ORS Case Study

External Alpha

Create Research Products

powered by SHERPA FUNDS TECHNOLOGY

USING SHERPA TECH PROCESSES TO DELIVER INVESTMENT PORTFOLIOS THAT SELL

This case study illustrates how a Bank research team acts as an **External Alpha** provider, working with Sherpa to create investable thematic Investment Portfolios that match their clients' needs.

Sherpa helps the bank build a product factory that monetises their knowledge of client risk preferences, product execution capabilities and thematic investment ideas. This Modularised Portfolio Construction process results in:

- defined responsibilities
- a scalable process
- efficient use of resources
- and a portfolio that takes risk in the manner consistent with the clients wishes

SFT is expert in running this process and the calculations, ensuring the data flows correctly, from sourcing Alpha signals from research providers to sending portfolio execution signals to a trading desk.

USING SHERPA TECH PROCESSES TO DELIVER INVESTMENT PORTFOLIOS THAT SELL

There are 6 core phases in creating this Modularised Portfolio Construction process:

1. Identify a theme and Alpha source (research data) on the theme

2. Use the research data to score the investable universe of assets for quality

3. Define the portfolio "shape" i.e. the characteristics that make it sellable to the

4. Calculate the portfolio constituents using the ORS engine to preserve the alpha, manage the risk and exhibit the product/sales teams' desired characteristics, including downside risk, specific factor exposures and volatility controls

5. Sell the product and execute into whatever vehicle (swap/MTN, AMC etc) the client prefers

6. Manage the Data and logical consistency across the 5 processes above

IDENTIFY THE THEME, ALPHA SOURCE AND RESEARCH

In this client example, the sales team identified demand for a product based on the Mobile Phone Supply Chain.

The research team creates a universe of assets (say publically traded stocks and bonds with certain market cap and liquidity thresholds), and has scores each stock for its potential to perform.

Other research can be added: the Sales team's or even the Client's own views, other analyst ratings or specialist accounting service data can be included.

The result is an 'Alpha Vector': a list of assets and scores.

ALPHA SCORES: MOBILE PHONE SUPPLY CHAIN, EXPERT UNIVERSE AND SCORING SYSTEM

Mobile Phone Supply Chain Electronic Components

Identifiers		Expert's Final	Expert Factors			Quant Factors				
Universe	Short_Name	Score	Innov.	Market Gr.	Tech	ROE_SD_Y_5	DIV_YLD_1BF	:S_GROWTH_AVG_Y	P_SALES_1BF	MSCI_WORLD
2317 TT Equity	HON HAI	33	26	4	(4.2)	81.1	46.8	62.6	46.3	88.8
054630 KS Equity	ADVANCED DIGITAL	(85)	(451)	8	(8.7)	22.0	20.1	18.8	(0.8)	(0.1)
004270 KS Equity	NAMSUNG CORP	(6)	(184)	8	11.8	48.0	34.6	52.7	52.4	44.9
190510 KS Equity	NAMUGA CO LTD	45	96	9	40.2	31.6	30.9	25.8	19.3	15.4
093520 KS Equity	MAKUS INC	(21)	(19)	8	(4.4)	#N/A N/A	#N/A N/A	(45.4)	(15.0)	(7.1)
2354 TT Equity	FOXCONN TECH	(24)	(63)	6	(43.7)	#N/A N/A	#N/A N/A	#N/A N/A	5.3	8.2
4938 TT Equity	PEGATRON	(82)	(345)	2	(43.4)	29.4	30.4	10.0	(21.1)	(13.3)
2382 TT Equity	QUANTA COMPUTER	92	493	5	(31.1)	#N/A N/A	#N/A N/A	4.9	4.4	1.8
7613 JP Equity	SIIX CORP	38	99	3	9.4	#N/A N/A	#N/A N/A	43.0	(1.6)	4.0
3231 TT Equity	WISTRON CORP	38	155	4	39.8	28.0	15.0	(14.4)	(1.1)	9.9
8140 JP Equity	RYOSAN CO LTD	52	200	3	33.2	#N/A N/A	#N/A N/A	1.8	5.3	9.4
8112 TT Equity	SUPREME ELEC	(30)	(248)	7	43.2	9.2	10.4	8.7	11.8	14.3
6973 JP Equity	KYOEI SANGYO CO	109	424	5	48.3	23.5	11.3	22.3	14.2	20.9
2352 TT Equity	QISDA	(49)	(298)	10	12.1	17.7	21.9	#N/A N/A	28.1	24.2
6264 JP Equity	MARUMAE CO LTD	(31)	(354)	10	(10.2)	51.2	#N/A N/A	14.1	219.0	219.0
2356 TT Equity	INVENTEC	96	415	5	15.9	14.9	14.1	8.7	16.5	32.8
2324 TT Equity	COMPAL ELEC	(49)	(255)	3	22.8	#N/A N/A	#N/A N/A	#N/A N/A	(26.5)	(26.5)
8154 JP Equity	KAGA ELECTRONICS	64	263	4	25.8	7.2	7.1	5.3	8.2	7.4
3132 JP Equity	MACNICA FUJI ELE	83	244	6	41.2	94.3	(11.6)	85.6	38.2	26.3
285 HK Equity	BYD ELECTRONIC	71	418	0	(47.1)	7.6	1.5	5.1	5.3	5.8
3156 JP Equity	UKC HD CORP	(8)	(17)	1	(41.0)	(6.0)	4.6	14.7	5.4	2.2
000062 CH Equity	SHENZ HUAQIANG-A	64	359	4	(44.0)	12.1	6.3	11.7	10.5	9.1
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9880 JP Equity	INNOTECH CORP	0	8	7	(9.5)	#N/A N/A	#N/A N/A	0.2	0.9	1.1
	Weighting Model		3.00	2.50	4.50	(2.00)	2.00	5.00	2.00	1.00

