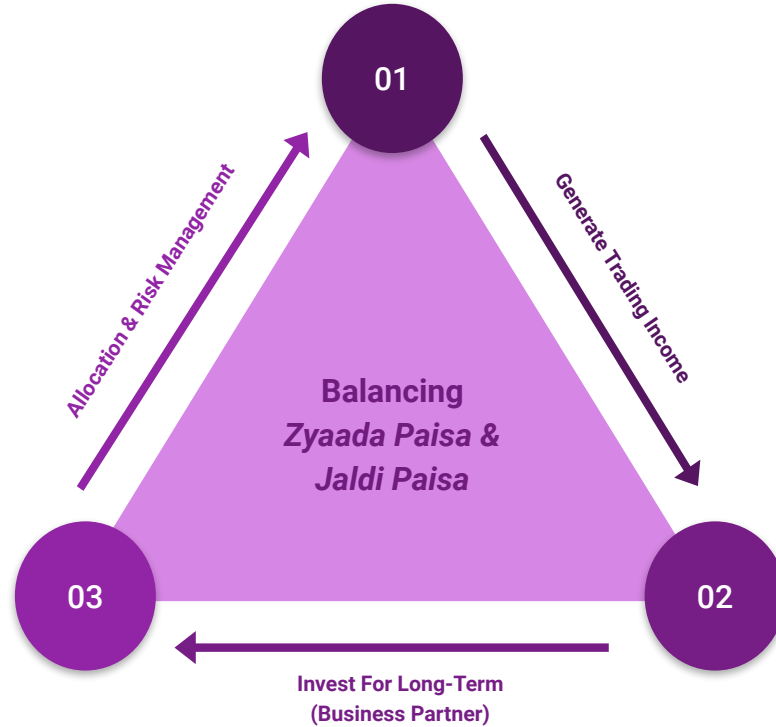
# Topics To Be Covered

1. Introduction
2. What, Why, Where, and How of Systematic Strategies?
3. Is There a Holy Grail Systematic Strategy?
4. Trend Following Systematic Strategy on Bitcoin (for learning purpose only)

# Quick Introduction

- 1) Based out of Charlotte, NC
- 2) FT Investor for last 4 years now
- 3) Worked in Corporate America for 8 years
- 4) Managing money for close friends and family for last 4 years

