06.11.2023

Design by TRW: Archenemy

With notable contributions from:

salxx

josephalpher

Keeraiz

_

Update

Aims

To build the most sophisticated SOPS possible using aggregated strategies and RSPS style tables for asset selection and rebalancing.

Strategy Development

We use a set of 10 strategies to build automated aggregate signals. These are combined in Tradingview to produce a single strategy or 'OVERKILL' strategy that provides one signal based on multiple inputs.

10 BTC

10 ETH

10 BNB

10 SOL

10 ADA

10 AVAX

10 LINK

10 INJ

10 EGLD

10 VET

10 RUNE

10 HEX

In many cases the most optimal combinations for the creation of the OVERKILL aggregated strats involve the use of 6-8 strategies.



OVERKILL strat by salxx for BTC using 7 strategies



OVERKILL strat by salxx for ETH using 8 strategies



OVERKILL strat by salxx for ADA using 5 strategies

Through forward testing, strategies are managed, flagged, replaced and checked via a strat list. This includes checking for missed signals, repainted and underperforming strats.



OVERKILL strat list by Archenemy

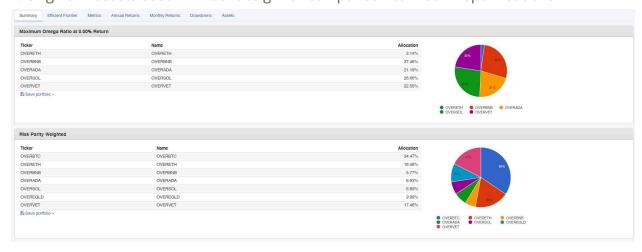
Further tools have been developed to help with strategy development including a strat-dev guide for building strats, which leverages the use of TradingView Assistant as well as a video tutorial to demonstrate the process for would-be contributors.

Portfolio Building

Each of these aggregated OVERKILL strategies has undergone a series of PV optimisations to determine possible combinations for allocations.

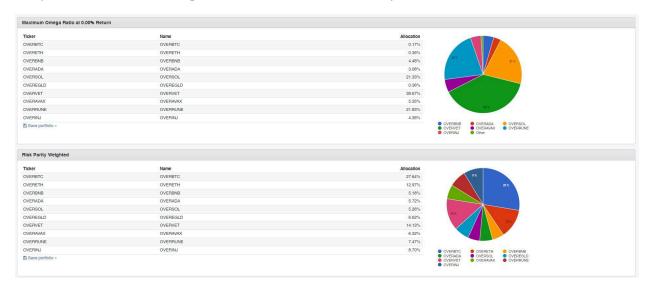
For these, only coins in the Top 50 in CMC were considered.

1. Original 7 assets used in initial design for comparison to first PV optimisations



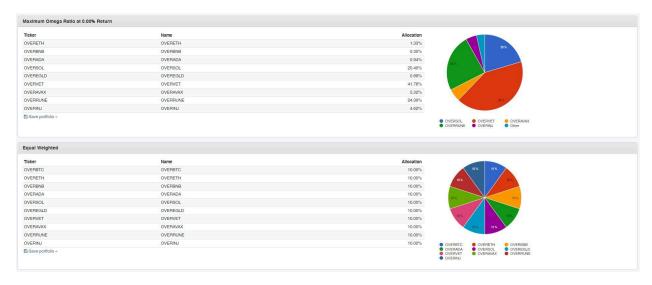


2. Optimisation done using all strats available for the top 50 coins in CMC



erformance Summary		
letric	Maximum Omega Ratio at 0.00% Return	Risk Parity Weighter
tart Balance	\$10,000	\$10,00
nd Balance	\$15,208,679	\$3,958,47
nnualized Return (CAGR)	1,050,00%	634.259
xpected Return	306.31%	236.509
tandard Deviation	105.48%	75.189
est Year	8,422.89%	2,874.66
forst Year	47.75%	86.281
aximum Drawdown	0,00%	0 -3.69*
harpe Ratio (ex-ante)	2.88	3.1
harpe Ratio (ex-post)	2.88	3.1
ortino Ratio	2,131.60	63.9
mega Ratio	N/A	70.7
tock Market Correlation	0.21	0.2
esults based on historical returns. Expected return is the annualized monthly arithmetic mean return.		

