



OPTIMAL RISK SIZING PROCESS OVERVIEW

powered by **SHERPAFUNDS**
TECHNOLOGY



PORTFOLIO CONSTRUCTION PROCESS FUNDAMENTALS

In the Portfolio Construction process, front office investment management teams:

- 1) Generate investment ideas (Alpha Signals)
- 2) Apply the Alpha Signals to create an Investable Product.

An ideal Portfolio Construction process translates the Alpha signals (1) into an investable Product (2) that best expresses the Alpha whilst complying with the objectives and constraints of all the stakeholders.

PORTFOLIO CONSTRUCTION PROCESS FUNDAMENTALS VISUALISED

GENERATE ALPHA

Source of Alpha

- *Fundamental*
- *Quant*
- *Systematic*
- *Research*

FREQUENTLY UPDATED

SHAPE THE PORTFOLIO

Client Specific Parameters

- *Risk Tolerance*

CIO Overview

- *Alpha Quality*
- *Thematic Overview*

Portfolio Specific Parameters

- *Asset Numbers*
- *Net / Gross*
- *Sector / Factor Exposures*

VERY COMPLEX CALCULATION

INVESTABLE PRODUCT

The Portfolio

Risk controlled

Compliant with constraints and corporate strategy / sales pitch

ALPHA CHANGES FREQUENTLY, 'SHAPE' IS CONSTANT

SYSTEMATIC PORTFOLIO CONSTRUCTION CAN HELP PMs BUILD BETTER PORTFOLIOS

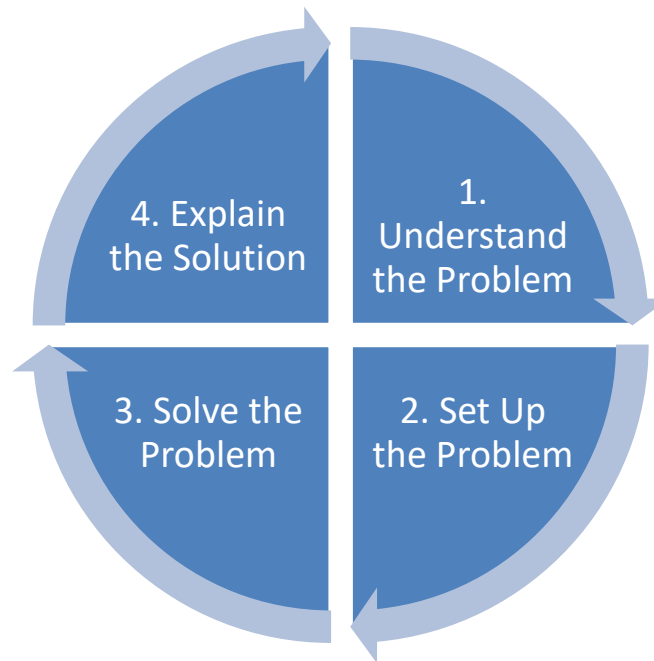
A systematic approach to the portfolio construction process helps Portfolio Managers express their unique Alpha by taking “*more of the risk you want, less of the risk you don’t want.*”

- Better expression of Alpha (*i.e. increased returns when you’re right*)
- Better control on Risk (*i.e. limiting downside risk if you’re not*)
- More scalable portfolio construction process with lower variable costs

A SYSTEMATIC APPROACH TO CONSTRUCTION REQUIRES GETTING THE INPUTS RIGHT

Plug and play portfolio optimisers typically suffer from garbage-in-garbage-out. The problem is insufficiently defined to produce realistic results.

To get value out of this approach requires a Process-Driven Approach to Expressing Alpha. Sherpa Funds Technology guides our clients in establishing an objective, repeatable process to maximize the impact from systematic portfolio construction.



1. UNDERSTAND THE PROBLEM

Sherpa Funds Technology works with all portfolio stakeholders – the PM, Alpha providers and the Product owners (CIO, Sales, LPs) - to ***fully understand the problem*** as is unique to their portfolio.

- α How is the Alpha generated?
- 🔗 What are the objectives and constraints on the Portfolio?
- 🔄 Which Workflows will best leverage the results of the process?

The Sherpa approach does NOT require changes in investment process, but helps stakeholders fully understand and systematise the portfolio construction process.