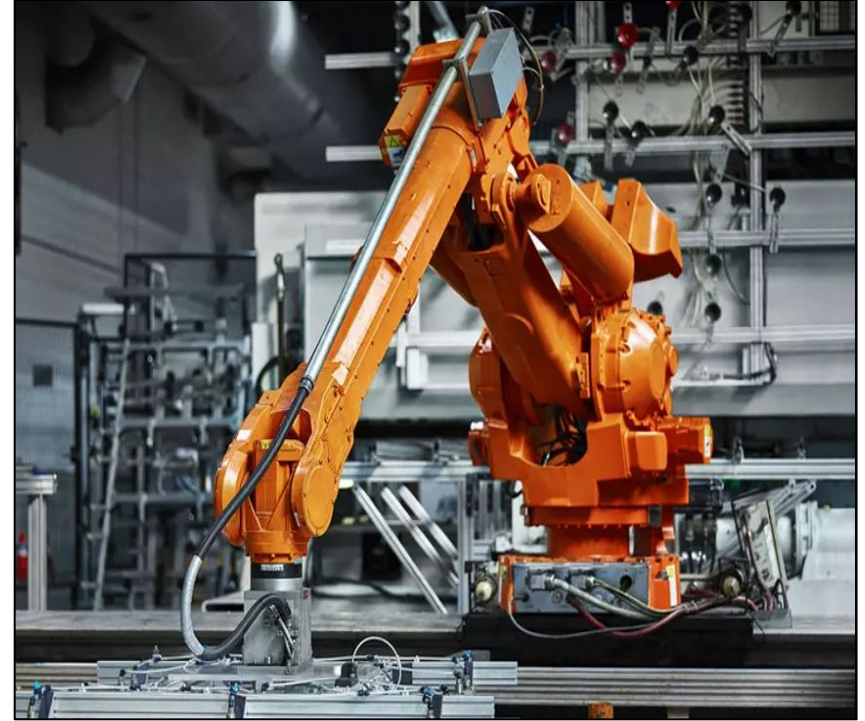
# Investment Philosophy



# What, Why, Where, How of Systematic/Algorithmic Strategies?

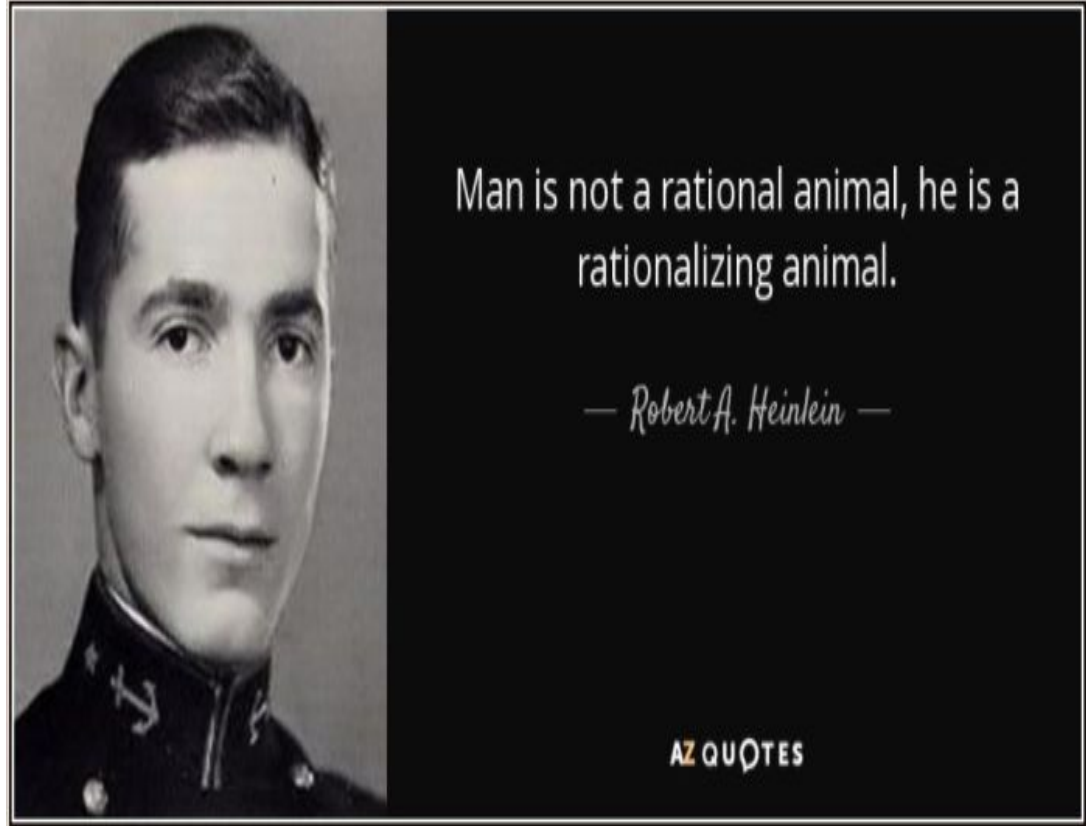
# What is a Systematic Strategy?