3. Optimisation using equal weighting

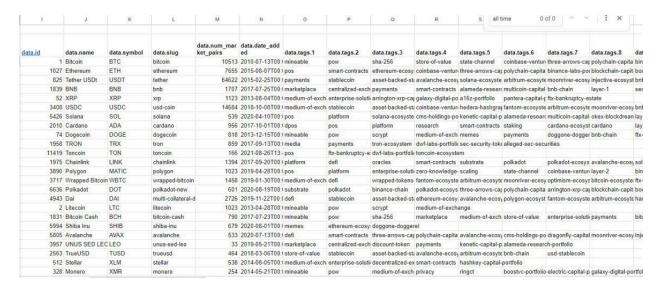




Regarding the optimal number of assets to be used, optimisations show that a selection of 10-12 assets reduces the drawdowns of the portfolios to very low values as low as 1%.

Asset Selection

For asset selection, progress was made retrieving data from CMC API and via regular copy paste to produce some preliminary asset selection tables.



Values pulled from CMC through a script



Preliminary asset selection table with a scoring system by Archenemy

With preliminary calculations from the tables above, you can get a selection of assets to include in a portfolio. With very similar values through the weightings used in the calculations, balancing risk and upside potential, an argument is made for the equal weighted portfolio.

BTC	16.49
ETH	13.89
BNB	11.88
ADA	13.41
SOL	17.34
VET	10.83
EGLD	16.2

Progress was also made by salxx in producing relative strength signals of coins:

	COIN	TOTAL
	BTC	1.89
	ETH	2.36
	SOL	7.88
	HEX '	0.84
	LINK	3.22
	INJ	6.20
١	RUNE	8.49
	FET	3.76
	EGLD	6.41
	SHIB	0.50
	AVAX	5.05

The next questions which remain to be answered are rebalancing times and when and how these are implemented as new data becomes available.

Current Tasks

There are two main tasks which need the most attention and we need as much help as possible to continue improving our signals.

- Development of new strategies for new coin options to become available to the SOPS.
- More sophisticated systems for asset selection.

02.11.2023

Design by TRW: Archenemy

With notable contributions from:

salxx

josephalpher

Keeraiz

_

Update

Progress update for the project is as follows:

- Dawn of the OVERKILL strats. These are combined TV strategies using libraries which create new signals based on aggregation on multiple strategies.
- Integration on Coinmarketcap API into Google Sheets was figured out. This lead to the development of the first RSPS style tables for initial calculations of portfolio allocation sizes.
- New ideas included that all assets should run through a PV optimisation to get stats, particularly downside deviation which could be then used as one of the parameters for asset selection.

- First prelim signals were produced based on first PV optimisations for SOPS. Due to lack of optimisations for new assets, the signal did not reflect the most optimal assets.
 - For instance, BNB and VET were observed to underperform during the latest market movement.
- Some volume problems surfaced with strats developed on CRYPTO/USD pairs. The decision was made to switch back to BINANCE/USDT pairs.

Current tasks:

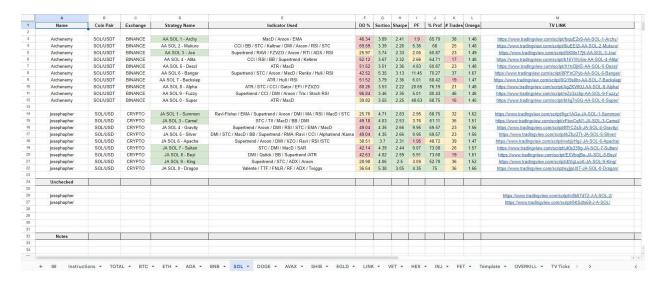
- Further strat development, including development of more ALT strats and corresponding OVERKILL strats.
- Further refinement of RSPS style table and parameters.
- Aims towards new signals which include table input for asset selection.



First glimpse at OVERKILL strat by salxx for BTC



Preliminary asset selection table and calculations



Growing strat list. Total of over 100 strats. Above shows SOL strats.

ASSET	SHORT	LONG	SIGNAL	ALLOCATION
ASSET	SHORT	LONG	SIGNAL	ALLOCATION
TOTAL	0	10	LONG	100.00%
втс	0	10	LONG	25.49%
ETH	0	10	LONG	12.35%
BNB	0	10	LONG	10.27%
ADA	0	10	LONG	9.93%
SOL	0	10	LONG	10.27%
EGLD	2	8	LONG	22.32%
VET	1	9	LONG	9.38%
HEX	0	10	LONG	0.00%
The above is a st	trat aggregation	n system that u	ses 10 strats fo	r each coin.

