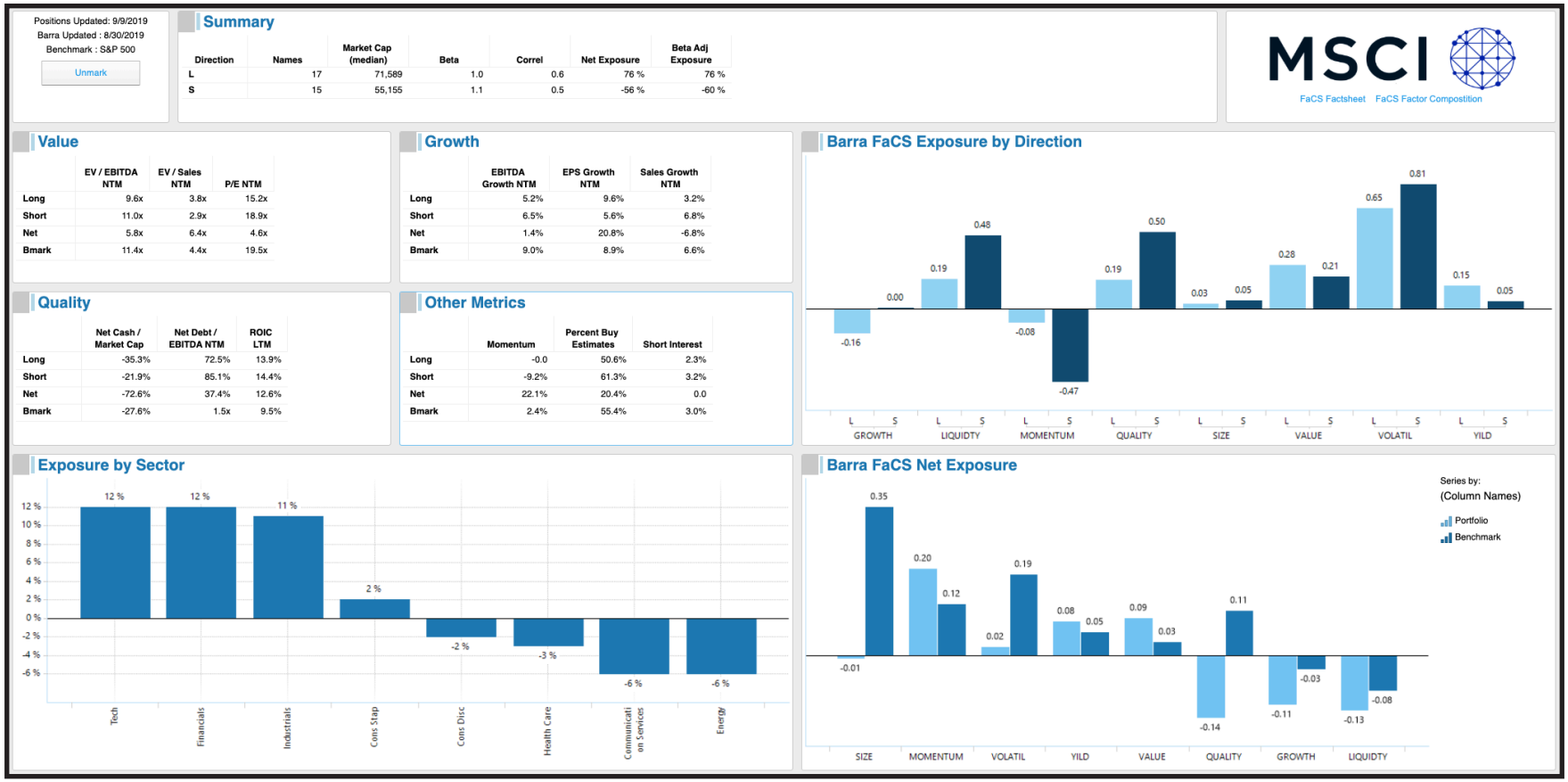
RISK MANAGEMENT & REPORTING

You don't trade manage your allocations based on exposure/factors, but you do need to fully understand it. With EDS, you have access to MSCI, the industry standard for risk analysis

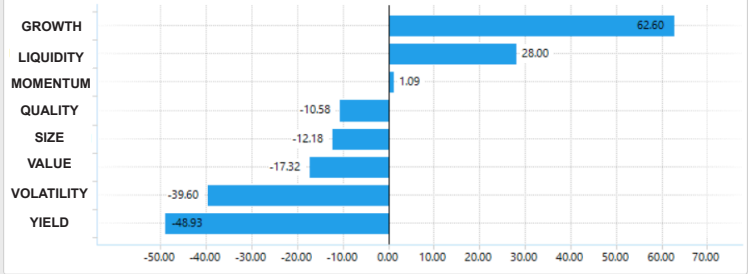


- **Measure and report against multiple funds, benchmarks, positions, factors, internal data, etc.**
- **Fundamental and Factor exposures side-by-side for increased understanding**

