



StockRanks™

*Harnessing the power of factor
investing for stock market gains*

Webinar Agenda

- Introduction to the StockRanks
 - Introduction to Factor Investing, 3 factors behind the StockRank, Other Rankings
- 5 Year StockRank Performance History
 - Decile Returns, Hit Rates, Sectors, Size Groups, Regions
- StockRank Style Classifications
 - The eight different combinations of StockRank and how to use.
- Usage Guide to the Site
 - Analysing a stock, analysing portfolios, building a portfolio, tricks for obsessives
- Q&A ... Other Resources

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We would like to draw your attention to the following important investment warnings:

- The value of shares and investments and the income derived from them can go down as well as up
- Investors may not get back the amount they invested
- Past performance is not a guide to future performance

Please note that all data in this document is historic and dated when this document went to print: 1st June 2018

Introduction

What is the StockRank?

Every stock in the market ranked against all the others for three proven, historical drivers of return.

Quality

78

Value

27

Momentum

97

StockRank™

80

What is the StockRank?

Ranked as percentiles between 0 (worst) and 100 (best)

StockRank™

100

“Good, cheap, strong”

0

“Junk, expensive, weak”

Urban Outfitters Inc

URBN  **\$38.27** ▼ **-1.2** **-3.0%** 🕒 8:47pm

Adventurous, Large Cap, **Super Stock**

Market Cap £3.01bn
 Enterprise Value £2.70bn
 Revenue £2.55bn
 Position in Universe 1240th / 6355

Quality	97
Value	▼ 58
Momentum	92
StockRank™	98

StockReport™

Tools Accounts News Chart Discuss

Print

Notes

Set Alert

Add to Folio

Zoom 1m 3m 6m YTD 1y 2y 3y 5y All



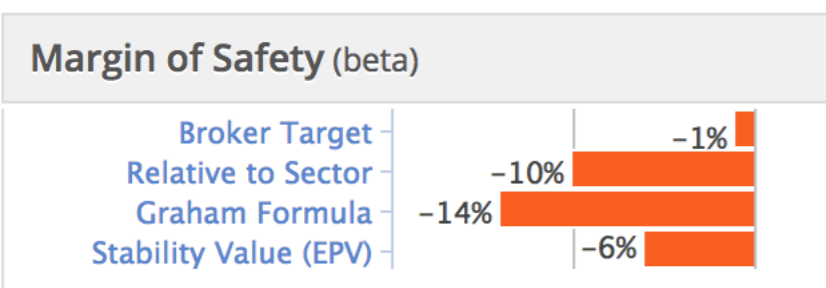
Momentum

Relative Strength (%)		
1m	+8.5%	●
3m	+18.5%	●
1yr	+48.3%	●
Volume Change (%)		
10d v 3m	-0.49%	●
Price vs... (%)		
52w High	-2.0%	●
50d MA	+8.10%	●
200d MA	+38.6%	●


Growth & Value

12m Forecast Rolling

PE Ratio (f)	17.1	vs. industry	vs. market
PEG Ratio (f)	0.65		
EPS Growth (f)	35.8 %		
Dividend Yield (f)	n/a %		
Valuation (ttm)			
Price to Book Value	3.29		
Price to Tang. Book	3.29		
Price to Free Cashflow	19.5		
Price to Sales	1.18		
EV to EBITDA	9.87		



Screens Passed 1

 URBN qualifies for **Value Momentum Screen (in Momentum Investing)**.

[View Screen](#) · [View Checklist](#)

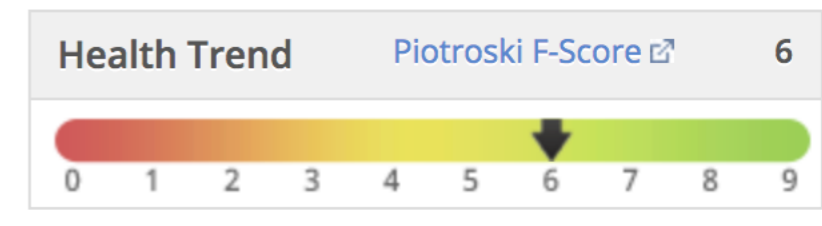
Quality

Return on Capital	16.3 %	vs. industry	vs. market
Return on Equity	13.2 %		
Operating Margin	7.19 %		

Financial Summary

Balance Sheet · Income Statement · Cashflow

Year End 31st Jan	2013	2014	2015	2016	2017	2018	2019E	2020E	CAGR / Avg	
Revenue	\$m	2,795	3,087	3,323	3,445	3,546	3,616	3,823	3,952	+5.3%



Tesla Inc

TSLA  **\$300.08** ▲ 0.0 0.0% 19/04/18

Adventurous, Large Cap, **Sucker Stock**

Market Cap £35.69bn
 Enterprise Value £41.57bn
 Revenue £8.28bn
 Position in Universe 203rd / 6355

Quality 17
 Value 13
 Momentum 34
StockRank™ 9

StockReport™

Tools Accounts News Charts Discuss

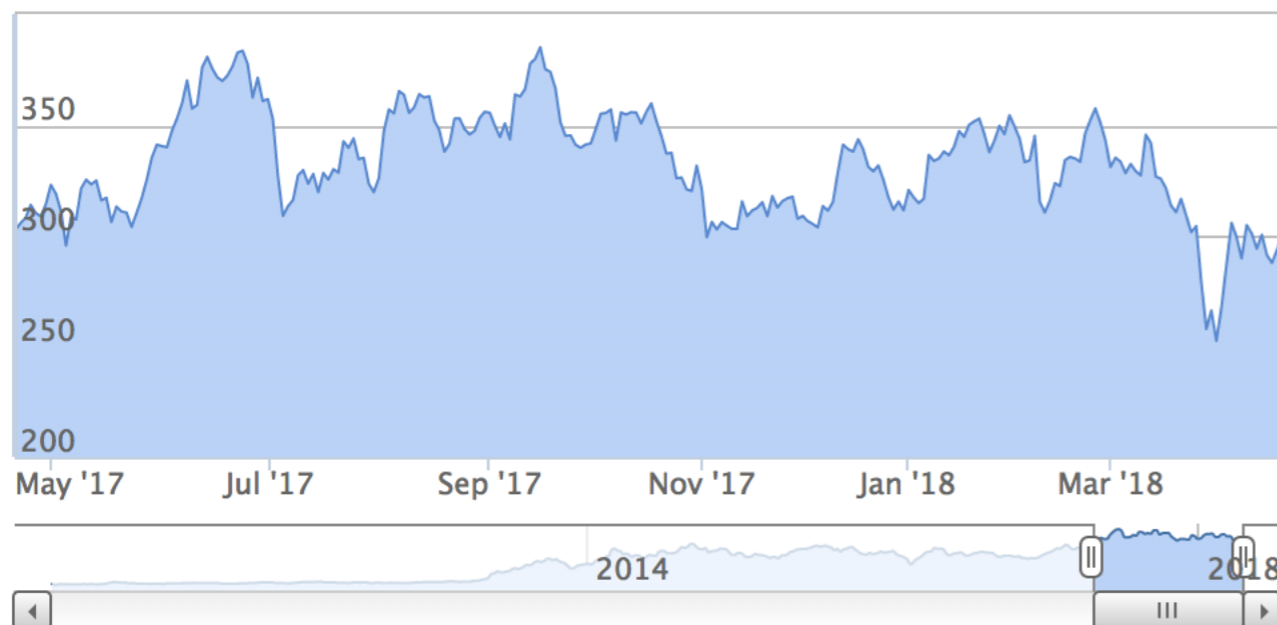
Print ▾

Notes

Set Alert

Add to Folio ▾

Zoom 1m 3m 6m YTD 1y 2y 3y 5y All



Momentum

Relative Strength (%)		
1m	-3.3%	●
3m	-10.3%	●
1yr	-14.6%	●
Volume Change (%)		
10d v 3m	+18.7%	●
Price vs... (%)		
52w High	-23.0%	●
50d MA	-4.61%	●
200d MA	-9.41%	●

Growth & Value

12m Forecast Rolling			
PE Ratio (f)	n/a	vs. industry	vs. market
PEG Ratio (f)	n/a		
EPS Growth (f)	n/a %		
Dividend Yield (f)	n/a %		
Valuation (ttm)			
Price to Book Value	12.0		
Price to Tang. Book	13.3		
Price to Free Cashflow	n/a		
Price to Sales	4.31		
EV to EBITDA	15,071		

Margin of Safety (beta)

Broker Target	5%
Relative to Sector	-87%

Screens Passed 2



TSLA qualifies for **Altman Z-Score Screen** (in **Short Selling**).

[View Screen](#) · [View Checklist](#)

Quality

Return on Capital	-7.78 %	vs. industry	vs. market
Return on Equity	-27.6 %		
Operating Margin	-13.9 %		

Financial Summary

Balance Sheet · Income Statement · Cashflow

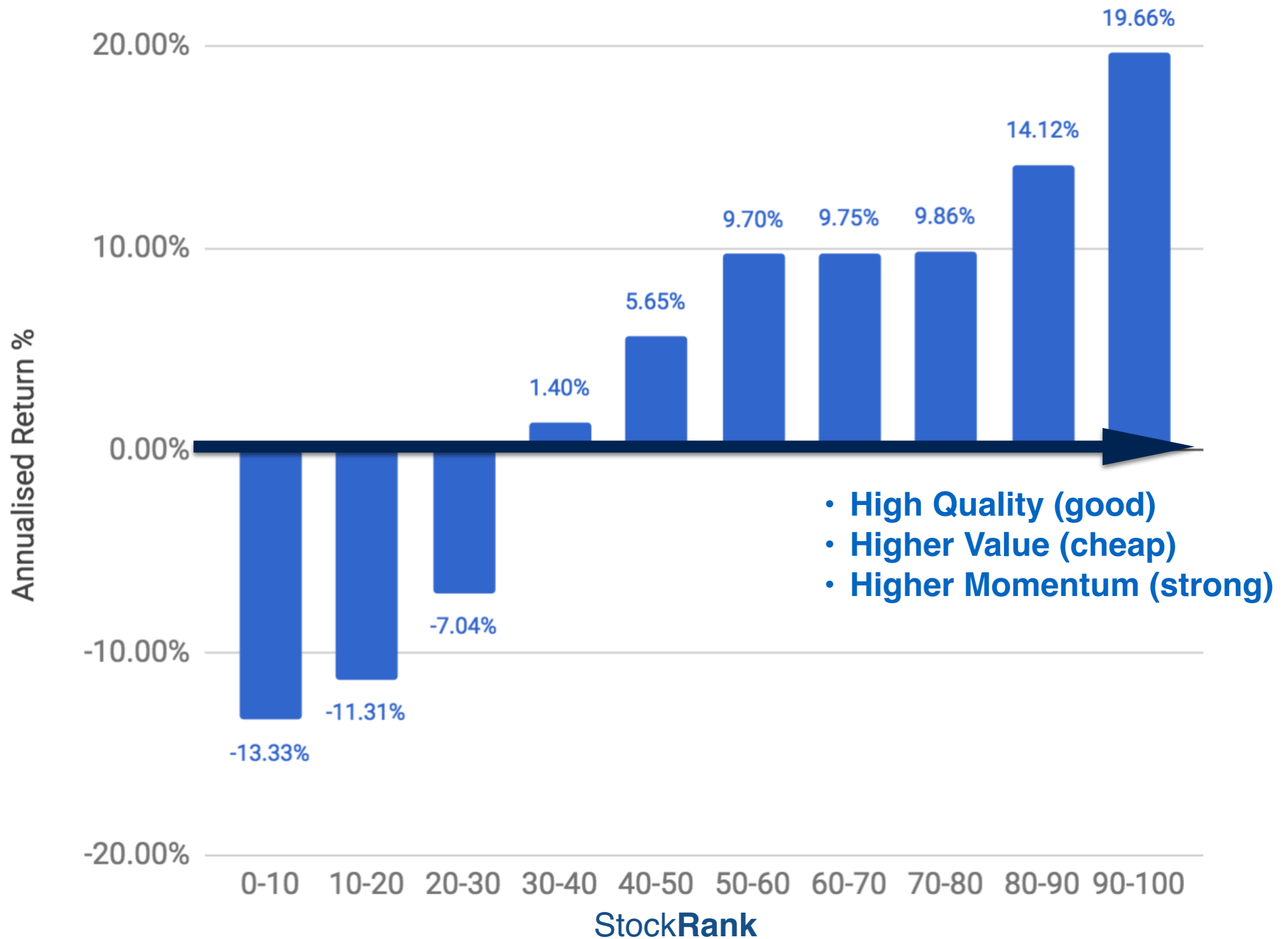
Year End 31st Dec	2012	2013	2014	2015	2016	2017	2018E	2019E	CAGR / Avg	
Revenue	\$m	413.3	2,013	3,198	4,046	7,000	11,759	19,205	26,890	+95.4%

Health Trend

Piotroski F-Score [↗](#) 5



StockRank Performance



*Performance of UK stocks > £10m Mkt Cap between April 2013 & April 2018, rebalanced quarterly

100 Club



[PhilH](#)

I'm showing an annualised return of 25% and to date my investments have increased by over 150%.



[pgs501](#)

I am up just over 100% over the last 3 years. This really is life changing; thank you to the Stockopedia team.



[Underscored](#)

Excel calculates XIRR at 24% since I started with StockRanks in August 2014



[iwright7](#)

Just as the StockRank gains have ebbed and flowed so has my portfolio which is now up over 100% over 4 years.

<http://stk.pe/100-returns>

Background on **Factor Investing***

**inspiration for the StockRanks*

What are factors?

- **Quantifiable traits** that may explain stock returns
 - e.g. the P/E ratio, the Dividend Yield
- **To be validated a factor must be:**
 - **Persistent** - evident across decades
 - **Pervasive** - work across sectors, regions, assets
 - **Intuitive** - clear reasons as to why it should “work”
 - **Investable** - must be robust after transaction costs

What drives stock returns?

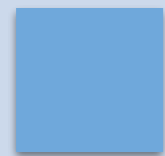


Company specific



The Market

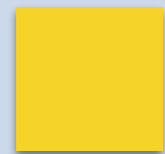
**Quantifiable
Factors**



Quality (profitable beats junk)



Value (cheap beats expensive)



Momentum (winners beat losers)



Volatility (low risk beats high risk)



Size (small caps beat large caps)

What drives stock returns?



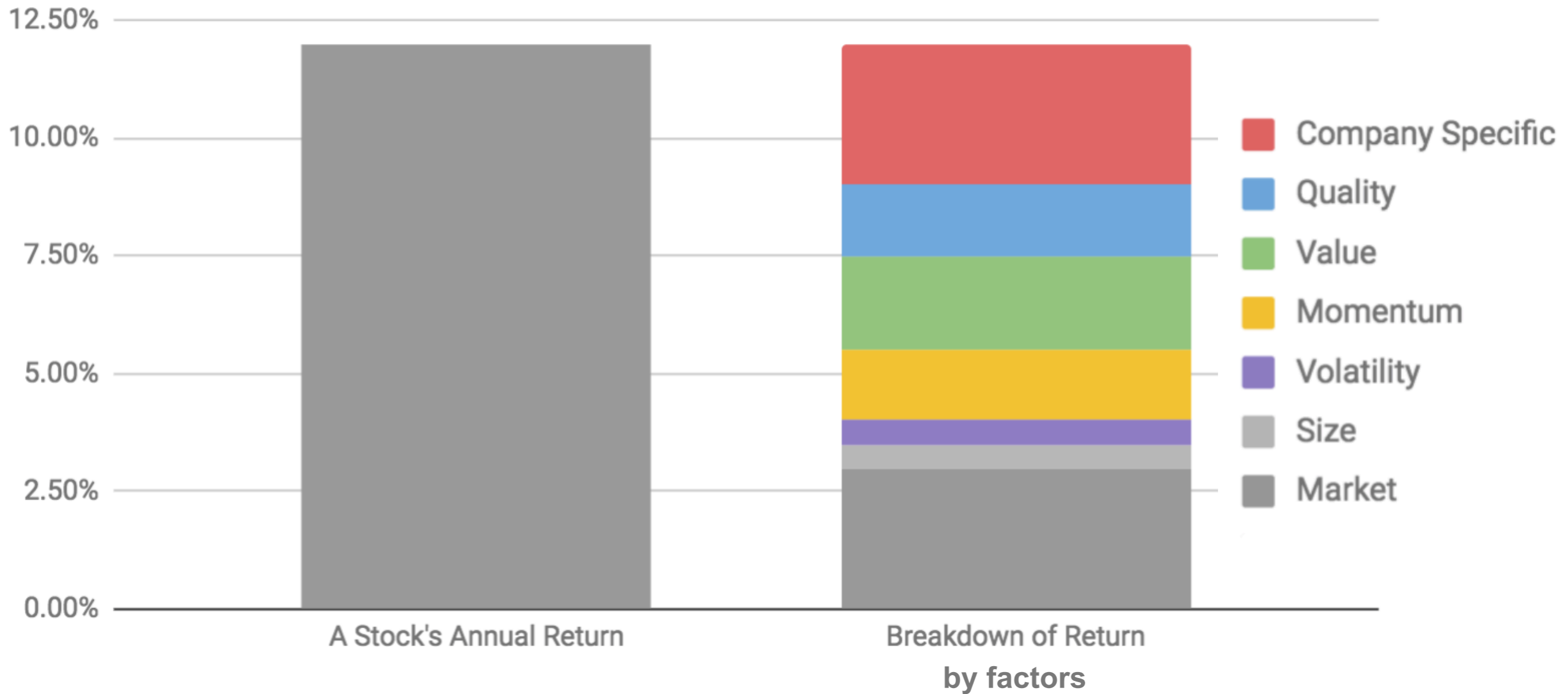
Break down of a stock's return



**Most investors think
that stock returns
are driven by unique
Company Specific news**

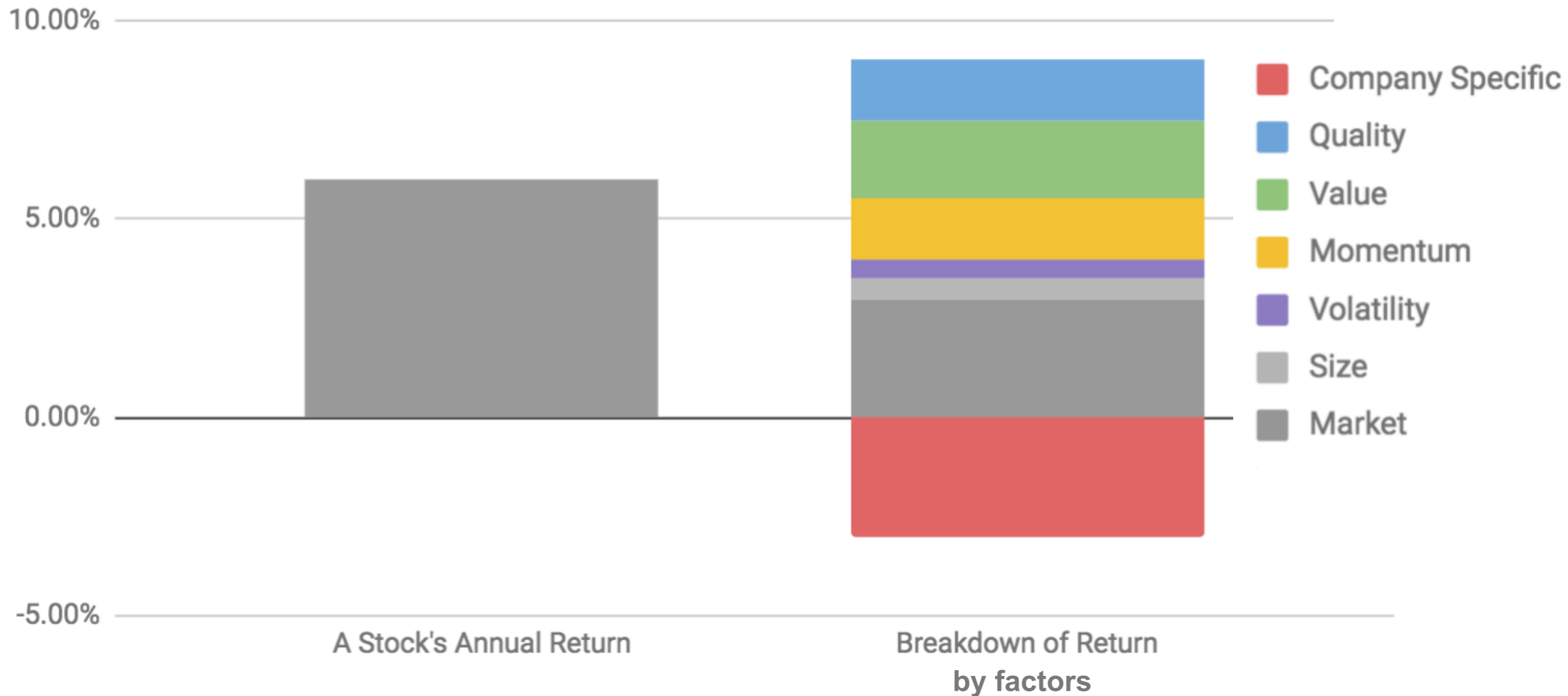
Break down of a stock's return

But much of the return is driven by 'factors'



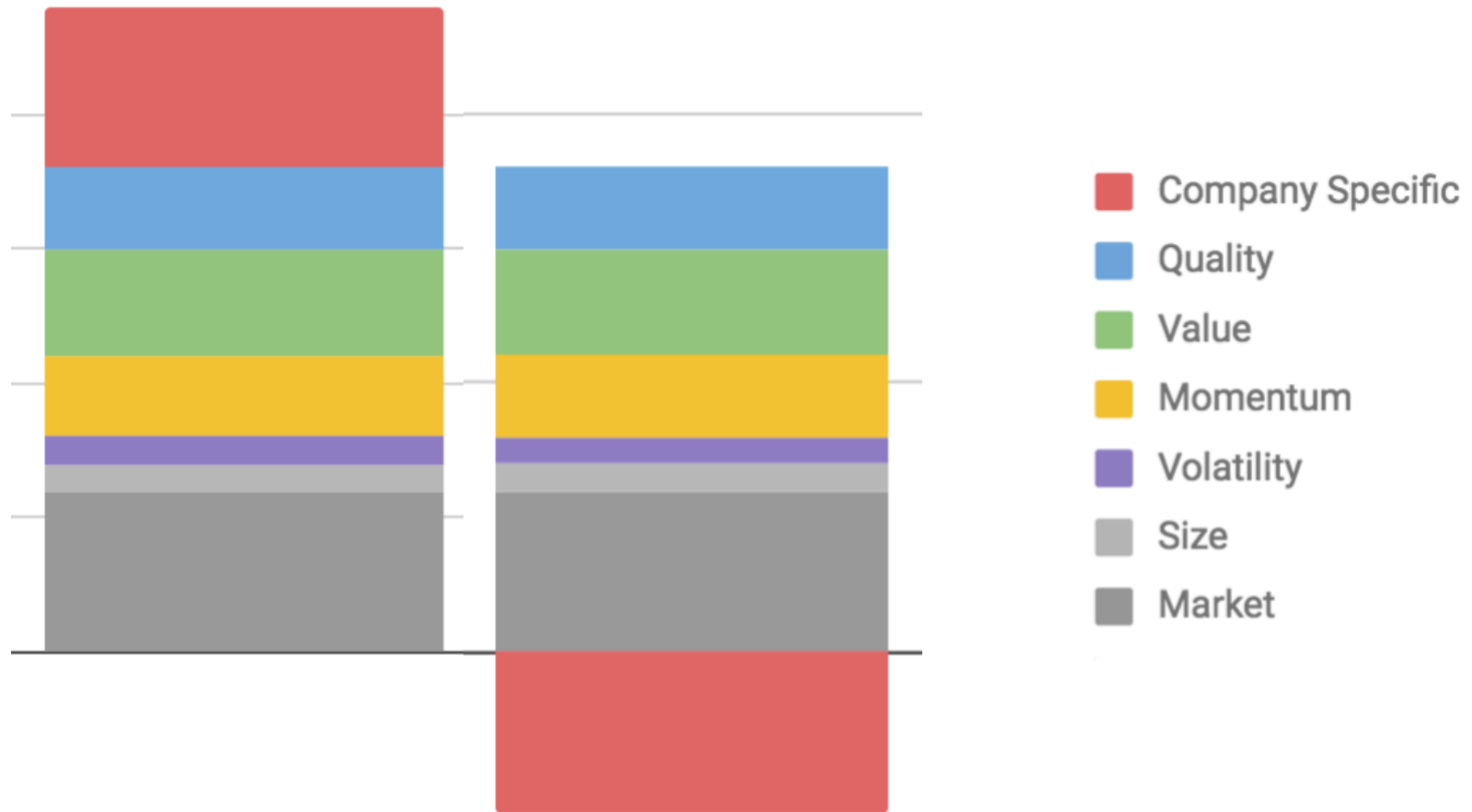
Break down of a stock's return

But much of the return is driven by 'factors'



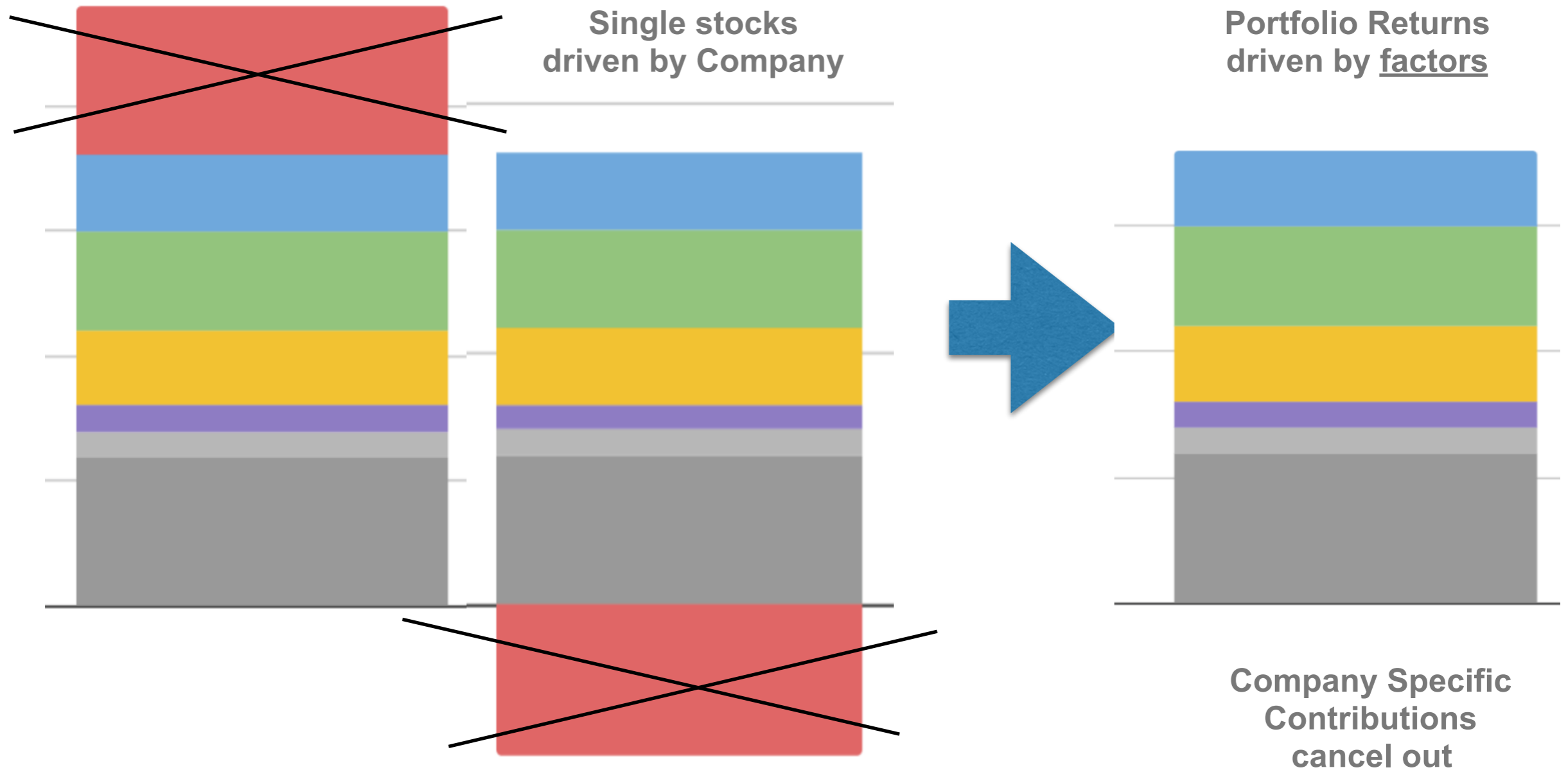
Break down of a portfolio's return

When building a portfolio out of multiple stocks....



Break down of a portfolio's return

... the company specific risk gets diversified away



““While the popular press will continue to glamorise the best performing fund managers, the mundane explanation of strategy and costs account for almost all the important predictability in fund returns.”

Mark Carhart

CIO, Founder Kepos Capital
ex-Professor of Finance Marshall Business School



Why do factors work?