First actionable signals

27.10.2023

_

Design by TRW: Archenemy

With notable contributions from:

salxx

josephalpher

_

_

Update

Progress update for the project is as follows:

- Forward testing of signals. Underperforming strats switched out for new ones.
- Expansion of the Experimental Strat List continues. 10 strats accumulated and added to the strat list for:
 - BTC / ETH / BNB / ADA / SOL / EGLD / VET / HEX
- Strat development begun and needed on:
 LTC / AVAX / MATIC / RUNE / LINK / FET / INJ / TRON / ALGO / DOGE / PEPE / SHIB
- Automated signals developed to manage strats signals.
- Preliminary asset allocation table created

Current tasks:

- Further continuation of ALT strat development.
- API integration to accumulate data needed to build live RSPS style tables.

21.10.2023

Design by TRW: Archenemy

With notable contributions from:

salxx

hack

_

Update

First feedback was received from fellow TRW members. Notable suggestions / ideas were:

- 1. Suggested development of strategies using CRYPTO over Binance
- 2. Reduction of strategy numbers and addition of other TPI components
- 3. Code suggested for building TPI signals based on 10 strategies.
- 4. Code suggested for building TPI signals based on less strategies plus other TPI components.
- 5. Ensuring time coherence between strats
- 6. The possible creation of a universal/general ALT TPI.

Due to the time consuming nature of building strategies, the idea of reducing the strategy number and adding other TPI components to provide signals especially for ALT's appears to be valid. Further insights suggest building combination TPI's for ALTs using baseline indicators to ensure time coherence. For instance, something simple like a 12 and 25 period EMA as a baseline macro trend scanner and then using that as a guideline.

Further work continues now with the implementation of the above. Continued strategy development and TPI components for ALT's, automation tests as well as scoring systems to determine asset allocation.



TPI by salxx. Combination of strats and TPI components



TPI by back. For combination of multiple strategies

17.10.2023

Design by TRW: Archenemy

With notable contributions from:

_

_

_

Overview

This project's aim is to create a system based on aggregated strategies to provide investing signals for trending assets in the crypto space. The basic design centres around signals produced by 10 strategies per asset class, with 7 strats needed to be congruent in order to produce a valid signal. This may be reduced and/or automated in time.

Its design aims to take the benefits of SOPS, and combine it with flexible RSPS style allocations to take advantage of an ever changing market.

Further goals are the expansion of asset signals and automation.

This is a personal project and not financial advice. I'm not accountable for anything whatsoever presented here or your interpretation thereof.

Goals

- 1. To build a library of assets, each using 10 quality strategies
- 2. To create a scoring system for asset selection
- 3. To produce clean signals for portfolio management
- 4. To automate signals from TradingView into Google Sheets

Initial Testing

A selection of 7 assets were included in initial testing. These were selected because of them being consider a major, i.e. BTC, ETH, their position in market cap, ADA, SOL, BNB and a representation of shitcoins i.e. EGLD, VET selected from observation/experience.

Strategy Development

Strategies were developed and modified for each of these using the strats available in the MC Strat List. These include BTC, ETH, ETH, ADA & BNB. The strats used for EGLD, VET and SOL were developed and modified from existing sources and should be considered experimental. These have been managed and coded to ensure consistency with tables and for export and automation purposes:

Strategy:	Value:	TV:	Component:	ETH
AA ETH 1 - Archy	-1		ETH TPI	
AA ETH 2 - Lawless	-1		LIII III.	
AA ETH 3 - Maverick	-1			
AA ETH 4 - Faru	-1			
AA ETH 5 - Pecker	-1			-
AA ETH 6 - Ocelot	-1			
AA ETH 7 - Killer	-1			
AA ETH 8 - Backslap	-1		10	10
AA ETH 9 - Gen5	-1		-10	/
AA ETH 0 - Haven	-1			
TOTAL	-10		10	0