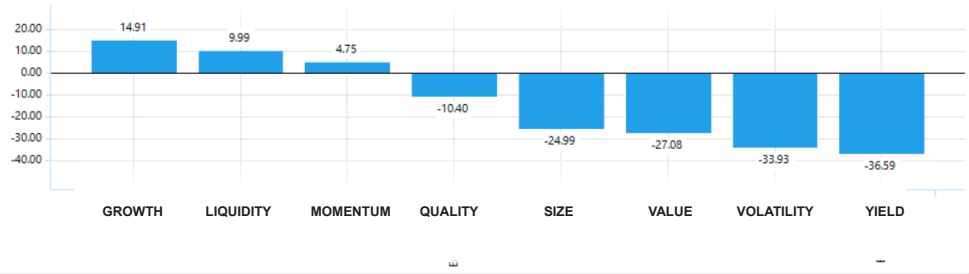
ANALYZE CHANGE IN A FEW CLICKS

9/20/2019

Portfolio Exposures



Portfolio Exposure Changes



Strategy Exposures

Strategy	GROWTH	LIQUIDITY	MOMENTUM	QUALITY	SIZE	VALUE	VOLATILITY	YIELD
Fund A	7.8	10.6	-4.2	-10.8	-11.4	-4.9	0.0	-9.9
Fund B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fund C	0.9	0.4	-1.4	1.2	-0.5	2.6	-0.9	0.8
Fund D	23.5	0.5	-3.4	8.1	10.2	-9.6	-9.1	-2.2
Fund E	-0.9	20.9	10.8	2.0	12.2	-16.4	6.1	-2.1
Fund F	18.3	4.5	-13.9	2.7	-21.9	19.1	-5.9	-34.2
Fund G	2.5	1.3	-1.9	-1.2	-6.2	-2.9	1.9	0.9
Fund H	-1.4	5.0	5.8	0.9	0.8	-8.6	0.5	0.0
Fund I	-12.3	3.0	0.3	-2.7	2.4	-7.3	1.1	0.9
Fund J	0.7	0.4	-1.0	-2.6	0.4	1.7	0.9	0.1
Fund K	-5.4	-3.8	1.6	11.7	7.2	1.5	6.7	9.4

Strategy Exposures Changes

Strategy	GROWTH	LIQUIDITY	MOMENTUM	QUALITY	SIZE	VALUE	VOLATILITY	YIELD
Fund A	4.0	-10.2	-3.7	-16.4	-18.1	-0.8	-4.0	-16.3
Fund B	1.4	0.8	-0.0	0.6	-4.0	5.2	-0.2	2.5
Fund C	0.9	-1.4	0.8	-0.5	0.4	2.6	1.2	-0.9
Fund D	5.4	5.0	11.3	6.1	7.5	-14.6	-13.0	2.9
Fund E	-0.9	10.8	-2.1	12.2	20.9	-16.4	2.0	6.1
Fund F	-4.1	-3.0	-8.5	-3.7	-3.2	4.6	-11.2	2.9
Fund G	2.5	-1.9	0.9	-6.2	1.3	-2.9	-1.2	1.9
Fund H	-0.3	5.6	0.4	1.1	1.3	-7.7	3.5	-1.3
Fund I	-10.9	-0.3	-0.6	2.9	1.9	-3.4	-2.6	0.5
Fund J	4.7	4.4	1.4	2.1	-1.0	-3.3	-1.1	-1.4
Fund K	0.5	2.1	1.7	9.1	-4.3	0.8	14.0	0.9

Stock Exposures

Factor	Ticker	Name	Start Date Beta	End Date Beta	Start Date % Equity	End Date % Equity	Start Date Exposure	End Date Exposure	Exposure Chan...
GROWTH	GKOS-USA	Glaukos Corp	1.34	-1.86	-1.95 %	-3.27 %	-2.60	6.08	8.68
SIZE	IGT-USA	International Game Technology PLC	-2.74	0.09	2.99 %	2.68 %	-8.19	0.23	8.42
VALUE	ATH-USA	Athene Holding Ltd. Class A	2.59	3.01	5.94 %	7.68 %	15.41	23.13	7.72
GROWTH	PAGS-USA	PagSeguro Digital Ltd. Class A		2.55		2.83 %		7.23	7.23
GROWTH	DPZ-USA	Dominos Pizza, Inc.		1.83		3.74 %		6.82	6.82
VOLATILITY	ATH-USA	Athene Holding Ltd. Class A	1.43	1.97	5.94 %	7.68 %	8.50	15.14	6.64
QUALITY	SC-USA	Santander Consumer USA Holdings, I...	1.97	1.98	0.87 %	4.11 %	1.72	8.14	6.42
YIELD	STZ-USA	Constellation Brands, Inc. Class A	-1.03		5.59 %		-5.76		5.76
LIQUIDITY	APO-USA	Apollo Global Management Inc. Class A	-0.69	0.75	2.05 %	5.37 %	-1.42	4.05	5.47
MOMENTUM	AABA-USA	Altaba Inc.	-1.49		3.66 %		-5.45		5.45

Look through to fund positions, if you have access

- **Measure changes in exposure on a fund or granular level over any time frame**
- **Understand how each fund is impacting the total portfolio**
- **View, screen, simulate, & optimize across multiple funds, positions, or portfolios**