RISK

- *Insurance premiums for taking on genuine risks*
- *A payoff for enduring '**bad times**'*



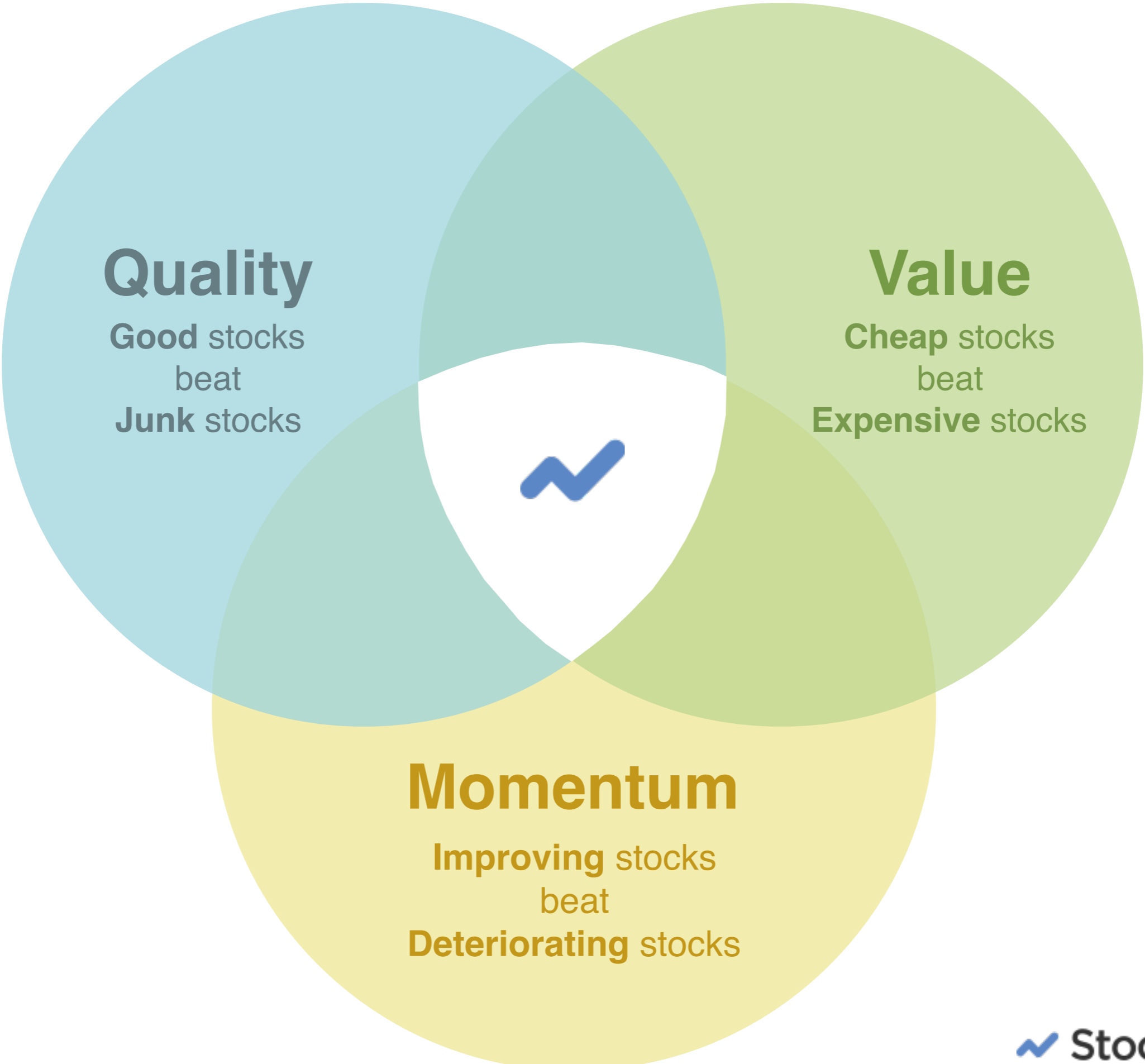
MISPRICING

- *Pricing errors due to human **behavioural biases***

It's nothing new...



The 3 Factors behind the StockRank



Quality

Good stocks
beat
Junk stocks

Value

Cheap stocks
beat
Expensive stocks

Momentum

Improving stocks
beat
Deteriorating stocks

1. The ValueRank

Cheap stocks

outperform

expensive stocks

How to value a company?

- vs. What it earns

P/E Ratio, Earnings Yield, P/CF, Yield

- vs. What it owns

P/Book ratio

- vs. Other measures

Price / Sales

Creating a ratio 'rank'

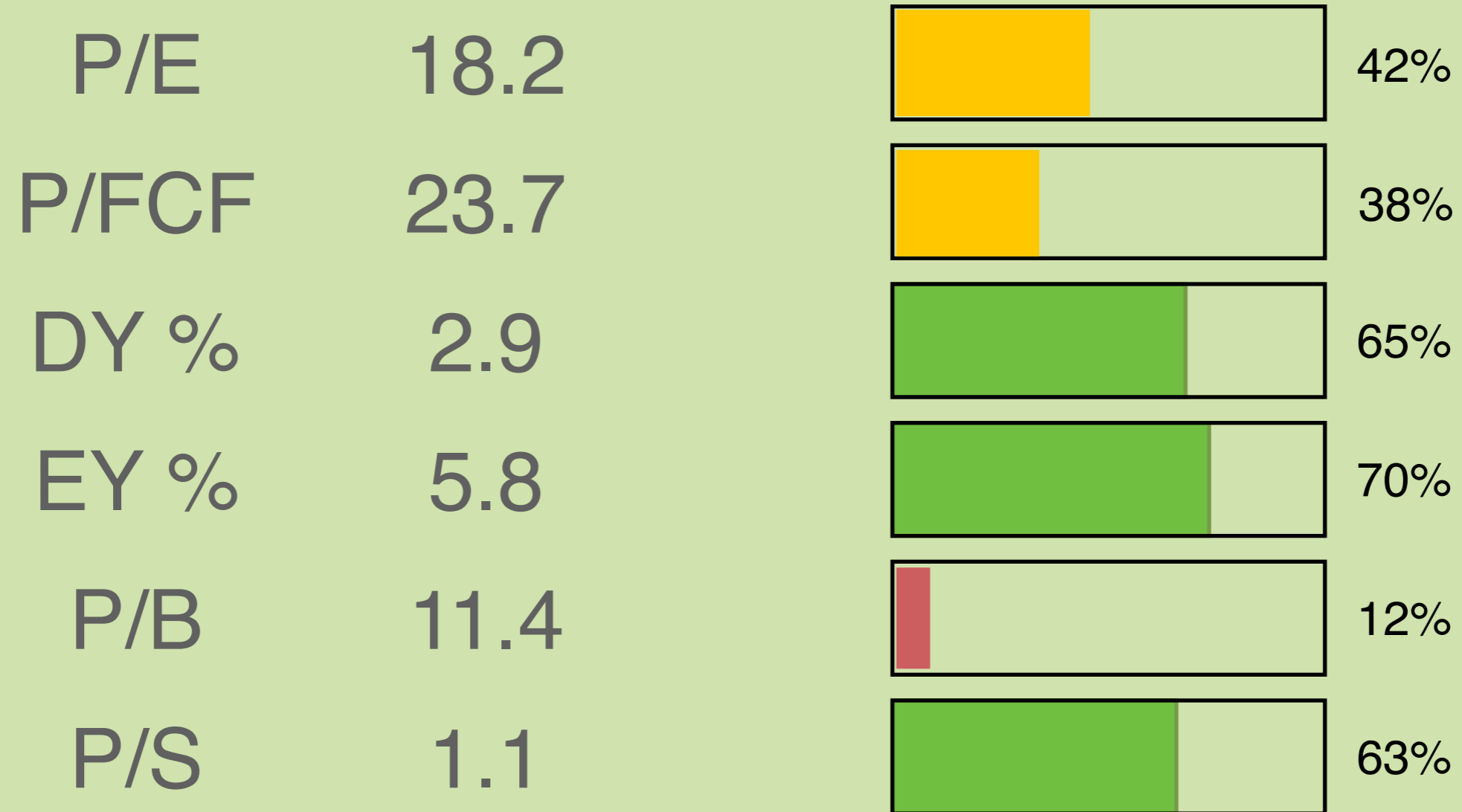
Rank each stock in the universe
from 0 (worst) to 100 (best)

PE Ratio 3.2



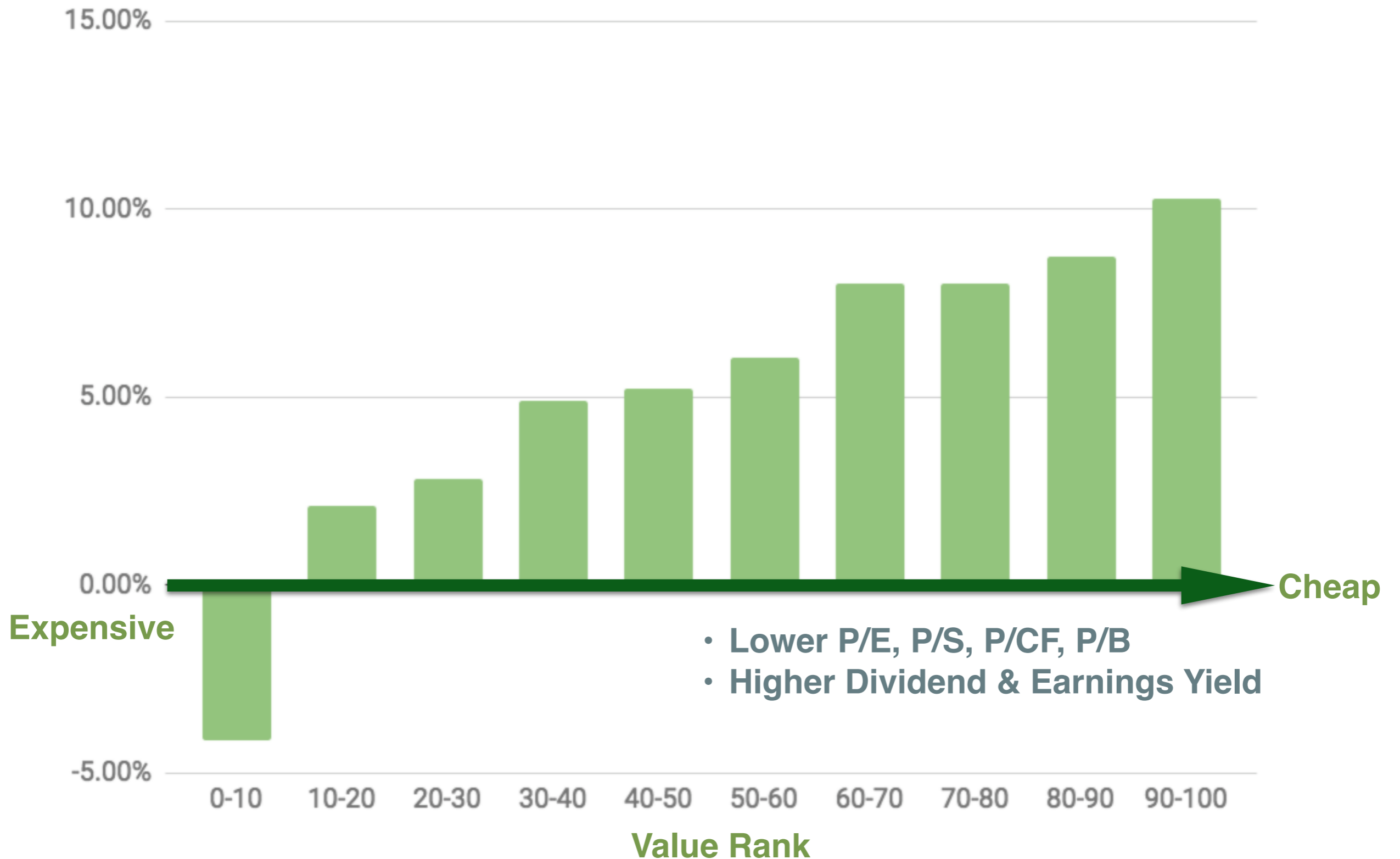
XYZ Holdings is cheaper than
94% of stocks by the PE Ratio

ValueRank



ValueRank™ Composite: 57/100

Value Rank Performance



Why does Value work?




- **RISK:** There's a *payoff* to owning riskier assets.
 - Cheap stocks have a higher risk of bankruptcy.
 - Cheap stocks may decline more in a recession.



- **MISPRICINGS:** Investors make systematic *errors*.
 - Investors overly pessimistic about cheap stocks.
 - Investors are loss averse & reluctant to sell -> overpricing.

How to think about the **ValueRank**

- It's a pure measure of **cheapness** - no quality factored in
- The highest ValueRank stocks
 - likely have a **higher chance of financial distress** 
 - beware 99 ValueRank stocks - they may be Value Traps
- Use it in combination with other factors (e.g. QualityRank)

2. The Quality Rank

Good stocks

outperform

Junk stocks

How to assess quality?

- **Franchise** - is it a good business?

5y average ROCE, Gross Profitability, FCF, Stability of Margins & Growth

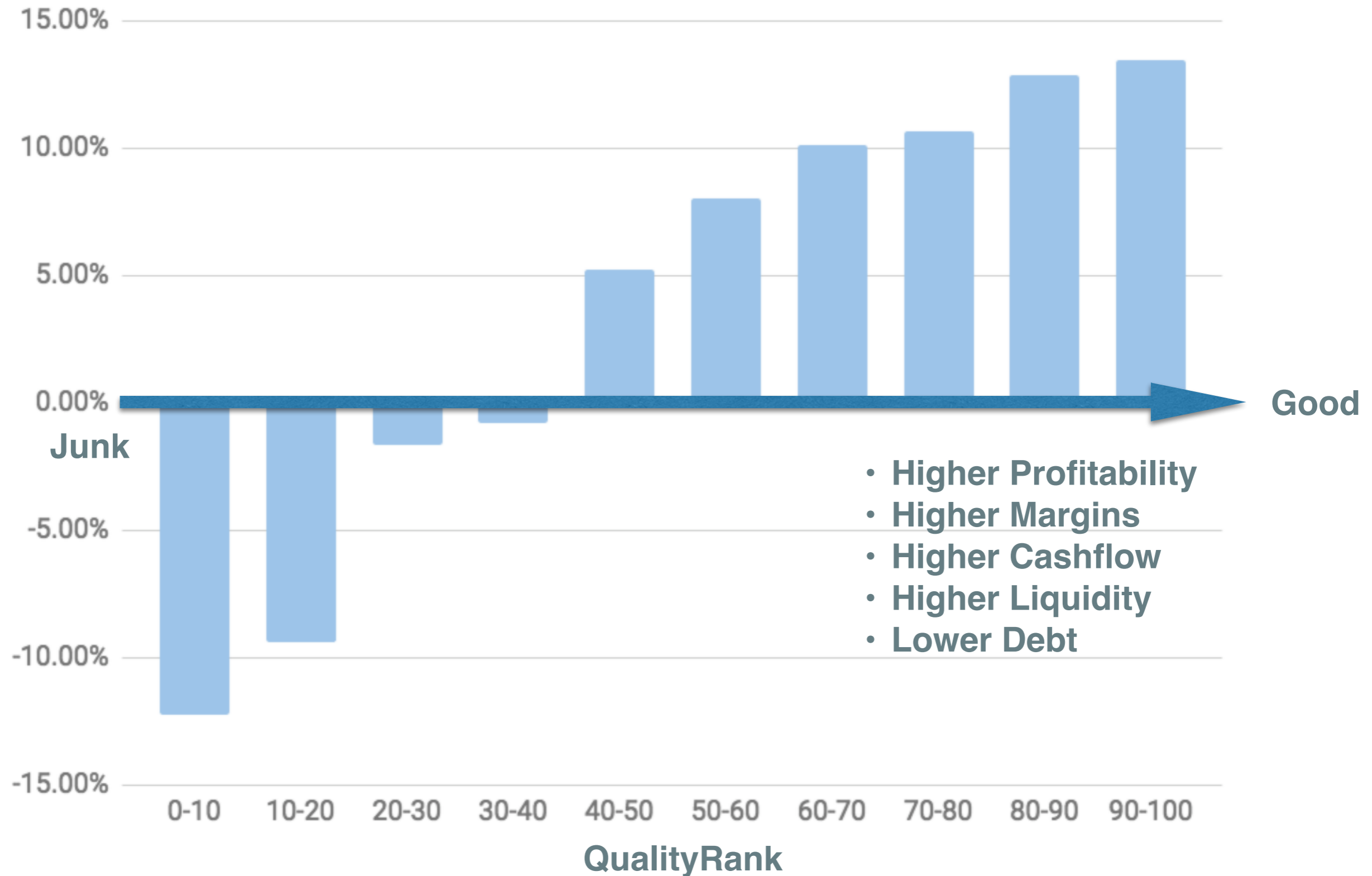
- **Direction** - are fundamentals improving?

Piotroski F-Score - a nine point checklist of fundamental health

- **Risk** - is it safe from risks?

Leverage, Bankruptcy Risk (Z-Score), Earnings Quality (M-Score)

Quality Rank Performance



**Performance of UK stocks > £10m Mkt Cap between April 2013 & April 2018, rebalanced annually*

Why does Quality work?



RISK: ~~There's a *payoff* to owning riskier assets.~~

- Quality stocks are low volatility.
- Quality stocks hold up well in bad markets.



MISPRICINGS: Investors make systematic *errors*.

- Investors have a preference for higher risk shares.
- Investors focus on visible metrics (e.g. EPS) rather than more hidden & predictive metrics (e.g. Cashflow)

How to think about the **QualityRank**

- Designed to be **Predictive** rather than Descriptive
 - Weighted towards academic factors that are **proven** to work rather than naive measures that often don't.
- Broader definition of Quality than most expect
 - Heavy weighting to the 'direction' of fundamentals means turnaround/recovery stocks can rank higher than expected

3. The Momentum Rank

Past winners

continue to beat

Past losers

Classic Momentum Example

FINANCIAL TIMES

ADVENTUROUS INVESTOR

February 22, 2013 6:28 pm

Stock screens to net the ones that got away



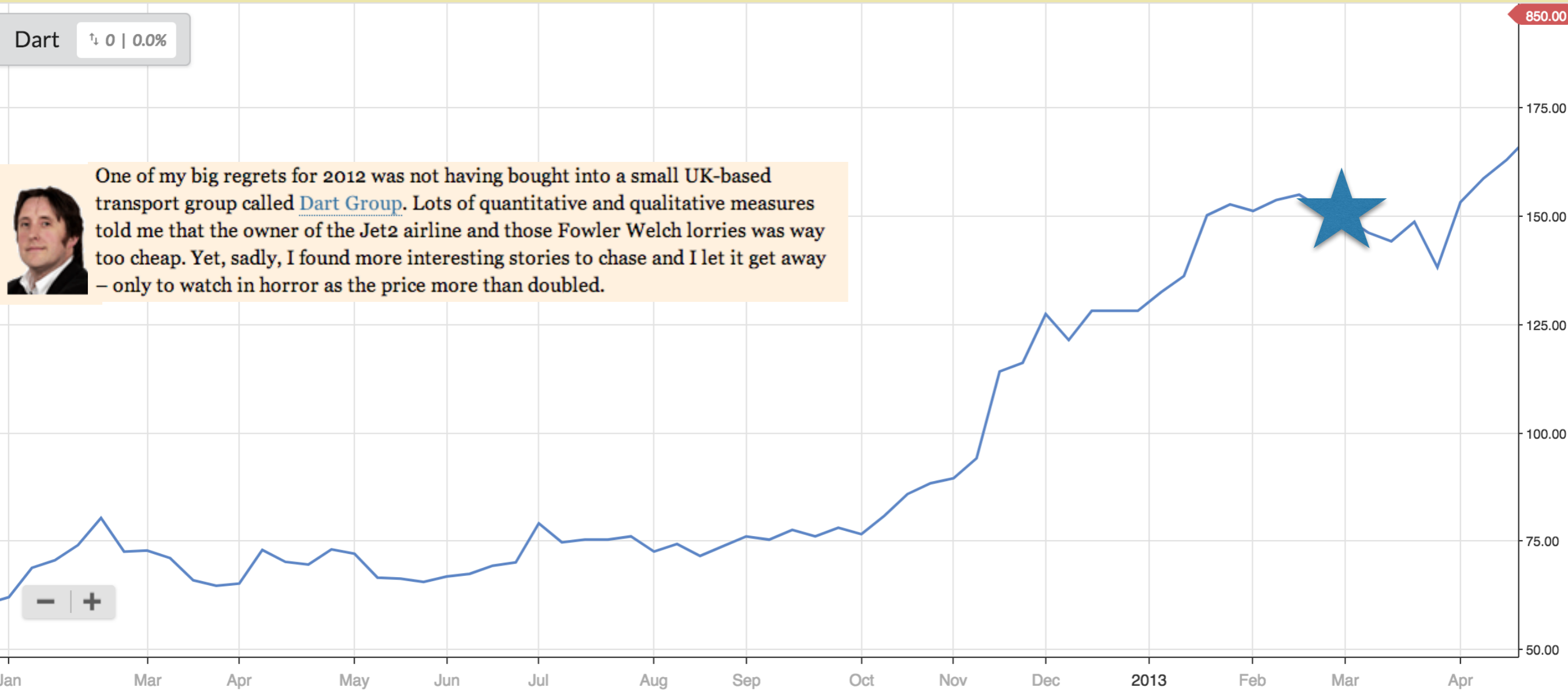
By David Stevenson

How to take some of the emotion out of investing

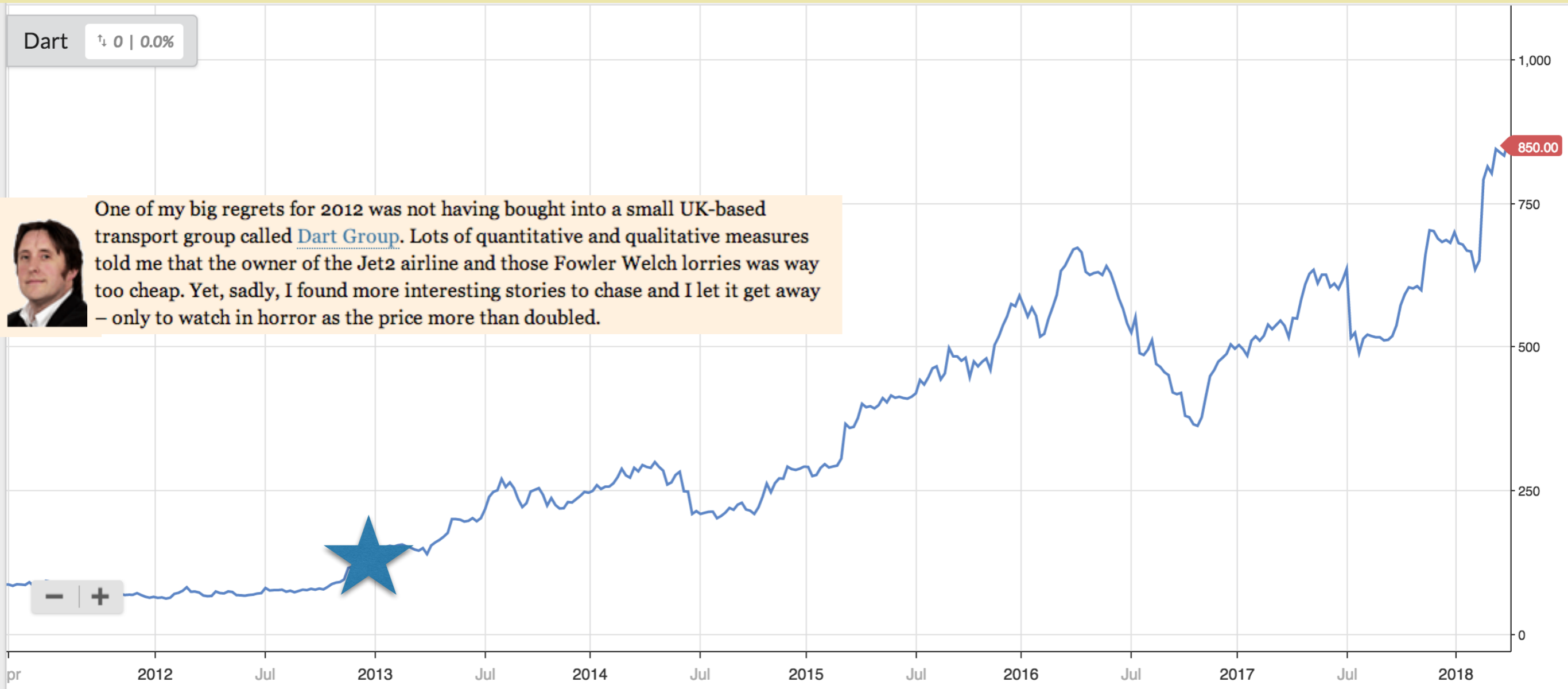
A large part of investing is an exercise in regret, with most anguish focused on the “ones that got away”.

One of my big regrets for 2012 was not having bought into a small UK-based transport group called [Dart Group](#). Lots of quantitative and qualitative measures told me that the owner of the Jet2 airline and those Fowler Welch lorries was way too cheap. Yet, sadly, I found more interesting stories to chase and I let it get away – only to watch in horror as the price more than doubled.

Classic Momentum Example



Classic Momentum Example



Classic Momentum Example



How to assess momentum

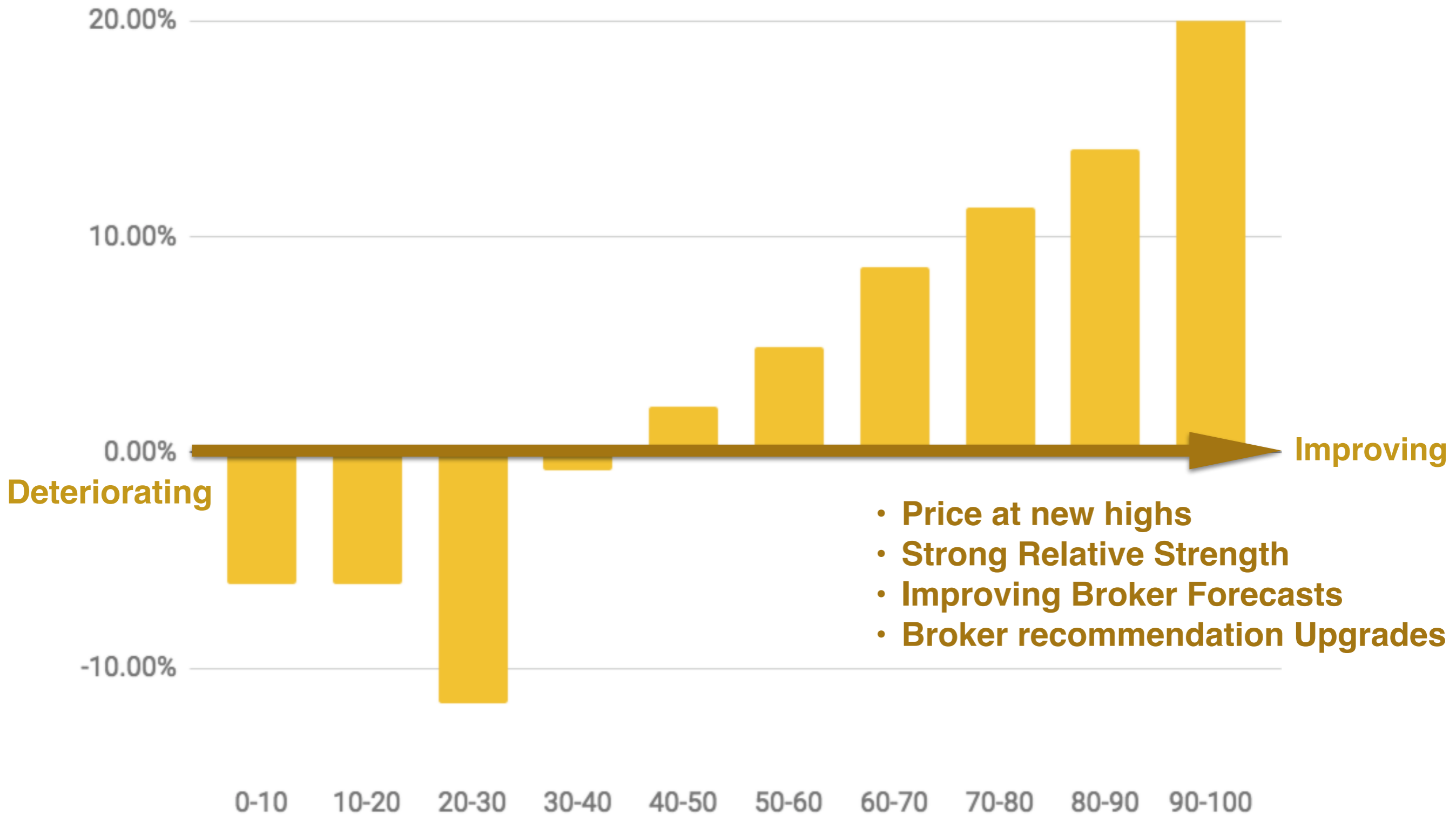
1. Price Momentum

- How is the **price performing relative to the market** over 6m and 1y?
- How close is the price to its **52 week highs**?
- How much is the **50 day average price above the 200 day average**?

2. Earnings Momentum

- Are company **earnings surprising** on the upside vs expectations ?
- Are research analysts **upgrading their recommendations**?
- Are research analysts **upgrading their earnings estimates**?

Momentum Rank Performance



- Price at new highs
- Strong Relative Strength
- Improving Broker Forecasts
- Broker recommendation Upgrades

Why does it Momentum work?



- **RISK:** There's a ***payoff*** to owning riskier assets.
 - Momentum stocks often have larger growth opportunities & riskier future cashflow streams.
 - The momentum factor has intermittent “crashes”.



- **MISPRICING:** *Investors make systematic errors.*
 - In the short term, investors **under-react** to surprises.
 - In the long term, investors **over-react** to trends.
(bandwagon effect).