Portfolio Building

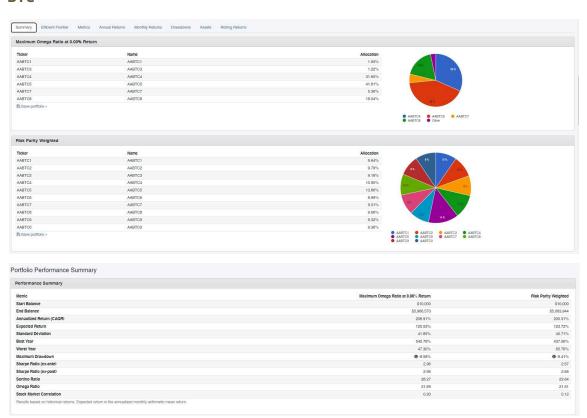
I. Portfolio Visualiser

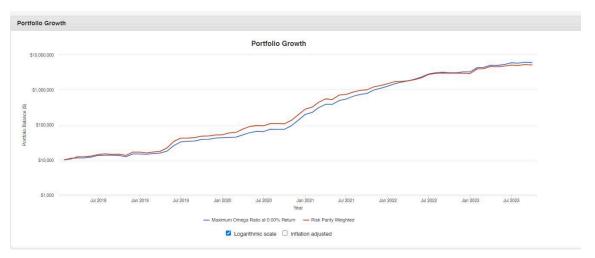
Each asset had all 10 strats indexed and imported into Portfolio Visualiser. Extreme imbalances were observed in some cases, but included as the system relies on aggregated strats. The optimisations using Risk Parity were considered as more reliable in this case case study, again due to the aggregated approach to the design.

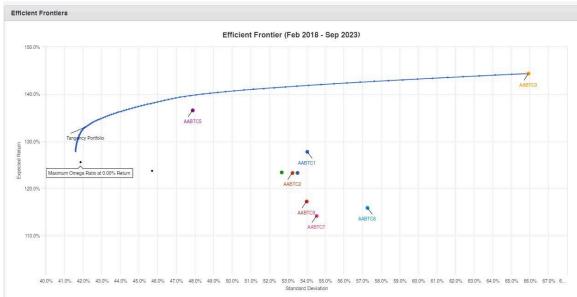
One more optimisation was done for the sake of science, i.e. an All-Stars portfolio using the best performing strategies of each set of strats.

Results were as follows:

