Sigmaa003 Strategy proposition Dividend enhanced model

Langyu Gu 13/04/23

Bitcoin Strategy

Current challenges in Bitcoin Strategy:

- Unable to open account in Binance
- Due to limited capital in Lmax, we are only able to trade one-sided strategy. Not many long signals was flagged in the current down market, therefore, the true performance of the strategy can not be reflected.
- Market risk in Cypto world is still elevated given the recent vulnerability in banking system. The risk of extreme volatility in an intra-day trading environment in Bitcoin remains high.
- The regulatory risk is also another factor that keeps us away from transferring money into Binance.

Dividend elements

As we discussed last time regarding the dividend element, the bitcoin strategy is not a good strategy to provide a stable dividend under the current market environment. It also exposes to higher market risk at the moment.

However, enhanced Simgaa003 is a better option to suit client needs. Sigmaa003 has several advantages:

- Neutral to bear market. It delivers a stable return under standard bear markets.
- It has a limit drawdown under stress markets, ie GFC2008 and Covid2020.
- Liquid and scalable as its underlying is S&P500 Index.
- A proven strategy. We have been running Sigmaa003 since 2018.

Dividend elements

As we discussed last time regarding the dividend element, the bitcoin strategy is not a good strategy to provide a stable dividend under the current market environment. It also exposes to higher market risk at the moment.

However, enhanced Simgaa003 is a better option to suit client needs. Sigmaa003 has several advantages:

- Neutral to bear market. It delivers a stable return under standard bear markets.
- It has a limit drawdown under stress markets, ie GFC2008 and Covid2020.
- Liquid and scalable as its underlying is S&P500 Index.
- A proven strategy. We have been running Sigmaa003 since 2018.

Year (Live)	FY2019	FY2020	FY 2021	FY 2022	Since inception
Sigmaa003	3.3%	25.8%	11.8%	-8.8%	32.3%

Sigmaa003 has launched in 2019. It has been delivering consistent low volatility returns for 3 out of 4 years since 2019. It has made 32% accumulative return.

It had delivered 25.8% return in 2020, marked its best performing year. However, it has made 8.8% loss in 2022, but it is within the expectation given the sharp decline in TESLA as its undelying.

Introducing new Sigmaa003

A new enhanced sigmaa003:

- Full automation vs manual execution in current model
- Dynamic weightings vs Fixed weightings in current model
- More agile in terms of risk controlling

Risk category	Annualised return	Total Return (since 2005)	Volatility	Max. Drawdown
Defensive	3. 5%	86. 3%	5. 4%	11.4%
Balanced	5.0%	143.3%	7.3%	15. 3%
Growth	7. 7%	284. 3%	11.6%	24. 4%
Adventure	9.1%	384.5%	18%	36. 2%

Defensive Proposition

Strategy definition:

Name	Total_return_SI	APR_SI	SharpeRatio_SI	Volatility	MaxDrawdown_SI
US Treasury	50.5%	2.3%	0.13	5.7%	19.2%
Defensive	100.5%	3.9%	0.42	5.4%	11.2%

Name	Total_return_1Y	APR_1Y	SharpeRatio_1Y	Total_return_3Y	APR_3Y	SharpeRatio_3Y	Total_return_5Y	APR_5Y	SharpeRatio_5Y
US Treasury	-6.8%	-6.8%	-1.17	-13.7%	-4.8%	-1.00	-2.0%	-0.4%	-0.35
Defensive	-1.2%	-1.2%	-0.72	17.6%	5.5%	0.85	15.0%	2.8%	0.22



Balanced Proposition

Name	Total_return_SI	APR_SI	SharpeRatio_SI	Volatility	MaxDrawdown_SI				
US Treasury	50.5%	2.3%	0.13	5.7%	19.2%				
Balanced	143.3%	5.0%	0.48	7.3%	15.3%				
Name	Total_return_1Y	APR_1Y	SharpeRatio_1Y	Total_return_3Y	APR_3Y	SharpeRatio_3Y	Total_return_5Y	APR_5Y	SharpeRatio_5Y
US Treasury	-6.8%	-6.8%	-1.17	-13.7%	-4.8%	-1.00	-2.0%	-0.4%	-0.35
Balanced	-2.7%	-2.7%	-0.59	26.3%	8.1%	0.90	21.9%	4.0%	0.32



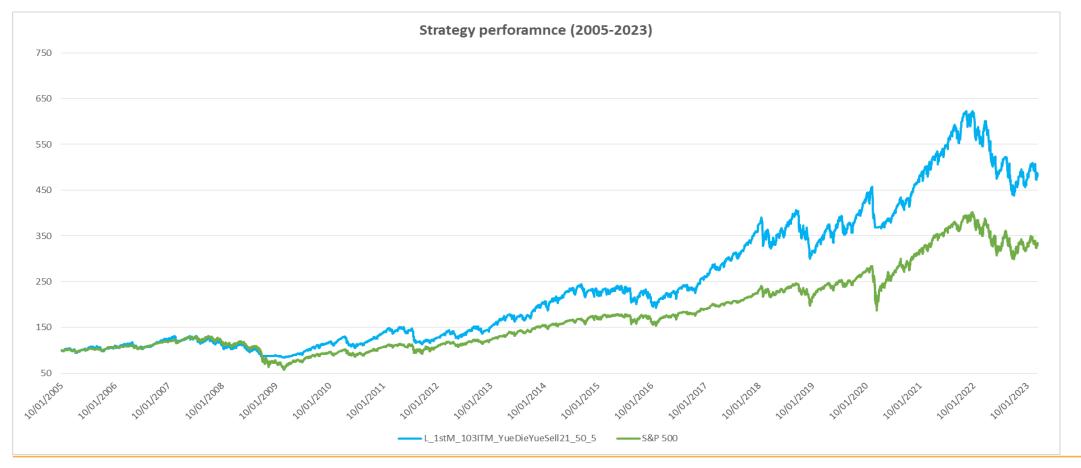
Growth Proposition

Name	Total_return_SI	APR_SI	SharpeRatio_SI	Volatility	MaxDrawdown_SI				
S&P 500	235.4%	6.9%	0.35	19.6%	56.5%				
Growth	284.3%	7.7%	0.55	11.6%	24.4%				
Name	Total_return_1Y	APR_1Y	SharpeRatio_1Y	Total_return_3Y	APR_3Y	SharpeRatio_3Y	Total_return_5Y	APR_5Y	SharpeRatio_5Y
S&P 500	-10.6%	-10.6%	-0.47	18.0%	5.7%	0.30	46.2%	7.9%	0.38
Growth	-3.9%	-3.8%	-0.37	49.1%	14.2%	1.01	39.4%	6.9%	0.44



Adventure Proposition

Name	Total_return_SI	APR_SI	SharpeRatio_SI	Volatility	MaxDrawdown_SI				
S&P 500	235.4%	6.9%	0.35	19.6%	56.5%				
Adventure	384.4%	9.1%	0.48	18.0%	36.2%				
Name	Total_return_1Y	APR_1Y	SharpeRatio_1Y	Total_return_3Y	APR_3Y	SharpeRatio_3Y	Total_return_5Y	APR_5Y	SharpeRatio_5Y
S&P 500	-10.6%	-10.6%	-0.47	18.0%	5.7%	0.30	46.2%	7.9%	0.38
Adventure	-17.3%	-17.3%	-0.95	31.4%	9.5%	0.54	38.9%	6.8%	0.35



Audit Trail

Option pricing model - checked against live option prices over 2016-2023. Most of pricing are close and backtest results are very similar to live trading simulation.

Simulation backtest model - checked as mentioned above.