Momentum as ‘frog in a pan’

The market reacts slowly to information that is released over time. This leads to the creation of **trends.**

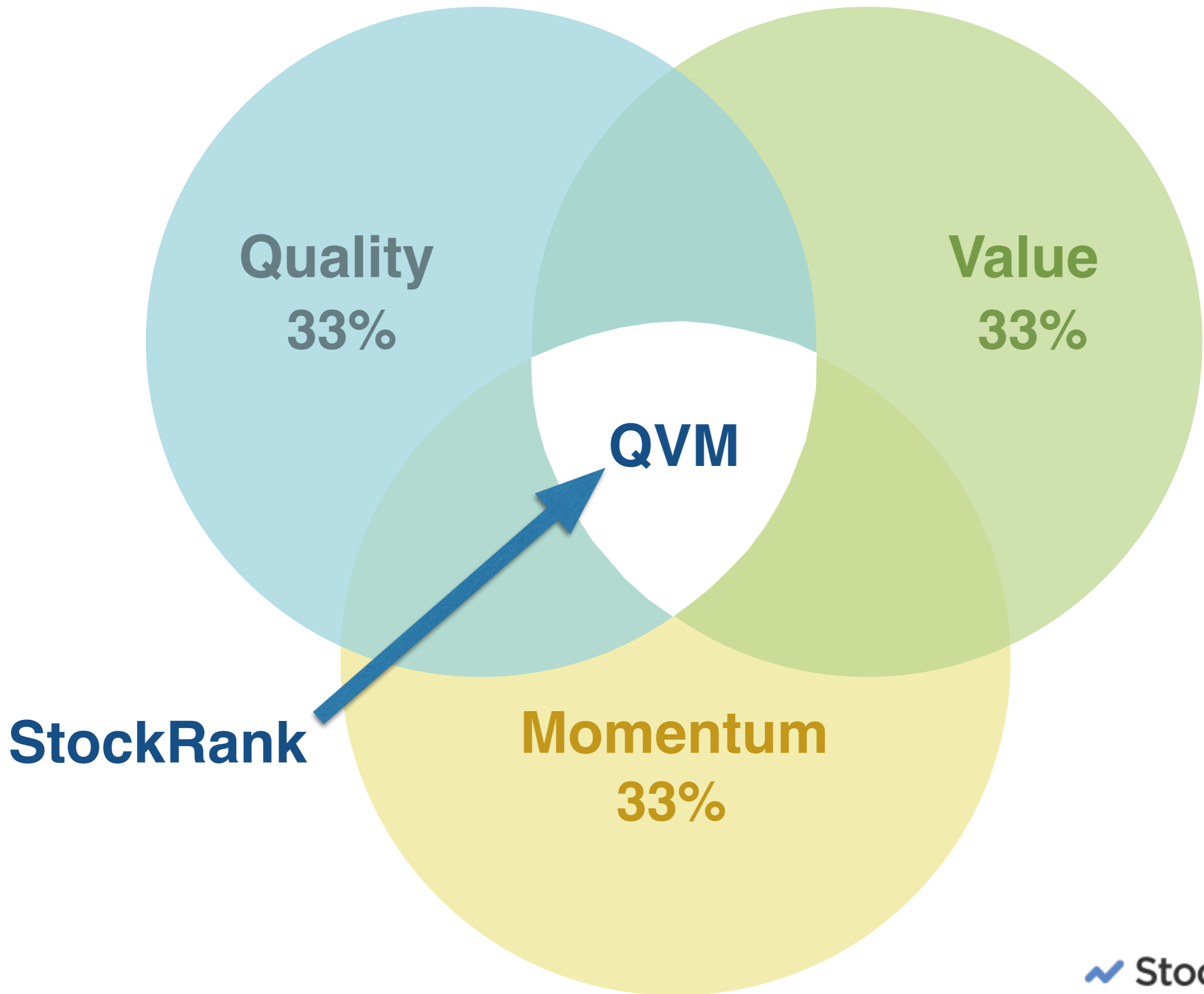
It’s a slow boil - the frog doesn’t jump.



QVM - StockRank

Good, cheap, improving
beats

Expensive, deteriorating, junk



StockRank

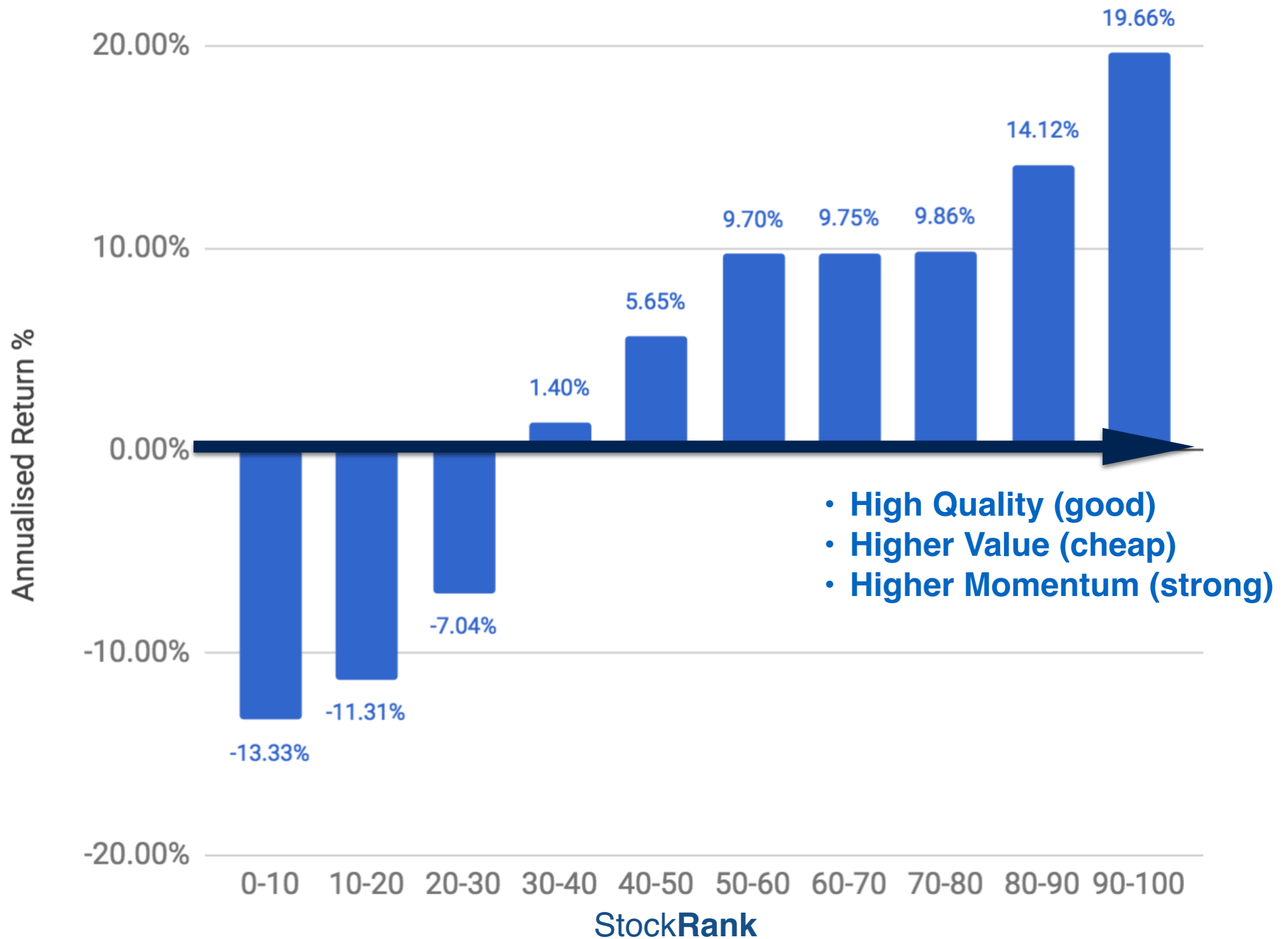
“Over time... tilts towards value, momentum and profitability have outperformed the market.

*A combined portfolio of these three
has provided much higher reward...
and a significant reduction in extreme
risk.”*

Robert Novy Marx



StockRank Performance



*Performance of UK stocks > £10m Mkt Cap between April 2013 & April 2018, rebalanced annually

On the bias against high ranking shares

Dart StockRank **100**

"This seems a rather euphoric reaction, considering the company is only saying it will match last year's numbers. I'd probably be tempted to bank some gains on today's big move up"



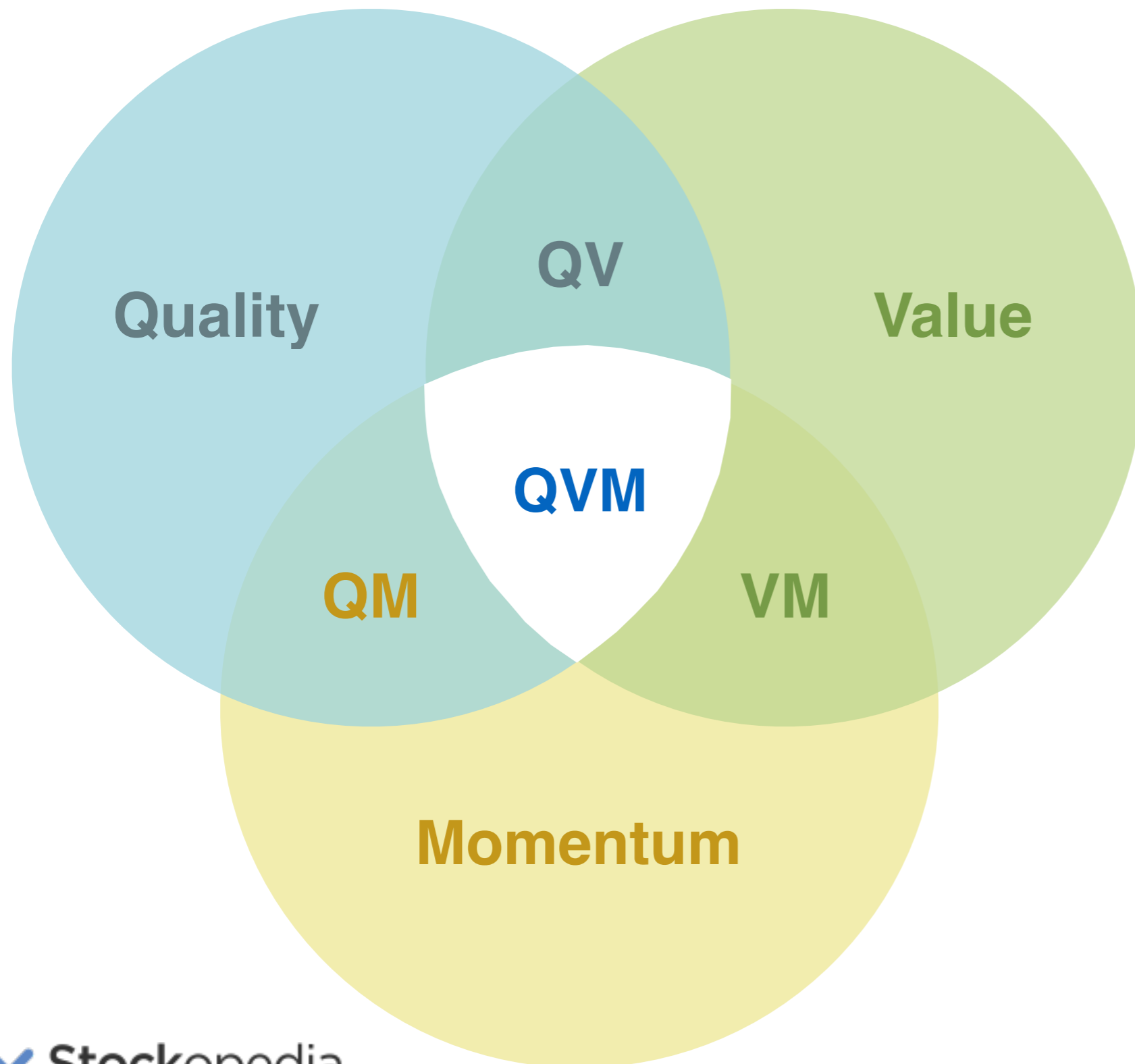
Synety StockRank **1**

"I still like the stock and will hold on. I had topped up around 130p but that might look ok this time next year."



All the StockRanks

Available in the screeners and to view in table displays



Basics

Quality Rank*

Momentum Rank*

Value Rank*

Growth Rank

Crossovers

QV Rank

QM Rank

VM Rank

Composites

StockRank (QVM)*

QVGM Rank

The RiskRating

A 5 level classification based on each stock's 3 year annualised & adjusted* daily **volatility**.

Low Risk



High Risk

1. Conservative

2. Balanced

3. Adventurous

4. Speculative

5. Highly Speculative

Volatility

< 25%

25%-35%

35%-45%

45%-70%

>70%

** Bands vary over time*

Brain Tips

How to about high StockRank Stocks

- Never cross a river because it is on **average** 4 feet deep

*Portfolios of stocks with these characteristics have on **average**, over the long term tended to outperform the market. But **individually** there is zero guarantee of outperformance.*

- Don't overweight precision

*A **99** ranked share is really no different to a **91** ranked share. A small tweak in the algorithm could easily change the relative ranking of each.*

- Be comfortable with the “*built-in*” error rate

The error rate is usually lower in well thought out quantitative processes than it is in qualitative human biased processes. Analyst forecasts are famously on average 47% wrong!

- Understand that stocks in ‘distress’ occasionally rank high

While financially distressed stocks as a whole tend to underperform the market, there is a subset of these stocks which do recover. We weight the trend of a stock’s fundamentals highly in the Quality Rank... so a turnaround may be able to rank highly.



Common Mistakes

- Beware of familiarity bias (selecting those you know best)

Many will look at the high ranking list and only buy stocks that they are most familiar or comfortable with. Challenge yourself to dig where others aren't.

- Be aware of the **RiskRating** of the stocks selected

*Just buying high Stock**Rank** stocks could lead to higher risk shares being selected.*

- Ensure you use adequate diversification

*Research shows that you need at **least** 8 stocks in a portfolio to reduce **risk**, but to ensure capturing of factor **returns** 20+ stock portfolios work best.*

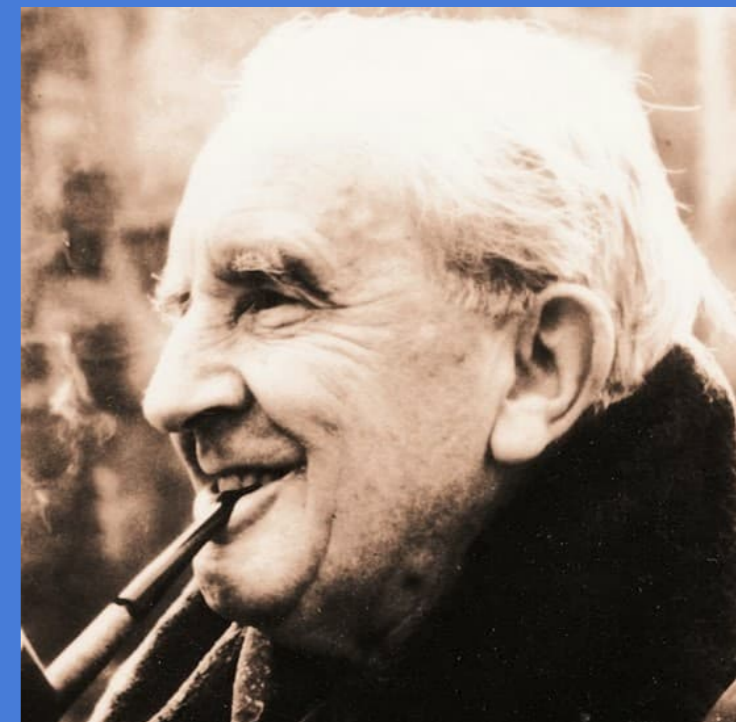
- Not rebalancing a portfolio as StockRanks drift

*Factor investing relies on **active** management of a portfolio. Over time exposures to factors change. It makes sense to rebalance. Annually is enough.*

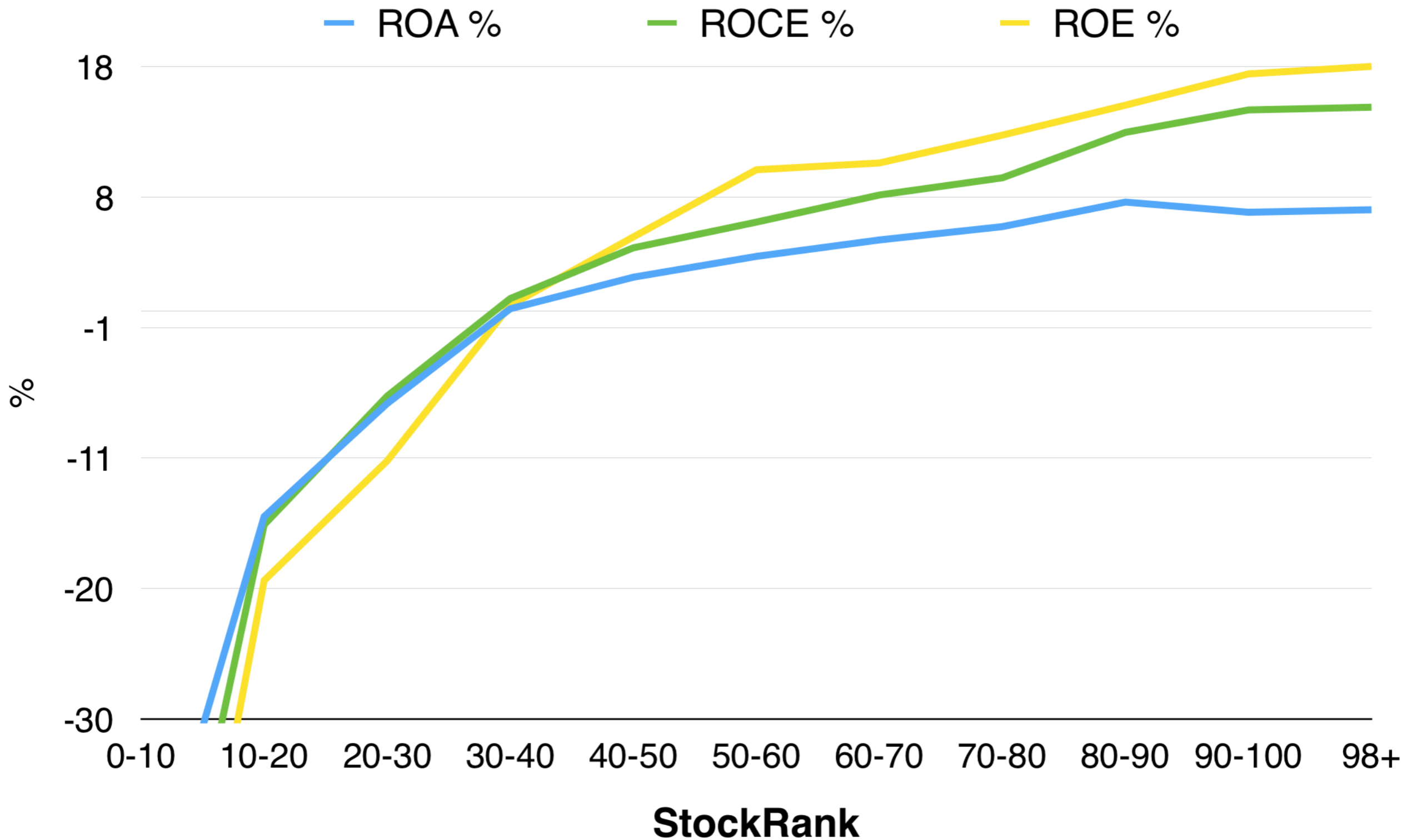
On the traits of high
StockRank Stocks

“You certainly usually find something, if you look, but it is not always quite the something you were after.”

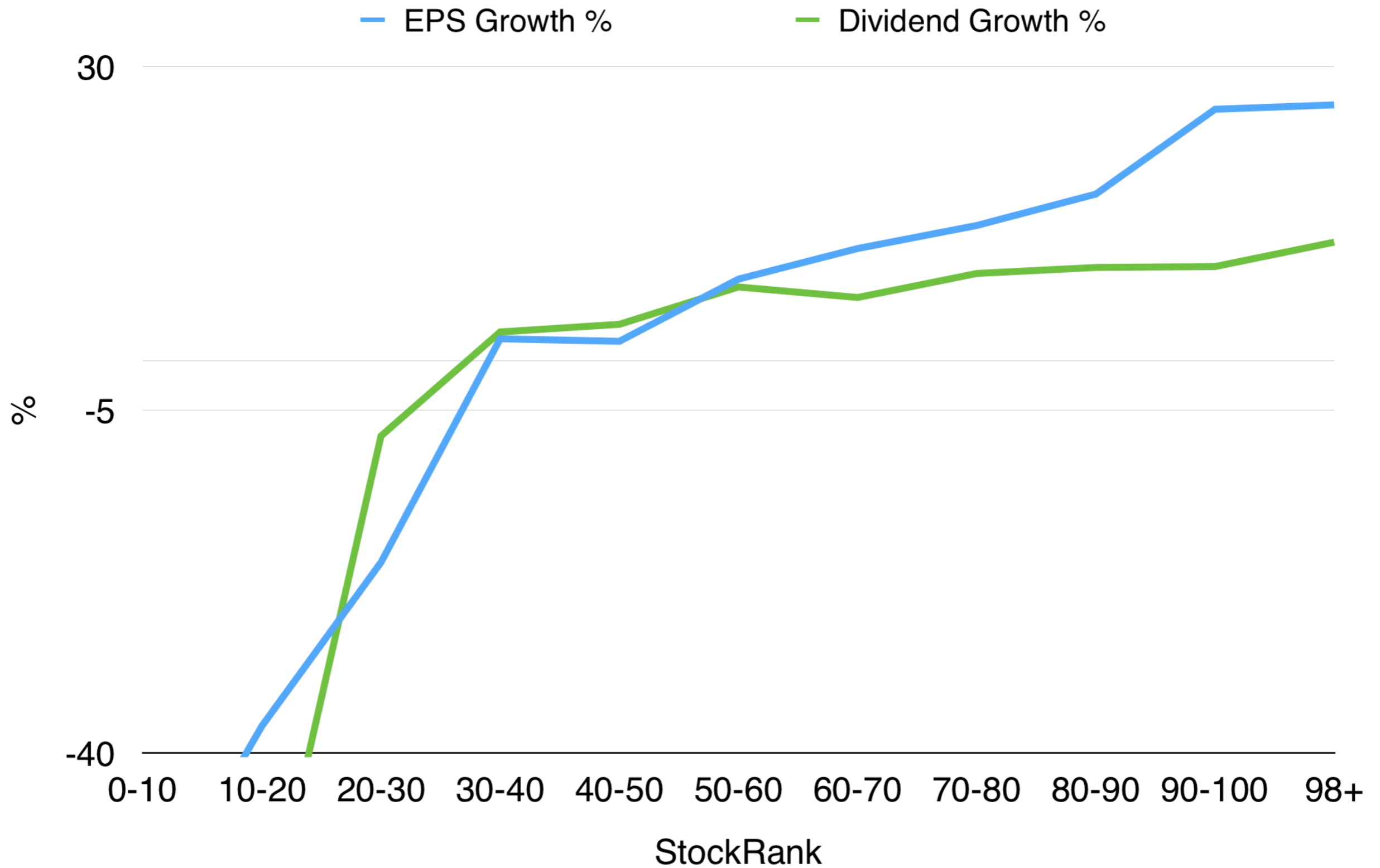
J.R.R. Tolkien



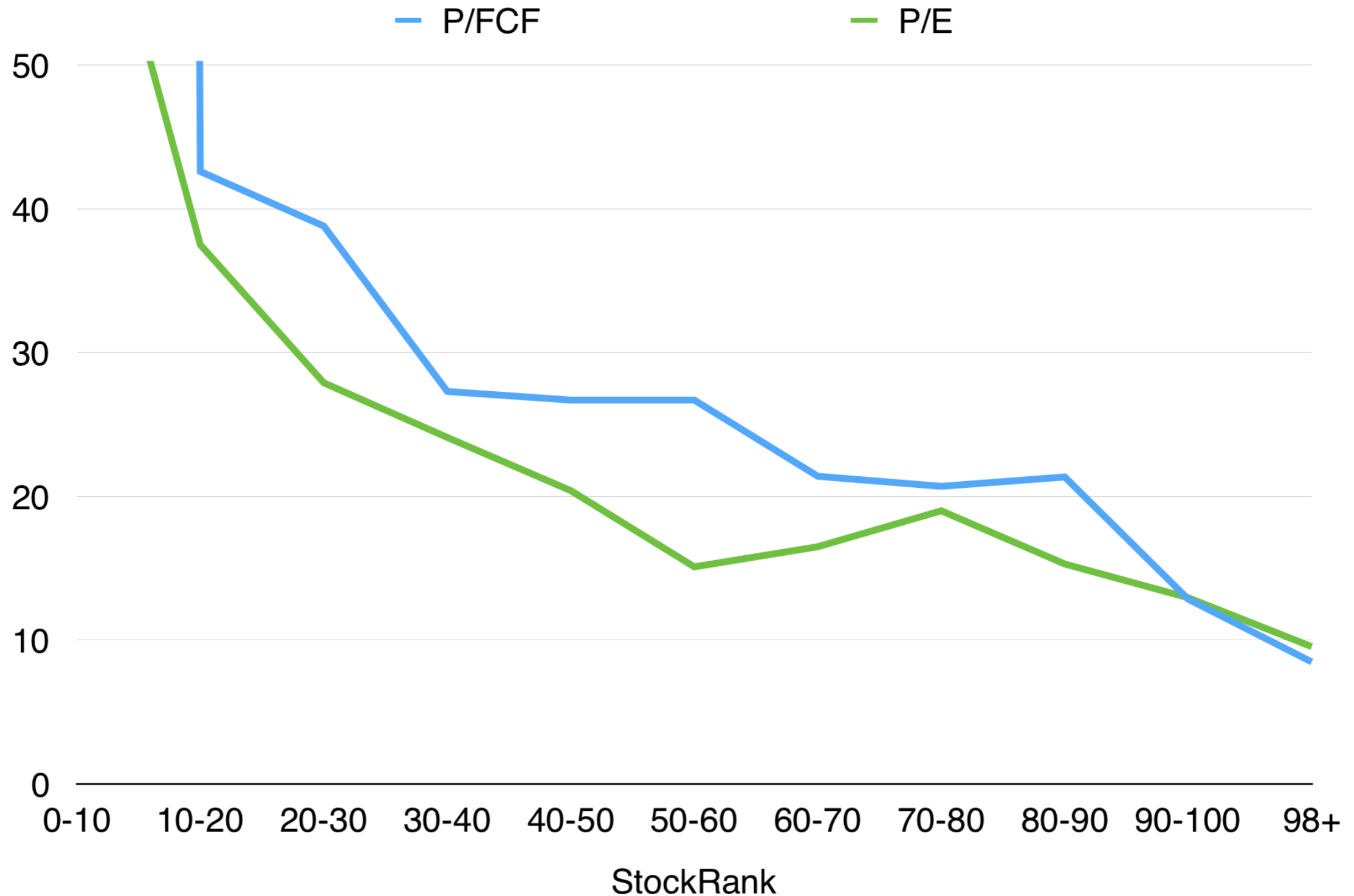
The higher the ranking.... the more **profitable** the company