Rule for When to Buy  
&  
Rule for When to Sell



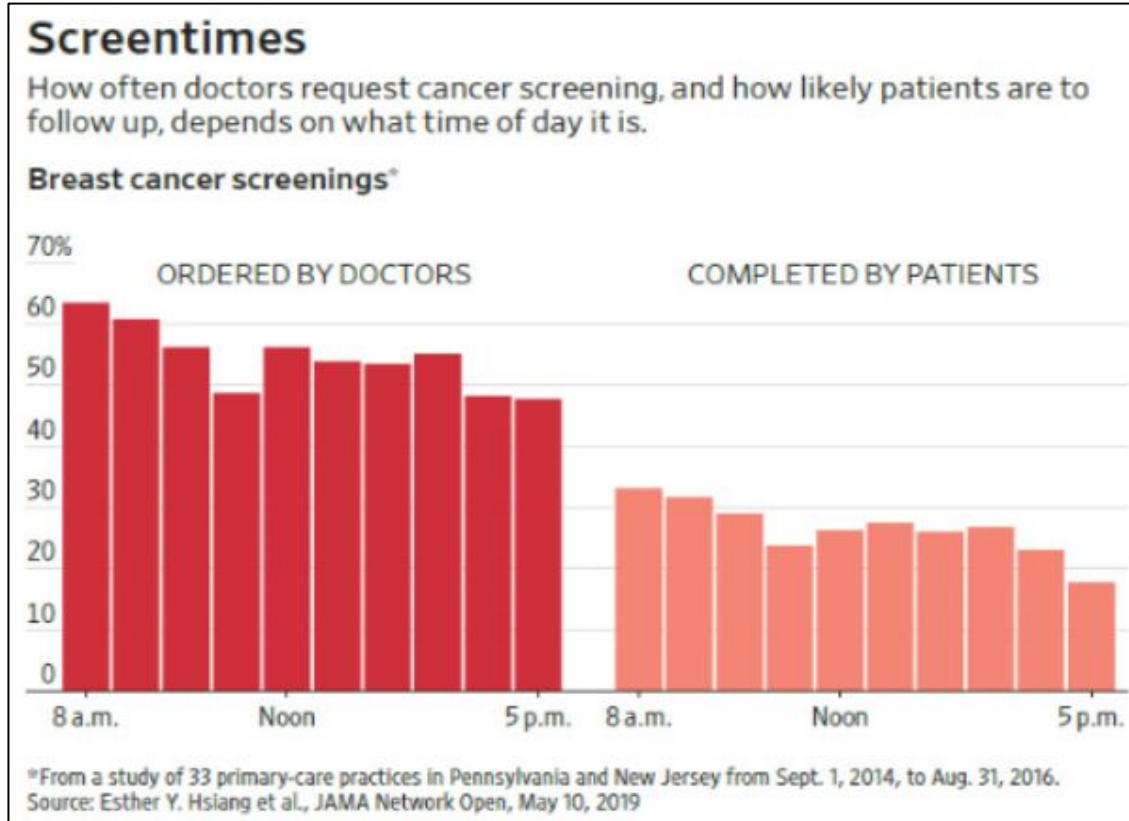
# Why Systematic Strategies Work?

Doesn't let Emotions  
Dictate  
Buy & Sell Decisions





# Human Decision Making Is Far Less Inconsistent than We Think



# Emotion often wins!

## On the biggest investing mistake he's made

**Takeaway:** Druckenmiller lost \$3B by buying in at the top of the Dotcom Bubble. Even with 20+ years of investing experience at that point, he couldn't stomach watching others make money while he was on the sidelines.

**Stanley Druckenmiller:** This was one of my biggest investing mistakes.

Somebody asked me what I learned from this and I said, "Nothing. I already knew it."

In January of 2000, after riding that tech boom to a T and making billions of dollars in 1999, I sold everything.

I had a couple of internal portfolio managers at Soros who didn't sell out. They had smaller portfolios but made 30% after I sold.

And I just couldn't stand it anymore. And I'm watching them make all this money every day. For two days, I'm ready to pick up the phone and buy this stuff back.

I pick up the phone and I buy them.

I might have missed the top of the Dotcom Bubble by an hour.

I ended up losing \$3B on that trade alone. I had made more of the year before, but you know \$3B is a lot of money.

It was all because I got emotional and dropped every tool of discipline I've ever had. And somebody says, what did you learn from [the trade]? And I just said, "I learned nothing. I learned that 25 years ago."

So you can talk about not being emotional, but it takes incredible discipline.



Emotion often wins, since, as John Junor says, "An ounce of emotion is equal to a ton of facts."