2.SET UP THE PROBLEM

Sherpa manages the important and difficult work of setting up the problem ensuring that all inputs are

Complete, Consistent and Coherent

Alpha

Data

Constraints

Results

PM's Call		Attributes of the Asset			
Asset	Conviction	Country	Sector	Factor1	Factor2
ADVANCED WIREL	1.93%	TWD	Technolog	0.13	74
PRIMAX ELECTRON	2.00%	TWD	Technolog	0.10	142
UNITED MICROELE	3.79%	TWD	Technolog	0.70	207
RADIANT OPTO-EL	0.77%	TWD	Semicond	0.43	37
PARADE TECHNOL	0.00%	SGP	Technolog	0.12	166
WISTRON CORP	1.03%	SGP	Semicond	0.04	196
TPK HOLDING CO I	3.94%	SGP	Technolog	0.27	139
VANGUARD INTL	0.42%	SGP	Technolog	0.13	113
HTC CORP	1.51%	SGP	Technolog	0.86	27
JAPAN DISPLAY	0.88%	JPY	Software	0.73	212
NISSHA PRINTING	3.47%	JPY	Software	0.49	113
NIDEC CORP	1.40%	JPY	Retailing	0.29	199
TONGDA GROUP H	1.80%	HKD	Consumer	0.84	103
GALAXY ENTERTAI	1.31%	HKD	Software	0.01	147
CHINA SINGYES SC	2.33%	HKD	Materials	0.98	81
SKYWORTH DIGIT/	1.22%	HKD	Software	0.33	136
LENOVO GROUP	2.14%	HKD	Software	0.40	161
SAMSUNG ELECTR	1.45%	KRW	Technolog	0.59	145
NAVER CORP	4.71%	KRW	Semicond	0.72	70

Portfolio	Min Net	Max Net
	-15%	-10%
Portfolio	Min Gross	Max Gross
	120%	140%
GICS Sector	Min Net	Max Net
Technology	-8%	-1%
Semiconduct	13%	19%
Technolog	-7%	1%
Semicondu	-6%	0%
Software	-9%	5%
Retailing	15%	22%
Consumer	-4%	-3%
Materials	7%	11%
Country	Min Net	Max Net
TWD	-3%	3%
SGP	-5%	-3%
JPY	-15%	-10%
KRW	5%	10%
HKD	-6%	-3%
Factor 1	(0.15)	0.15
Factor 2	(10)	10

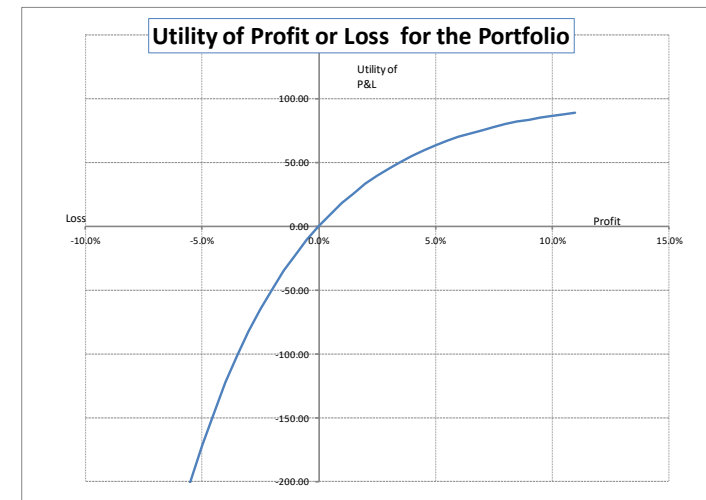
ORS Output	
Asset	Weighting
ADVANCED W	4.57%
PRIMAX ELECT	1.82%
UNITED MICRC	0.35%
RADIANT OPTI	2.19%
PARADE TECHI	0.00%
WISTRON COF	0.11%
TPK HOLD NG	1.31%
VANGUARD IN	1.96%
HTC CORP	2.33%
JAPAN DISPLA	0.10%
NISSHA PRINT	3.43%
NIDEC CORP	0.44%
TONGDA GRO	0.05%
GALAXY ENTEF	0.94%
CHINA SINGYE	1.18%
SKYWORTH DI	1.04%
LENOVO GRO	1.84%
SAMSUNG ELE	0.99%
NAVER CORP	0.38%