The higher the ranking.... the faster the **growth**

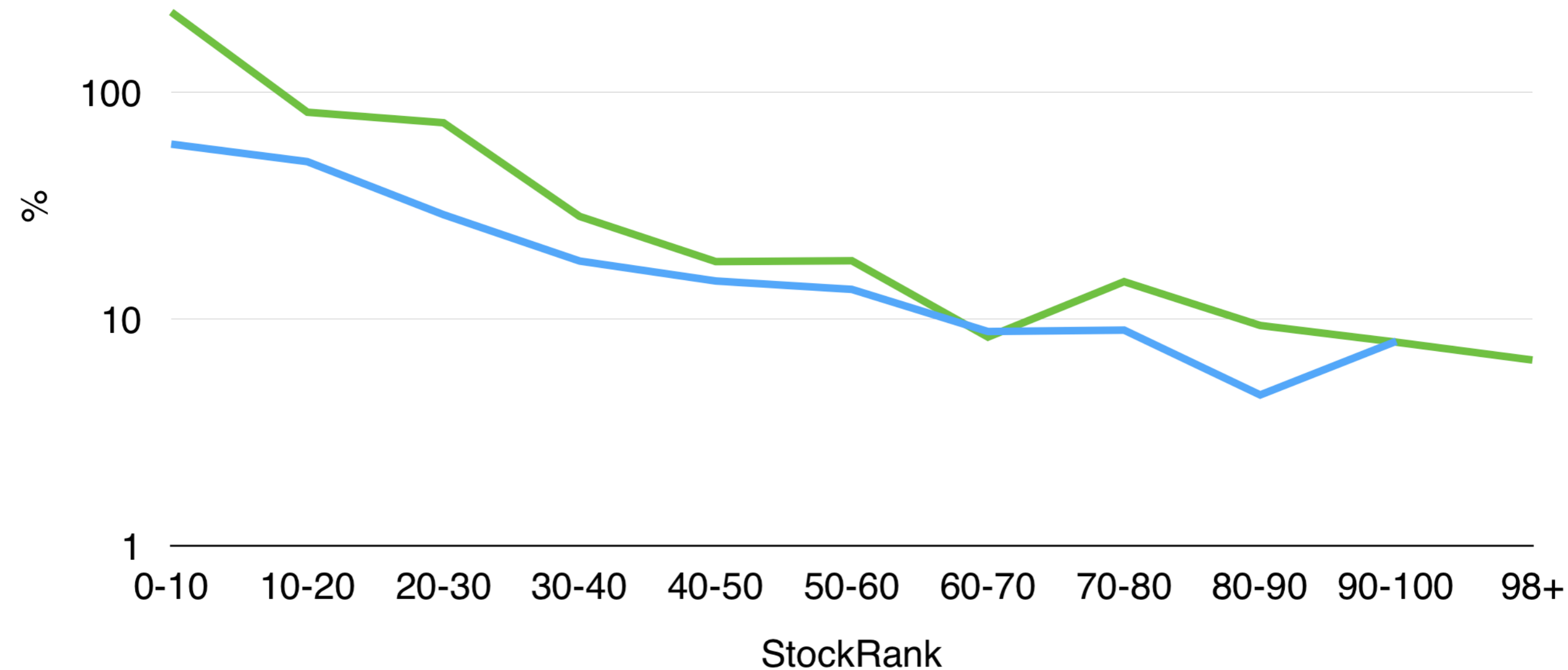


The higher the ranking.... the **cheaper** the stocks

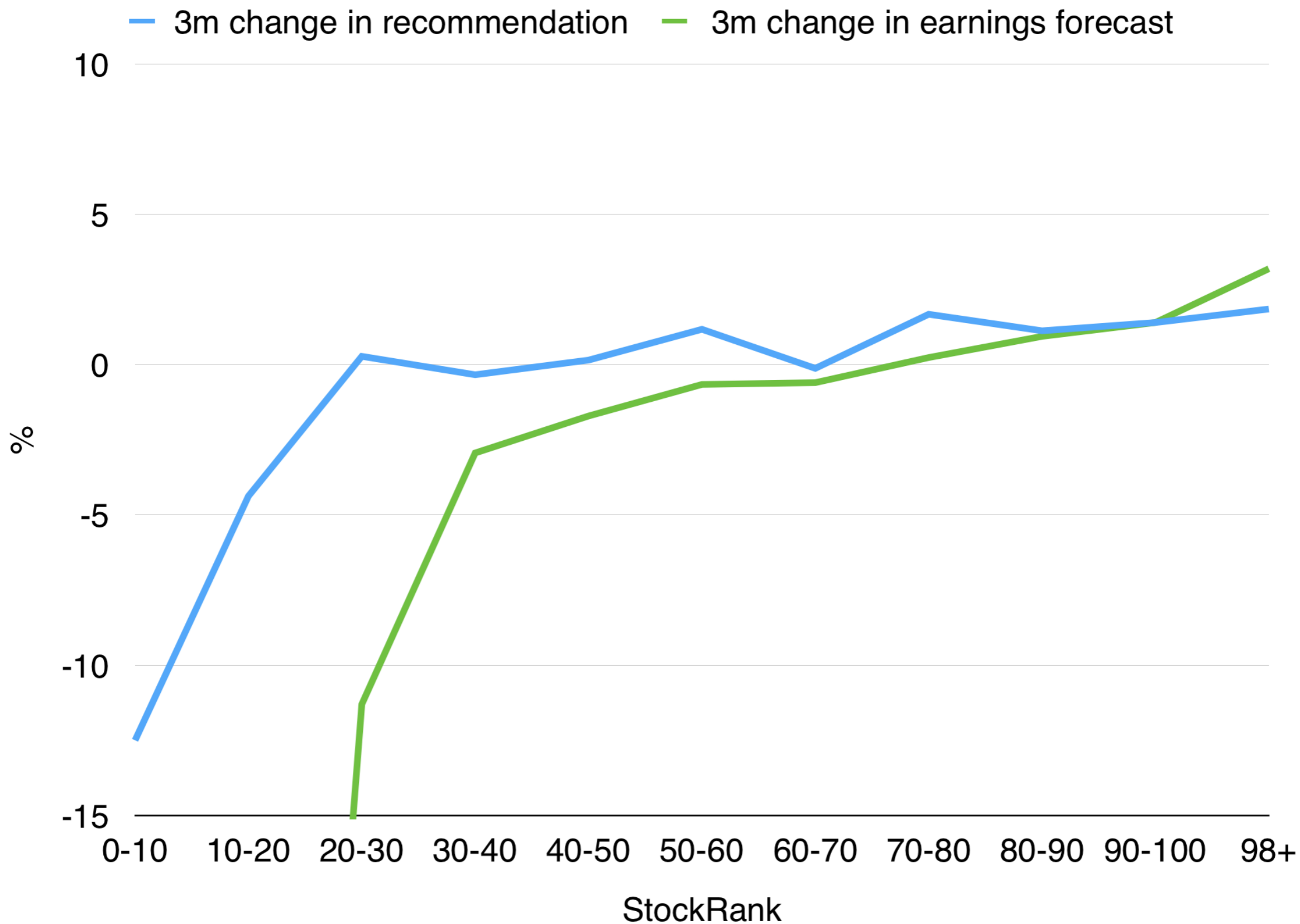


The higher the ranking.... the **lower the broker expectations**

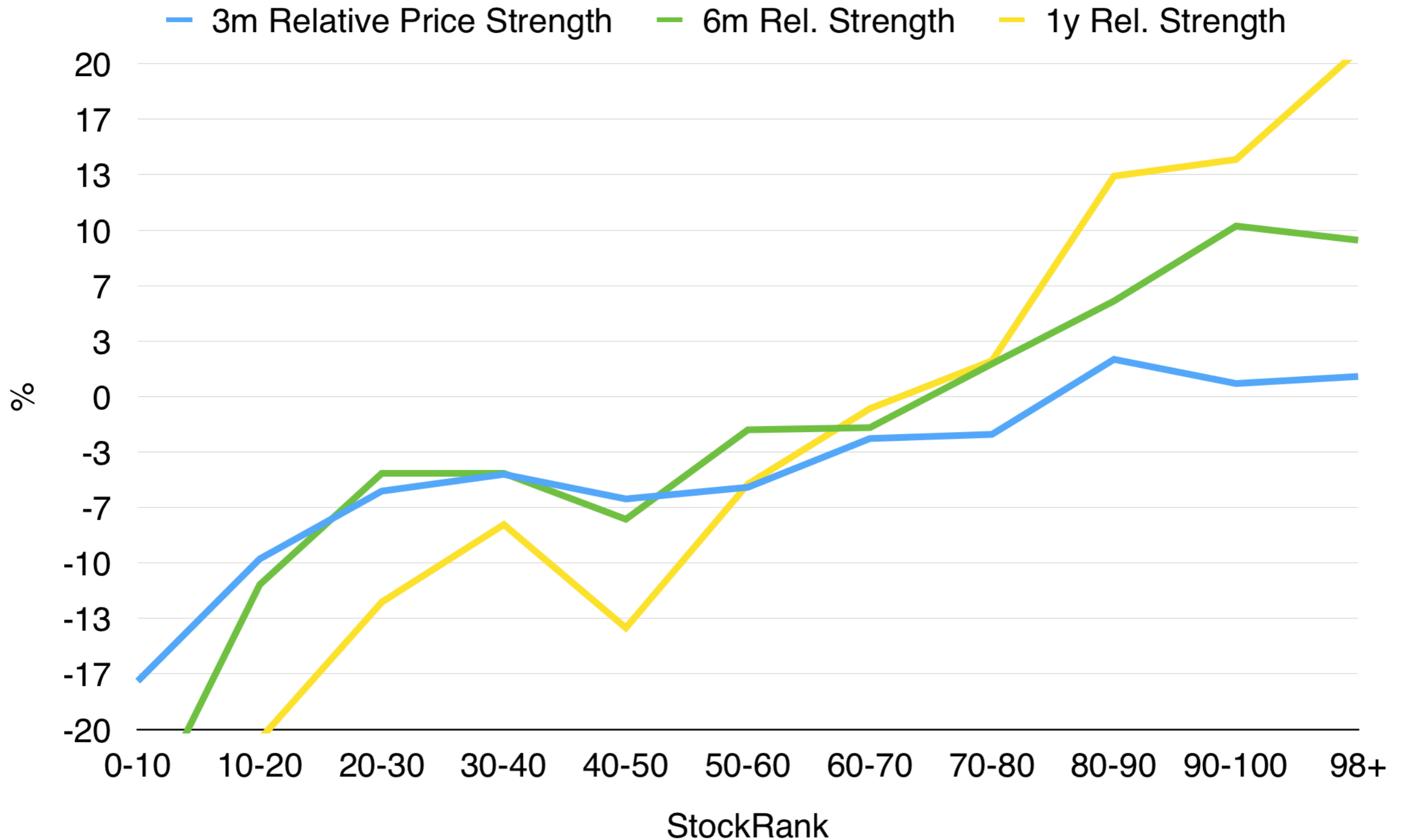
— % Upside to Broker Price Target — % Forecast EPS Growth



The higher the ranking.... the more **expectations are wrong**!



The higher the ranking.... the **more it's beating the market**



Would you **buy** a stock with these traits?

Return on Capital 15%

Operating Margin 20%

PE 9.55

Yield 4.2%

Relative Price Strength 21%

Earnings above expectations by +6.3%

Search for stocks with these traits - none exist

rename ✖ Delete this screen

ROCE %	Greater than	13.5	↕	●	✖
Op Mgn %	Greater than	18	↕	●	✖
P/E	Less than	12	↕	●	✖
Yield %	Greater than	3.6	↕	●	✖
RS 1y	Greater than	18	↕	●	✖
Piotroski F-Score	Greater than	7	↕	●	✖
EPS Surprise % Last Yr	Greater than	4	↕	●	✖

+ Add a new rule

Sort by Mkt Cap £m | Descending | ⚙️

Get Qualifying Shares

[▶ Watch the Video](#) [📖 Read the Guide](#) [📖 Check the Glossary](#)

United Kingdom ▾ Qualifying Shares

Overview 📄 Quotes Ranks Value Growth Quality Income Momentum Holdings 📅 ☰ 📈 📊

<input type="checkbox"/>	Ticker	Name	Mkt Cap £m ▾	ROCE %	Op Mgn %	P/E	Yield %	RS 1y	Piotroski F-Score	EPS Surprise % Last Yr	Flag
<div style="border: 2px solid red; padding: 10px; display: inline-block;">There are currently no Companies in this List</div> ←											

But a 98+ StockRank portfolio has these traits on average

Name	Mkt Cap £m	Op Mgn %	ROCE %	P/E	Yield %	RS 1y	EPS Surprise %
Median	269.8	20.2	15.0	9.6	4.2	20.8	6.3
Mean	8,520.9	22.2	21.4	10.6	4.8	39.0	18.4
BHP Billiton	92,439	30.1	12.3	17	4.16	43.7	-3.49
Rio Tinto	75,296	34.7	16.4	13.6	4.96	34.6	1.24
Antofagasta	10,982	40	15	19.3	3.43	38.3	-3.79
Persimmon	8,804	27.9	26.8	11.6	8.31	13.7	5.5
EVRAZ	7,433	18.3	24	10.7	4.38	160.3	7.32
Berkeley	5,668	30	30.7	7.68	2.57	28.4	7.74
Royal Mail	4,921	1.54	3.03	5.72	4.88	7.8	16.6
Plus500	1,882	59.1	114.4	12.5	4.82	214.9	6.35
3I Infrastructure	1,837	77.4	27.5	4.8	3.46	10.6	4.71
Globaltrans Investment	1,383	25.8	30.7	9.55	13.4	24.9	2.81
Keller	761	5.82	14.6	12.5	3.24	16.1	13.3
Ocean Wilsons Holdings	371.3	22.1	9.16	6.14	5.01	-1.26	75.3
Griffin Mining	269.8	50.4	32.3	8.91	-	180.6	18.5
Bloomsbury Publishing	180.8	7.15	8.14	19.9	3.13	35.5	100.7
Norcros	156.4	6.19	11.5	11.2	3.77	12.5	8.59
Communisys	134.2	4.89	7.92	9.32	4.16	23.4	0.35
H&T	131.9	13.3	11.2	11.3	3	12.6	6.16
iEnergizer	118.8	20.2	19	9.45	-	-22.3	-
SCS	87.2	4.45	41	7.88	6.93	20.8	3.64
Sylvania Platinum	53	25.3	10.3	7.36	-	65.9	91.9
Driver	42	4.44	12.1	16.1	-	43.2	38.1
Mission Marketing	40.5	4.31	6.56	7.58	3.54	6.36	1.71
M Winkworth	15.3	24	23	13.9	6.04	7.1	1.88
Tandem	8.04	6.52	15.4	4.93	2.56	14.2	-
Spaceandpeople	6.05	11.8	11.4	7.28	4.84	-17	-

Nobody likes to swallow a frog...



Performance & Hit Rates

Understanding the Performance Charts

Sort all the stocks
in the market in
order of increasing
value, quality
or momentum

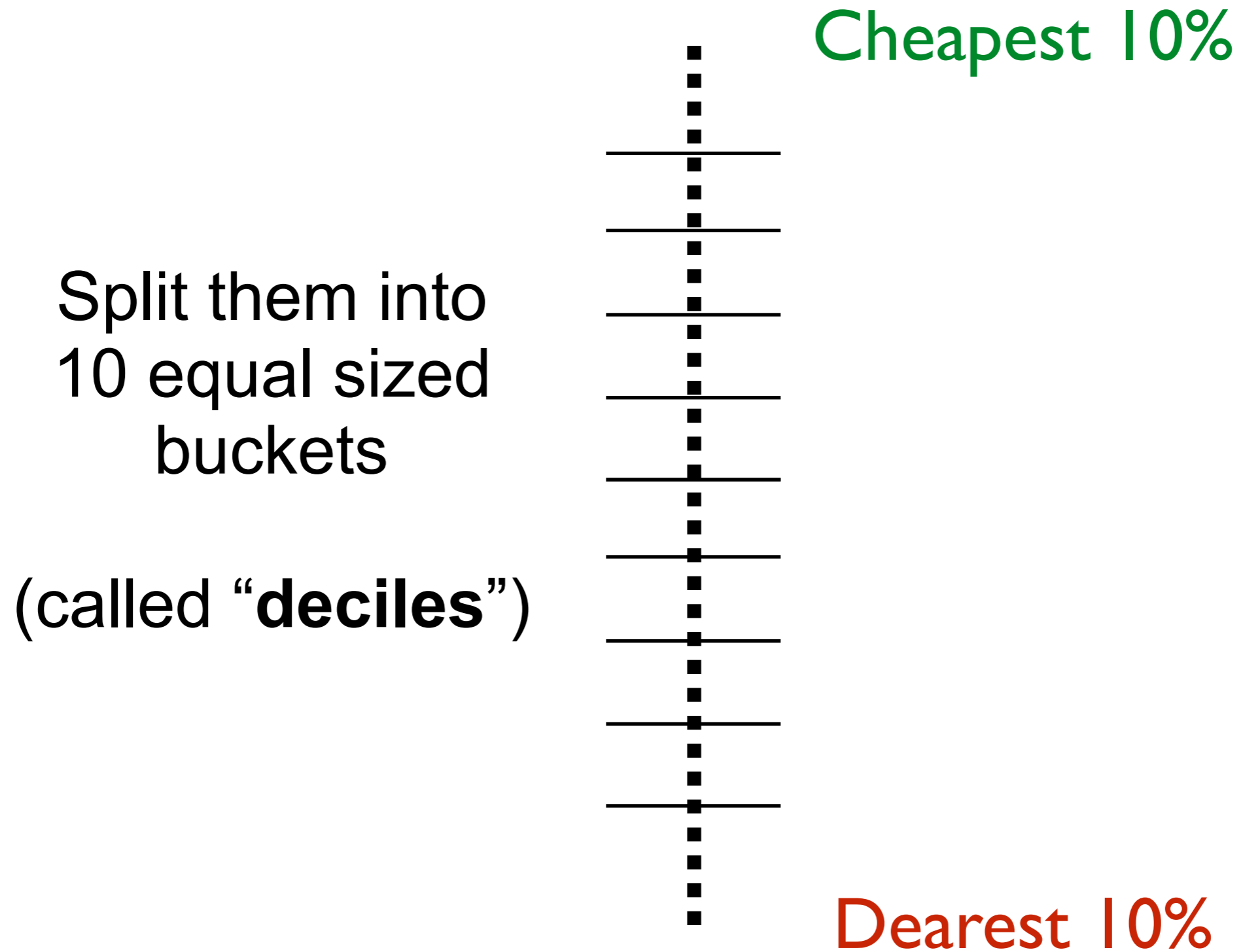


Cheapest



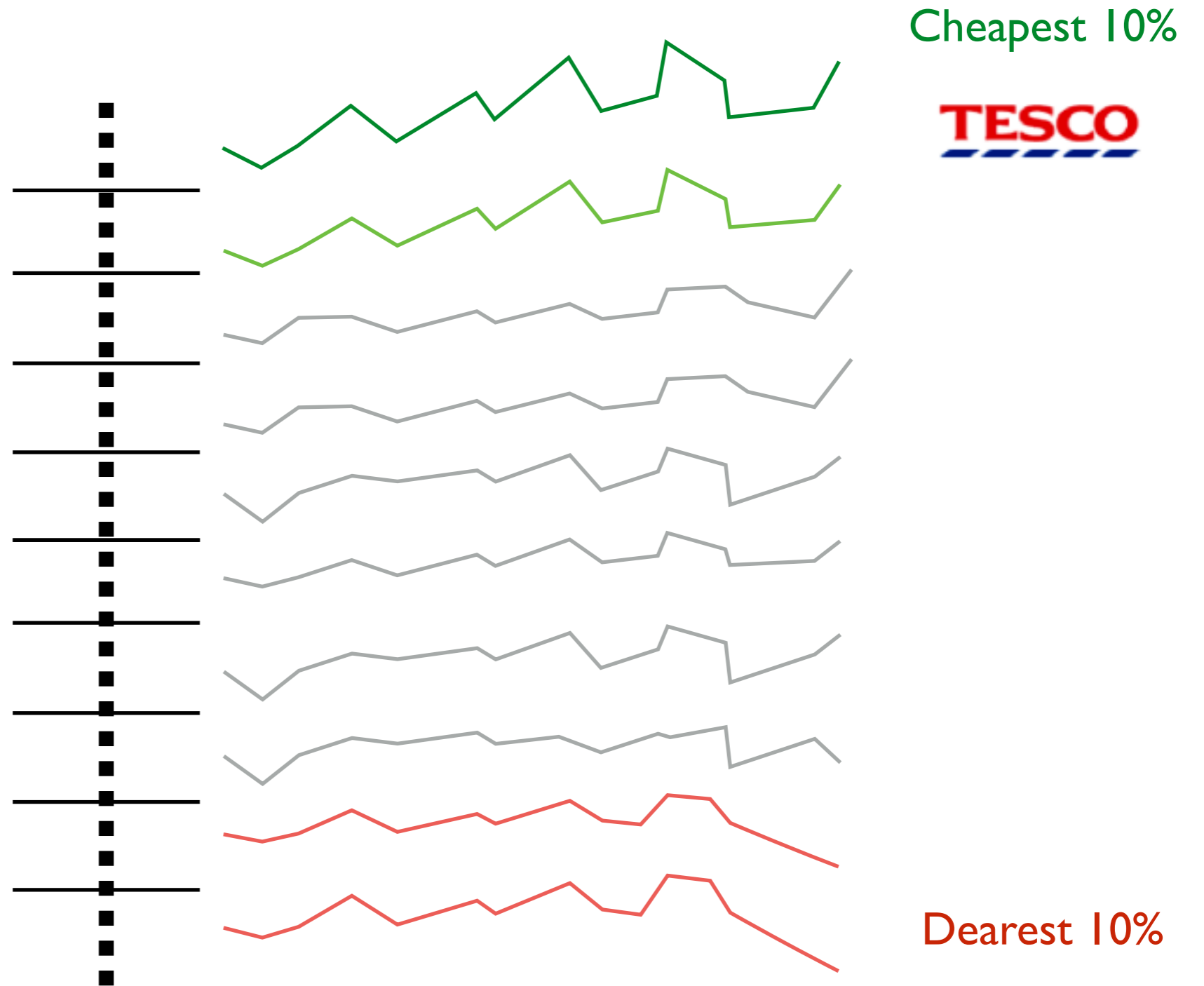
Dearest

Understanding the Performance Charts

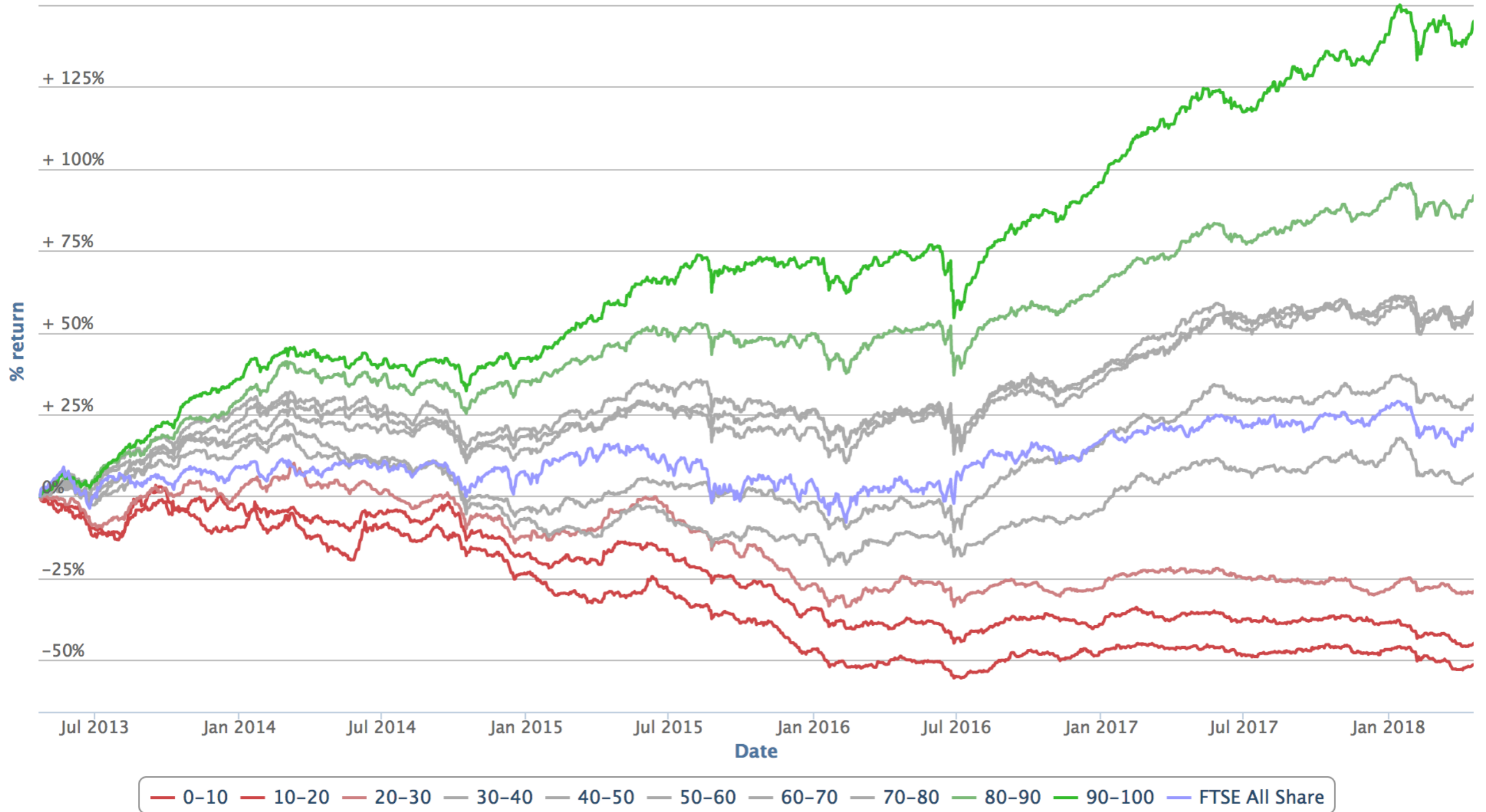


Understanding the Performance Charts

Track them
as portfolios
over time...

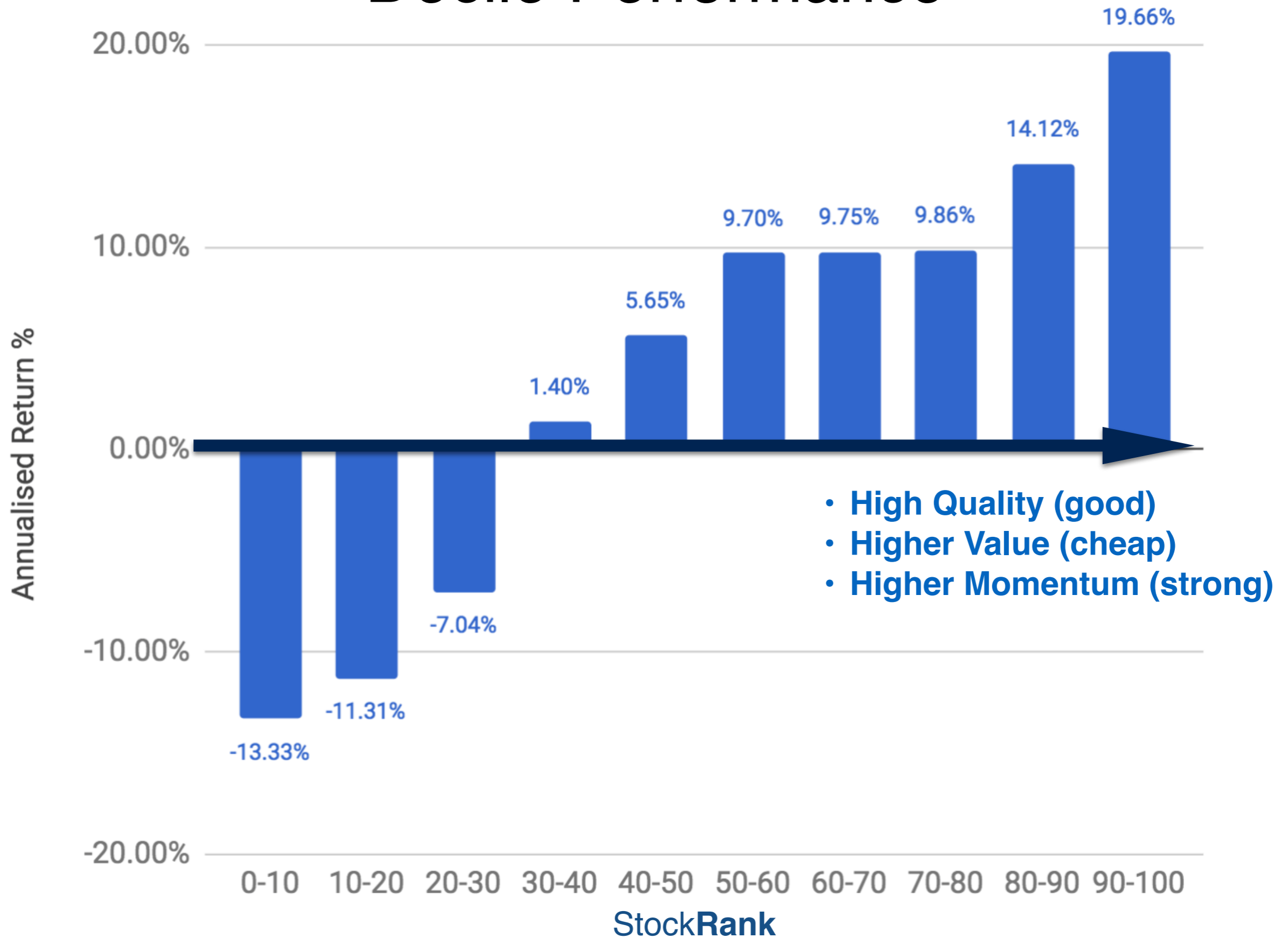


5 Year History of the StockRanks

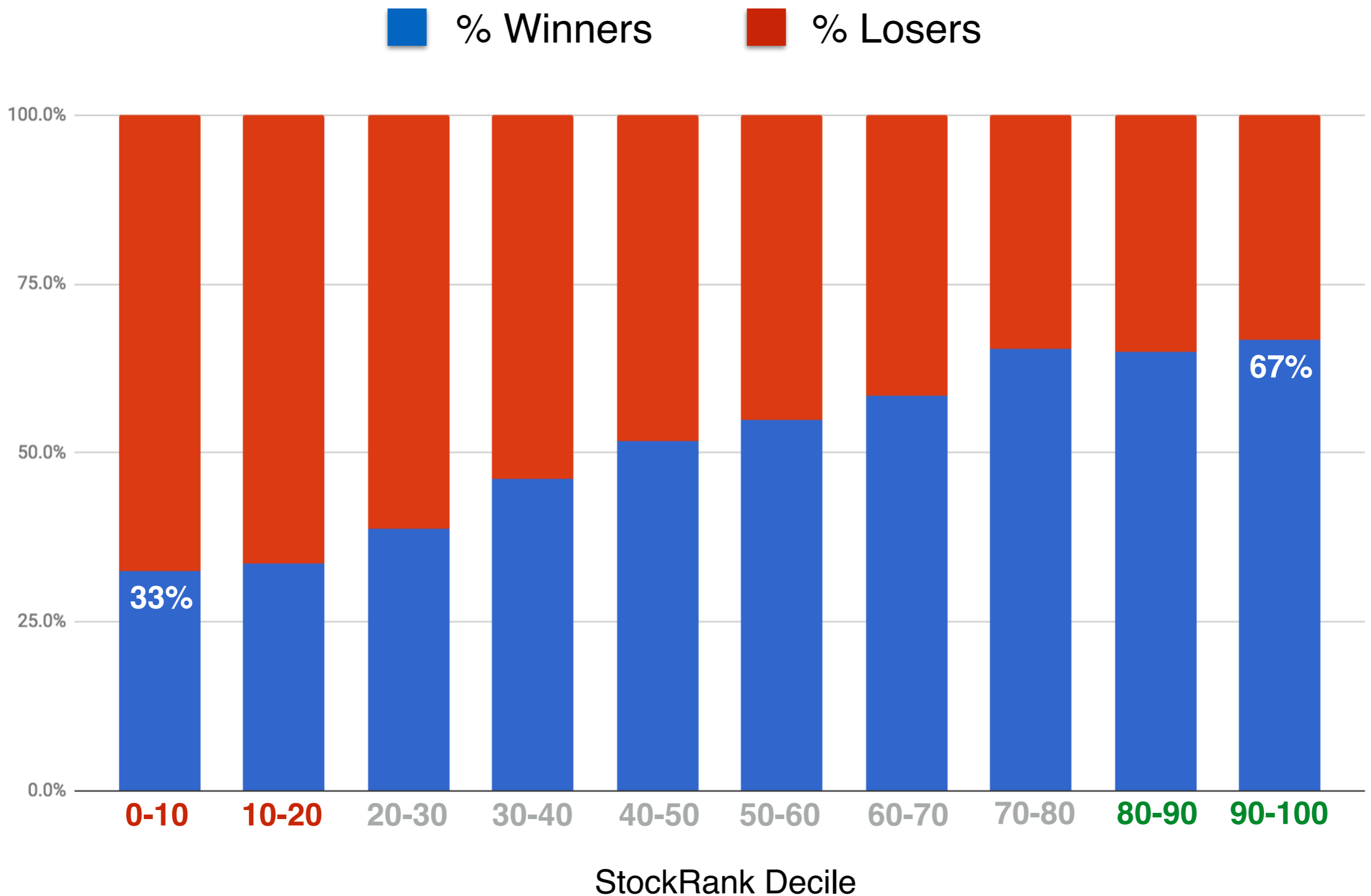


*Performance of UK stocks > £10m Mkt Cap between April 2013 & April 2018, rebalanced quarterly

Decile Performance



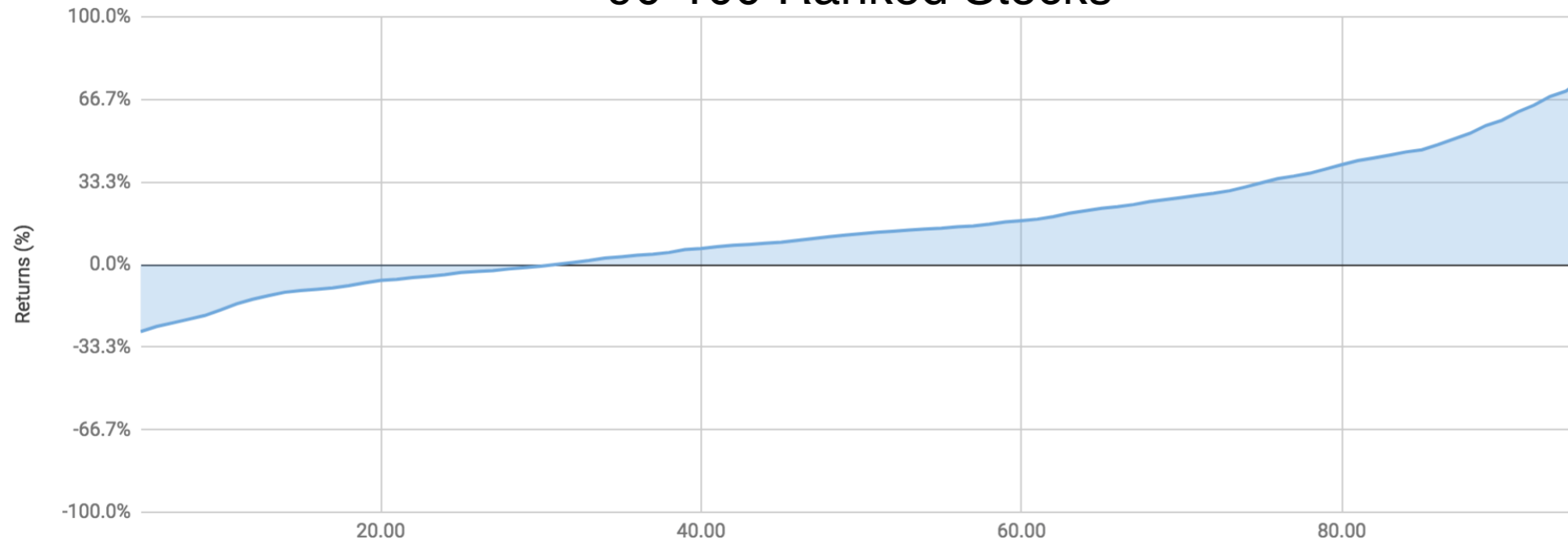
Hit Rate for picking a 'winner' in each decile*



* Average annual win-rate results for each of the 5 years since inception.