# Even God Has to Live Through Volatility & Underperformance

## The Design of Gray's "God" Study #1

Study computed 5-year "look ahead" return for all common stocks for the 500 largest NYSE/NASDAQ/AMEX firms starting on 1/1/1927 till 12/31/2016. God's portfolio is constructed on 1/1/1927 with 500 stocks which had best five year returns and was held passively for five years until 12/31/1931. The second portfolio would be formed on 1/1/1932 with 500 top performing stocks and held until 12/31/1936. This pattern repeats at the end of every fifth year. We would have had 18 of such "God's Portfolios" between 1927 and 2016. Now it's time to look at the findings.

	God's Best Portfolio	S&P500
Annual Return	29.37%	9.87%
Standard Deviation	22.41%	18.96%

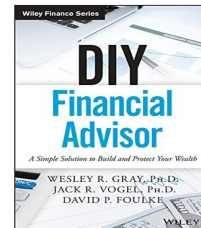
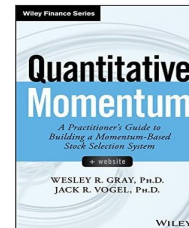
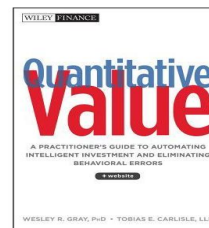
## The Design of Gray's "God" Study #2

For the second study Gray created "God's Hedge Fund Portfolio." He leveraged God's perfect foresight and went long (buy) the known winners and short sell the known losers. Why not make money on both sides? Same portfolio construction pattern – buy five year winners and short sell five year losers which are rebalanced every month. Let's look at the findings.

	God's Best L/S	S&P500
Annual Return	46.23%	9.87%
Standard Deviation	20.08%	18.96%



Wesley R. Gray



# Rules Based Models Successfully Applied In Other Disciplines

# Rules Based System Applied In Other Areas

- State Parole Boards Use Software to Decide Which Inmates to Release
- The judgement of human parole boards can be affected by human emotion and perception, and can be based on intuition or subjective criteria, with humans focusing on the wrong factors.



