

Special Note Long/Short US Portfolio

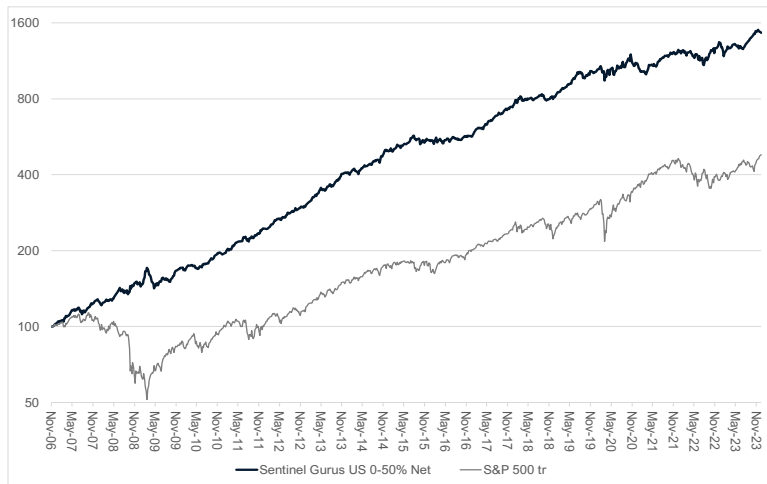
by Damien Cleusix, CIO

January 2024

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In this short note we would like to share how we can construct very diversified quantitative long/short portfolios using our models as Lego.

Let's begin with the end.



	Sentinel Gurus US 0-50% Net	S&P 500 tr	Delta
Total Return	1361.0%	379.3%	981.7%
CAGR	17.0%	9.6%	7.4%
Volatility (ann.)	9.1%	16.6%	-7.5%
Max Drawdown	-17.3%	-54.7%	-37.5%
Calmar ratio	0.98	0.18	0.80
Sharpe ratio	1.78	0.64	1.14
Sortino ratio	3.79	1.21	2.58

Basics of our approach:

Our investing approach selects and combines some original and many old ideas emanating from brilliant minds from various fields such as finance, psychology, math, physics or biology.

Our expertise resides in the mixing and dicing of those ideas, a deep knowledge of their underlying rationale and the understanding of the dynamics of their respective interactions.

Our goal is to formalize these ideas into simple quantitative models, whereby each model must be as simple as possible and combining them to generate superior results in terms of risk-adjusted returns.

Diversification and agnosticism to models' parameters are an obsession as you will see.

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Our approach in building long and short portfolios

Step 1:

We start with an initial universe of liquid stocks. It can be a well-known index like the S&P 500 or the Topix, it can be a tailor-made index like mid cap from Sweden, Canada, Switzerland and Italy or it can be a proprietary universe like our “Gurus universe”.

Step 2:

We then run multi-factor layered quantitative screens on this universe.

- We run our **30+ quantitative screens** on the initial stock universe.
- Each screen is **sequential and combines various factors** whereby **each factor is expressed differently each time it is used**. We strive to be as agnostic as possible to their parameters.
- Each screen selects **between 5-10 stocks**. We are obsessed with diversification.
- For the **Long Portfolio** stocks inside each screen are **equal weighted**. Each screen is **equal weighted**. If a stock appears in 2 screens it will have 2 times the weight of a stock only appearing in 1 screen.
- For the **Short portfolio**, **stocks are equal weighted**. Even if a stock appears in 5 screens, it will have the same weight of a stock appearing in only one screen

Factors include: Value, Momentum, Balance Sheet and Earnings Quality, Buybacks, Low volatility, Sentiment, Size, Growth.

Step 1

Determination on initial universe (majors, tailor-made or proprietary)

Step 2

Run of the multi-factor layered quantitative screens on the initial universe of stocks

Result

The result is long or short portfolio of stocks. Long portfolio usually 1/4th of initial universe, short portfolio 1/6th

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Let's have a look at **the Long Portfolio**.