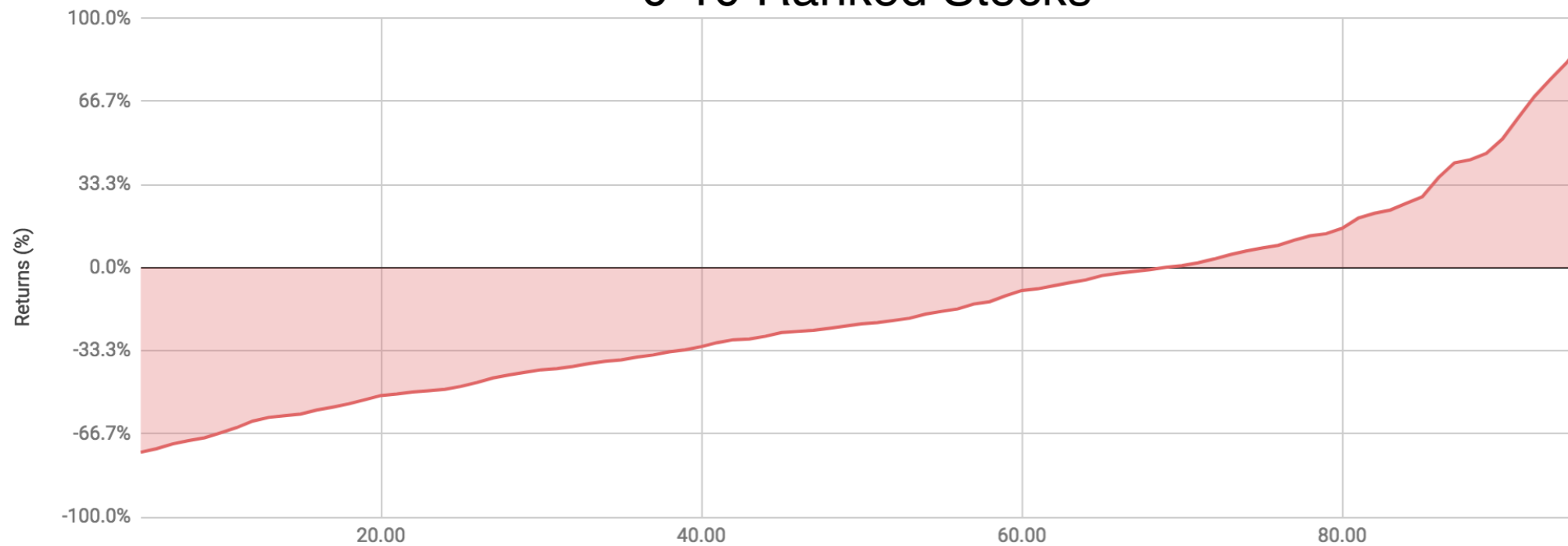
Distribution of Returns - Best Decile vs Worst

90-100 Ranked Stocks



Far more
winners

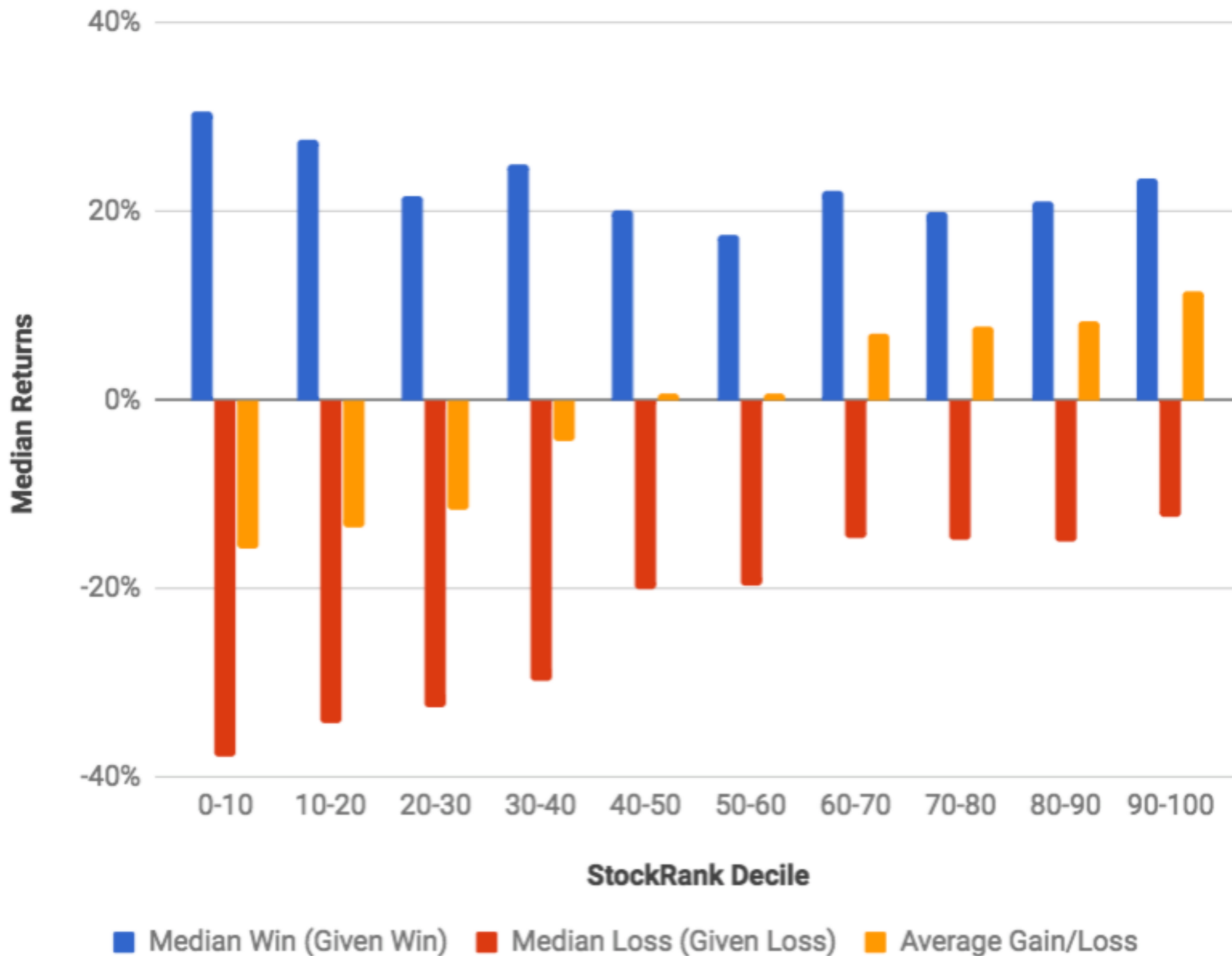
0-10 Ranked Stocks



Far more
losers

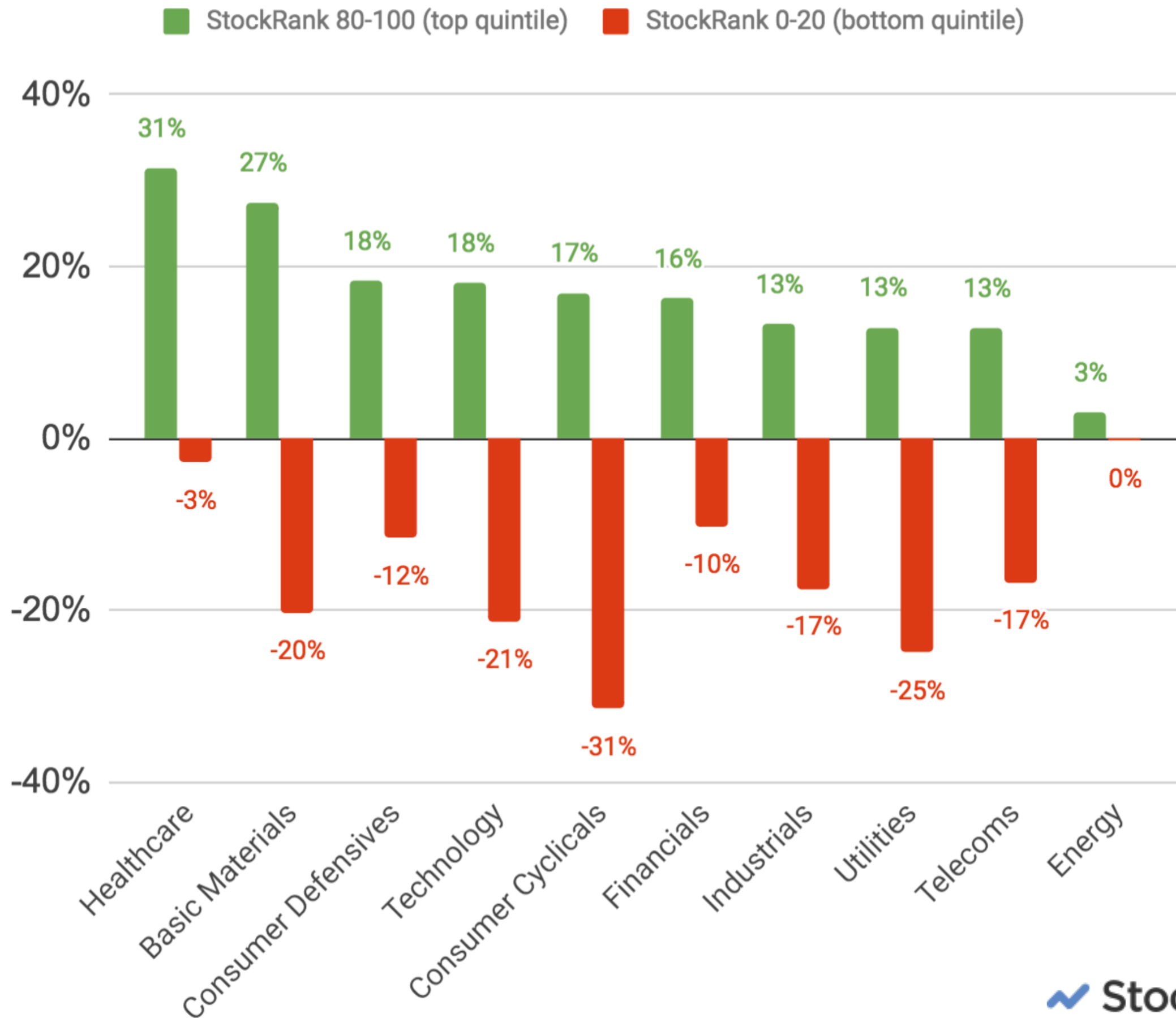
* Average annual win-rate results for each of the 5 years since inception.

Median Size of Wins & Losses

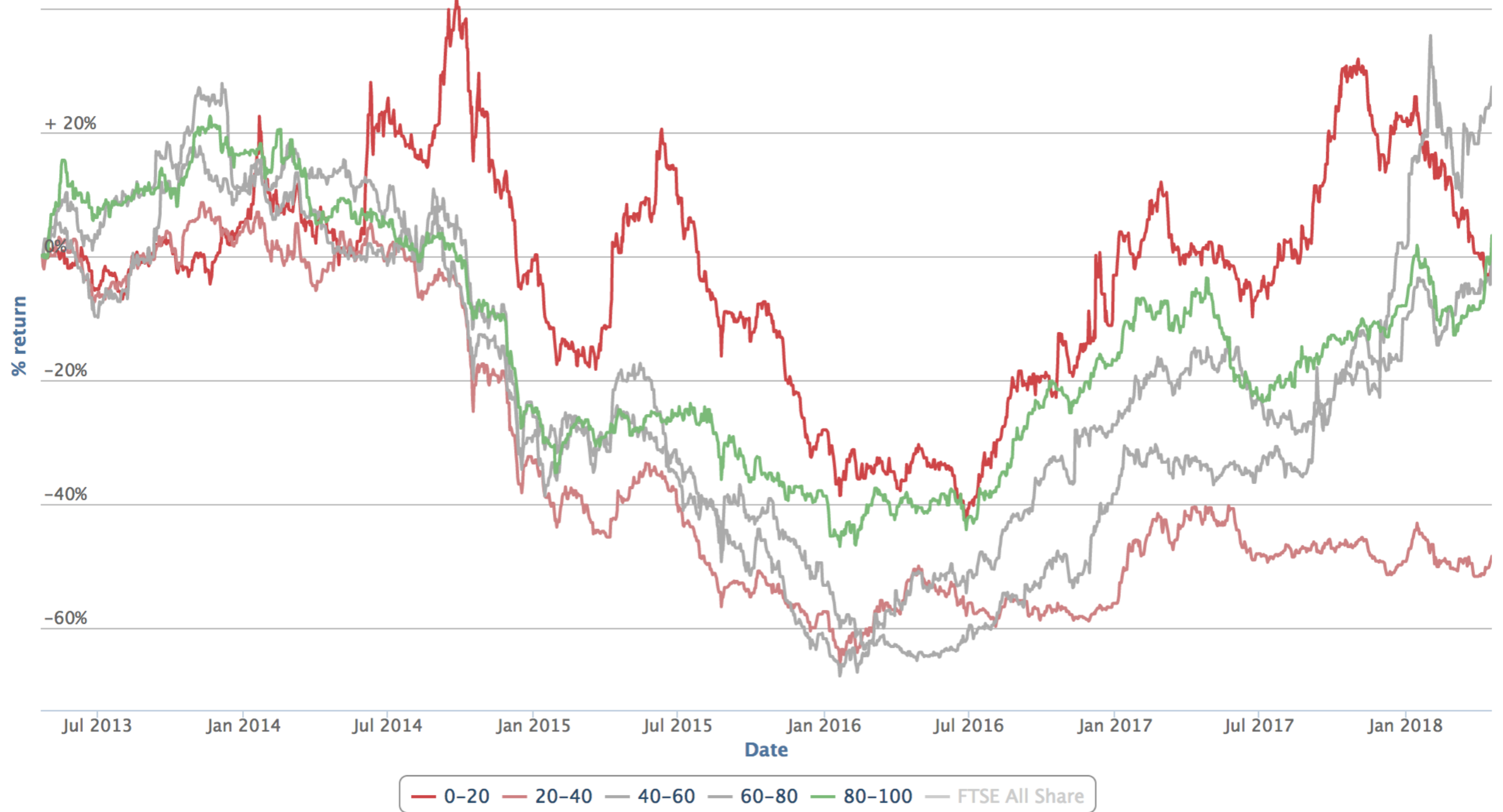


Have they worked across
Sector Groups?

Annualised Return by Sector (top vs bottom quintile)

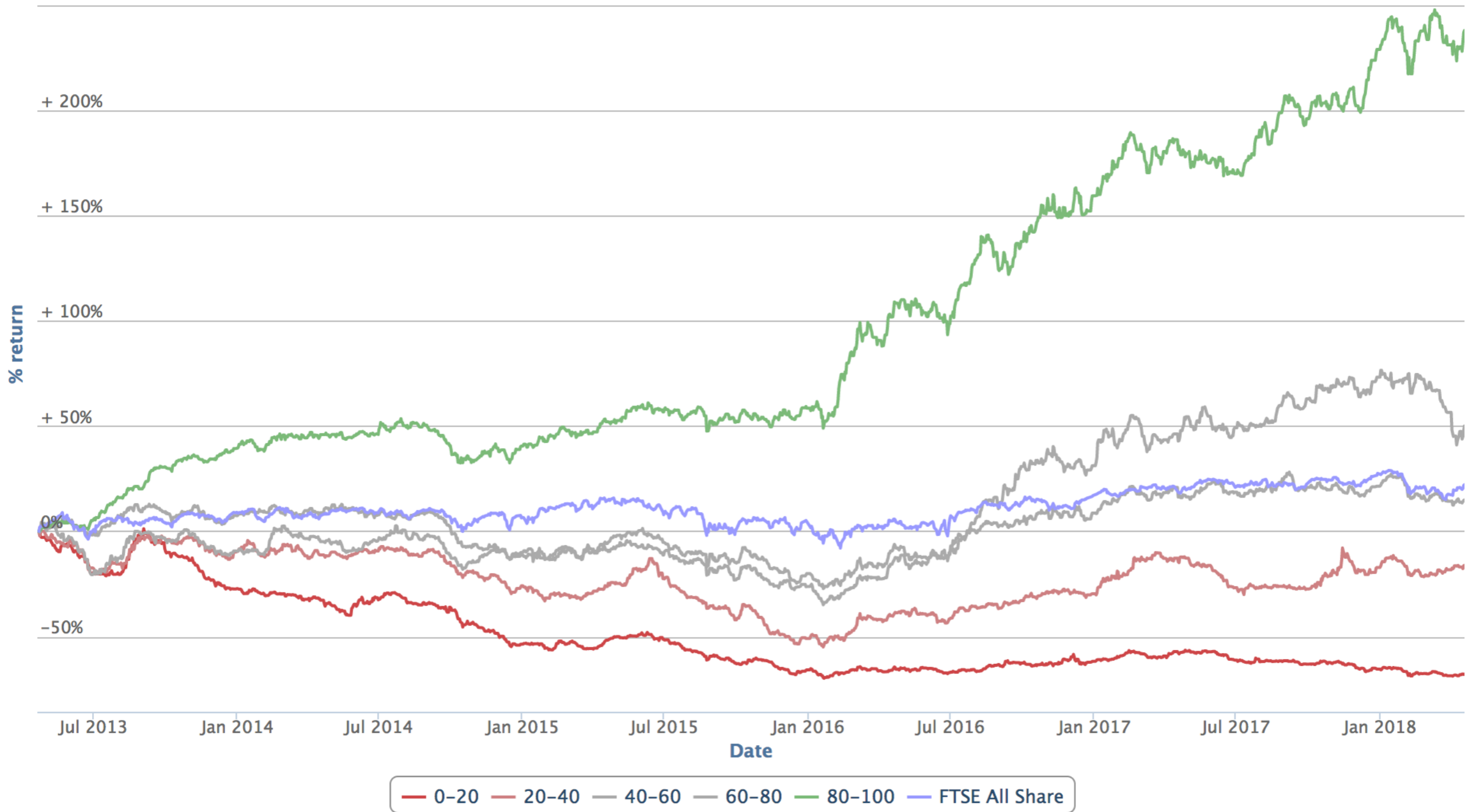


Energy



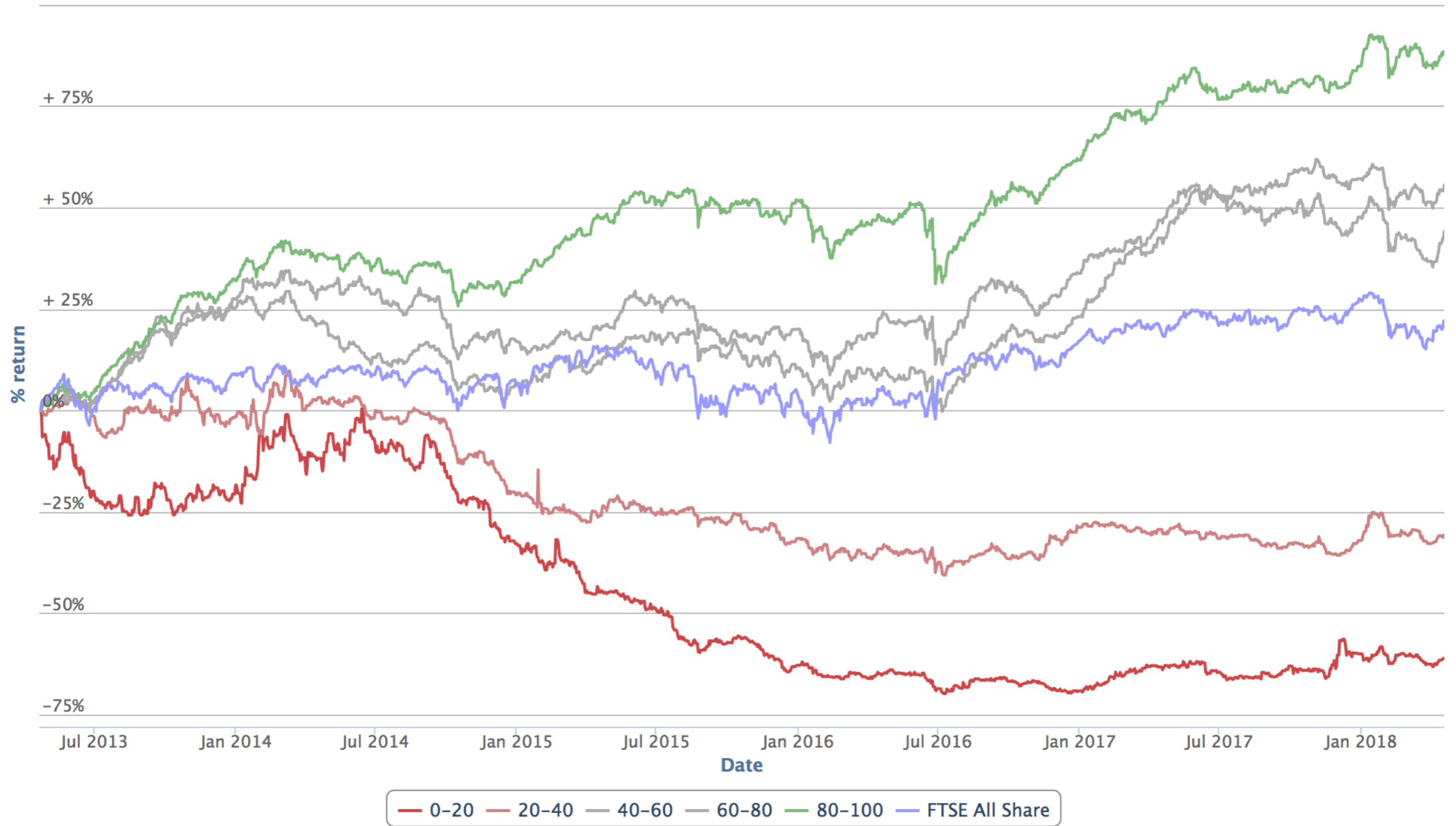
*Performance of UK stocks > £10m Mkt Cap between April 2013 & April 2018, rebalanced quarterly

Basic Materials



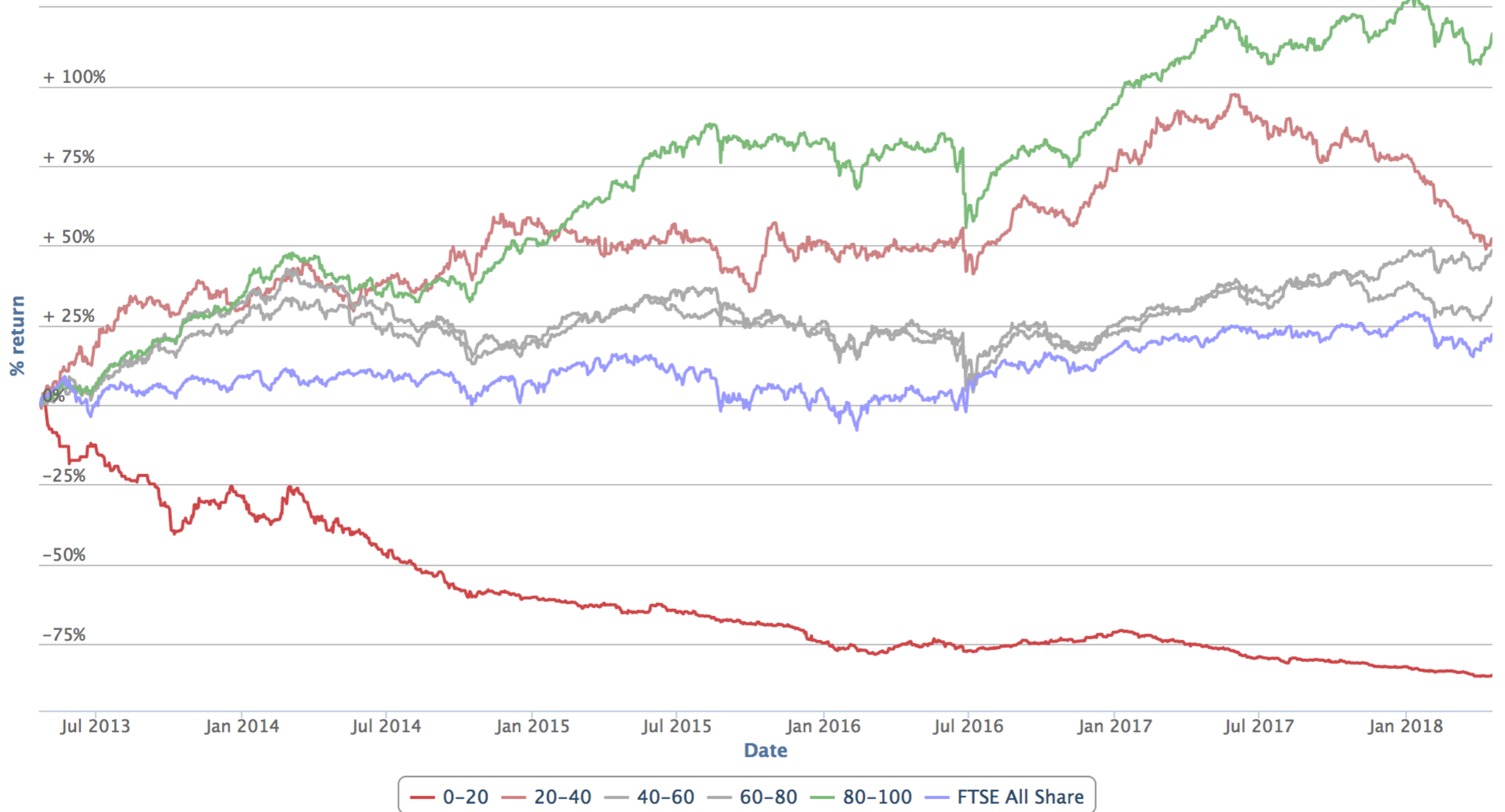
*Performance of UK stocks > £10m Mkt Cap between April 2013 & April 2018, rebalanced quarterly

Industrials



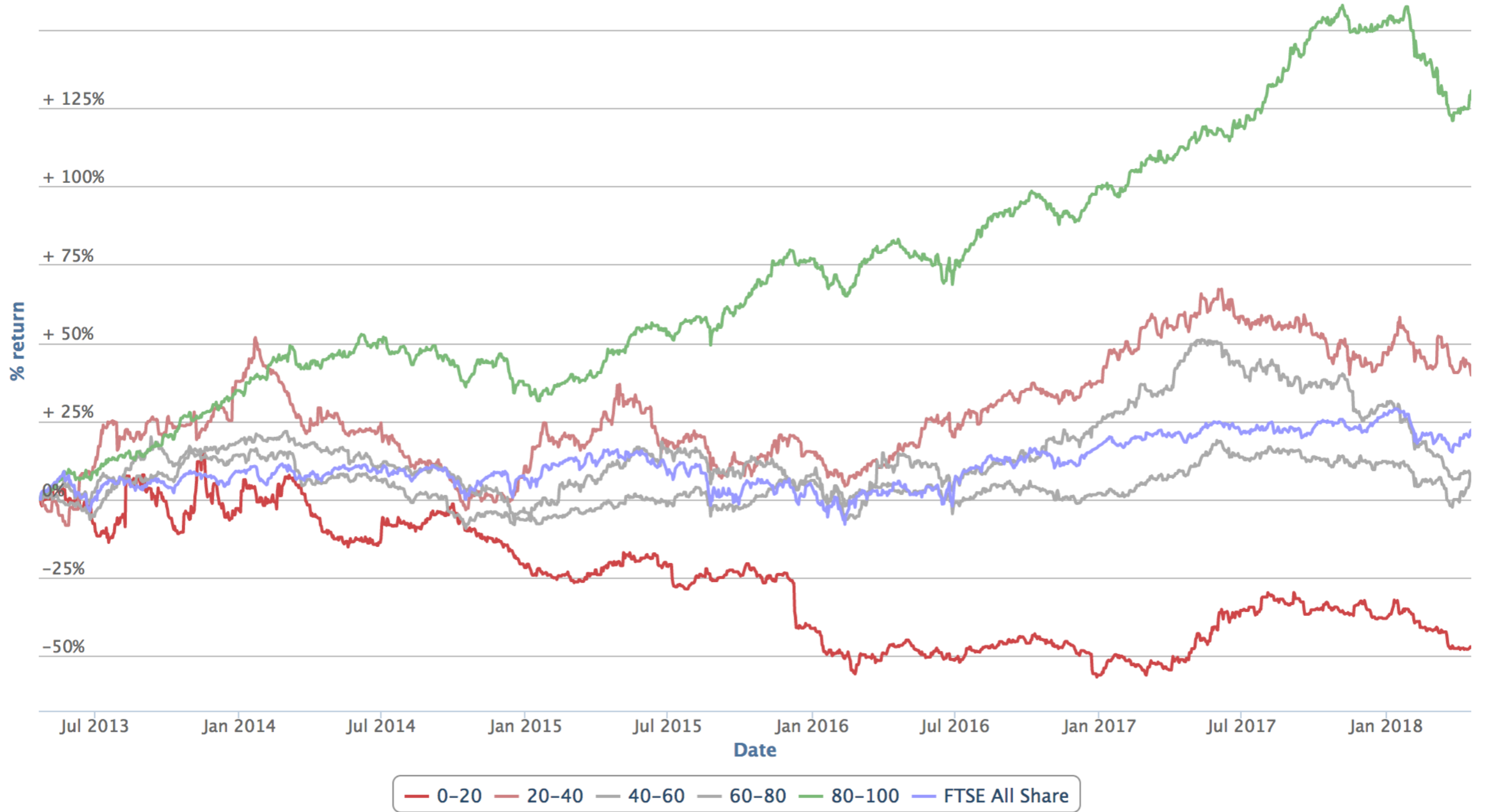
*Performance of UK stocks > £10m Mkt Cap between April 2013 & April 2018, rebalanced quarterly