Hedging Instruments to Mitigate Market Betas and Control Vol/Downside

Identifiers		Final Score	Expert Factors			Quant Factors				
Universe	Short_Name		Location	Market Growt	Innovation	ROE_SD_Y_5	DIV_YLD_1BF	SALES_GROWTH_/	P_SALES_1BF	BETA_MSCI_\
XLI US EQUITY	SPDR-INDU SELECT	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FXI US EQUITY	ISHARES CHINA LA	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HSI INDEX	HANG SENG INDEX	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TWSE INDEX	TAIWAN TAIEX INDEX	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TPX INDEX	TOPIX INDEX (TOKYO)	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

DEFINED PORTFOLIO RISK CHARACTERISTICS ('SHAPE')

The sales team then define the characteristics that will maximise the commercial 'sell-ability' of the Investment product using the Alpha when pitched to a certain client segment.

Definitions include risk tolerance, number of assets, portfolio market Beta and any other macro or style factor, rebalancing frequency and trading costs.

Objectives and Constraints					
Category	Group	minNet	maxNet	minGross	maxGross
Country Risk	TWD	20.0%	50.0%	0.0%	100.0%
Country Risk	KRW	20.0%	50.0%	0.0%	100.0%
Country Risk	JPY	20.0%	50.0%	0.0%	100.0%
Country Risk	CNY	20.0%	50.0%	0.0%	100.0%
MarketBetas	MSCI ACWI BETA	25.0%	40.0%	N/A	N/A
MarketBetas	Oil beta	-15.0%	15.0%	N/A	N/A
MarketBetas	USDJPY Beta	-25.0%	25.0%	N/A	N/A
Styles	Momentum	50.0%	75.0%	N/A	N/A
Styles	Growth	-20.0%	20.0%	N/A	N/A
Styles	Value	50.0%	75.0%	N/A	N/A
Portfolio	Assets	75.0%	125.0%	100.0%	150.0%
Portfolio	Hedges	-150.0%	50.0%	0.0%	150.0%

Asset Numbers		Long		Short	
		Min	Max	Min	Max
Portfolio	# Assets	10	12	4	6
Portfolio	# Hedges	0	5	0	5

Risk Attributes		
Type	Value	Notes
Target Return	15.0%	Annualised
Volatility	8.0%	Annualised
Drawdown	-5.0%	Annualised
Benchmark	None	Absolute Return

Workflow Constraints		
Type	Value	Notes
Rebalance Freq.	Q	Unless > 10% Move
Turnover	15.0%	
Expected Life	18 Months	
Selling Period	3 Months	