# Rules Based System Applied In Other Areas

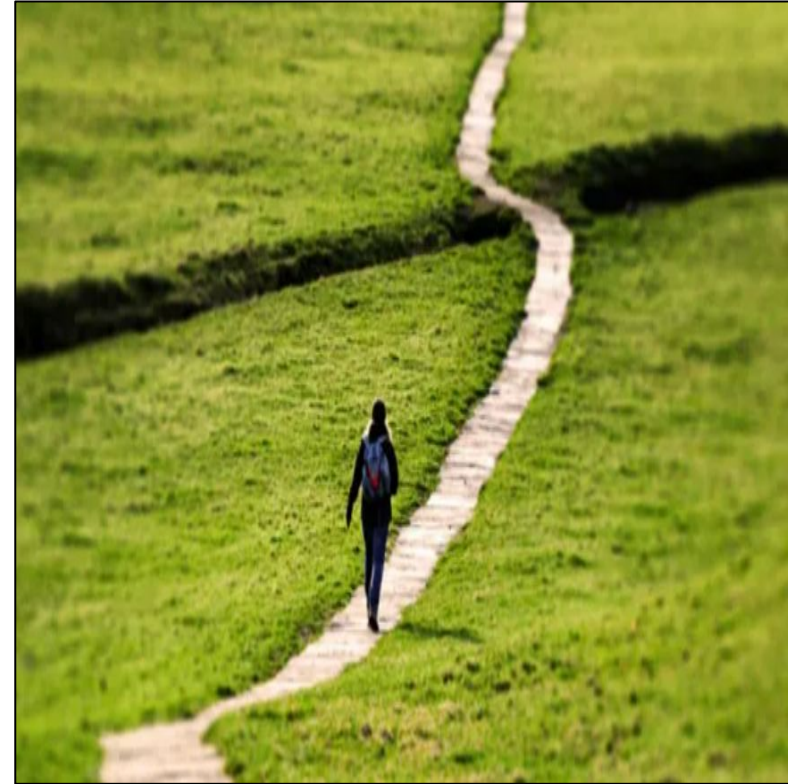
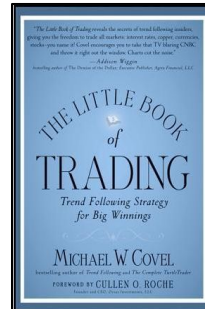
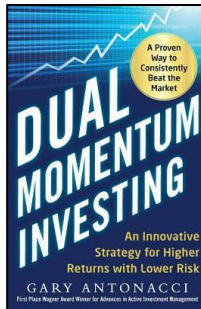
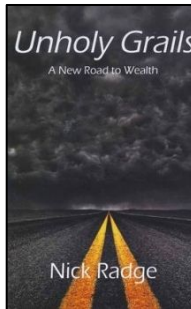
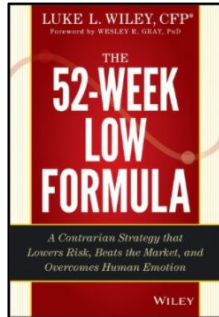
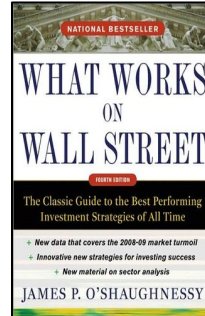
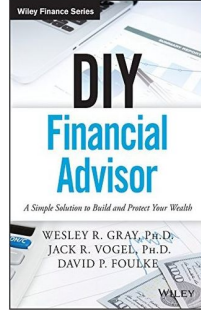
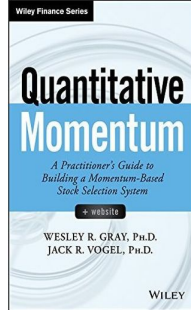
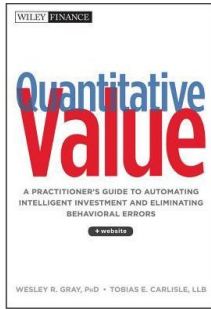
- The U.S. Marine Corps solution to bad decision-making involves a plethora of checklists and SOPs.
- To make good decisions in stressful situations, the U.S. Marines follow a rigorous model that has been systematically developed and combat-proven.



Source: <https://www.wsj.com/articles/SB10001424052702304626104579121251595240852>

How to go about creating a systematic strategy?

# Good Starting Point to Explore Systematic World





# There is No Holy Grail Systematic Strategy!



Horizon	44 Years
Return CAGR%	22.33%
Strategy	Microcap Momentum
\$10,000 Becomes	\$75,985,718
Largest Drawdown	-53.89%



Horizon	94 Years
Return CAGR%	46.23%
Strategy	God's L/S
\$1 Becomes	\$6 Quadrillion
Note	Beaten by S&P500 multiple times by at least 50% difference

# Holy Grail According To Me

1. Having *strategies* that have an edge validated through fullness of time
  - a. How much it wins when it wins
  - b. How much it loses when it loses
  - c. How often it wins
2. Always bet with the base rate
3. Trust your system and stick to it

# Bitcoin Trend Following System\*

## System Rules

1. Enter when BTC price cuts 252 MA from either side
2. Once entered, place 3% Stop and Reverse Order
3. Trail Stop 252 MA for Profit Booking