Consumer Cyclicals



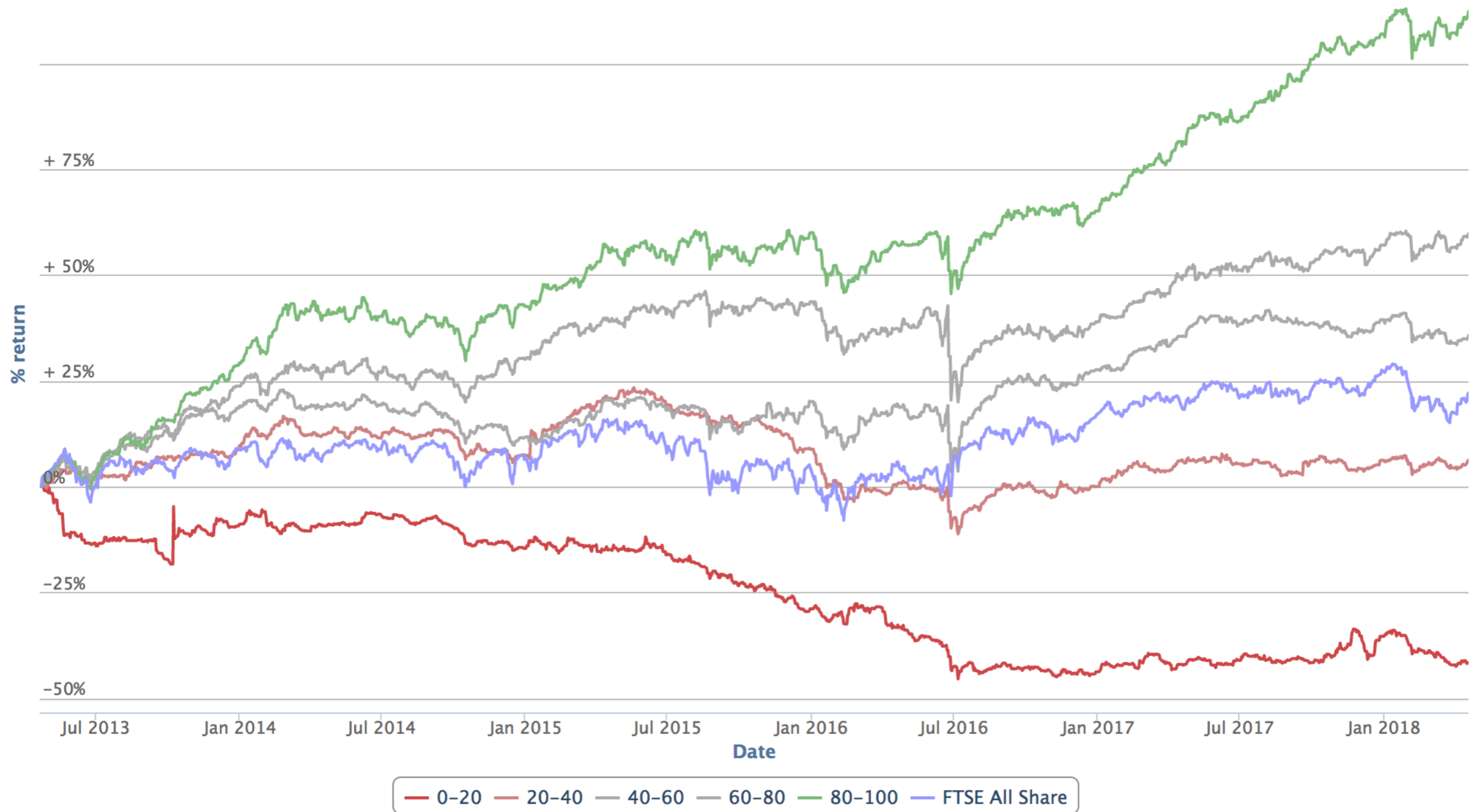
*Performance of UK stocks > £10m Mkt Cap between April 2013 & April 2018, rebalanced quarterly

Consumer Defensives



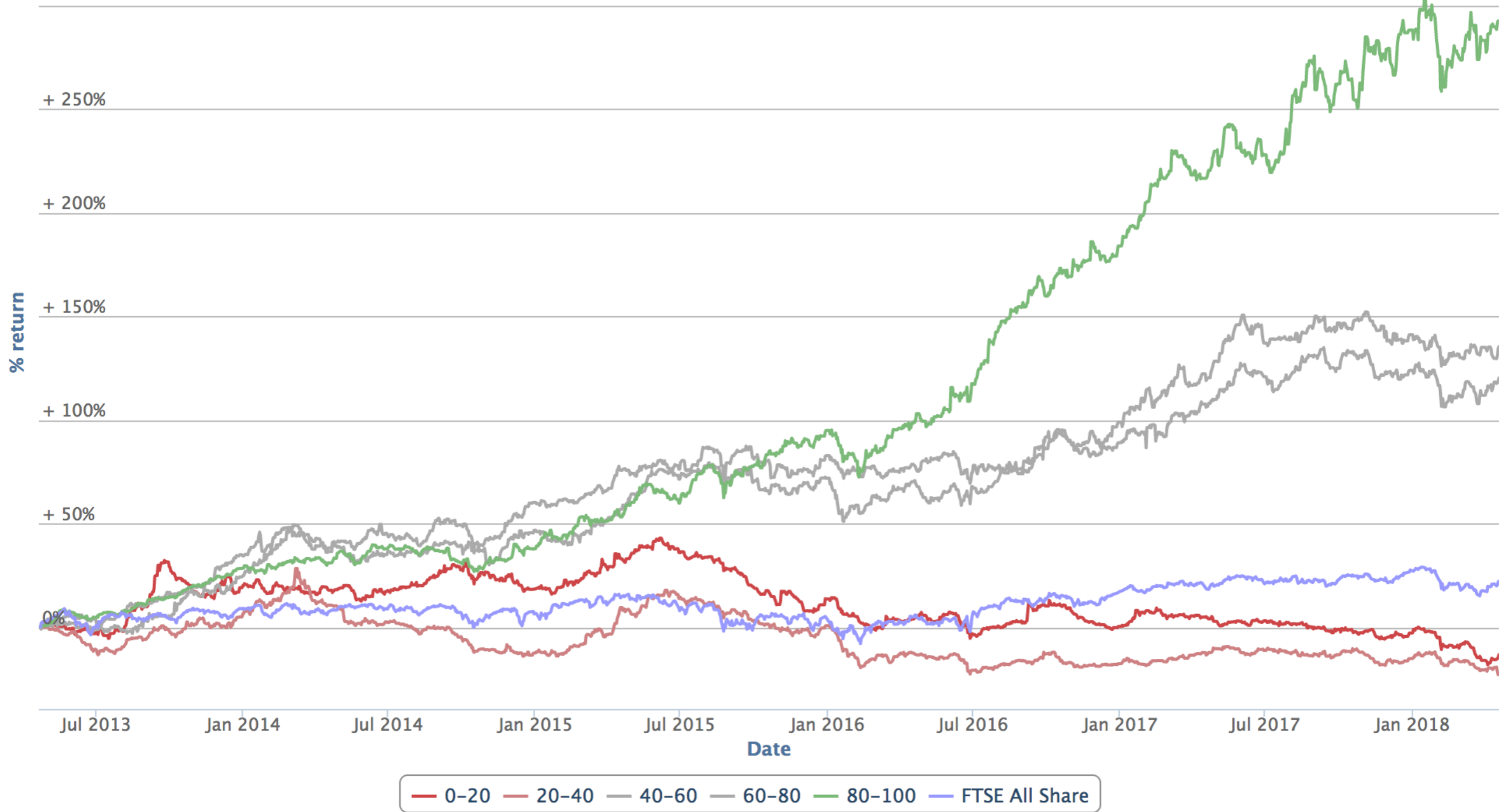
*Performance of UK stocks > £10m Mkt Cap between April 2013 & April 2018, rebalanced quarterly

Financials



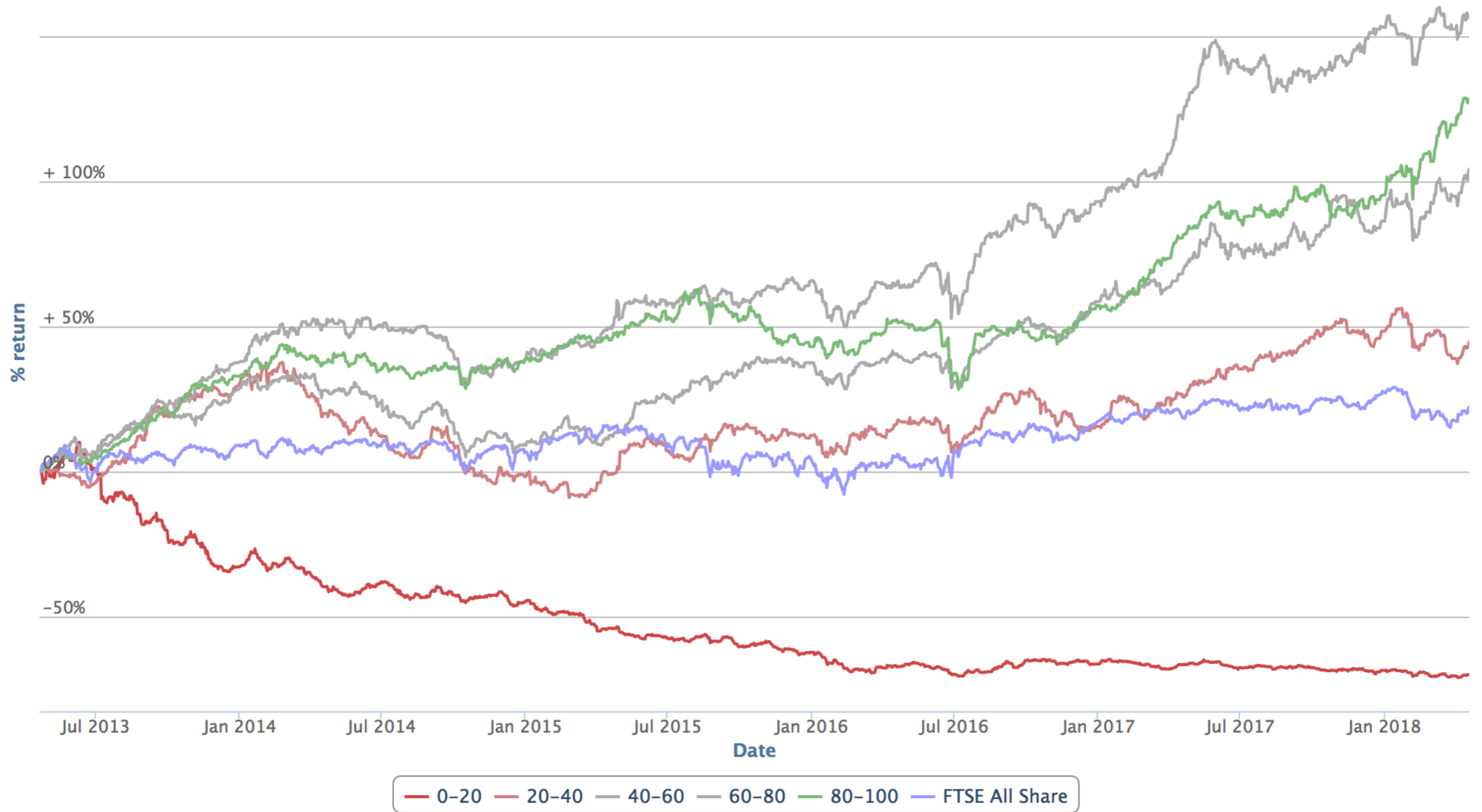
*Performance of UK stocks > £10m Mkt Cap between April 2013 & April 2018, rebalanced quarterly

Healthcare



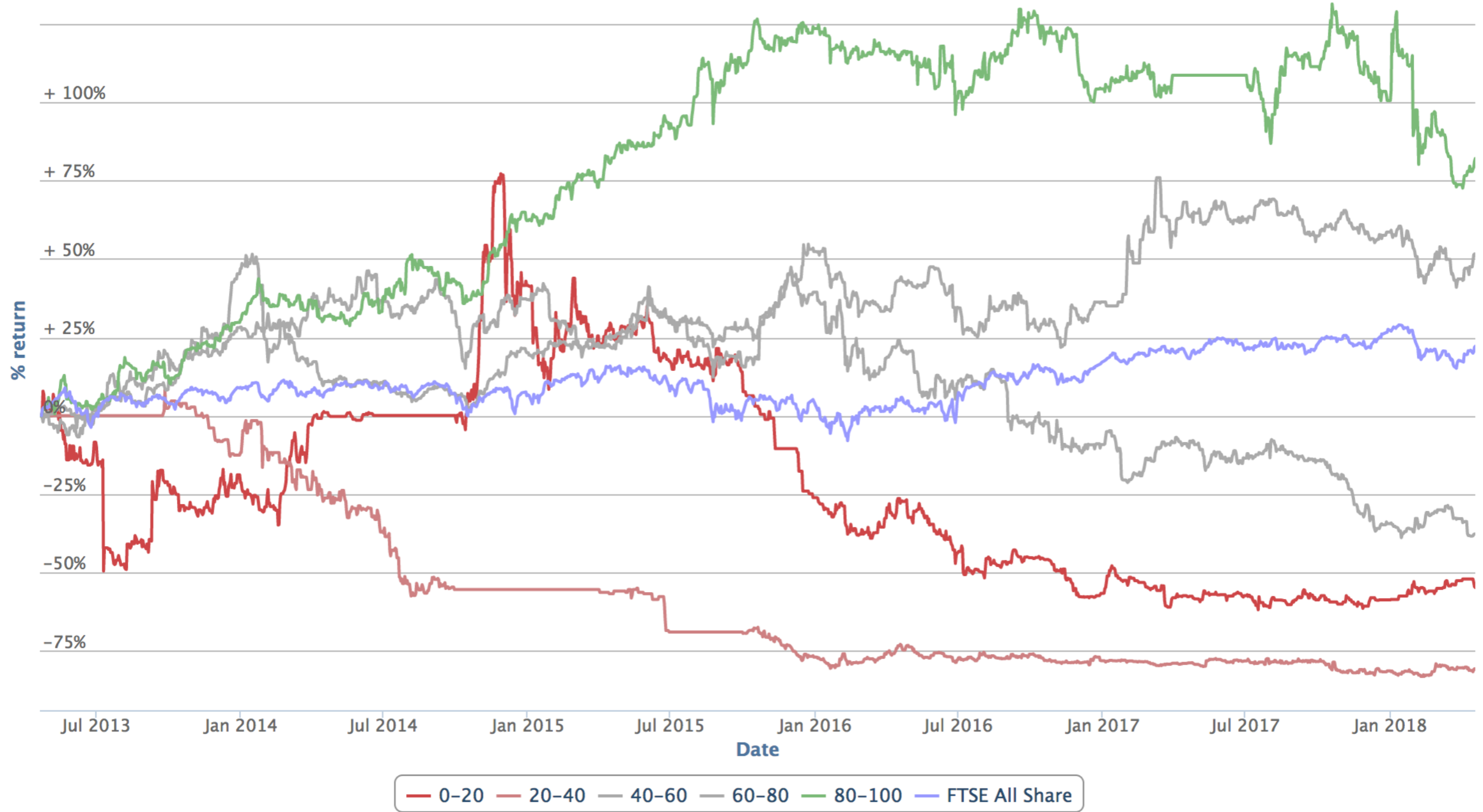
*Performance of UK stocks > £10m Mkt Cap between April 2013 & April 2018, rebalanced quarterly

Technology



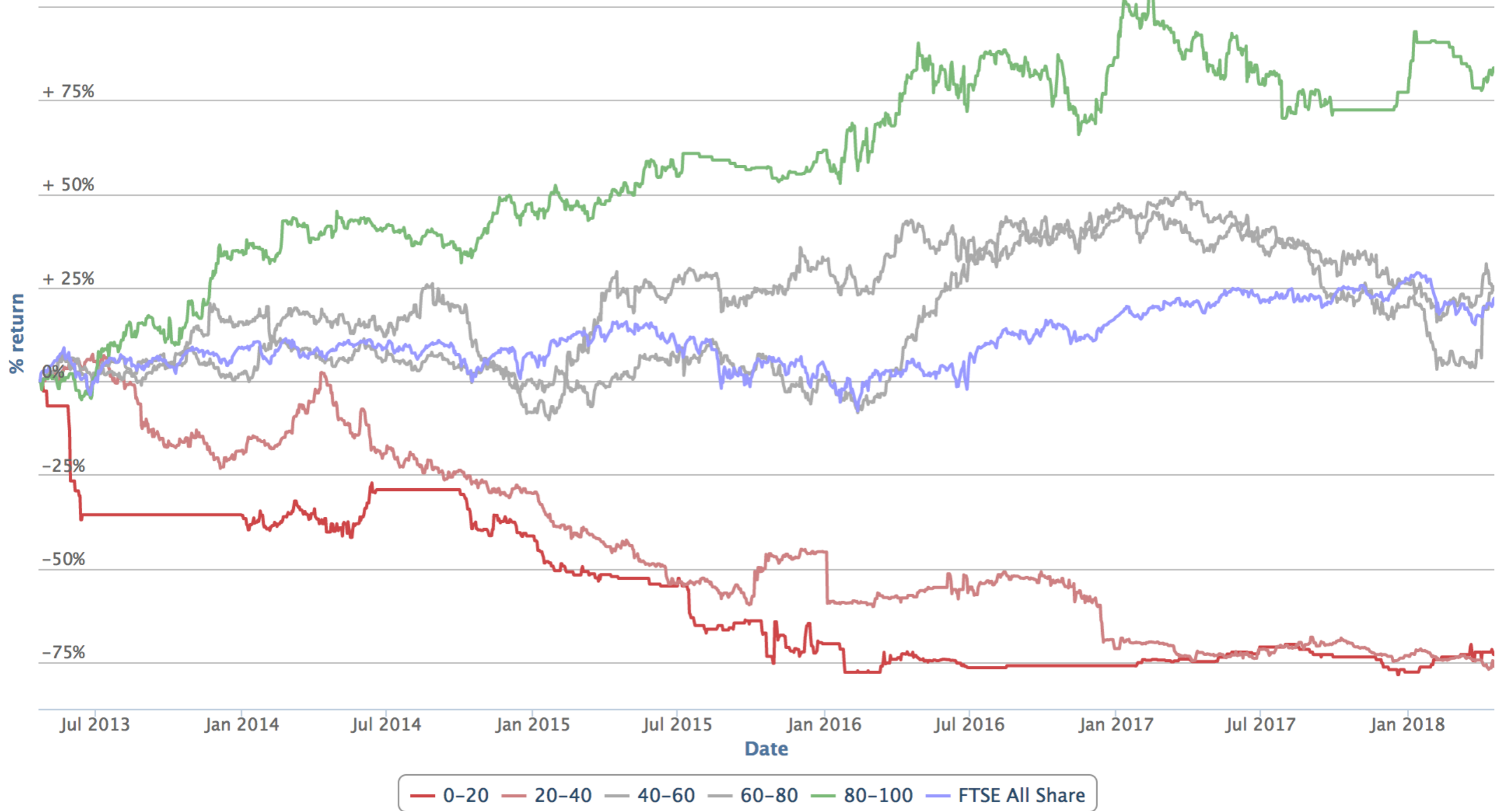
*Performance of UK stocks > £10m Mkt Cap between April 2013 & April 2018, rebalanced quarterly

Telecoms



*Performance of UK stocks > £10m Mkt Cap between April 2013 & April 2018, rebalanced quarterly

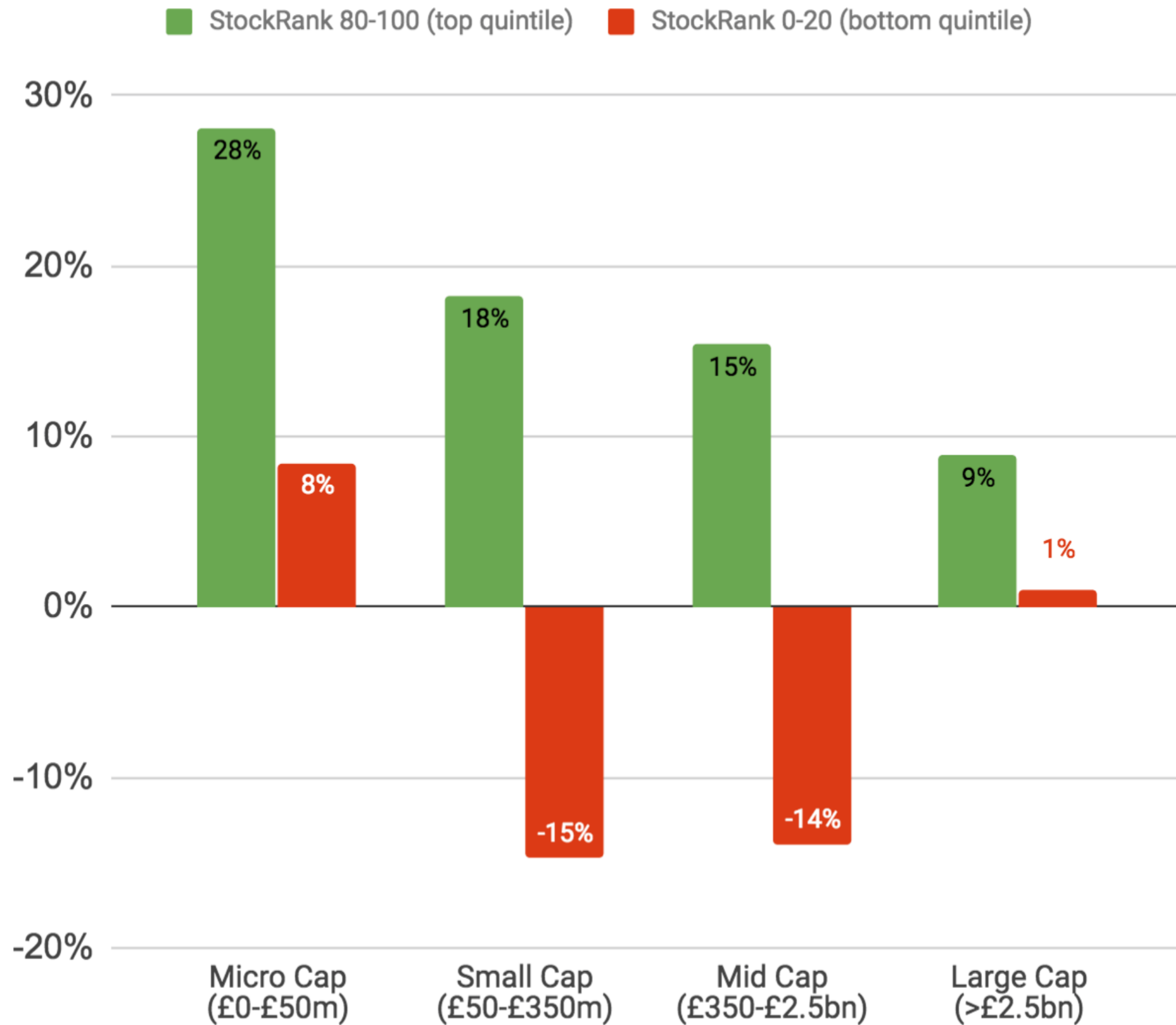
Utilities



*Performance of UK stocks > £10m Mkt Cap between April 2013 & April 2018, rebalanced quarterly

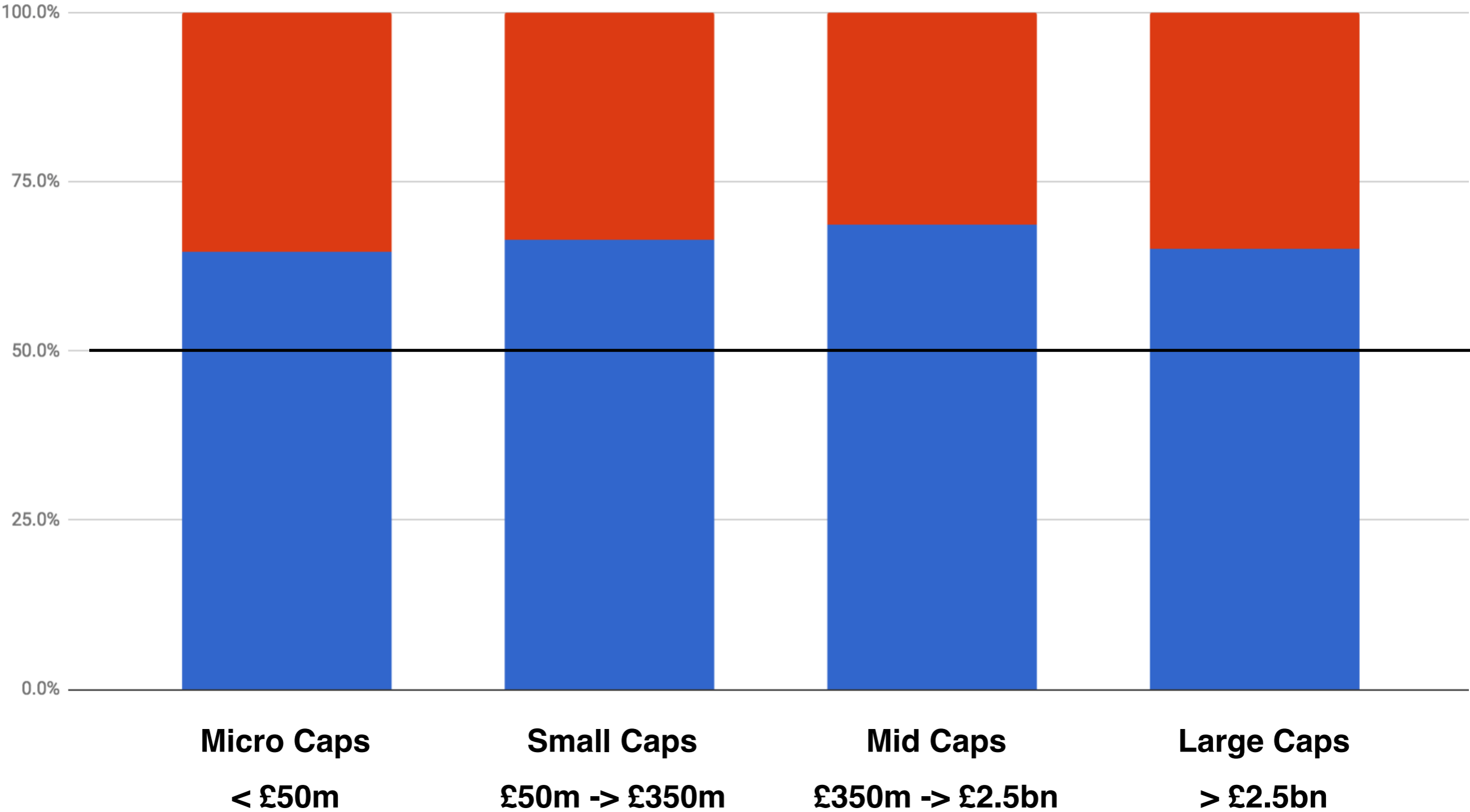
Have they been robust
across Size Groups?

Performance of StockRanks vs Size Groups



90+ StockRank “Hit Rates” vs Size Groups

■ % Winners ■ % Losers

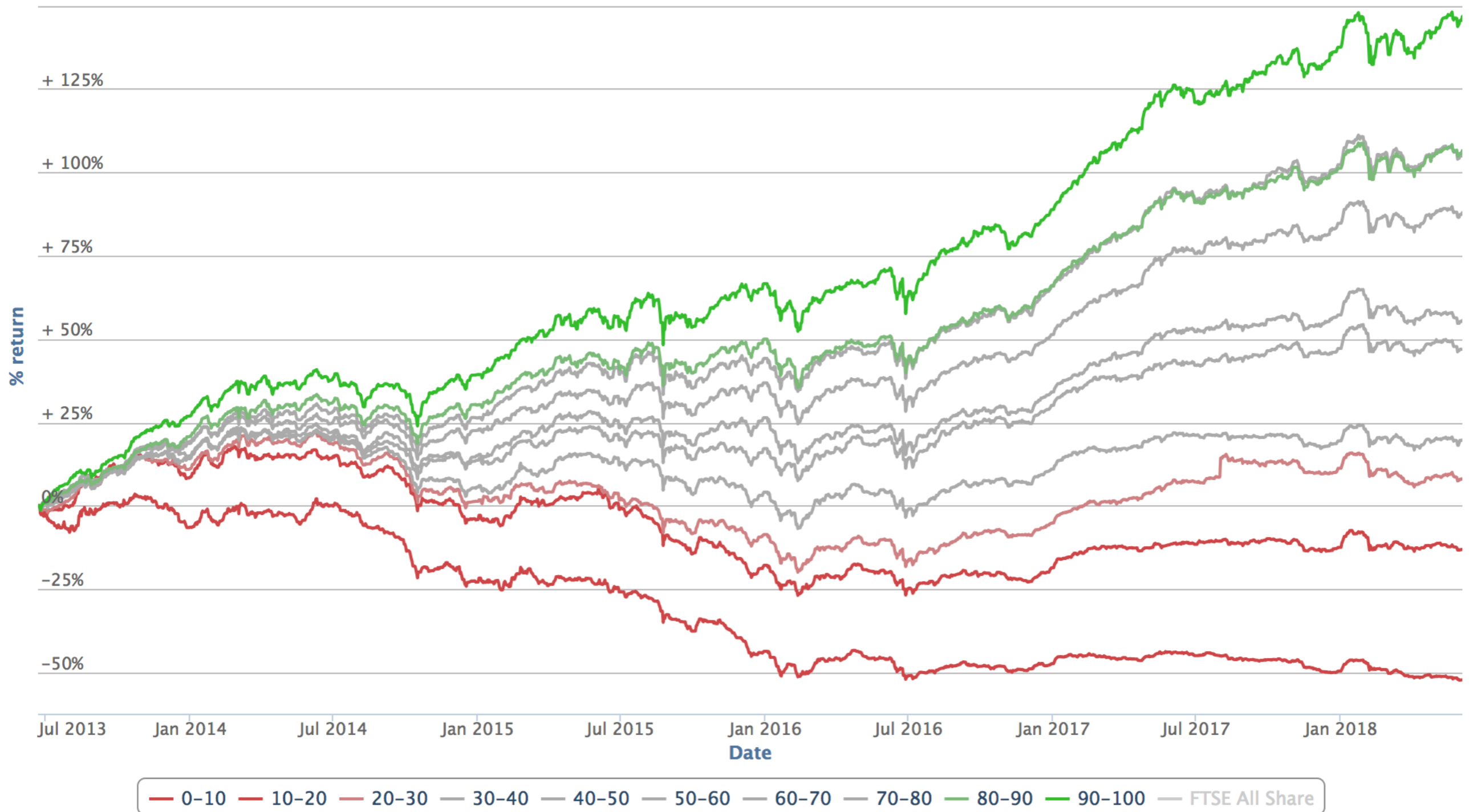


Have they been robust
across Regions?