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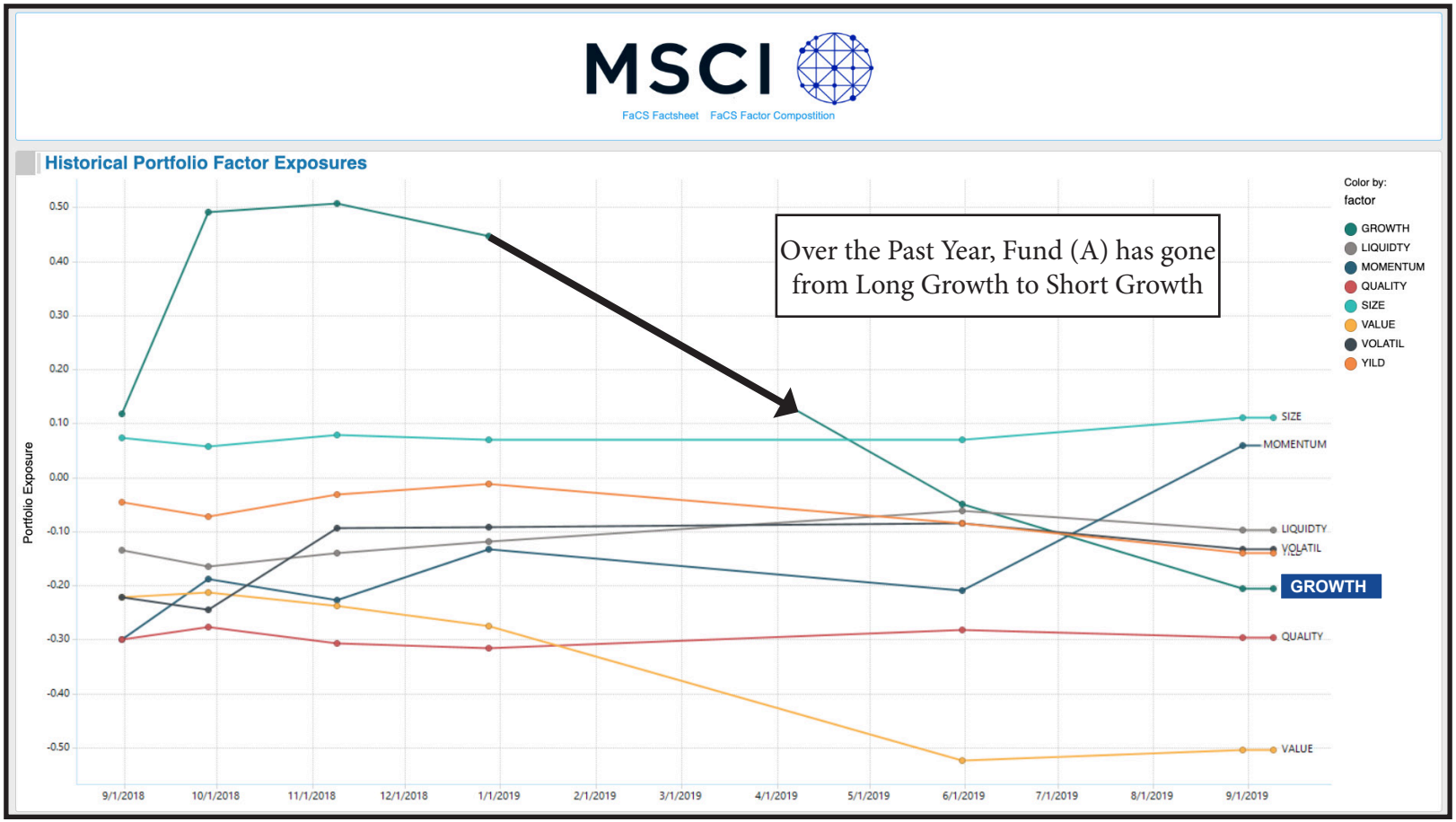
MONITOR EXPOSURE SHIFTS



- **Measure how your fund(s) investment exposures changes over time**

INTERACTIVE STRESS TESTING

Configure Stress testing to match your requirements

		Longs	Shorts	Benchmark
1	EV / SALES	0.94 x	0.86 x	1.04 x
2	CAPX % / SALES	3.57 %	3.9 %	4.58 %
3	DIVIDEND YIELD	0 %	1.44 %	2.15 %
4	EBITDA MARGIN	17.57 %	18.64 %	11.21 %
5	HEDGE FUND OWNERSHIP	11.78 %	11 %	16.58 %
6	P/E NTM	19.22 x	15.23 x	14.76 x
7	HEDGE FUND OWNERSHIP	11.48 %	1.01 %	1.52 %
8	PERFORMANCE: 2008 BEAR MARKET	**-45.2%**	**-30.4%**	**-60.5%**

- **Stress test your fund(s) across any time period and/or metric**
- **Test against any universe**