THE RESULTING CALCULATED OPTIMAL PORTFOLIO AND ANALYTICAL OVERVIEW

Resulting Portfolio		
Identifiers		**Portfolio Weight**
Universe	Short_Name	
2317 TT Equity	HON HAI	-10.0%
054630 KS Equity	ADVANCED DIGITAL	5.0%
004270 KS Equity	NAMSUNG CORP	15.0%
190510 KS Equity	NAMUGA CO LTD	-5.0%
093520 KS Equity	MAKUS INC	17.2%
2354 TT Equity	FOXCONN TECH	4.6%
4938 TT Equity	PEGATRON	3.1%
2382 TT Equity	QUANTA COMPUTER	11.6%
7613 JP Equity	SIIX CORP	7.8%
3231 TT Equity	WISTRON CORP	-7.5%
8140 JP Equity	RYOSAN CO LTD	-2.5%
8112 TT Equity	SUPREME ELEC	4.2%
6973 JP Equity	KYOEI SANGYO CO	-7.0%
2352 TT Equity	QISDA	8.0%
6264 JP Equity	MARUMAE CO LTD	5.0%
2356 TT Equity	INVENTEC	16.7%
XLI US EQUITY	SPDR-INDU SELECT	-14.3%
FXI US EQUITY	ISHARES CHINA LA	-18.8%
HSI INDEX	HANG SENG INDEX	8.3%
TWSE INDEX	TAIWAN TAIEX INDEX	-15.9%
TPX INDEX	TOPIX INDEX (TOKYO)	-11.8%

Objectives and Constraints						Resulting Portfolio		
Category	Group	minNet	maxNet	minGross	maxGross	Net	Gross	Alerts?
Country Risk	TWD	20.0%	50.0%	0.0%	100.0%	29%	21%	OK
Country Risk	KRW	20.0%	50.0%	0.0%	100.0%	46%	39%	OK
Country Risk	JPY	20.0%	50.0%	0.0%	100.0%	21%	56%	OK
Country Risk	CNY	20.0%	50.0%	0.0%	100.0%	28%	9%	OK
MarketBetas	MSCI ACWI BETA	25.0%	40.0%	N/A	N/A	32%	N/A	OK
MarketBetas	Oil beta	-15.0%	15.0%	N/A	N/A	5%	N/A	OK
MarketBetas	USDJPY Beta	-25.0%	25.0%	N/A	N/A	-21%	N/A	OK
Styles	Momentum	50.0%	75.0%	N/A	N/A	64%	N/A	OK
Styles	Growth	-20.0%	20.0%	N/A	N/A	0%	N/A	OK
Styles	Value	50.0%	75.0%	N/A	N/A	58%	N/A	OK
Portfolio	Assets	75.0%	125.0%	100.0%	150.0%	66%	130%	OK
Portfolio	Hedges	-150.0%	50.0%	0.0%	150.0%	-53%	69%	OK

Asset Numbers		Long		Short		Resulting Portfolio		
		Min	Max	Min	Max	#Longs	#Shorts	Alerts
Portfolio	# Assets	10	12	4	6	11	5	OK
Portfolio	# Hedges	0	5	0	5	1	4	OK

Back Tested Risk Attributes		
Type	Value	Notes
Realised Return	13.5%	Over last 1 yr
Realised Volatility	7.5%	Over last 1 yr
Realised Drawdown	-3.5%	Over last 1 yr