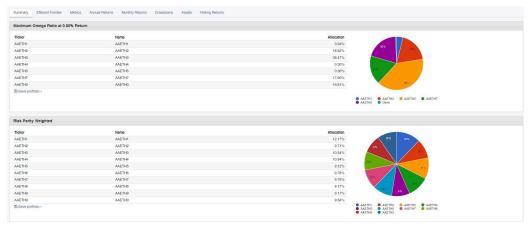
BTC

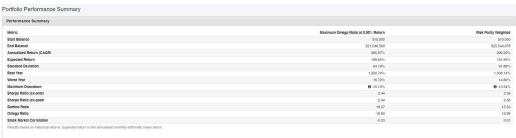


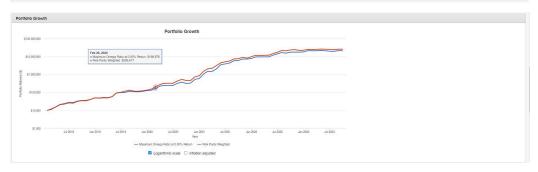


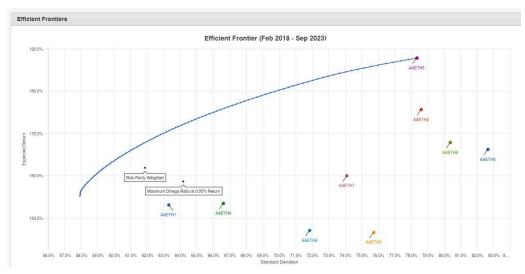


ETH

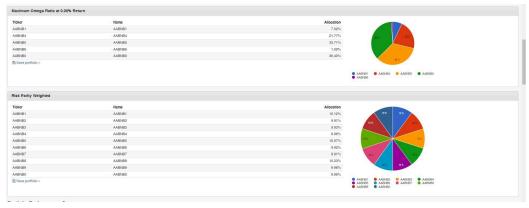




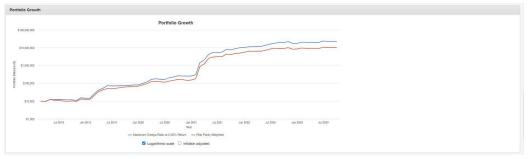


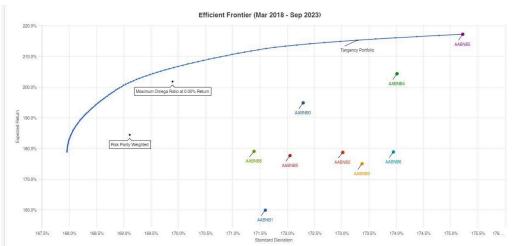


BNB

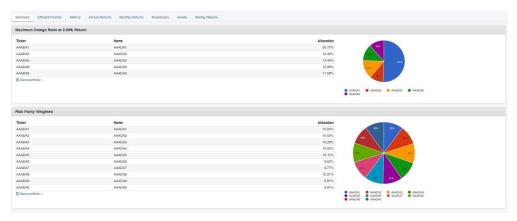




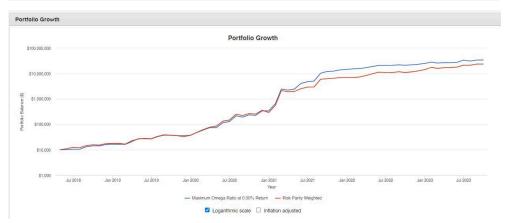


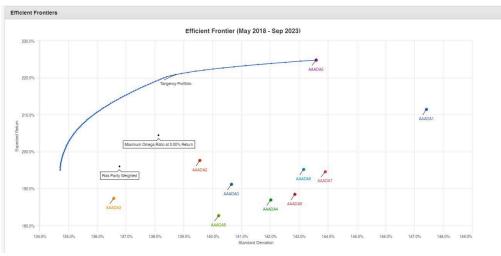


ADA

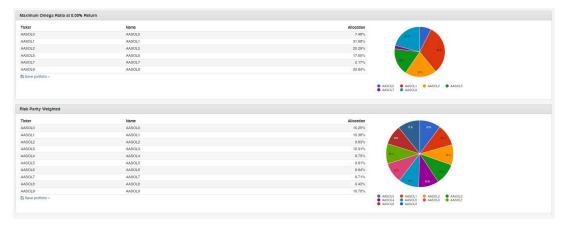




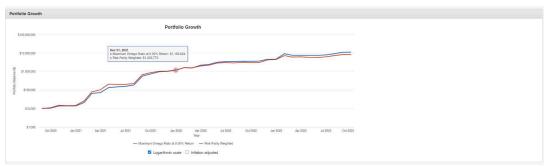


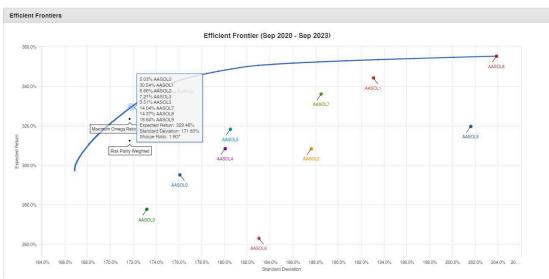


SOL

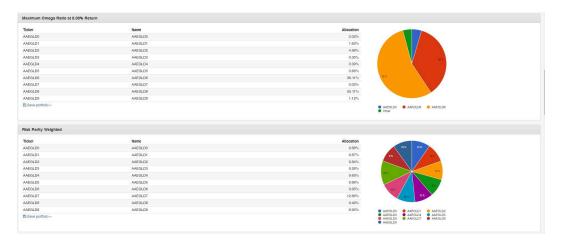




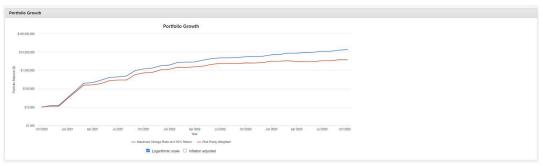


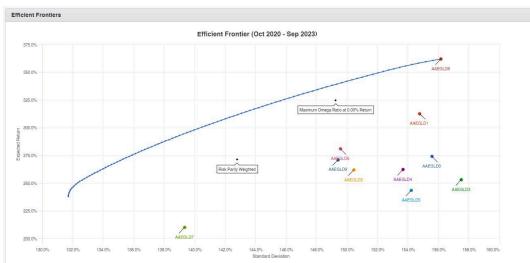


EGLD

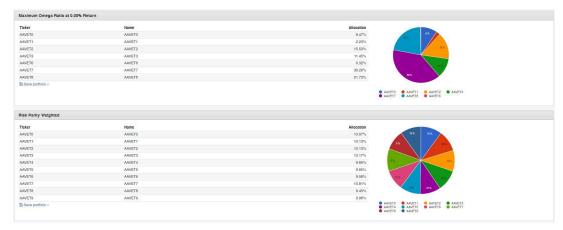




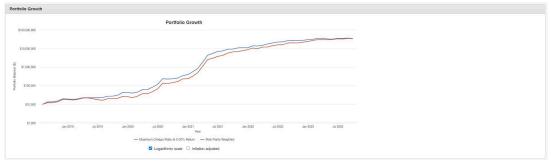


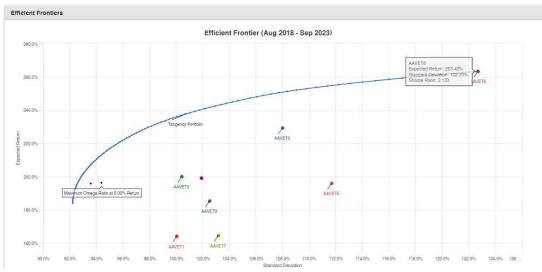


VET

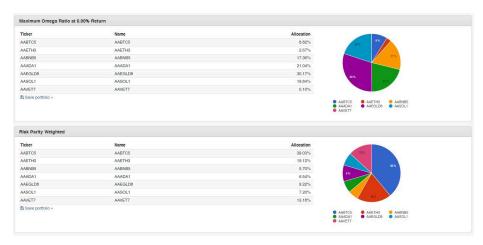




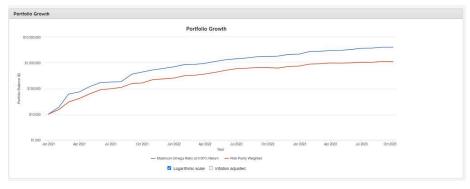


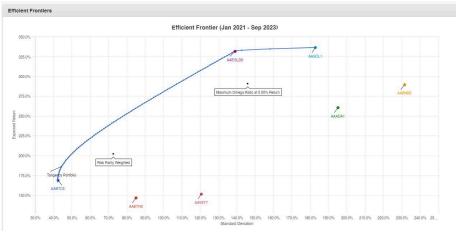


ALL STARS



Performance Summary		
Metric	Maximum Omega Ratio at 0.00% Return	Risk Parity Weighte
Start Balance	\$10,000	\$10,00
End Balance	\$4,032,413	\$1,097,11
Annualized Return (CAGR)	786,09%	451.96
Expected Return	290.75%	202.11
Standard Deviation	145.95%	72.59
Best Year	6,860.53%	2,446.31
Worst Year	85.20%	47.33
Maximum Drawdown	0.00%	0 -4.66
Sharpe Ratio (ex-ante)	1.98	2.5
Sharpe Ratio (ex-post)	1.98	2.7
Sortino Ratio	1,070.42	59.6
Omega Ratio	N/A	59.3