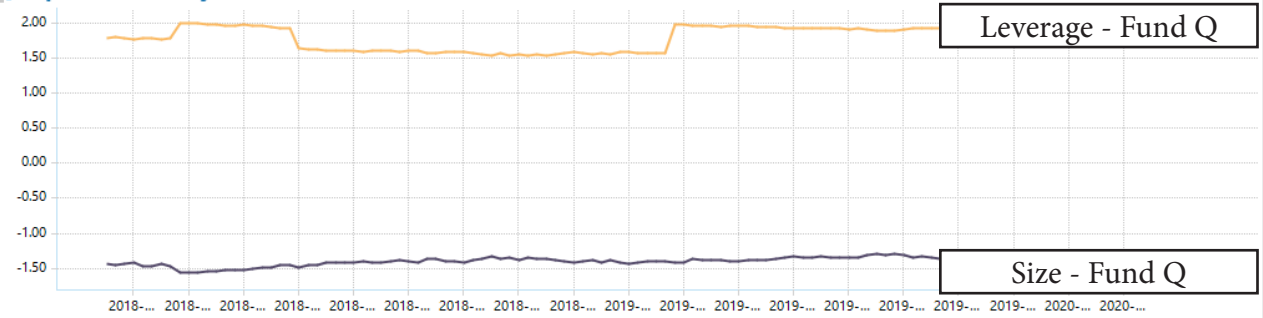
TURN RISK MANAGEMENT INTO NEW IDEAS

Ticker	Market Cap	Price (USD)	Return (3M)	Size (GEMLTL)	Leverage (GEMLTL)	Net Debt / EBITDA CY1	EV / EBITDA CY1	EV / Sales CY1	Street Target Price	Specific Risk (GEMLTL)
Fund A	134M	10.4	-69 %	-3.98	1.56	9.0	10.9	0.7	19.7	0.77
Fund B	121M	3.3	-59 %	-3.98	1.15	7.7	9.9	1.1	5.3	0.42
Fund C	136M	5.3	-50 %	-3.93	1.71	5.7	7.9	0.7	8.0	0.63
Fund D	173M	4.1	-28 %	-3.73	1.76	9.4	15.3	1.0	9.3	0.65
Fund E	206M	7.0	-68 %	-3.67	1.63	4.2	7.1	1.1	8.3	0.50
Fund F	254M	56.0	-23 %	-3.47	1.93					0.39
Fund G	291M	15.1	-61 %	-3.44	1.69	8.0	11.9	0.9	29.9	0.65
Fund H	367M	12.0	-70 %	-3.25	2.15	15.3	18.3	2.6	13.6	0.70
Fund I	487M	13.0	-69 %	-3.08	2.72	8.5	10.1	0.9	30.2	0.58
Fund J	469M	8.4	-59 %	-3.07	2.11	5.1	10.9	2.1	19.9	0.45
Fund K	481M	29.0	-66 %	-3.06	2.53	6.5	8.9	2.5	103.9	0.60
Fund L	589M	6.8	-69 %	-2.89	2.19	10.2	12.7	0.8	15.5	0.49
Fund M	735M	16.3	-59 %	-2.74	1.86	11.8	17.3	0.9	32.2	0.39
Fund N	908M	40.1	-49 %	-2.66	2.45	9.0	13.0	3.2	66.6	0.50
Fund O	1,820M	56.4	-11 %	-2.13	1.59	5.0	18.1	1.6	65.5	0.46
Fund P	2,719M	92.3	3 %	-1.93	1.69	4.8	48.2	13.6	100.6	0.45
Fund Q	4,314M	54.9	-27 %	-1.56	1.93	5.7	15.4	5.3	65.6	0.27

Factor Details

MSCI Model	Factor Group	Factor Name	Expos...
GEMLTL	Asset Selection	Total Risk	0.58
		Specific Risk	0.27
	Countries	United States Mkt	1.19
	Currencies	United States	1.00
	Industries	Consumer Services	1.23
	Market	World	1.00
	Risk Indices	Leverage	1.93
		Liquidity	0.83
		Beta	0.82
		Mid Capitalization	0.82
		Investment Quality	0.51
		Dividend Yield	0.27
		Profitability	0.12
		Earnings Variability	0.04
		Earnings Yield	0.00
		Growth	-0.06
		Residual Volatility	-0.26
		Earnings Quality	-0.45
		Long-Term Rever...	-0.54
		Book-to-Price	-0.61
		Momentum	-0.66
		Size	-1.56