ORS OPTIMAL PORTFOLIO HAS STRONG RETURNS AND DESIRED RISK EXPOSURE

Cumulative Returns
ORS Portfolio, Equal Weighted and the Index

- ORS Wts Max DD =-6.67% Sharpe=1.1
- SPX Index Max DD =-9.10% Sharpe=0.6
- Equal Wts Max DD =-7.88% Sharpe=0.8
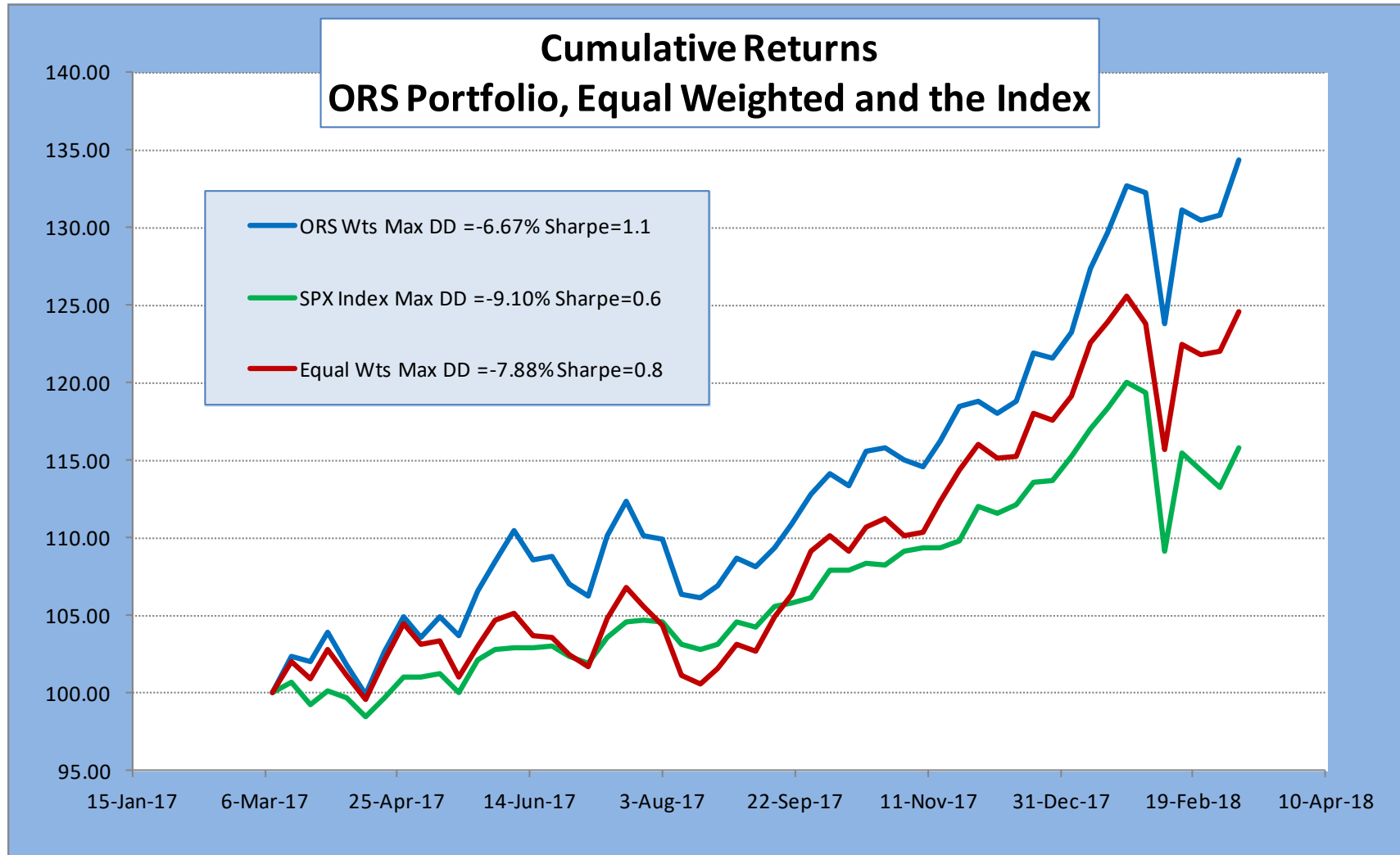
SHERPA HELPS THE CLIENT TO MANAGE THE RISK PORTFOLIO CREATION PROCESS

Sherpa constructs the portfolio that best expresses the Research alpha and complies with the product design requirements, maintains the data and sends rebalancing instructions.

In the above model, SFT runs the data-governance and operational workflow, ensuring consistency and coherence of inputs, managing different 'expert' research asset scoring systems and providing a framework for combining all these into one process flow.

The Bank or research provider runs all client interactions and identifies/defines product characteristics by using its client knowledge

The alpha sources identify and score assets (can be paid or free).

The result is a scalable process for producing controlled risk investment products for different investors.

LET US SHOW YOU HOW SHERPA CAN HELP YOUR PORTFOLIO

Contact the Sherpa team below and let us…

- Share how funds like yours use ORS to maximize returns from your research

- 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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