Resulting Portfolio is compliant with all constraints

3. SOLVE THE PROBLEM

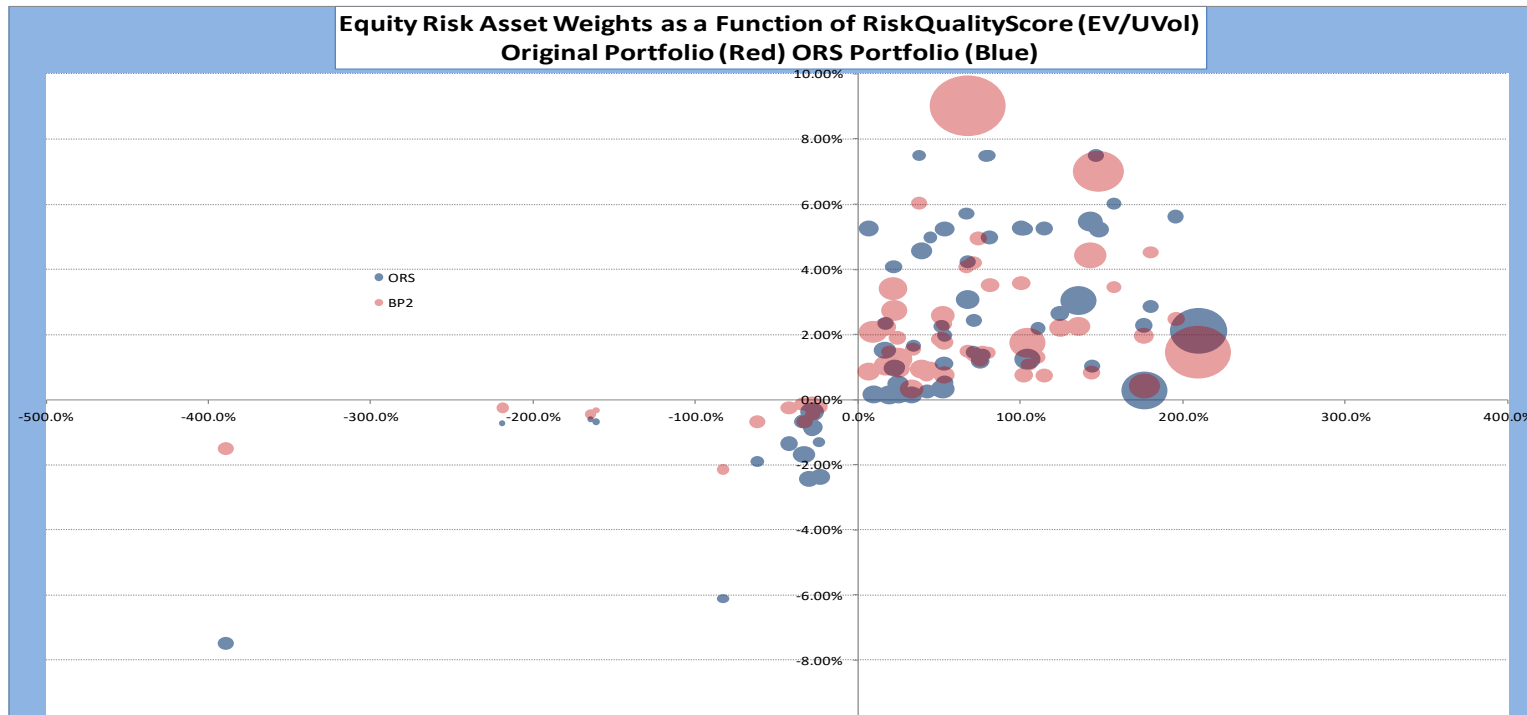
Sherpa's patented Optimal Risk Sizing risk engine (**ORS**) solves the problem with much more than a standard mean/var minimiser.

- An **asymmetric risk function** better describes the business impact of risk. Put simply, Sherpa builds portfolios that minimize fund-damaging drawdown rather than volatility.
- Multiple well-defined **layers of constraints** give more useful real-world answers.
- A range of computational methods define a 'Best' portfolio that is both **stable** and **robust** – good across a wide variety of possible market and Alpha signal evolutions.