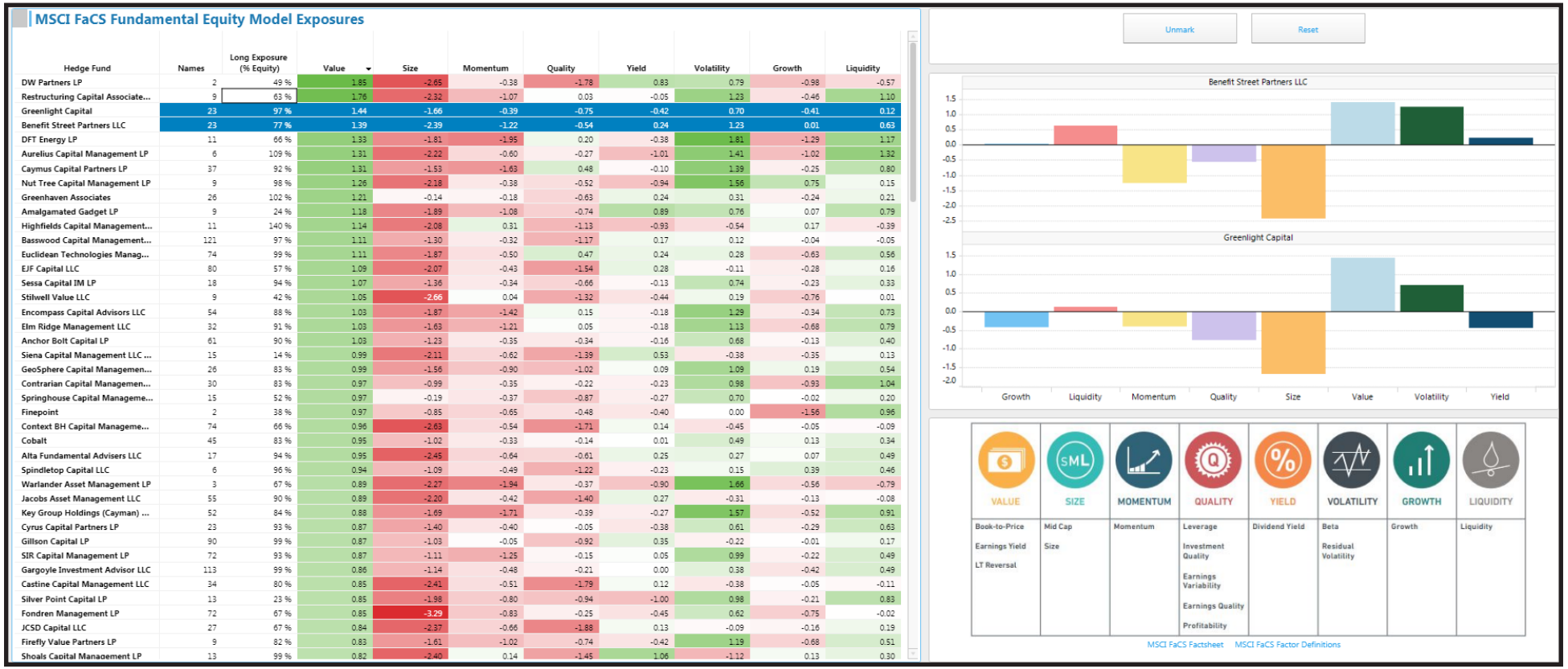
Exposure History



View exposure across all your investments

- **Idea Generation - Which funds to tilt towards or away from**
- **Better understanding of exposure across your investments**
- **Use factor exposure to assist fund sizing decisions**

MONITOR HOW YOUR PEERS ARE POSITIONED

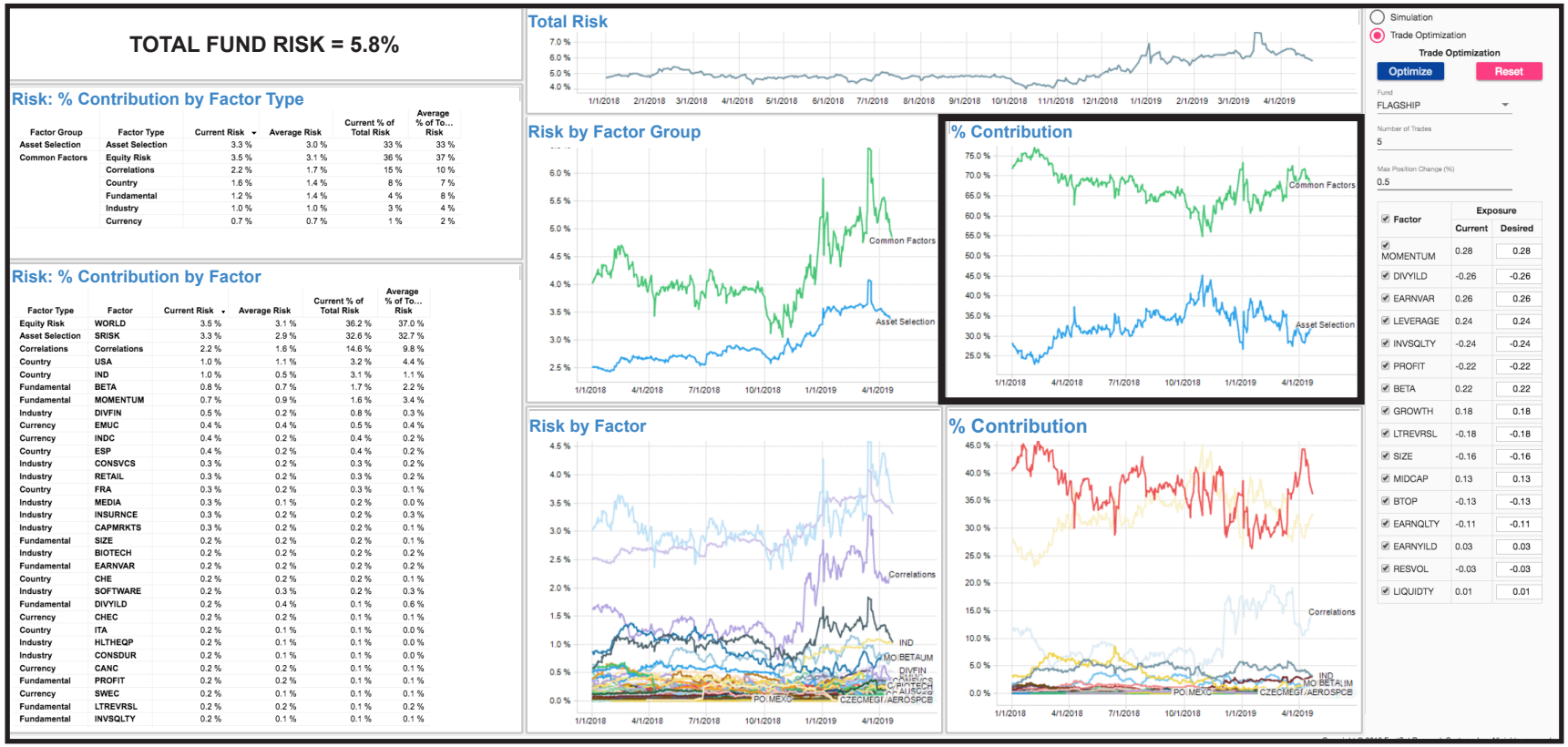


MSCI FaCS Fundamental Equity Model Exposures

Hedge Fund	Names	Long Exposure (% Equity)	Value	Size	Momentum	Quality	Yield	Volatility	Growth	Liquidity
DW Partners LP	2	49 %	1.85	-2.65	-0.38	-1.78	0.83	0.79	-0.98	-0.57
Restructuring Capital Associate...	9	63 %	1.76	-2.32	-1.07	0.03	-0.05	1.23	-0.46	1.10
Greenlight Capital	23	97 %	1.44	-1.66	-0.39	-0.75	-0.42	0.70	-0.41	0.12
Benefit Street Partners LLC	23	77 %	1.39	-2.39	-1.22	-0.54	0.24	1.23	0.01	0.63
DFT Energy LP	11	66 %	1.33	-1.81	-1.95	0.20	-0.38	1.81	-1.29	1.17
Aurelius Capital Management LP	6	109 %	1.31	-2.22	-0.60	-0.27	-1.01	1.41	-1.02	1.32
Caymus Capital Partners LP	37	92 %	1.31	-1.53	-1.63	0.48	-0.10	1.39	-0.25	0.80
Nut Tree Capital Management LP	9	98 %	1.26	-2.18	-0.38	-0.52	-0.94	1.56	0.75	0.15
Greenhaven Associates	26	102 %	1.21	-0.14	-0.18	-0.63	0.24	0.31	-0.24	0.21
Amalgamated Gadget LP	9	24 %	1.18	-1.89	-1.08	-0.74	0.89	0.76	0.07	0.79
Highfields Capital Management...	11	140 %	1.14	-2.08	0.31	-1.13	-0.93	-0.54	0.17	-0.39
Basswood Capital Management...	121	97 %	1.11	-1.30	-0.32	-1.17	0.17	0.12	-0.04	-0.05
Euclidean Technologies Manag...	74	99 %	1.11	-1.87	-0.50	0.47	0.24	0.28	-0.63	0.56
EJF Capital LLC	80	57 %	1.09	-2.07	-0.43	-1.54	0.28	-0.11	-0.28	0.16
Sessa Capital IM LP	18	94 %	1.07	-1.36	-0.34	-0.66	-0.13	0.74	-0.23	0.33
Stillwell Value LLC	9	42 %	1.05	-2.66	0.04	-1.32	-0.44	0.19	-0.76	0.01
Encompass Capital Advisors LLC	54	88 %	1.03	-1.87	-1.42	0.15	-0.18	1.29	-0.34	0.73
Elm Ridge Management LLC	32	91 %	1.03	-1.63	-1.21	0.05	-0.18	1.13	-0.68	0.79
Anchor Bolt Capital LP	61	90 %	1.03	-1.23	-0.35	-0.34	-0.16	0.68	-0.13	0.40
Siena Capital Management LLC ...	15	14 %	0.99	-2.11	-0.62	-1.39	0.53	-0.38	-0.35	0.13
GeoSphere Capital Managemen...	26	83 %	0.99	-1.56	-0.90	-1.02	0.09	1.09	0.19	0.54
Contrarian Capital Managemen...	30	83 %	0.97	-0.99	-0.35	-0.22	-0.23	0.98	-0.93	1.04
Springhouse Capital Manageme...	15	52 %	0.97	-0.19	-0.37	-0.87	-0.27	0.70	-0.02	0.20
Finepoint	2	38 %	0.97	-0.85	-0.65	-0.48	-0.40	0.00	-1.56	0.96
Context BH Capital Manageme...	74	66 %	0.96	-2.63	-0.54	-1.71	0.14	-0.45	-0.05	-0.09
Cobalt	45	83 %	0.95	-1.02	-0.33	-0.14	0.01	0.49	0.13	0.34
Alta Fundamental Advisers LLC	17	94 %	0.95	-2.45	-0.64	-0.61	0.25	0.27	0.07	0.49
Spindletop Capital LLC	6	96 %	0.94	-1.09	-0.49	-1.22	-0.23	0.15	0.39	0.46
Warlander Asset Management LP	3	67 %	0.89	-2.27	-1.94	-0.37	-0.90	1.66	-0.56	-0.79
Jacobs Asset Management LLC	55	90 %	0.89	-2.20	-0.42	-1.40	0.27	-0.31	-0.13	-0.08
Key Group Holdings (Cayman) ...	52	84 %	0.88	-1.69	-1.71	-0.39	-0.27	1.57	-0.52	0.91
Cyrus Capital Partners LP	23	93 %	0.87	-1.40	-0.40	-0.05	-0.38	0.61	-0.29	0.63
Gillson Capital LP	90	99 %	0.87	-1.03	-0.05	-0.92	0.35	-0.22	-0.01	0.17
SIR Capital Management LP	72	93 %	0.87	-1.11	-1.25	-0.15	0.05	0.99	-0.22	0.49
Gargoyle Investment Advisor LLC	113	99 %	0.86	-1.14	-0.48	-0.21	0.00	0.38	-0.42	0.49
Castine Capital Management LLC	34	80 %	0.85	-2.41	-0.51	-1.79	0.12	-0.38	-0.05	-0.11
Silver Point Capital LP	13	23 %	0.85	-1.98	-0.80	-0.94	-1.00	0.98	-0.21	0.83
Fondren Management LP	72	67 %	0.85	-3.29	-0.83	-0.25	-0.45	0.62	-0.75	-0.02
JCSD Capital LLC	27	67 %	0.84	-2.37	-0.66	-1.88	0.13	-0.09	-0.16	0.19
Firefly Value Partners LP	9	82 %	0.83	-1.61	-1.02	-0.74	-0.42	1.19	-0.68	0.51
Shoals Capital Management LP	13	99 %	0.82	-2.40	0.14	-1.45	1.06	-1.12	0.13	0.30

- **Bring multiple data sets together for enhanced insights**
- **Combine 13F and MSCI data together to see how your fund(s) exposure is positioned vs. its peers**

MONITOR YOUR IDIOSYNCRATIC RISK



- **Isolate and optimize your risk across multiple funds, macro, industry and individual factors**

- **Monitor the risk that comes from asset selection vs. common factors.**

ROBUST REPORTING

Factor Risk Attribution Over Time

Factor Type	Factor	Today	Today % Cont	1 Day Ago	1DA % Cont	1 Week Ago	1WA % Cont	1 Month Ago	1MA % Cont	3 Month Ago	3MA % Cont	6 Month Ago	6MA % Cont
Equity Risk	Subtotal	3.72 %	87.3 %	3.70 %	87.2 %	3.70 %	86.7 %	3.66 %	87.2 %	3.67 %	86.3 %	3.80 %	85.6 %
	WORLD	3.72 %	87.3 %	3.70 %	87.2 %	3.70 %	86.7 %	3.66 %	87.2 %	3.67 %	86.3 %	3.80 %	85.6 %
Fundamental	Subtotal	-0.39 %	-1.0 %	-0.36 %	-0.8 %	-0.28 %	-0.5 %	-0.46 %	-1.4 %	-0.47 %	-1.4 %	-0.37 %	-0.8 %
	BETA	0.58 %	2.1 %	0.58 %	2.2 %	0.62 %	2.5 %	0.53 %	1.8 %	0.59 %	2.2 %	0.71 %	3.0 %
	BTOP	-0.15 %	-0.1 %	-0.14 %	-0.1 %	-0.14 %	-0.1 %	-0.14 %	-0.1 %	-0.14 %	-0.1 %	-0.13 %	-0.1 %
	EARNQLTY	0.02 %	0.0 %	0.04 %	0.0 %	0.07 %	0.0 %	0.06 %	0.0 %	0.06 %	0.0 %	0.07 %	0.0 %
	EARNVAR	-0.13 %	-0.1 %	-0.13 %	-0.1 %	-0.13 %	-0.1 %	-0.13 %	-0.1 %	-0.14 %	-0.1 %	-0.16 %	-0.2 %
	EARNYILD	0.02 %	0.0 %	0.02 %	0.0 %	0.02 %	0.0 %	-0.01 %	0.0 %	-0.01 %	0.0 %	-0.03 %	0.0 %
	GROWTH	-0.14 %	-0.1 %	-0.14 %	-0.1 %	-0.14 %	-0.1 %	-0.12 %	-0.1 %	-0.12 %	-0.1 %	-0.14 %	-0.1 %
	INVSQLTY	-0.04 %	0.0 %	-0.04 %	0.0 %	-0.04 %	0.0 %	-0.05 %	0.0 %	-0.06 %	0.0 %	-0.09 %	0.0 %
	LEVERAGE	0.16 %	0.2 %	0.16 %	0.2 %	0.16 %	0.2 %	0.16 %	0.2 %	0.16 %	0.2 %	0.18 %	0.2 %
	LIQUIDTY	-0.49 %	-1.5 %	-0.49 %	-1.5 %	-0.48 %	-1.5 %	-0.51 %	-1.7 %	-0.51 %	-1.7 %	-0.51 %	-1.6 %
	LTREVRSL	-0.10 %	-0.1 %	-0.10 %	-0.1 %	-0.12 %	-0.1 %	-0.14 %	-0.1 %	-0.15 %	-0.1 %	0.04 %	0.0 %
	MIDCAP	-0.12 %	-0.1 %	-0.13 %	-0.1 %	-0.13 %	-0.1 %	-0.13 %	-0.1 %	-0.11 %	-0.1 %	-0.09 %	-0.1 %
	MOMENTUM	-0.33 %	-0.7 %	-0.32 %	-0.6 %	-0.31 %	-0.6 %	-0.31 %	-0.6 %	-0.33 %	-0.7 %	-0.31 %	-0.6 %
	PROFIT	0.22 %	0.3 %	0.22 %	0.3 %	0.22 %	0.3 %	0.22 %	0.3 %	0.19 %	0.2 %	0.21 %	0.3 %
	RESVOL	-0.18 %	-0.2 %	-0.18 %	-0.2 %	-0.17 %	-0.2 %	-0.19 %	-0.2 %	-0.26 %	-0.4 %	-0.39 %	-0.9 %
	SIZE	-0.31 %	-0.6 %	-0.30 %	-0.6 %	-0.31 %	-0.6 %	-0.30 %	-0.6 %	-0.31 %	-0.6 %	-0.36 %	-0.8 %
Industry	Subtotal	0.23 %	0.3 %	0.24 %	0.4 %	0.25 %	0.4 %	0.27 %	0.5 %	0.26 %	0.4 %	0.31 %	0.6 %
	AEROSPCE	0.08 %	0.0 %	0.09 %	0.0 %	0.08 %	0.0 %	0.10 %	0.1 %	0.12 %	0.1 %	0.15 %	0.1 %
	BANKS	0.06 %	0.0 %	0.06 %	0.0 %	0.06 %	0.0 %	0.05 %	0.0 %	0.06 %	0.0 %	0.04 %	0.0 %
	BIOTECH	-0.08 %	0.0 %	-0.08 %	0.0 %	-0.09 %	0.0 %	-0.09 %	-0.1 %	-0.10 %	-0.1 %	-0.10 %	-0.1 %
	CAPMRKTS	0.37 %	0.9 %	0.37 %	0.9 %	0.37 %	0.8 %	0.36 %	0.9 %	0.39 %	1.0 %	0.39 %	0.9 %
	CHEMICAL	0.01 %	0.0 %	0.01 %	0.0 %	0.01 %	0.0 %	0.01 %	0.0 %	0.02 %	0.0 %	0.02 %	0.0 %
	COMMSVCS	0.06 %	0.0 %	0.06 %	0.0 %	0.06 %	0.0 %	0.06 %	0.0 %	0.07 %	0.0 %	0.08 %	0.0 %
	COMMUNIC	0.12 %	0.1 %	0.12 %	0.1 %	0.11 %	0.1 %	0.10 %	0.1 %	0.08 %	0.0 %	-0.03 %	0.0 %
	COMPUTER	0.07 %	0.0 %	0.08 %	0.0 %	0.07 %	0.0 %	0.07 %	0.0 %	0.07 %	0.0 %	0.05 %	0.0 %
	CONSDUR	0.02 %	0.0 %	0.02 %	0.0 %	0.03 %	0.0 %	0.03 %	0.0 %	0.04 %	0.0 %	0.04 %	0.0 %
	CONSVCS	-0.07 %	0.0 %	-0.07 %	0.0 %	-0.06 %	0.0 %	-0.04 %	0.0 %	-0.05 %	0.0 %	-0.07 %	0.0 %
	DIVFIN	0.04 %	0.0 %	0.04 %	0.0 %	0.04 %	0.0 %	0.03 %	0.0 %	0.05 %	0.0 %	0.05 %	0.0 %
	ENERGY	0.08 %	0.0 %	0.08 %	0.0 %	0.08 %	0.0 %	0.07 %	0.0 %	0.06 %	0.0 %	0.06 %	0.0 %
	FOODPRD	-0.32 %	-0.6 %	-0.32 %	-0.6 %	-0.32 %	-0.6 %	-0.31 %	-0.6 %	-0.32 %	-0.7 %	-0.34 %	-0.7 %

- **Robust Reporting - Configurable reports meet your exact requirements**

KNOW WHERE YOUR RETURNS COME FROM

- **Performance - Understand where your returns or losses are coming from**

- **Use factor returns to help fund sizing decisions**