Stock Market Correlation	0.16	0.0





II. Asset Allocations

The next step was to calculate suggesting weightings for assets using Downside Deviation. Two calculations were done. Omega & Risk Parity.

	втс	ETH	BNB	ADA	SOL	EGLD	VET
Downside Deviation	1,19	2,4	2,98	2,37	2,98	0,01	3,83
Inverse Volatility (1/Downside Dev)	0,840336	0,416667	0,33557	0,421941	0,33557	100	0,261097
Normalised Values (SUM PV1, PV2, PV3))							102,6112
Normalised Weights (PV/SUM)	0,00819	0,004061	0,00327	0,004112	0,00327	0,974553	0,002545
Portfolio Amount	10000	10000	10000	10000	10000	10000	10000
	04 00540	40 60636	22 70211	41 12027	22 70211	9745,527	25 ///52/
Allocation (Normalised Weights * Portfolio)	81,89518	40,00030	32,70311	41,12057	32,70311	3143,321	23,44324
Allocation (Normalised Weights * Portfolio)	81,89518 BTC	40,60636 ETH	BNB	ADA	\$0L	EGLD	VET
							VET
Downside Deviation	BTC 1,41	ETH	BNB 3,5	ADA 3,62	SOL 3,5	EGLD	VET 3,83
Downside Deviation Inverse Volatility (1/Downside Dev) Normalised Values (SUM PV1, PV2, PV3))	BTC 1,41	ETH 2,91	BNB 3,5	ADA 3,62	SOL 3,5	EGLD 1,61	VET 3,83
Downside Deviation Inverse Volatility (1/Downside Dev)	BTC 1,41	ETH 2,91 0,343643	BNB 3,5	ADA 3,62 0,276243	SOL 3,5 0,285714	EGLD 1,61	3,83 0,261097 2,782749
Downside Deviation Inverse Volatility (1/Downside Dev) Normalised Values (SUM PV1, PV2, PV3))	BTC 1,41 0,70922	ETH 2,91 0,343643	BNB 3,5 0,285714	ADA 3,62 0,276243	SOL 3,5 0,285714	EGLD 1,61 0,621118	3,83 0,26109 2,78274