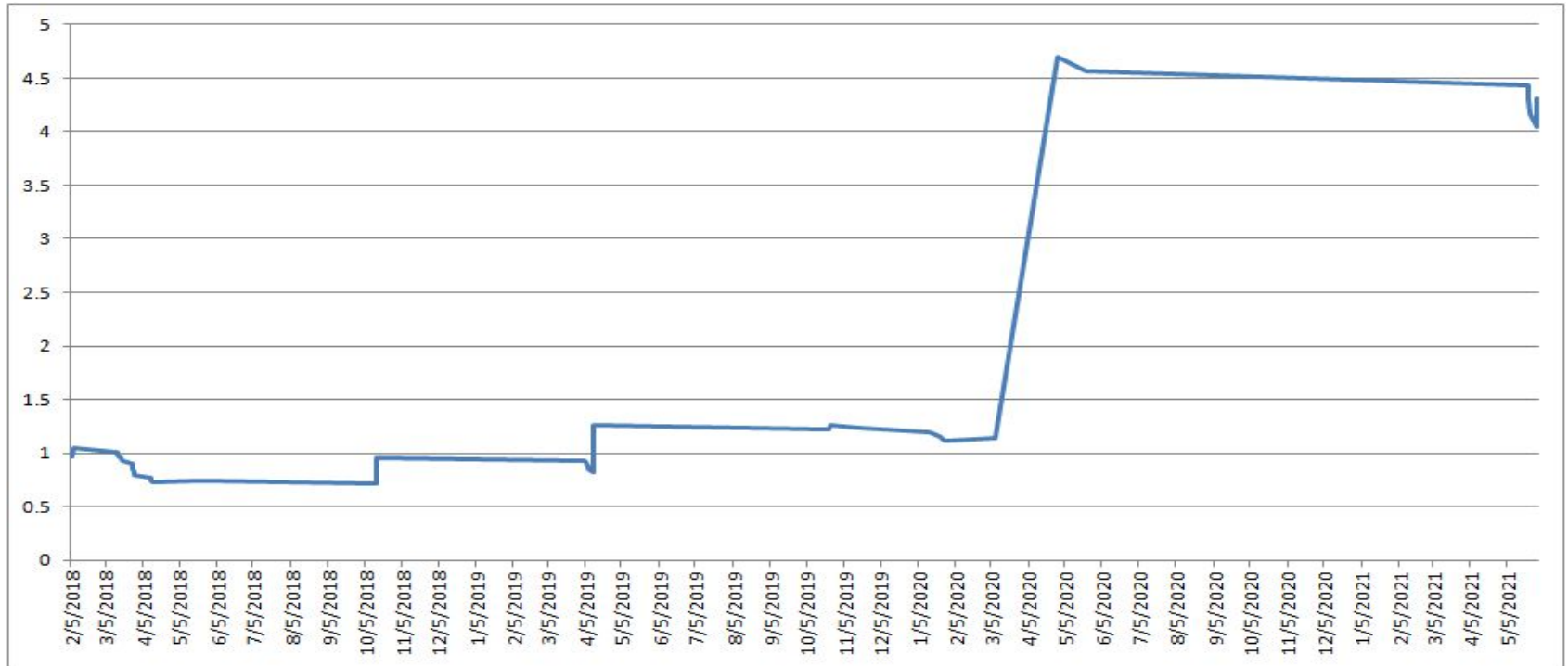
\* For learning purpose only

# Bitcoin Trend Following System

System Performance Key Numbers	
Total Transactions	37
Total Long Transactions	19
Total Short Transactions	18
# Winning Transactions	8
# Losing Transactions	29
Win Ratio	22%
Losing Ratio	78%
Max Gain	314%
Max Loss	3%
Worst Drawdown	28%

# Bitcoin Trend Following System

## Equity Curve



# Bitcoin Trend Following System

Worst Performing Period	
# Highest Consecutive Losses	12
Period with 5 Consecutive Losses	Twice

# Final Success Mantra

Investors can learn much from the Taoist concept of wu wei. Taoism is one of the three schools of Chinese philosophy that have guided thinkers for thousands of years. Literally, wu wei means “to act without action,” but in spirit, it means to let things occur as they are meant to occur. Don’t try to put square pegs into round holes. Understand the essence of a circle and use it as nature intended. The closest Western equivalent is *Wittgenstein’s maxim*: “*Don’t look for the meaning: Look for the use!*” For investors, this means letting good strategies work. Don’t second guess them. Don’t try to outsmart them. Don’t abandon them because they’re experiencing a rough patch. Understand the nature of what you’re using and let it work. This is the hardest assignment of all. It’s virtually impossible not to insert our ego into decisions, yet it is only by being dispassionate that you can beat the market over time. - Jim O’Shaughnessy