We have many long portfolios (they can, as said before, be built on any diversified universe of at least 150 liquid stocks). We consider them to **Lego pieces that can be combined to achieve varying goal or adjust to varying constraints**.

In this example we will use a long portfolio based on our "Gurus" universe. We have 2 of them. One where 100% of the portfolio is invested in the stocks selected by our quant screens and the other one where 85% is invested in those stocks and 15% is invested in stocks which are owned by many managers (consensus). In this note we will use the former.

The Sentinel Gurus US strategy starts with a proprietary universe of stocks held by approximately 150 fund managers.

Approx. 150 Managers	Constantly Monitored	List started in 2006
Approx. 1.2B Median fund size	Approx. 7.1Q Median holding period	Approx. 80% Median concentration

At manager level we are not looking for benchmark huggers and we are agnostic to style, size, industry specialization as we do not want to have factors or industry bias at any stage of our process.

We then run, on a quarterly basis, our quantitative screens on the 1'000-1'200 stocks of the Gurus universe and **end up with a portfolio of 275-350 stocks**.

This is our long portfolio.

The top 10 holdings at the end of 2023 were, as you can see, none of the 'Magnificent 7'.

Company	Weight
ALPHA METALLURGICAL RES.	3.84%
STELLANTIS NV	2.04%
CONSOL ENERGY INC	2.00%
PETROLEO BRASIL	1.60%
TAIWAN SEMICONDUCTOR	1.40%
DELL TECHNOLOGIES	1.38%
GULFPORT ENERGY CORP	1.27%
IMMUNOGEN INC	1.22%
BROADCOM INC	1.20%
BERKSHIRE HATHAWAY INC	1.18%

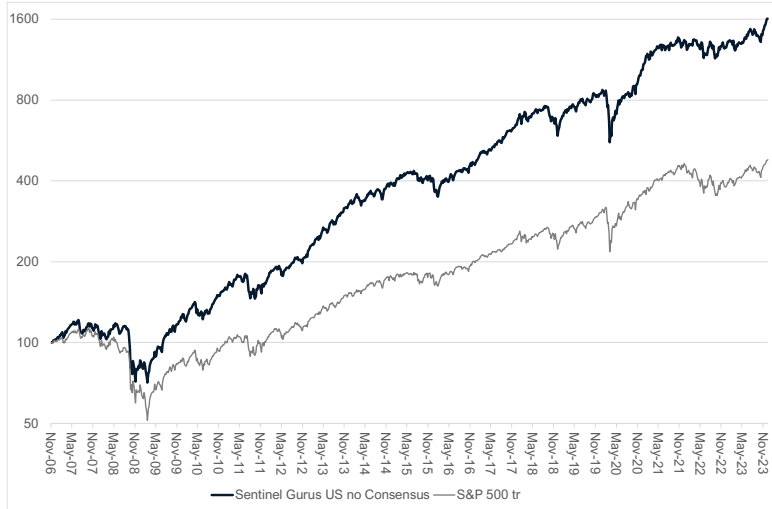
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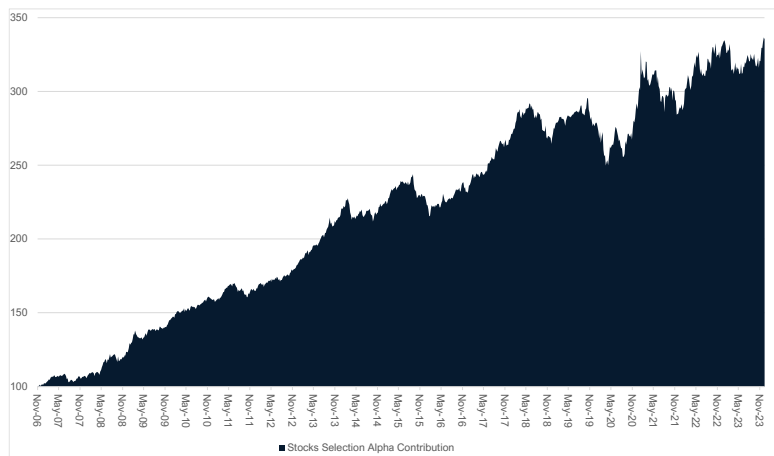
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The long portfolio has outperformed the S&P 500 by 8% a year since it went live on November 15th 2006. Volatility is slightly higher and the drawdown is lower and one should expect it to be similar going forward.



	Sentinel Gurus US no Consensus	S&P 500 tr	Delta
Total Return	1507.3%	379.3%	1128.0%
CAGR	17.6%	9.6%	8.0%
Volatility (ann.)	18.0%	16.6%	1.4%
Max Drawdown	-41.6%	-54.7%	-13.1%
Calmar ratio	0.42	0.18	0.24
Sharpe ratio	1	0.64	0.36
Sortino ratio	1.72	1.21	0.51

The outperformance has been relatively steady over the years with a slight increase in volatility recently due to the “Magnificent 7” having contributed disproportionately to the S&P 500 performance (our strategies, by design, are more correlated to equal-weight indices).



	Stocks Selection Alpha Contribution
Total Return	235.3%
CAGR	7.3%
Volatility (ann.)	7.4%
Max Drawdown	-15.5%
Calmar ratio	0.47
Sharpe ratio	1
Sortino ratio	1.99

When regressing the performance of the strategy with the Fama-French 5 factors models one can see that the constant is 0.007 (8.4% annualized). The constant is the outperformance which can not be explained by the 5 factors and is considered by academia as true alpha.

Adj. R-squared	85.45%	Durbin-Watson	2.23
# observations	204	Jarque-Bera	174.82
F-test	239.47 (0.0)		
	Coefficient	p-value	[0.025 0.975]
const	0.007	0	0.004 0.01
Mkt-RF	0.907	0	0.842 0.971
SMB	0.392	0	0.27 0.514
HML	-0.043	0.485	-0.166 0.079
RMW	0.02	0.792	-0.126 0.165
CMA	0.04	0.714	-0.175 0.255

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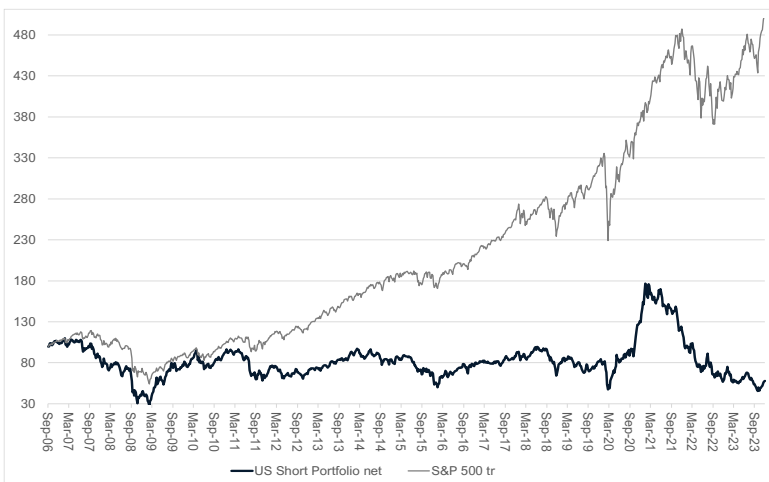
Let's move to the short portfolio.

The short portfolio is the **aggregation of our short screens run on 3 universes**. The universes are: The S&P 500, the Russell 3000 ex S&P 500 and liquid stocks which are not members of the Russell 3000.

The portfolio was short 359 stocks at the end of 2023 with an average borrow rate of 1.9%. We have used a 2% average borrow-rate historically and 0% on the short sell proceed to be conservative.

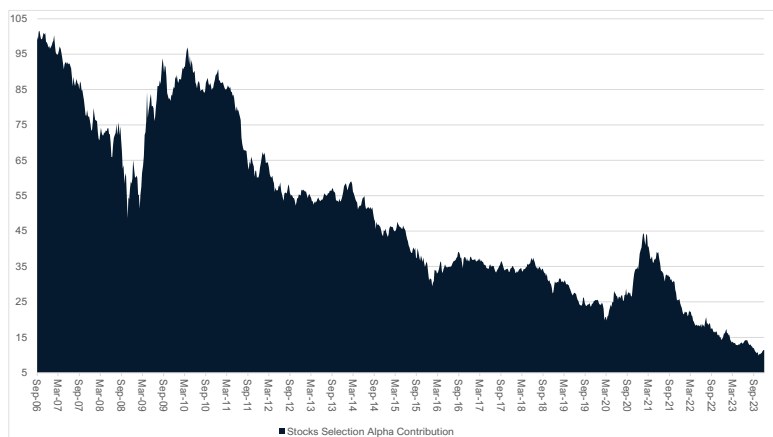
The screens are run every month and the stock selected are held 3 months so much less than 1/3 of the portfolio change every month.

The short portfolio has underperformed the S&P 500 by 13% a year with much higher volatility and drawdown.



	US Short Portfolio net	S&P 500 tr	Delta
Total Return	-42.1%	404.1%	-446.2%
CAGR	-3.1%	9.8%	-13.0%
Volatility (ann.)	31.7%	16.6%	15.1%
Max Drawdown	-74.8%	-54.7%	20.1%
Calmar ratio	-0.04	0.18	-0.22
Sharpe ratio	0.06	0.65	-0.59
Sortino ratio	0.1	1.21	-1.11

The underperformance has been relatively steady over the years except at the start of major rebounds. This is something which can be partly controlled but will be the subject of another note.



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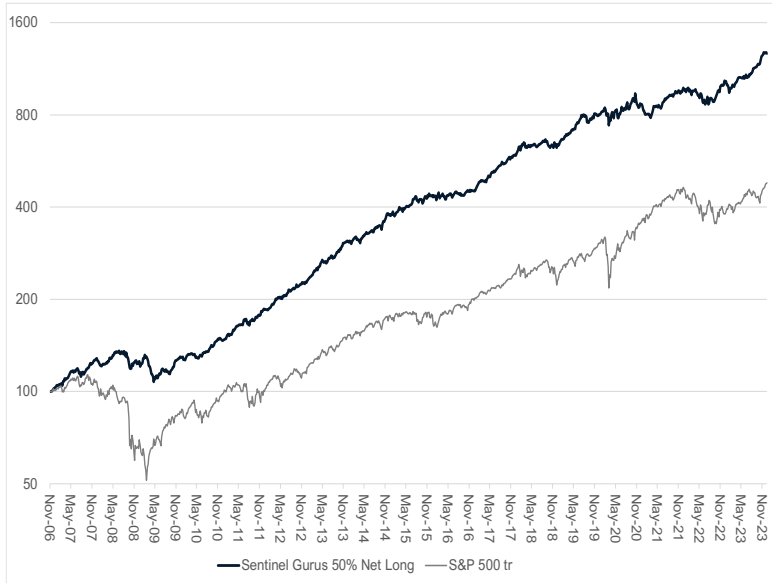
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Now there are many ways to combine those 2 portfolios. We will present two basic strategies here.

Option 1:

We will start with a portfolio which will be investing 100% of AUM into the long portfolio and short the equivalent of 50% of AUM in the short portfolio. We will rebalance to those weight monthly. We lose 2% of GAGR compared to the long only portfolio but both volatility and drawdown are halved.

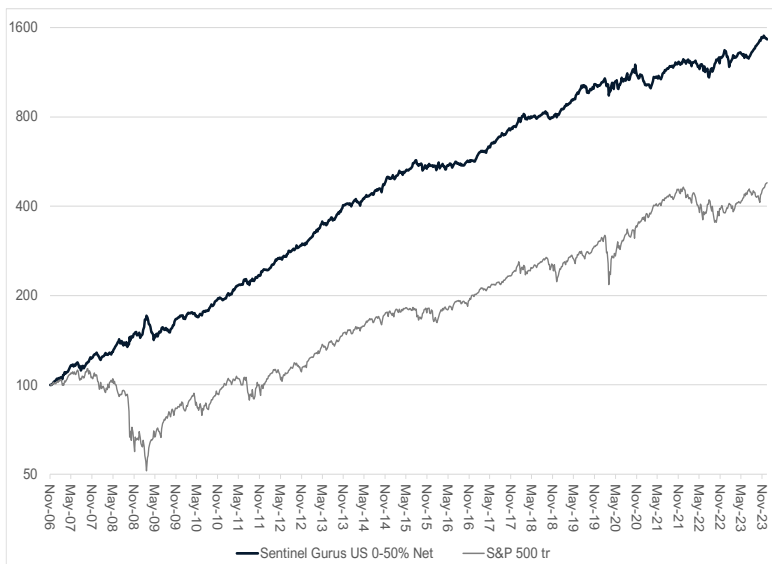


	Sentinel Gurus 50% Net Long	S&P 500 tr	Delta
Total Return	1121.2%	404.1%	717.1%
CAGR	15.6%	9.8%	5.8%
Volatility (ann.)	9.2%	16.6%	-7.4%
Max Drawdown	-20.7%	-54.7%	-34.0%
Calmar ratio	0.75	0.18	0.57
Sharpe ratio	1.63	0.65	0.98
Sortino ratio	3.21	1.21	2.00

Option 2:

The same as Option 1 except that we also short 50% of S&P 500 futures when our “Beta Management Overlay” is bearish (see [here](#) for more details).

We lose 0.6% of GAGR compared to the long only portfolio but both volatility and drawdown are halved and are lower than in our first example above



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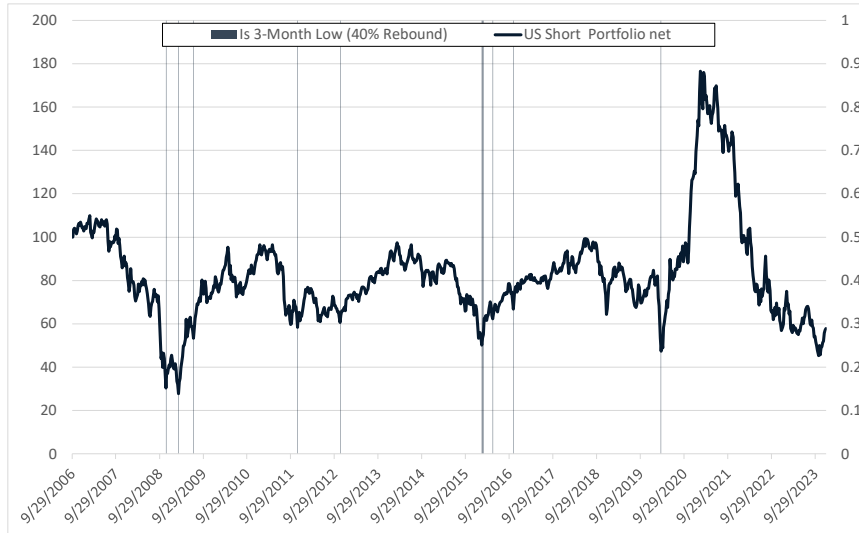
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Before we conclude,

Certainly **improvement can be made**, like for example avoiding exposure to the short portfolio (or even taking a long exposure to it) when the markets display signs of high panic.

Given that bottoms are events which are much easier to detect than tops (which are more a process than an event), this is something that any investor should explore.



We have also used fixed percentage allocation to the long and short portfolio which are only readjusted monthly. One should be more proactive and use beta-adjusted exposure as a guide (and the question one should ask is: Which beta, which time frame,...).

In this short note we **have showed how we can construct diversified quantitative long/short portfolios** using our models as Lego.

Note that the same strategy can be run on any sufficiently large pool of liquid stocks (we run in on many markets) and that if you would like to follow the current holding of the two legs, just send a message to dc@nava.capital with your Bloomberg email address and we will share the portfolios with you.

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