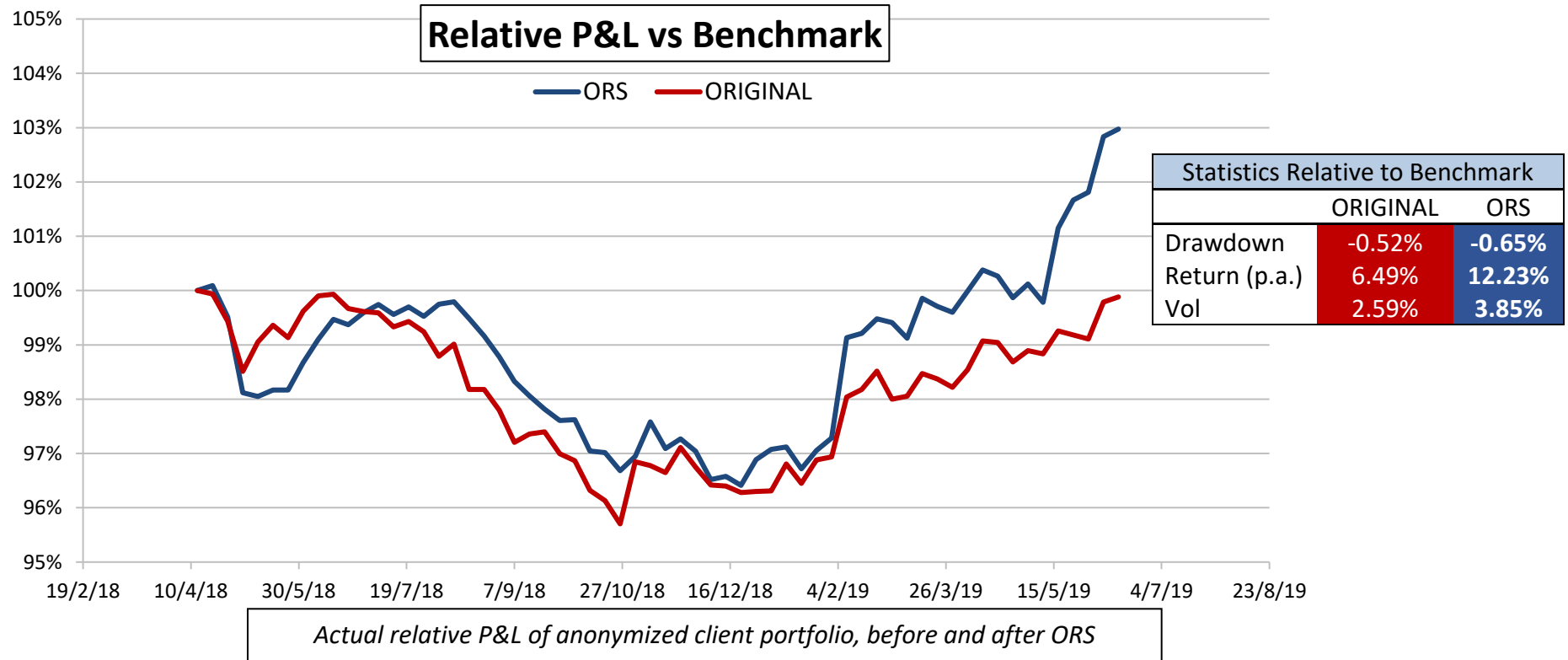
4. EXPLAIN THE SOLUTION

ORS graphics and Sherpa insights help PMs *explain the solution* to CIOs and LPs



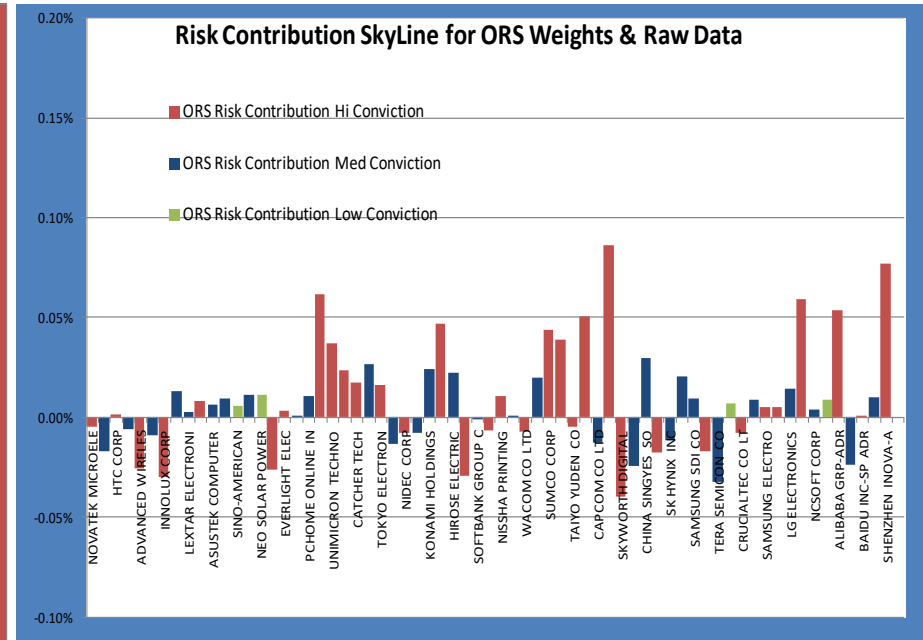
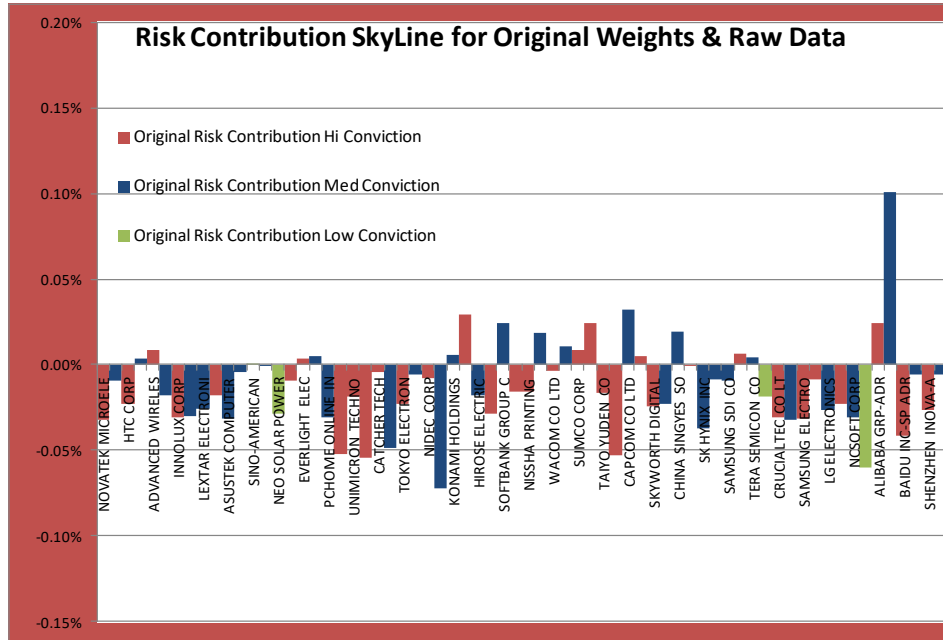
Sherpa's Risk Quality Score visualization demonstrates the relationship between each asset's conviction, risk, correlation and weight in the portfolio. ORS implicitly finds the best balance of weight with regards to both the RQS and the correlation.

RESULT: A BETTER EXPRESSION OF YOUR ALPHA



The ORS portfolio provided higher returns and a better expression of good asset & conviction calls (i.e. Alpha in the ideas). If asset calls are less successful, lower weights on positively correlated assets mitigates the impact of the poor call on portfolio P&L.

RESULT: TAKE MORE OF THE RISK YOU WANT, LESS OF THE RISK YOU DON'T



Risk contribution of an anonymized client portfolio, before and after ORS

ORS creates portfolios like above, with more even risk contribution that is better aligned with your conviction and/or key risk factors defined for the portfolio – letting you take more of the risk you want, less of the risk you don't.

LET US SHOW YOU HOW SHERPA CAN HELP YOUR PORTFOLIO

Contact the Sherpa team below and let us...

- Share how funds like yours are already benefiting from implementing ORS
- Go into more detail on the ORS philosophy and methodology
- Demonstrate how the ORS process can help you on a Portfolio of your own data

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