In the Omega version, an extreme irregularity was observed. There was no downside deviation in the EGLD set of strats. Value was 0%. (When replaced with the value from the Risk Parity optimisation, the allocation percentages were similar.)

Final allocation amounts were:

BTC	ETH	BNB	ADA	SOL	EGLD	VET
25,49%	12,35%	10,27%	9,93%	10,27%	22,32%	9,38%

From the above, possible conclusions from this were that this could be averaged to a position size and managed with a scoring system to determine the portfolio allocation. Initial idea is a slot based system of 7 assets trading perpetually.

III. Expectations

It is my personal expectation that the majors should at the very least 3x during the next market cycle, with selected ALT's performing from 5 - 7x from bottom to peak.

The goal of this portfolio is not to create the most efficient portfolio on earth, but rather a conservative one with a higher chance of success. An average of a minimum of 5x is the goal of this portfolio. With a goal of an average of 5x across all assets, and a further goal of -5x on the way down from the peak of the next run, the expectations of the portfolio are as follows:

With a portfolio of \$100,000:

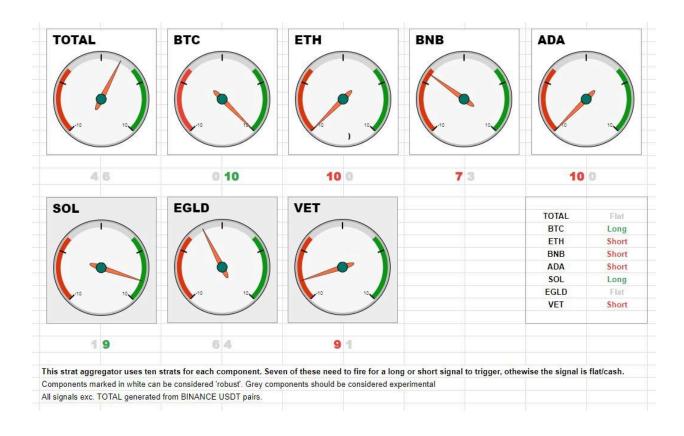
 $100,000 \times 5 \times 5 = 2,500,000$

Anything else in my mind is a bonus and should be considered **OVERKILL.**

Signals

The first signals from this project take the form of gauges showing how many strats are firing LONG or SHORT.

Strategy:	Value:	TV:	Component:	ETH
AA ETH 1 - Archy	-1		ETH TPI	•
AA ETH 2 - Lawless	-1		EIN IFI.	_
AA ETH 3 - Maverick	-1			
AA ETH 4 - Faru	-1			
AA ETH 5 - Pecker	-1			
AA ETH 6 - Ocelot	-1			
AA ETH 7 - Killer	-1			
AA ETH 8 - Backslap	-1		10	10.
AA ETH 9 - Gen5	-1		-10	/
AA ETH 0 - Haven	-1			



Gauges show how many strats are firing LONG or SHORT. Conditional formatting colours the values green or red if they are greater than 7. Gauges are set up to signal flat when the strat count is less than 7. If the gauge is grey, this indicates neutral or CASH.

Extended Asset Selection

The next phase of the project now moves into first, extending asset selection through the development of new strategies, second, the creation of a scoring system to manage asset allocation and third, the automation thereof to provide signals in Google Sheets. Strats wanted, but are not limited to are:

SOL EGLD VET LINK

AVAX

DOGE

DOT

TRON

MATIC

AAVE

ALGO

RUNE

SHIB

New strat ideas and coins are welcome. If you would like to contribute to this project, please dm me in TRW requesting access to the project: