



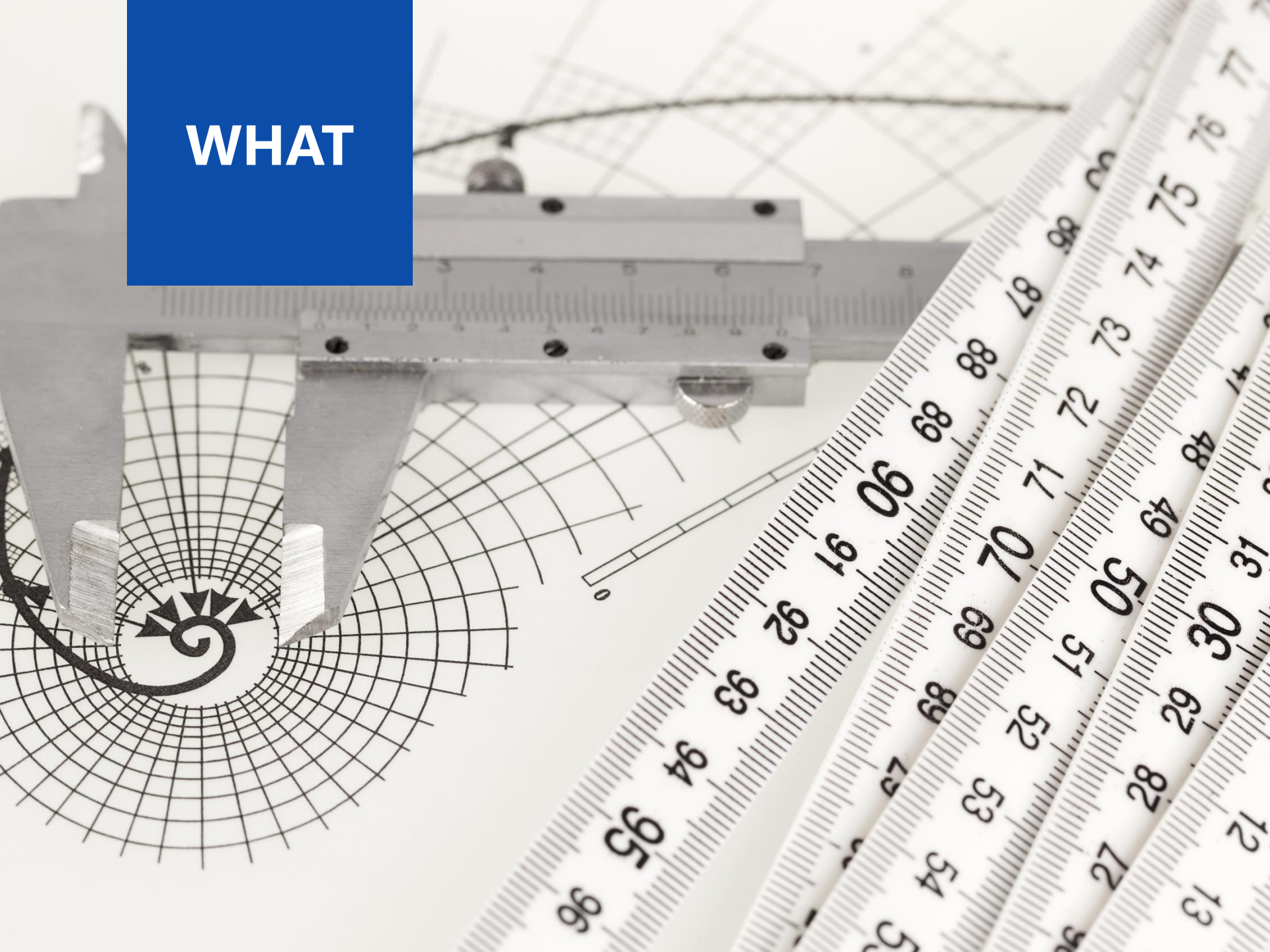
BEST IDEAS EQUITY

FACTOR-BASED MODEL PORTFOLIO STRATEGY



2018/08

WHAT



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Summary

Key Points in a Nutshell

1

We are proud to introduce the Factor-Based Best Ideas Equity Model Portfolio Strategy with institutional level of liquidity and low portfolio turnover.

2

The portfolio gained an annualized return of 19.3% since 2000. It has proven to outperform on a relative basis against a custom blended benchmark.

3

The portfolio returns are achieved by strategically selecting 30 quality at a reasonable price (QARP) companies generating wealth for its shareholders.



Objectives

Setting a Way to Achieve Success

The portfolio is designed for potential investors with medium risk tolerance seeking exposure to high quality companies (10 Canadian, 10 US and 10 International stocks) by following a rigorous bottom-up factor based quantitative approach. The investment objectives of the portfolio are to:

- 1 Target long term capital appreciation among the best opportunities available.
- 2 Consistently deliver performance over a custom blended benchmark.
- 3 Maximize tax efficiency by having a low portfolio turnover ratio.

Characteristics

Comparison of Smart Beta Strategies



QARP stands for Quality At Reasonable Price. We are finding companies of quality trading at attractive multiples that consistently generate wealth for its shareholders.

	Market Cap Weighted Index	Factor-Based Best Ideas Equity
Risk management goals	None	None
Systematic rebalancing	Quarterly	Quarterly
Human input required	No	Supervised
Use of Leverage	None	None
Systematic Risk	Medium	Medium
Portfolio turnover	Low	Low
Investment process	None	Bottom-Up
Investment style	None	QARP
Market behavior	Trend Following	Relative return

Methodology

Quantitative Modeling



HOW IT WORKS

A quantitative model systematically identifies mispriced stocks and attempts to deliver absolute and relative performance. Briefly, a ranking system sorts stocks from a universe based on pre-selected factors and the portfolio periodically buys the best ones and sells the ones in which conditions have deteriorated over time following various rules.

WHY IT WORKS

By rigorously adhering to this stock selection framework based on a thoroughly tested ranking system, we are able to remove the emotional element of the investment process. 80% of portfolio managers cannot beat their benchmark because 1) it is difficult to do so and 2) they unconsciously let fear and greed emotions affect their investment decisions.

A high-contrast, black and white close-up photograph of several interlocking metal gears. The gears are made of a polished, reflective metal, likely steel, and their teeth are sharply defined. The lighting creates strong highlights and deep shadows, emphasizing the mechanical texture and the precision of the gear teeth. A blue rectangular overlay is positioned in the upper left corner, containing the word "HOW" in white, bold, sans-serif capital letters.

HOW

Philosophy

Factor-Based (FB)

1. QARP (Quality At Reasonable Price)

The end goal is to invest in quality companies trading at attractive multiples that consistently generate wealth for their shareholders.

2. Undexing

Our goal is to beat the market over the long run. We believe the best way to do it is to create a portfolio that looks very different from it.

3. Concentration

We are striving to achieve a balance between diversifying to remove specific risk yet not too much to avoid ending up mimicking the index.

4. Low Turnover

Excessive portfolio churning increases trading costs for an investor. It also means a lack of confidence, decisiveness and tax awareness.

Overview

Our Investment Process

6. Monitoring

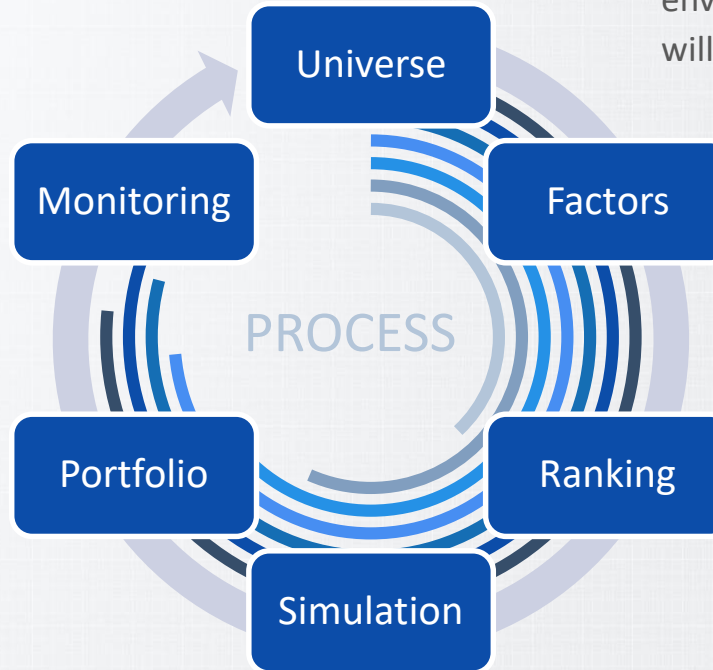
Monitor the portfolio, rebalance and carry out performance attribution.

5. Portfolio

Build the live portfolio by investing real money in the defined strategy.

4. Simulation

Form a strategy resulting from a mix of set rules and filters applied to the ranking system.



1. Universe

Define the investment environment in which we will pick our companies.

2. Factors

Design factors based on academic literature and innovative concepts.

3. Ranking

Create a composite of factors to rank companies from our defined universe.

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Universe

Our Investment Environment

1+

\$billion of market cap minimum. This is the minimum market cap requirement for a company to be considered a large cap in the US.

10+

\$million of average daily liquidity for the past month expressed as price x volume.



1000+

Stocks coming from the S&P/TSX, the S&P 500 and the MSCI ACWI Ex US universes so this strategy is benched against a custom blended benchmark made of an equal weight of each of these indices.

30

Stocks in our portfolio, are chosen from the best ranking decile.

Factor

Our Selection Method

We backtested in our universe hundreds of factors individually to find the ones generating the most alpha over the last two investment cycles. We then select the best factors using four criteria shown below:



Ranking

10 stocks are picked from each ranking system



10 Stocks may differ from the ones selected in the 25 stocks that are part of each individual strategy. This is best explained by the different rebalancing schedules of the strategies.



Factors are available in the presentation document of each individual strategy. You will find the complete definition, the rationale behind usage and the interpretation.



Simulation

Our Portfolio Rules and Filters

G General Rules

- The portfolio is long only and without any leverage whatsoever.
- Transactions are recorded at the average high | low of trade day.
- Rebalancing frequency is quarterly and sent before market open.
- Variable slippage (average daily \$ traded) is taken into account.
- Drift weighting scheme is applied to minimize rebalancing turnover.

B Buy Rules

- The same buy rules from the individual strategies are applied. Please read each presentation for the exact buy rules used.
- Additional rules are used to mitigate risks of each 10 stocks. Here are some of the rules used:
 - Limit max correlation between 10 stocks.
 - Total Equity must be positive at inclusion.
 - Avoiding stocks that have stale financial statements.

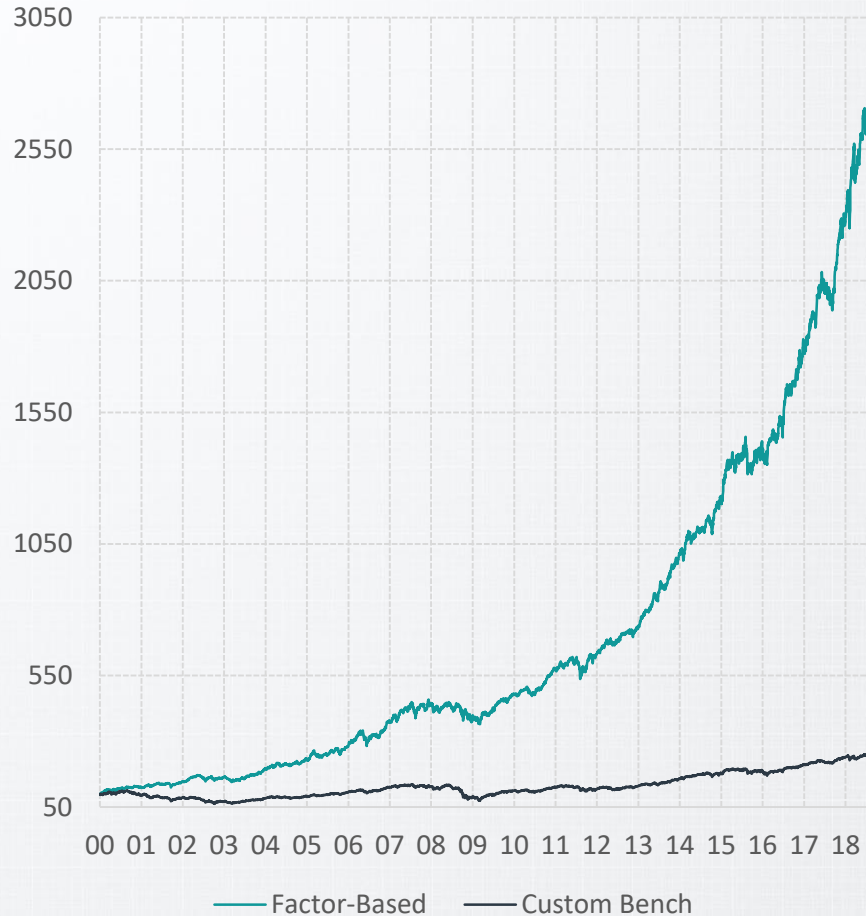
S Sell Rules

- Sell stocks when its ranking falls below three deciles.
- Trim stocks weights back to 10% and below if their individual weights in the portfolio goes above 10%.
- We force positions in the universe if they are replaced inside our defined universe.



Portfolio

Historical Performance



Key Portfolio Statistics

Annualized Return (%)
(Custom Bench TR = 5.1) 19.3

Maximum Drawdown (%)
(Custom Bench TR = -45.9) -20.6

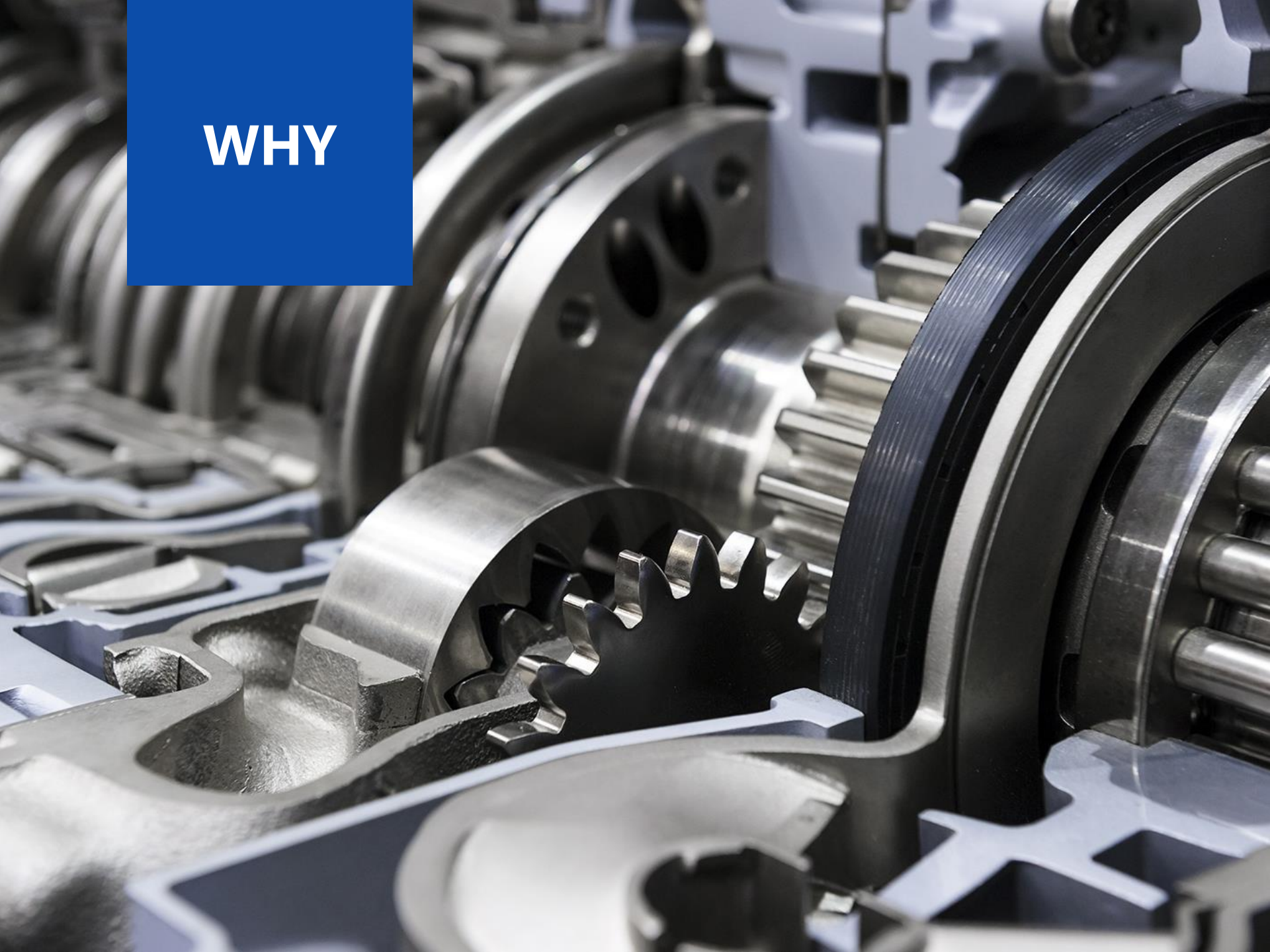
Portfolio Turnover (%)
(Custom Bench TR = 6.0) 62.6

Index Correlation
(Custom Bench TR = 1.00) 0.64

Sharpe Ratio
(Custom Bench TR = 0.34) 1.59

Since Inception (January 1st, 2000)

WHY





Statistics

Calendar Performance

Yearly

Calendar Returns	2000	2001	2002	2003	2004	2005	2006	2007	2008
Factor-Based	27.7	14.9	12.0	19.3	19.1	19.8	35.9	16.9	-11.6
Custom Bench	-3.5	-11.1	-17.1	17.2	10.5	14.7	20.0	2.3	-31.0
Difference	31.2	26.0	29.0	2.1	8.6	5.1	15.9	14.5	19.5

Calendar Returns	2009	2010	2011	2012	2013	2014	2015	2016	2017	YTD
Factor-Based	21.9	19.6	10.2	15.9	38.8	19.7	16.5	25.7	26.8	20.4
Custom Bench	25.5	12.5	-6.9	10.2	22.3	12.7	5.3	11.8	13.2	5.5
Difference	-3.6	7.1	17.1	5.8	16.6	7.0	11.3	13.9	13.6	14.9

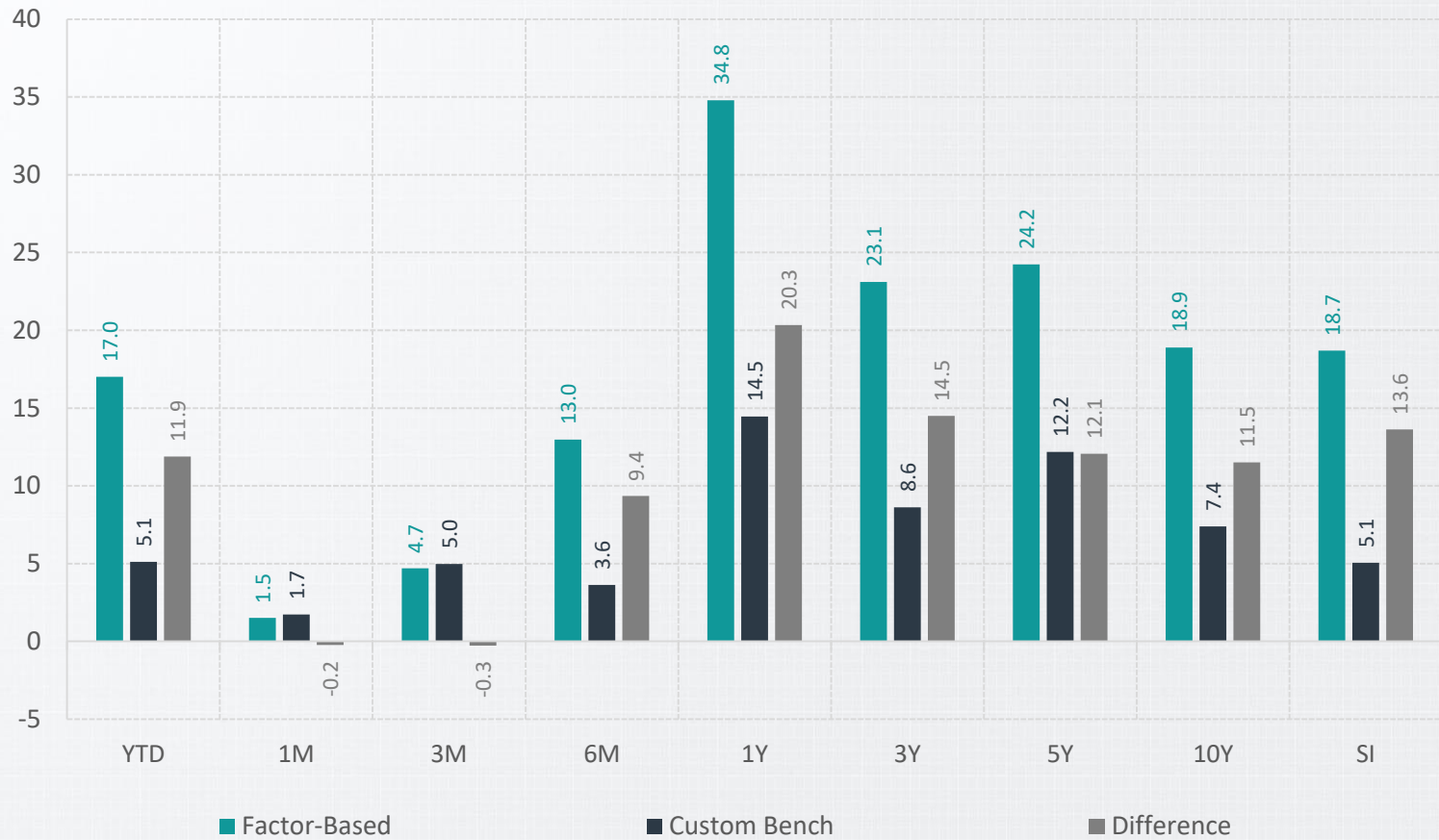
Monthly

Calendar Returns	09-17	10-17	11-17	12-17	01-18	02-18	03-18	04-18	05-18	06-18	07-18	08-18
Factor-Based	3.8	6.5	3.9	-1.1	4.2	4.3	0.2	2.5	2.5	0.9	0.9	3.4
Custom Bench	2.4	4.4	1.4	-0.1	1.4	-1.3	-1.2	1.2	2.0	1.2	1.7	0.4
Difference	1.4	2.1	2.5	-1.1	2.7	5.6	1.3	1.3	0.6	-0.3	-0.8	3.0



Statistics

Trailing Performance



Statistics

Return & Risk Measurements

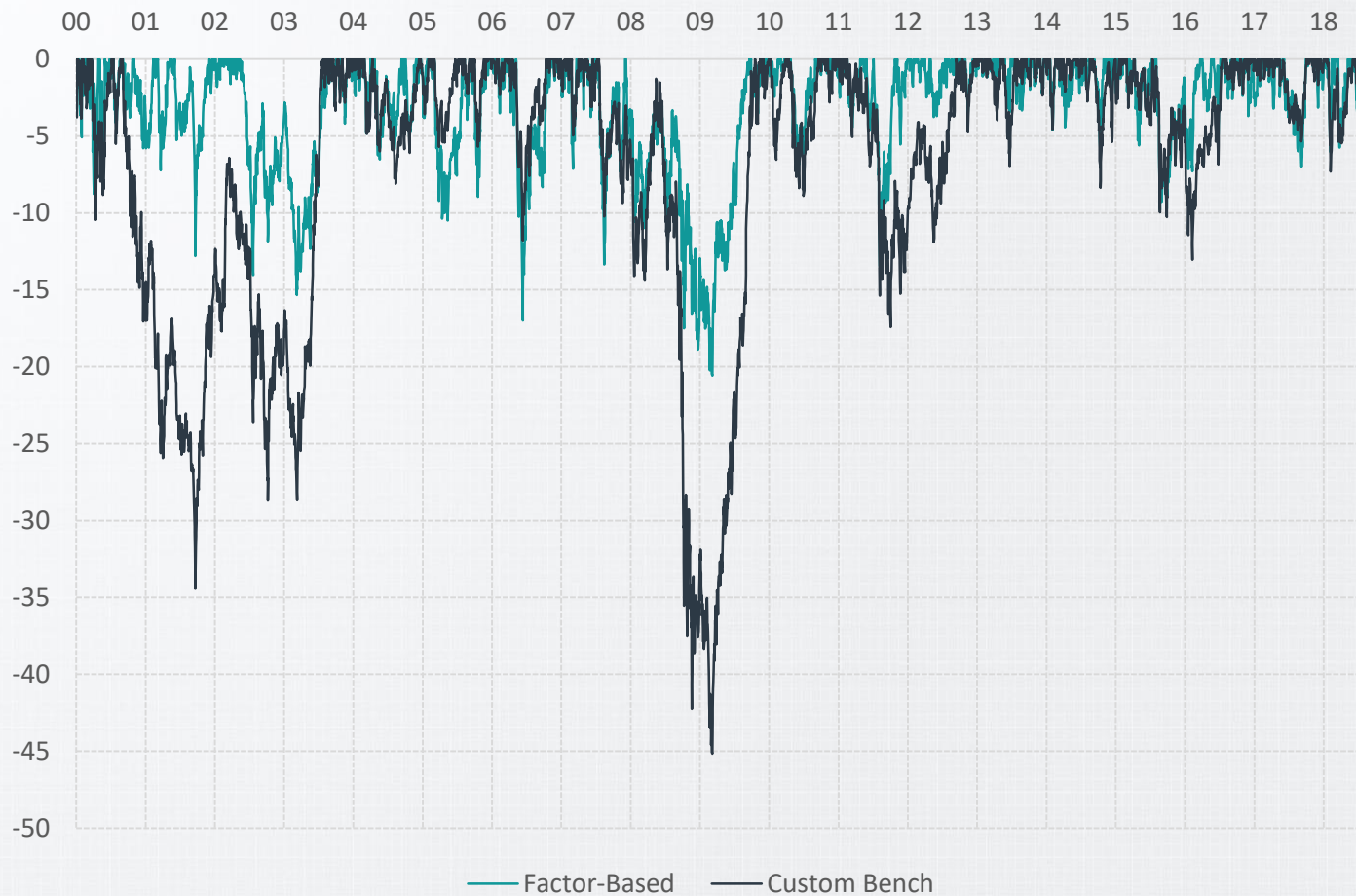
Trailing 3 Year	Factor-Based	Custom Bench	Difference
Annualized Return (%)	26.4	10.8	15.7
Standard Deviation (%)	9.4	7.6	1.8
Max Drawdown (%)	-9.8	-13.1	3.2
Portfolio Turnover	62.6	6.0	56.6
Sharpe Ratio	2.19	1.01	1.18
Sortino Ratio	3.14	1.45	1.69
Index Correlation	0.77	1.00	-0.23
R-Squared	0.60	1.00	-0.40
Beta	0.96	1.00	-0.04
Alpha (%) (Annualized)	15.65	0.00	15.65

Since Inception	Factor-Based	Custom Bench	Difference
Annualized Return (%)	19.3	5.1	14.3
Standard Deviation (%)	10.5	11.5	-1.0
Max Drawdown (%)	-20.6	-45.9	25.3
Portfolio Turnover	62.6	6.0	56.6
Sharpe Ratio	1.59	0.35	1.24
Sortino Ratio	2.27	0.44	1.83
Index Correlation	0.64	1.00	-0.36
R-Squared	0.41	1.00	-0.59
Beta	0.58	1.00	-0.42
Alpha (%) (Annualized)	14.30	0.00	14.30



Statistics

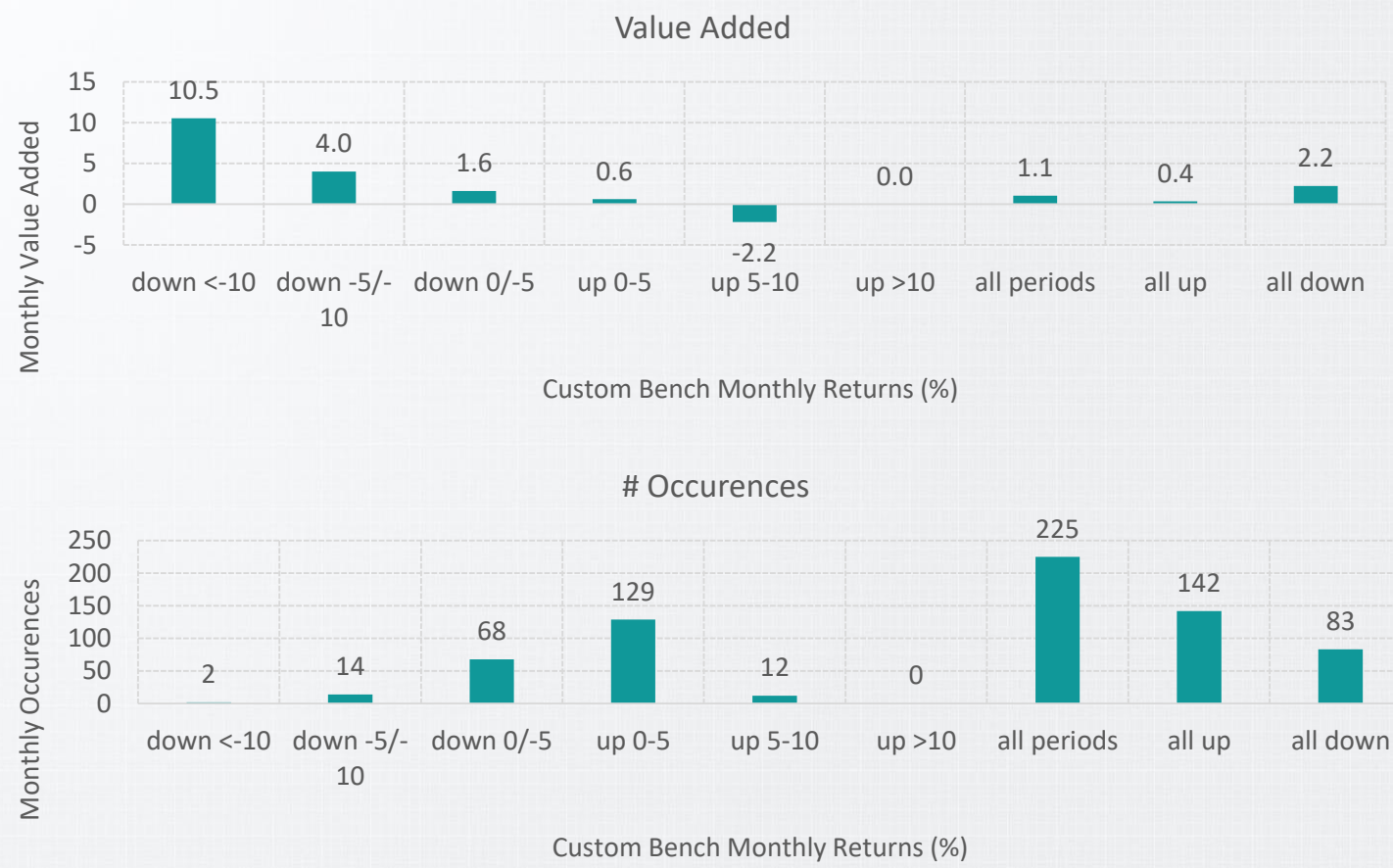
Rolling Maximum Drawdown





Statistics

Outperformance in Different Market Conditions





Characteristics

Top Ten Holdings & Fundamentals

Ticker	Weight (%)	Sector
SODA	5.9	Discretionary
ORBK	4.8	Info Tech
OSB:CN	4.7	Materials
NTAP	4.5	Info Tech
UNH	4.3	Health Care
TCL.A:CN	4.0	Industrials
QBR.B:CN	3.9	Discretionary
OEC	3.8	Materials
RY:CN	3.8	Financials
ABBV	3.7	Health Care

Median	Factor-Based	Custom Bench
Market Cap (\$B)	44.7	12.2
Price / Earnings	13.6	14.9
Price / Book	3.2	2.4
Price / Sales	2.4	2.1
Price / Cash Flow	16.3	12.4
Return on Equity	19.2	12.5
Dividend Yield	2.3	2.0
5Y EPS Growth	14.7	10.0
Debt / Equity	0.5	0.6
5Y Beta	0.92	1.00



Allocation

Sector Weights & Benchmark Deviations

Weights	Factor-Based	Custom Bench	Deviations
Info Tech	32.2	14.2	18.1
Discretionary	25.9	9.8	16.1
Materials	16.4	6.9	9.5
Health Care	7.9	8.3	-0.3
Telecom	2.5	3.4	-0.9
Utilities	0.0	3.2	-3.2
Staples	3.3	6.6	-3.2
Industrials	7.2	10.6	-3.5
Energy	0.0	10.8	-10.8
Financials	3.8	26.2	-22.4

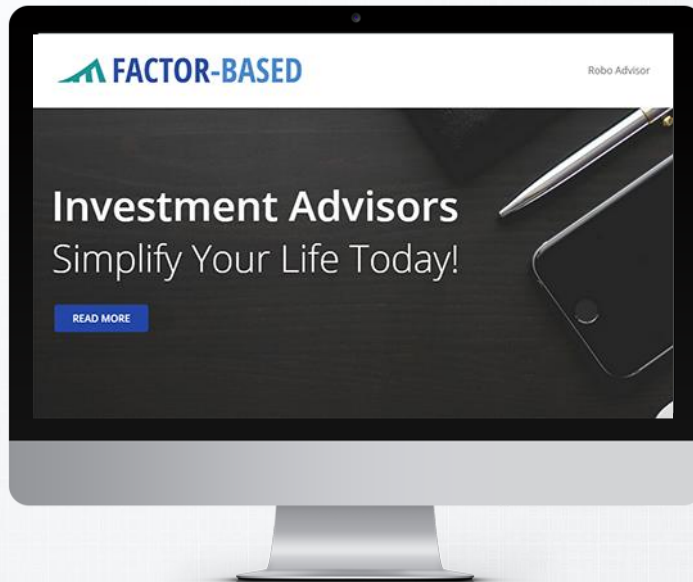
WHO



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Who We Are

Factor-Based (FB)



IN A NUTSHELL...

Factor-Based (FB) is a financial research firm that specializes mostly in equities for private, investment advisors and institutional clients. We are dedicated to produce exceptional risk adjusted returns for our investors by strictly adhering to factor-based investing methods.

Disclosures

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