Europe

A very strong spread between high QVM and low QVM stocks.

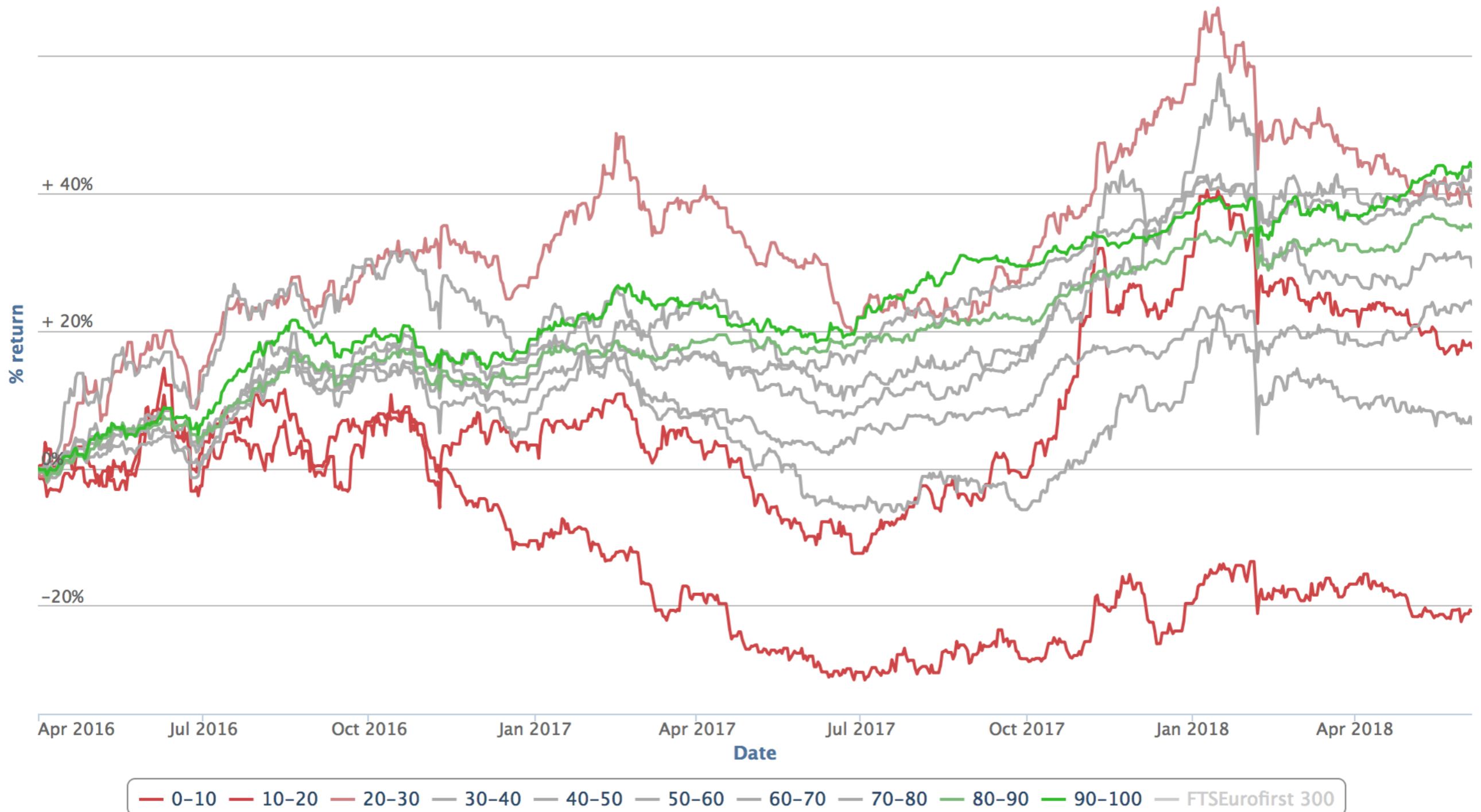


*Performance of stocks > £10m Mkt Cap rebalanced quarterly



Australasia

High QVM outperforms, but a *noisier* distribution due to small numbers of stocks in low ranking buckets

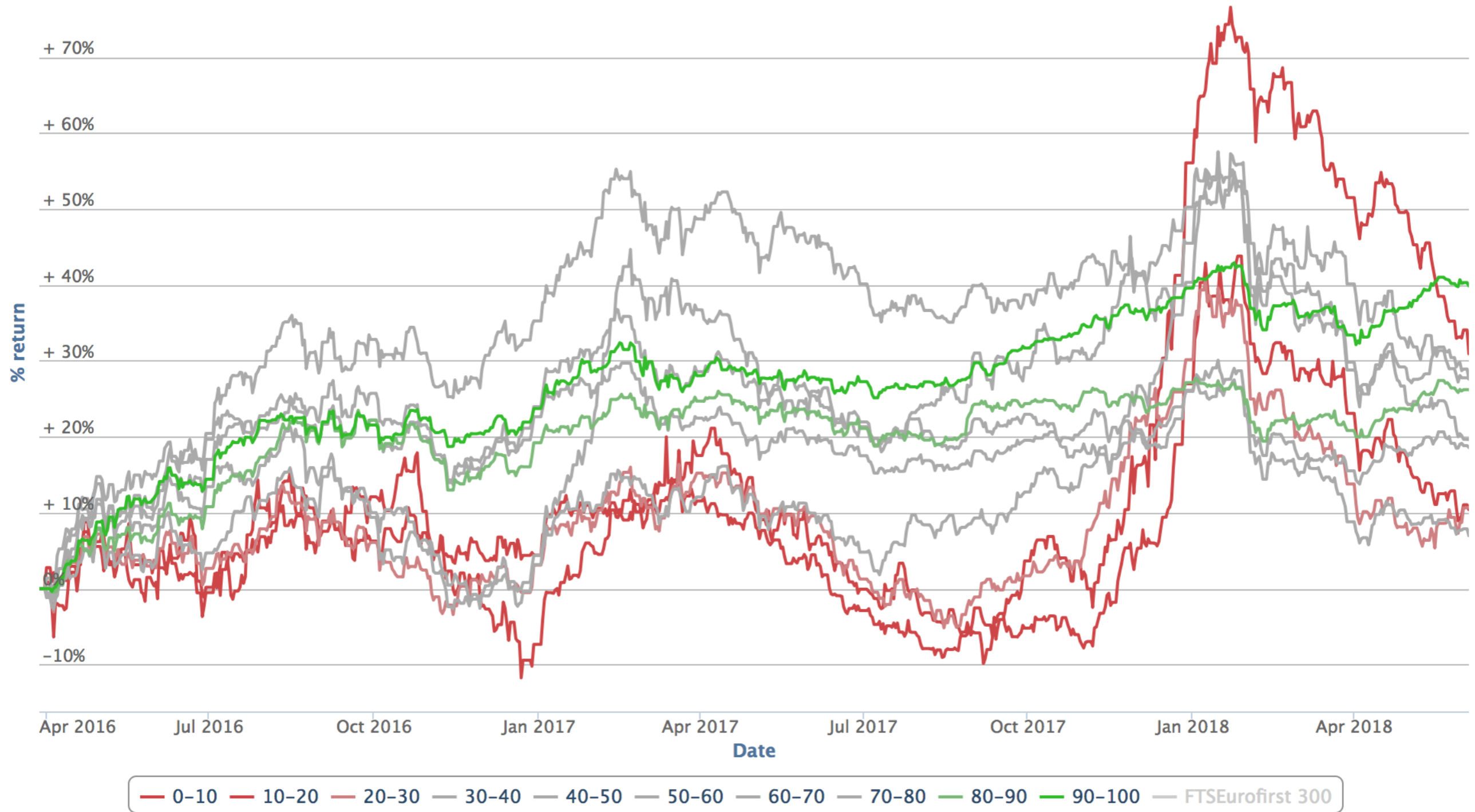


*Performance of stocks > £10m Mkt Cap rebalanced quarterly



Canada

High QVM outperforms, but a *noisier* distribution due to small numbers of stocks in low ranking buckets

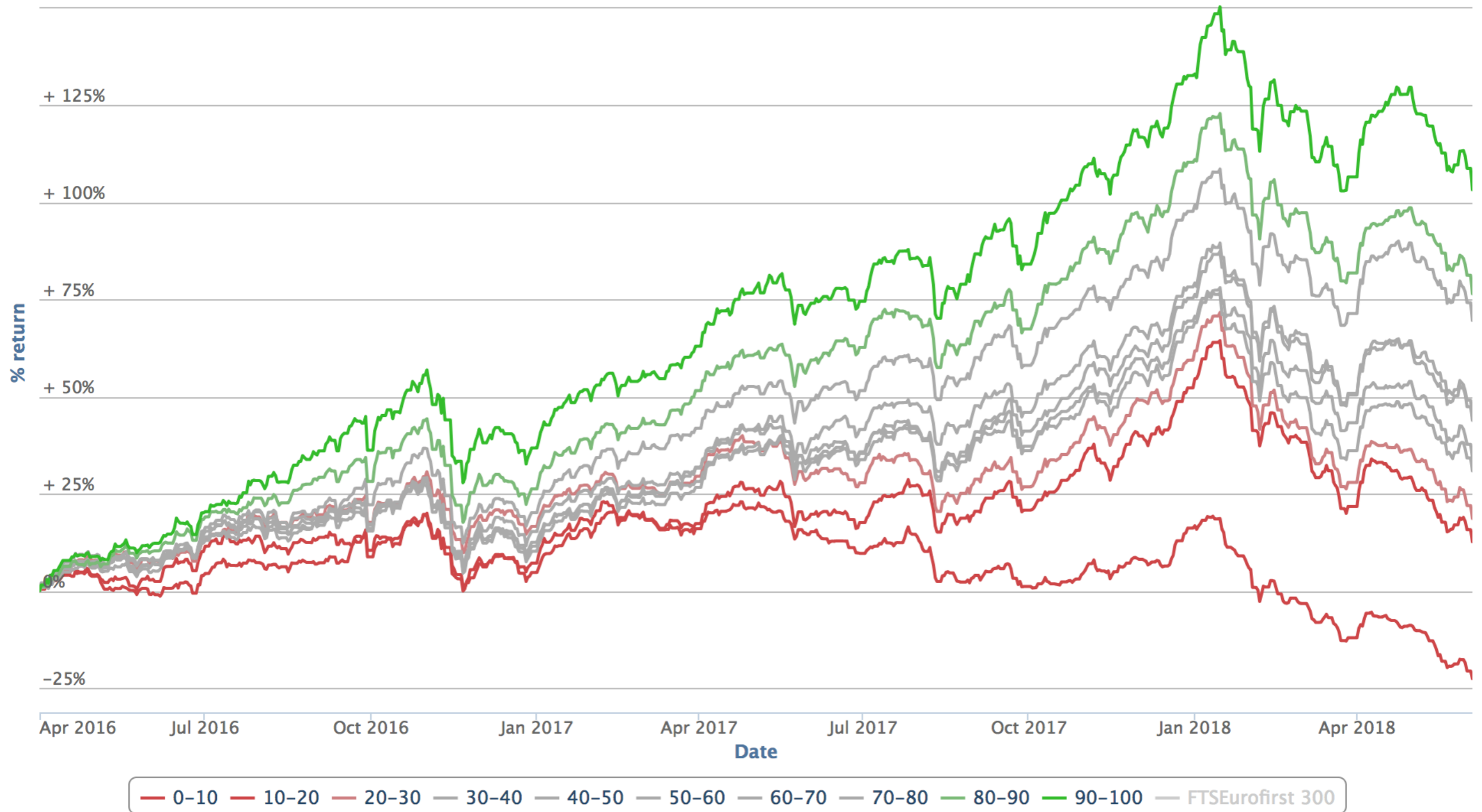


*Performance of stocks > £10m Mkt Cap rebalanced quarterly



India

A very strong spread between high QVM and low QVM stocks.

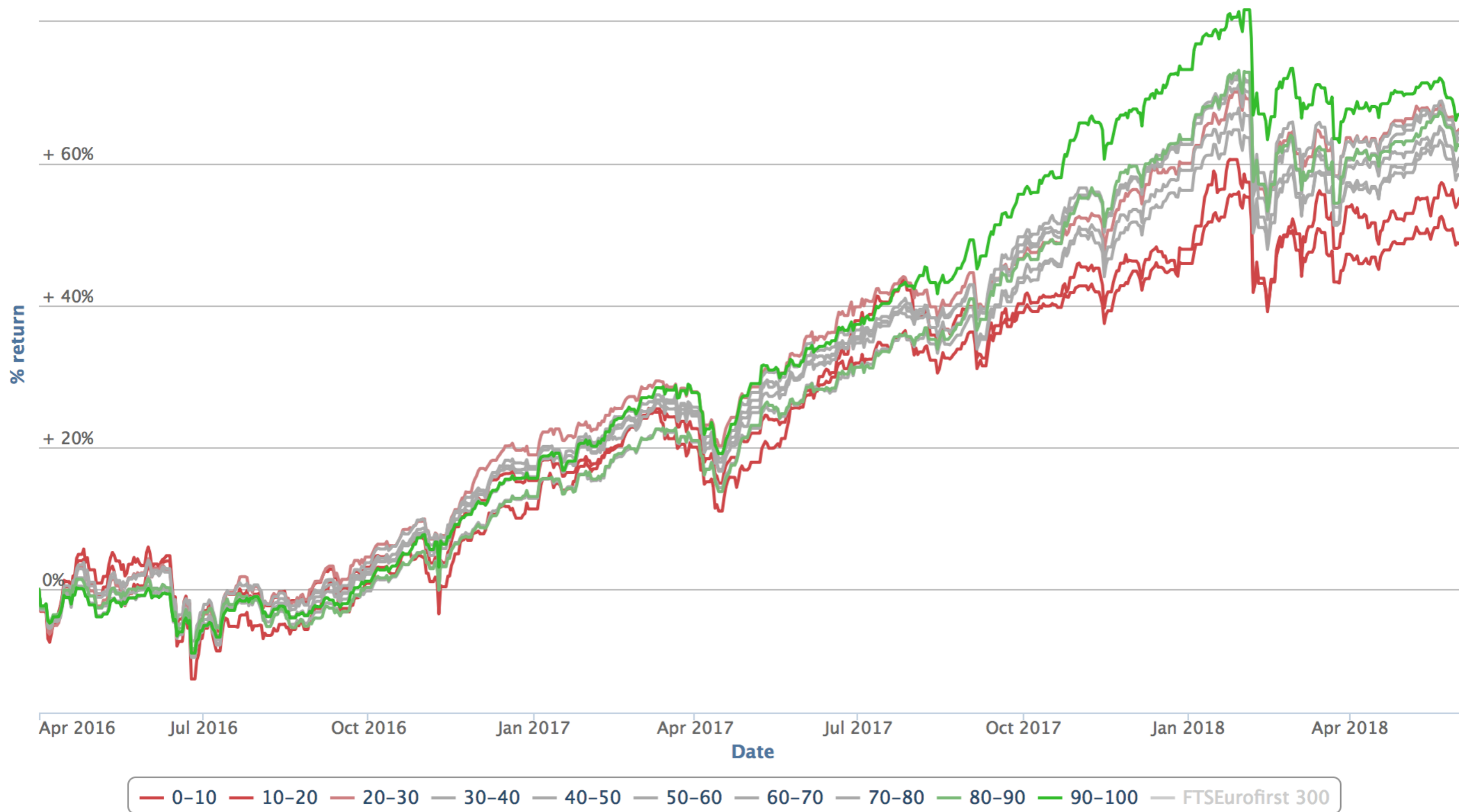


*Performance of stocks > £10m Mkt Cap rebalanced quarterly

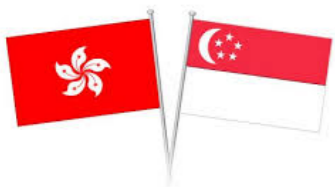


Japan

High QVM outperforms (below), but a much tighter spread between high ranking and low ranking buckets
NB - Momentum 'famously' doesn't work in Japan. Using QV Rank has a much wider spread.

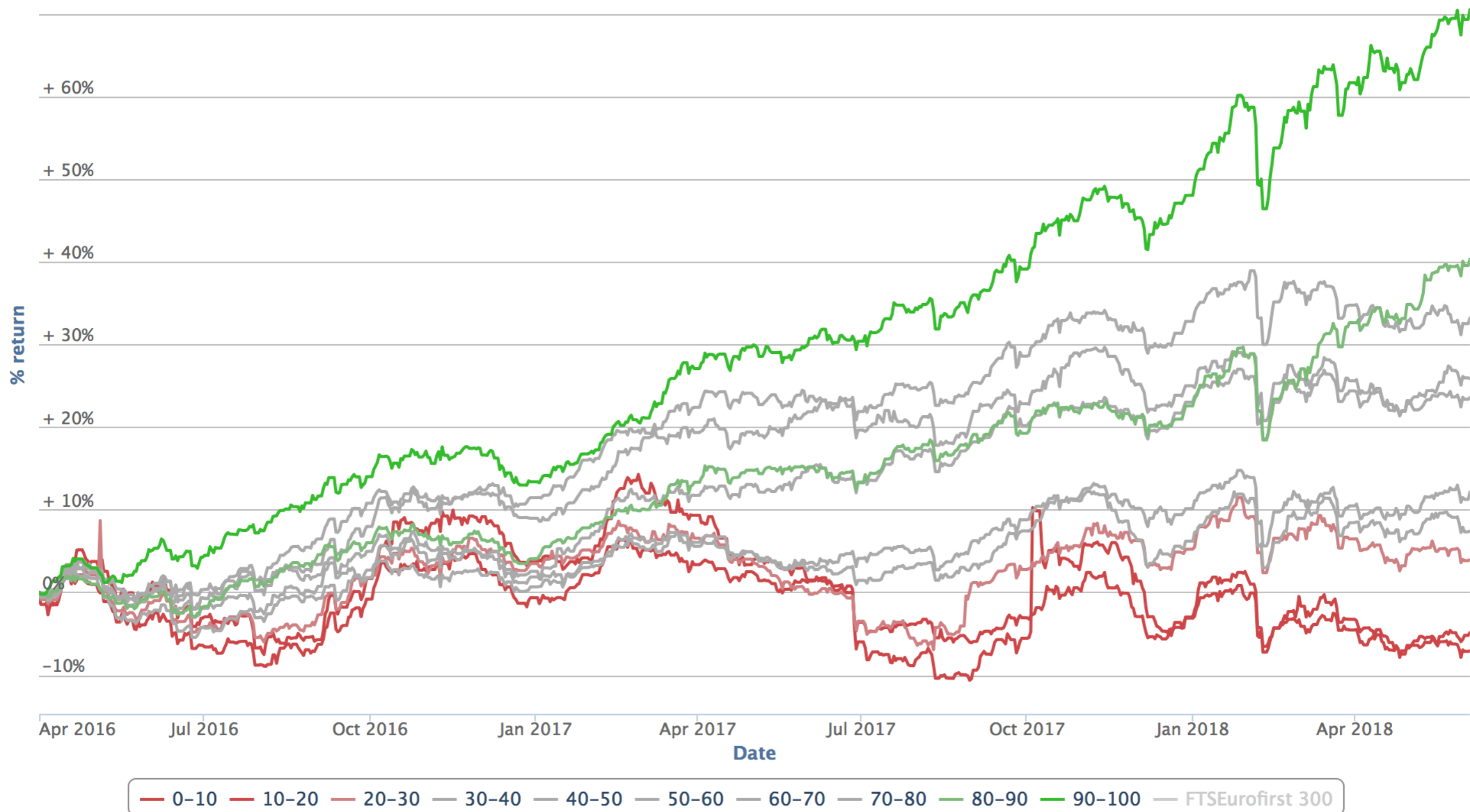


*Performance of stocks > £10m Mkt Cap rebalanced quarterly



Hong Kong & Singapore

A very strong spread between high QVM and low QVM stocks.

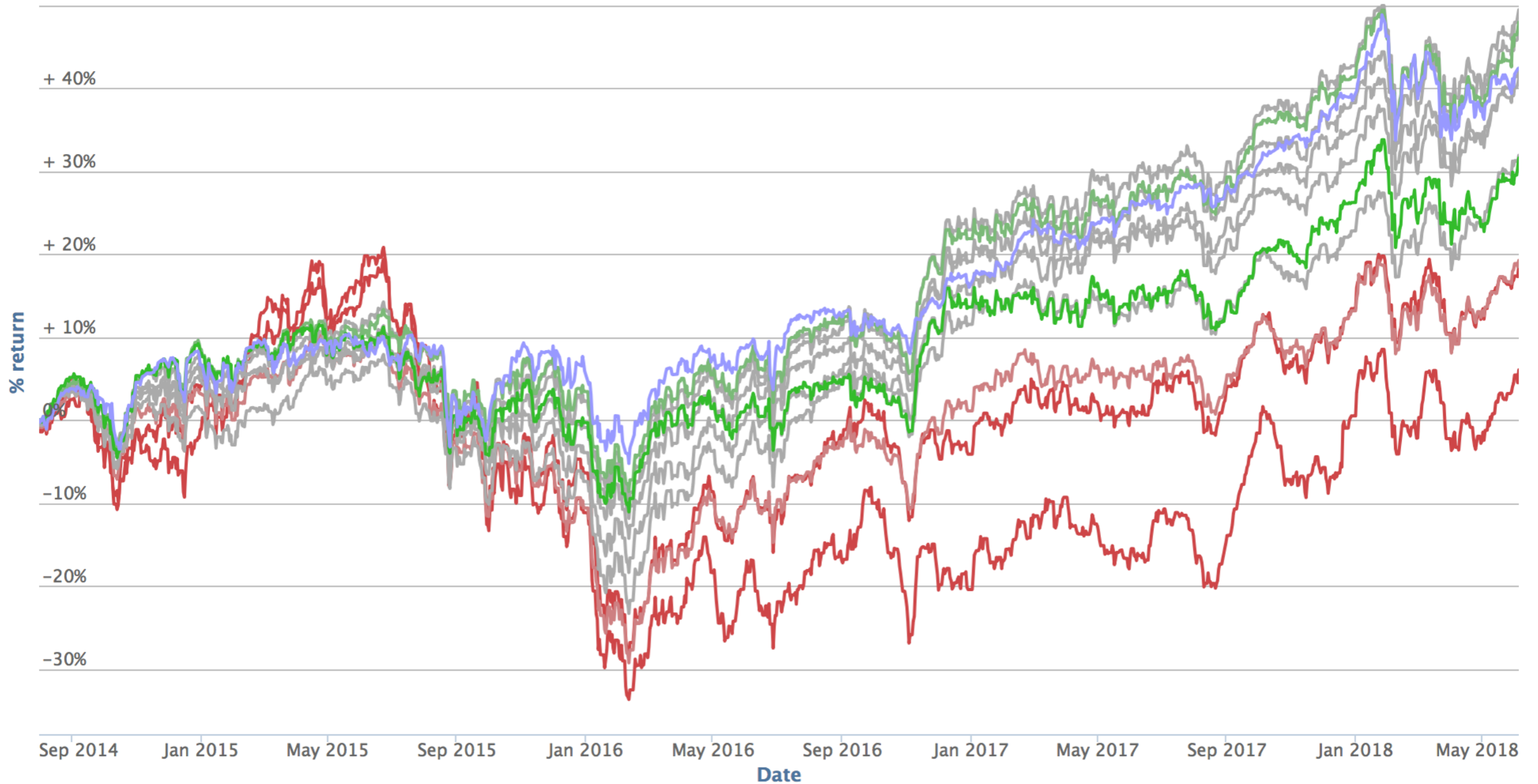


*Performance of stocks > £10m Mkt Cap rebalanced quarterly



USA

Value has not been working in the USA - and QVM (StockRank) has suffered as a result of value weighting



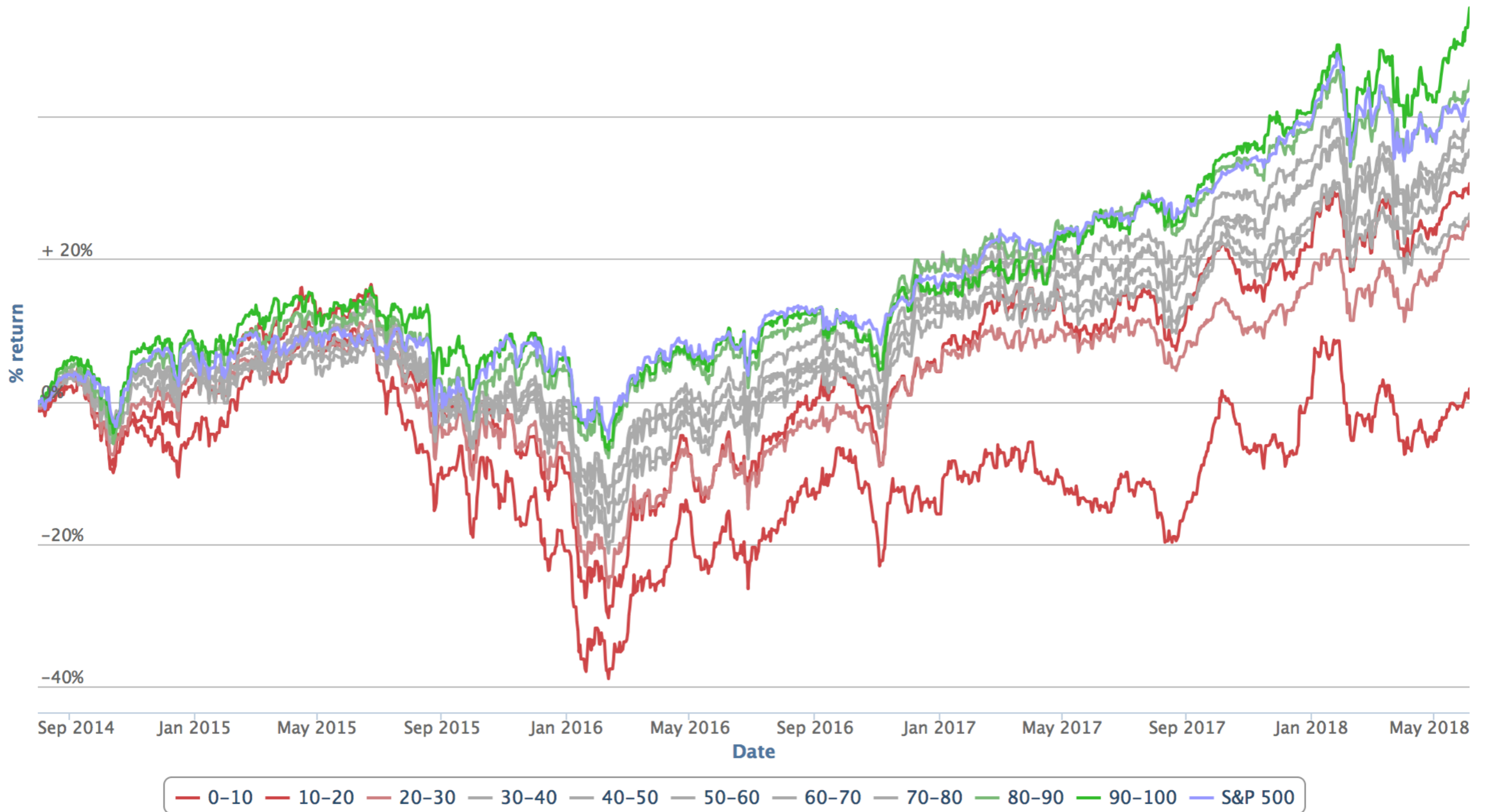
0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100 S&P 500

*Performance of stocks > £10m Mkt Cap rebalanced quarterly



USA - QM

Focusing only on Quality & Momentum (QM Rank) and stripping out Value has had better results.



*Performance of stocks > £10m Mkt Cap rebalanced quarterly

Key insights from international regions

- **Different factors work in different regions at different times.**
 - QVM has worked best across most regions.
 - QM in the USA. (Value ineffective)
 - QV in Pacific Asia. (Momentum ineffective)
- **Favour inefficient markets for maximum returns.**
 - The US market displays a confluence of strong regulatory framework, standardised reporting, high frequency trading & some giant, dominating tech brands which has made outperformance over the index harder. All markets may tend towards this kind of efficient state over time, reducing the returns for factor investors.

Why is **outperformance** so persistent & pervasive?

Behavioural Biases

Resistance to buying *cheap* stocks (problems)

Resistance to buying *good* stocks (unexciting)

Resistance to buying *strong* stocks (scary prices)



Classifying the combinations

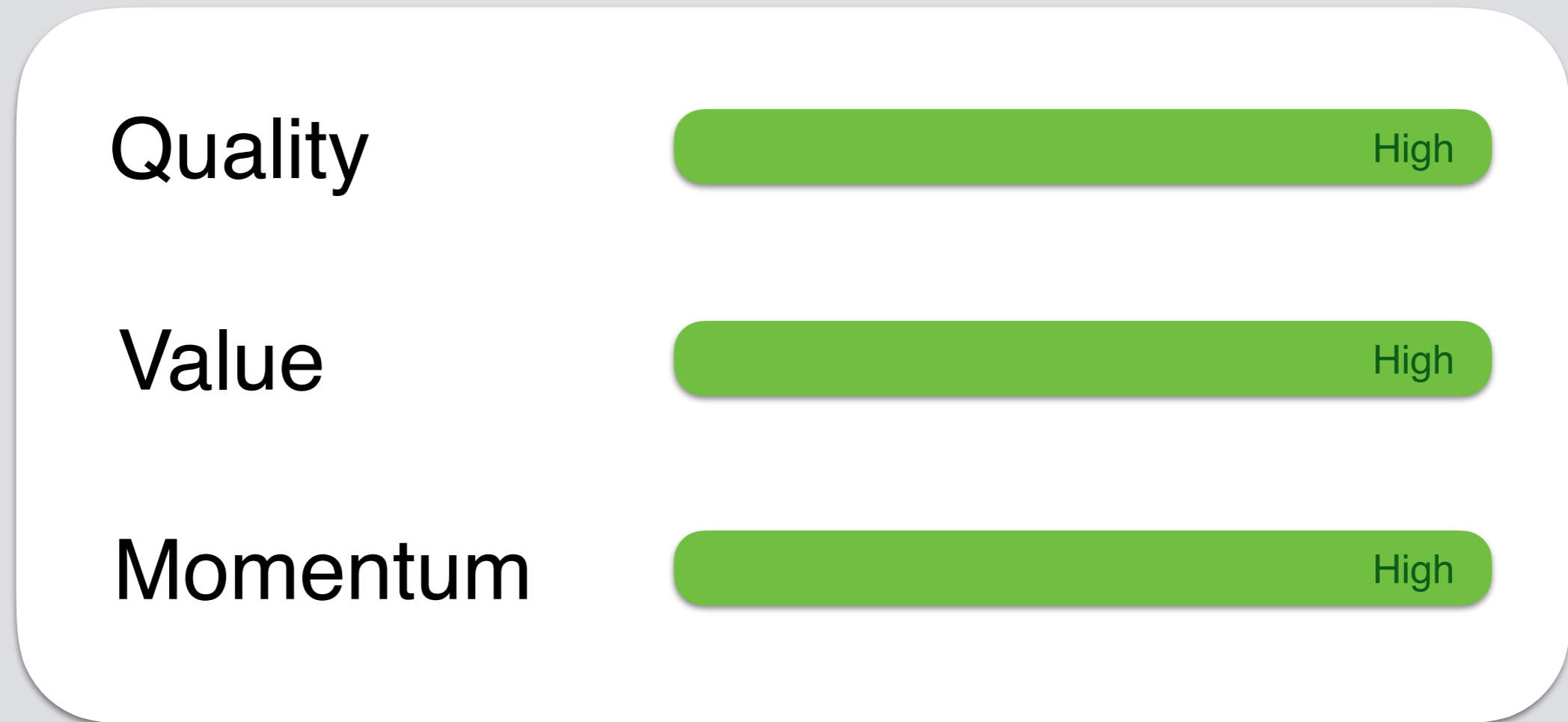
StockRank Styles

Combinations of StockRank



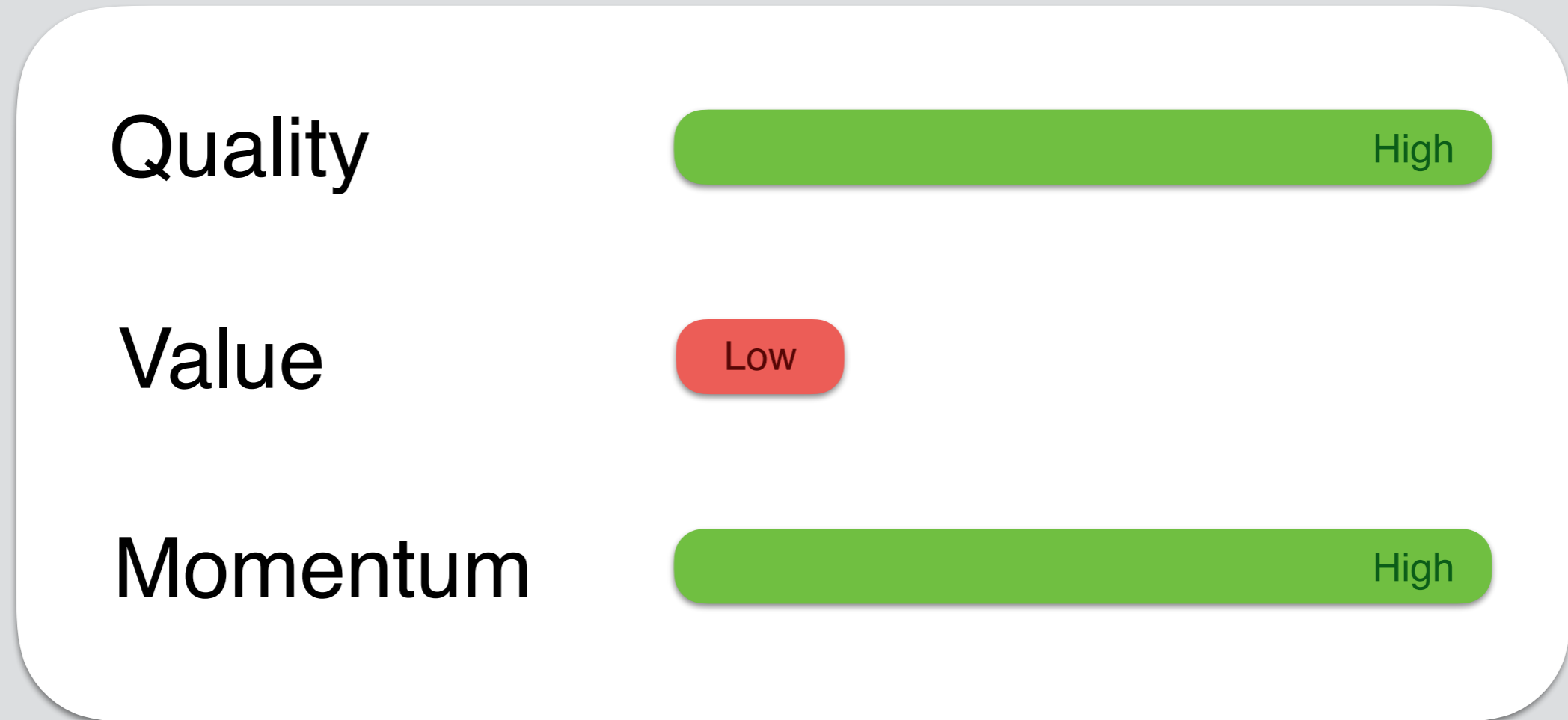
As a rule of thumb 'high' and 'low' ranking cutoffs are 60 and 40.

8 Combinations of the 3 Basic StockRanks



“Good, Cheap, Improving” - **Super Stocks**

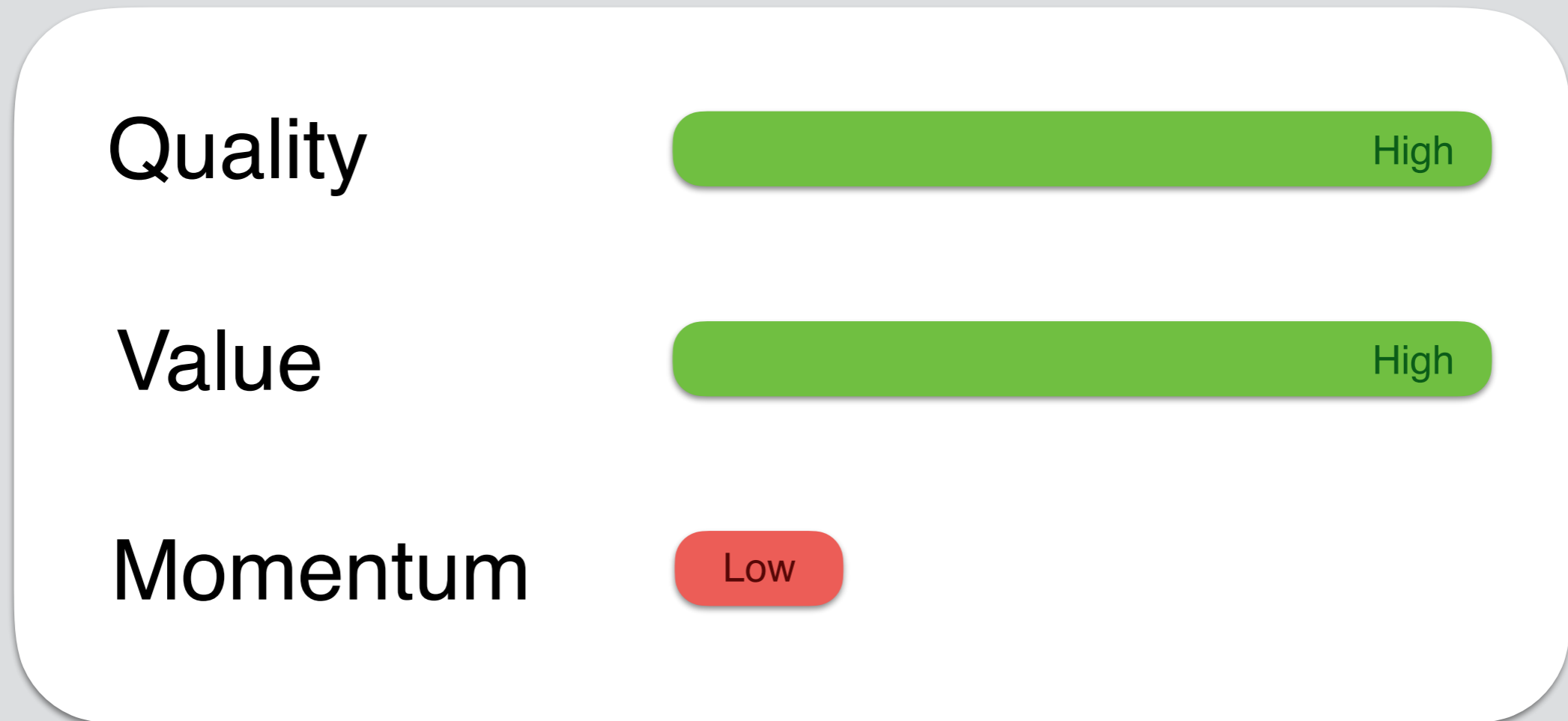
Other Combinations



“Good, Expensive, Improving” - **High Flyer**



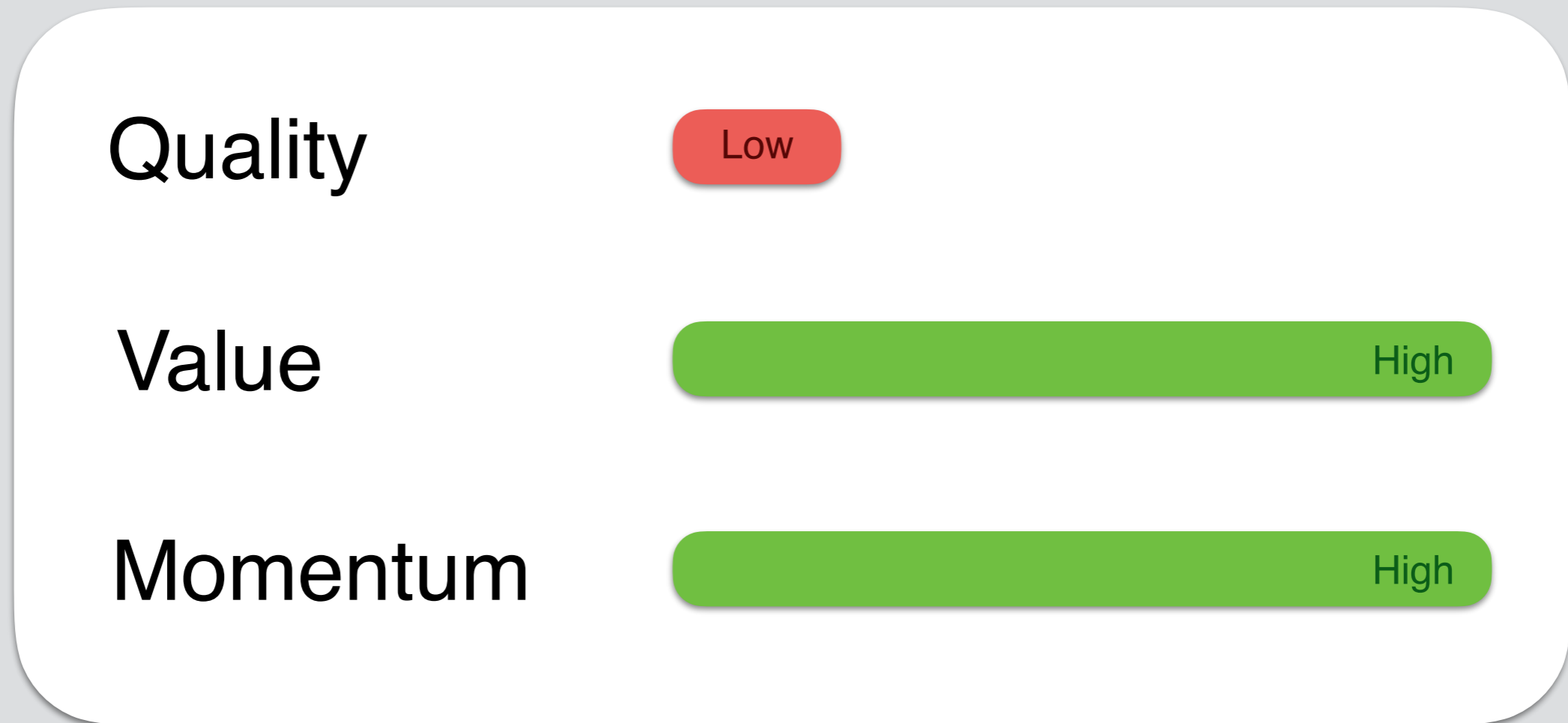
6 other combinations of these factors



“Good, Cheap, Deteriorating” - **Contrarian**

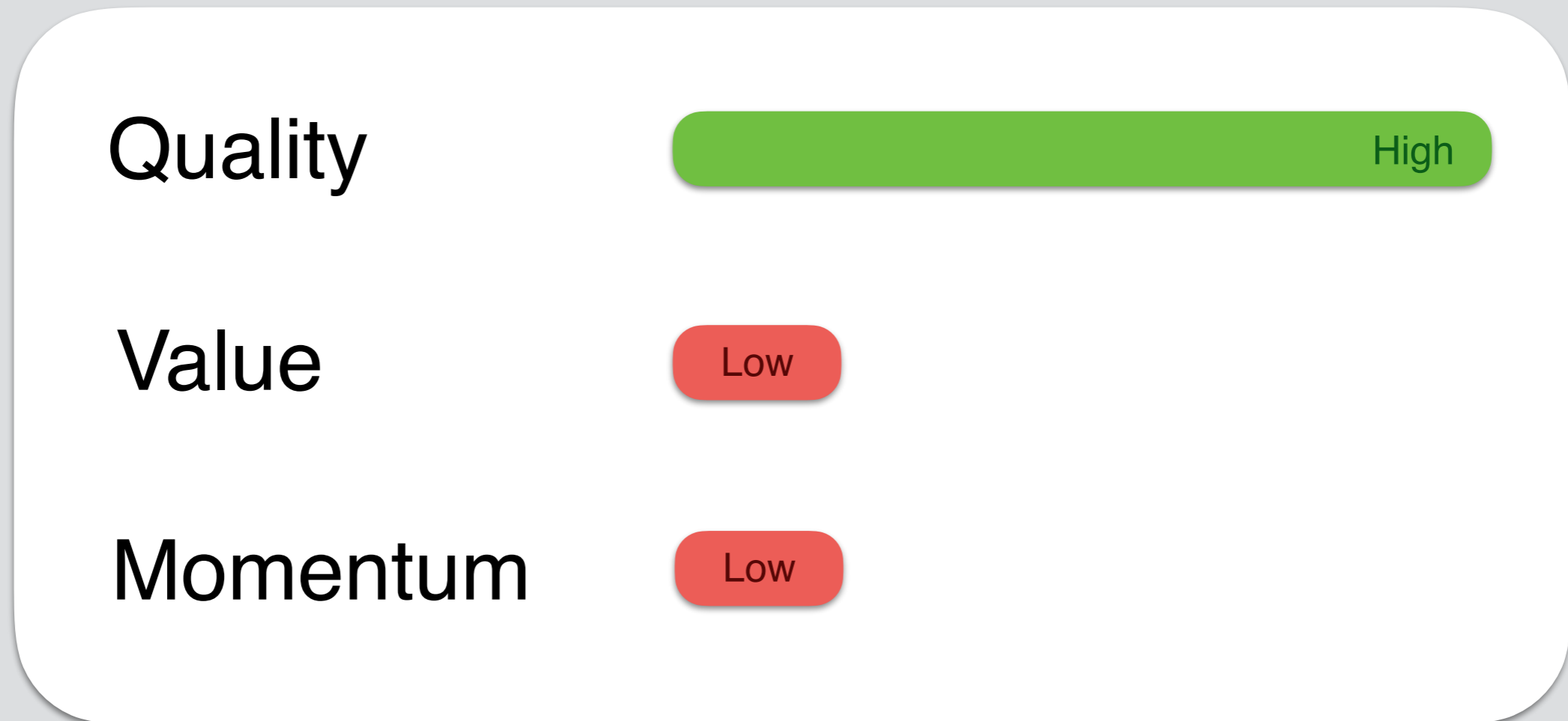


6 other combinations of these factors



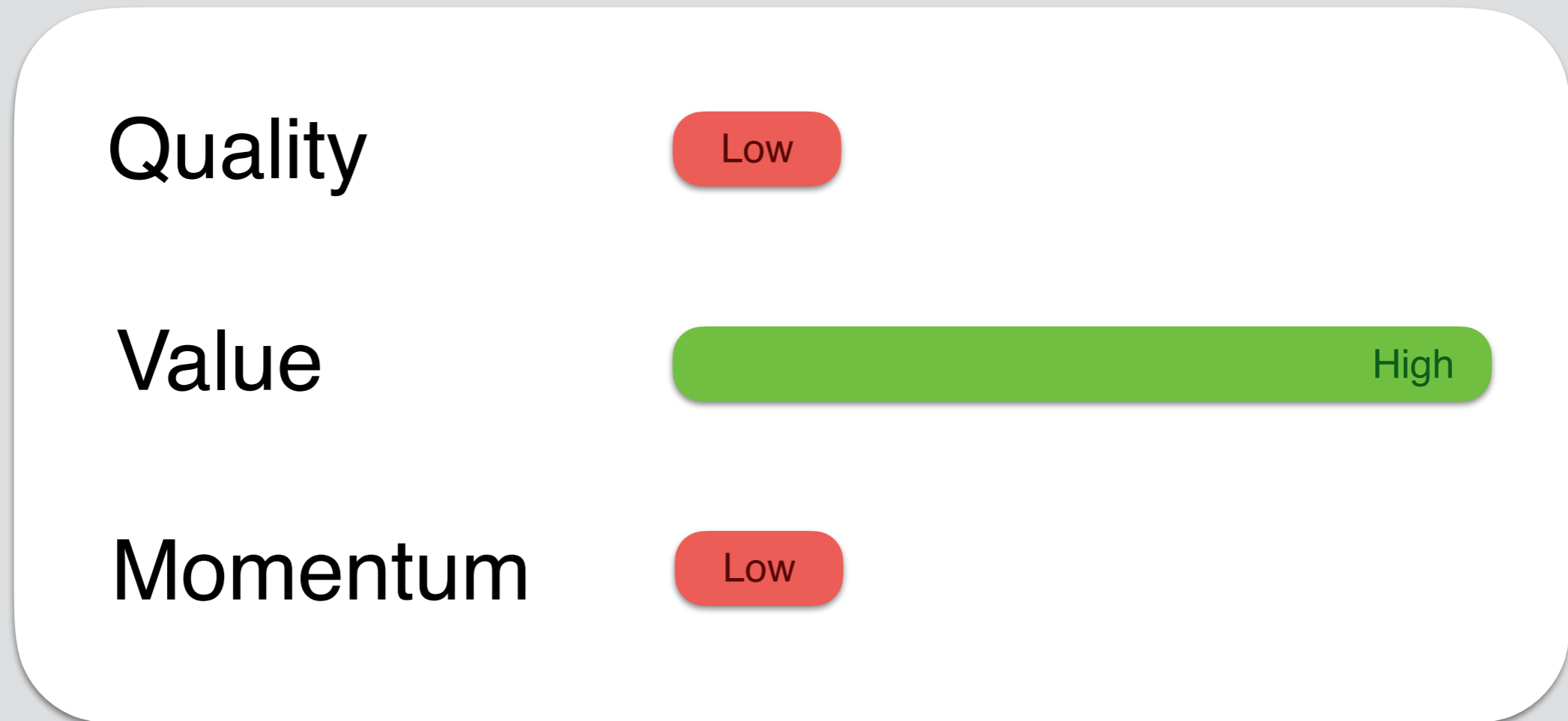
“Junk, Cheap, Improving” - **Turnaround**

6 other combinations of these factors



“Good, Expensive, Deteriorating” - **Falling Star**

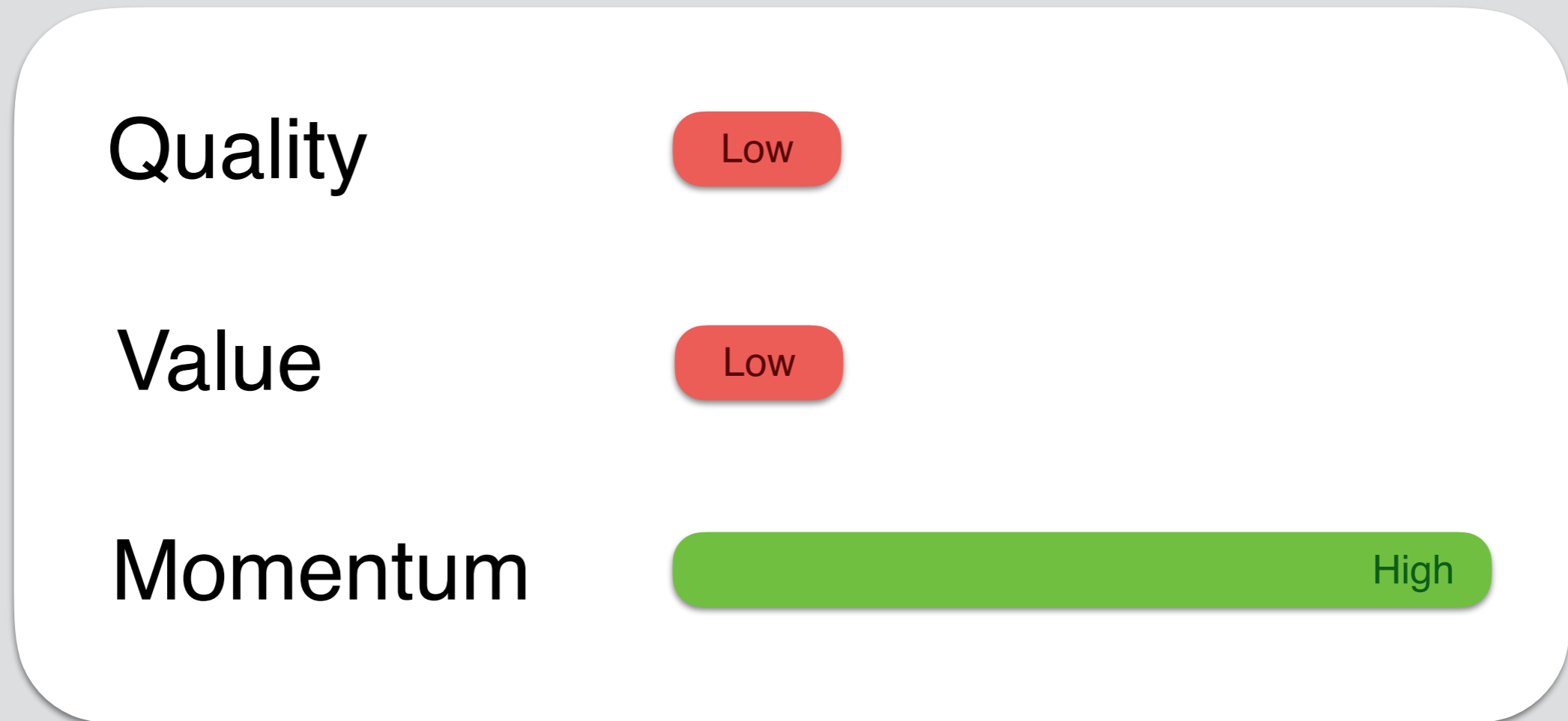
6 other combinations of these factors



“Junk, Cheap, Deteriorating” - **Value Trap**



6 other combinations of these factors



“Junk, Expensive, Improving” - **Momentum Trap**

8 Combinations of the 3 Basic StockRanks

Quality	Low
Value	Low
Momentum	Low

“Junk, Expensive, Deteriorating” - **Sucker Stock**

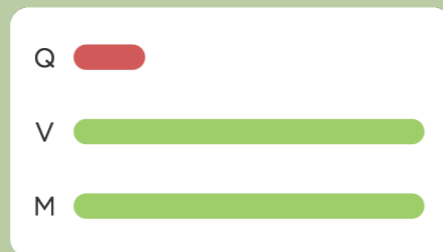


4 Winning Styles

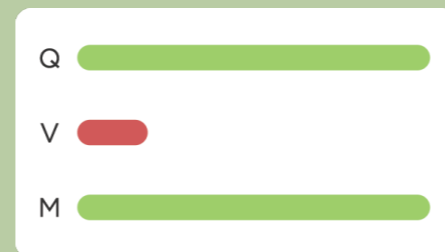
The stock is strong in at least 2 of 3 Ranks



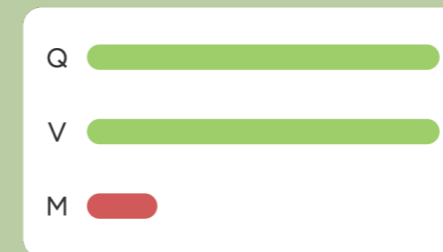
Super Stock



Turnaround



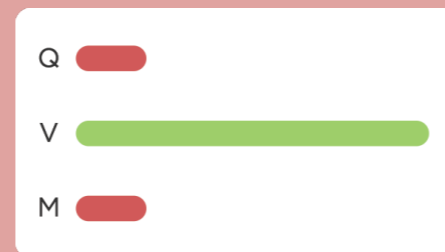
High Flyer



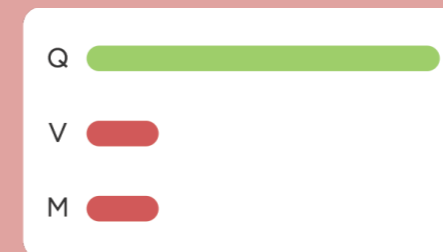
Contrarian



Momentum Trap



Value Trap



Falling Star



Sucker Stock

4 Losing Styles

The stock is weak in at least 2 of 3 Ranks

4 “Winning” Styles

The stock is strong in at least 2 of 3 Factors



Super Stock



BARCLAYS

Turnaround



High Flyer



Contrarian



Momentum Trap



Value Trap



Falling Star



TESLA

Sucker Stock

4 “Losing” Styles

The stock is weak in at least 2 of 3 Factors

Tesla Inc

TSLA  **\$322.83** ▲ 8.8 2.8% 01/05/17

Adventurous, Large Cap, Momentum Trap

Market Cap £40.94bn
 Enterprise Value £44.72bn
 Revenue £5.41bn
 Position in Universe 162nd / 6113

Quality ▲ 10
 Value 7
 Momentum ▼ 76
StockRank™ 18

StockReport™

Tools Accounts  News Chart Discuss

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Notes ▼

Set Alert

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Zoom 1m 3m 6m YTD 1y 2y 3y 5y All



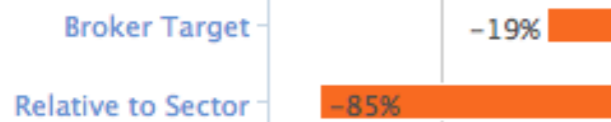
Momentum

Relative Strength (%)		
1m	+14.8%	●
3m	+22.5%	●
1yr	+17.1%	●
Volume Change (%)		
10d v 3m	-6.32%	●
Price vs... (%)		
52w High	-1.4%	●
50d MA	+16.3%	●
200d MA	+39.9%	●

Growth & Value

12m Forecast Rolling		vs. industry	vs. market
PE Ratio (f)	n/a	<input type="text"/>	<input type="text"/>
PEG Ratio (f)	n/a	<input type="text"/>	<input type="text"/>
EPS Growth (f)	n/a %	<input type="text"/>	<input type="text"/>
Dividend Yield (f)	n/a %	<input type="text"/>	<input type="text"/>
Valuation (ttm)			
Price to Book Value	11.2	<input type="text"/>	<input type="text"/>
Price to Tang. Book	12.1	<input type="text"/>	<input type="text"/>
Price to Free Cashflow	n/a	<input type="text"/>	<input type="text"/>
Price to Sales	7.57	<input type="text"/>	<input type="text"/>
EV to EBITDA	206.9	<input type="text"/>	<input type="text"/>

Margin of Safety (beta)



Screens Passed 1



TSLA qualifies for **Earnings Downgrade Momentum Screen...** (in **Short Selling**).

[View Screen](#) · [View Checklist](#)

Quality

vs. industry		vs. market
Return on Capital	-3.96 %	<input type="text"/>
Return on Equity	-23.1 %	<input type="text"/>
Operating Margin	-9.53 %	<input type="text"/>

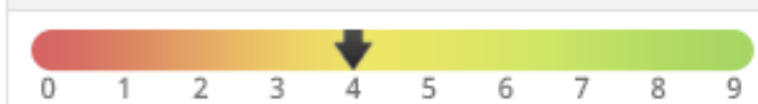
Financial Summary

Balance Sheet · Income Statement · Cashflow

Year End 31st Dec		2011	2012	2013	2014	2015	2016	2017E	2018E	CAGR / Avg
Revenue	\$m	204.2	413.3	2,013	3,198	4,046	7,000	11,421	18,754	+102.8%
Operating Profit	\$m	-251.5	-394.3	-61.3	-186.7	-716.6	-667.3			
Net Profit	\$m	-254.4	-396.2	-74.0	-294	-888.7	-674.9	-444.9	173.2	
EPS Reported	\$	-2.53	-3.69	-0.62	-2.36	-6.93	-4.68			

Health Trend

Piotroski F-Score ↗ 4

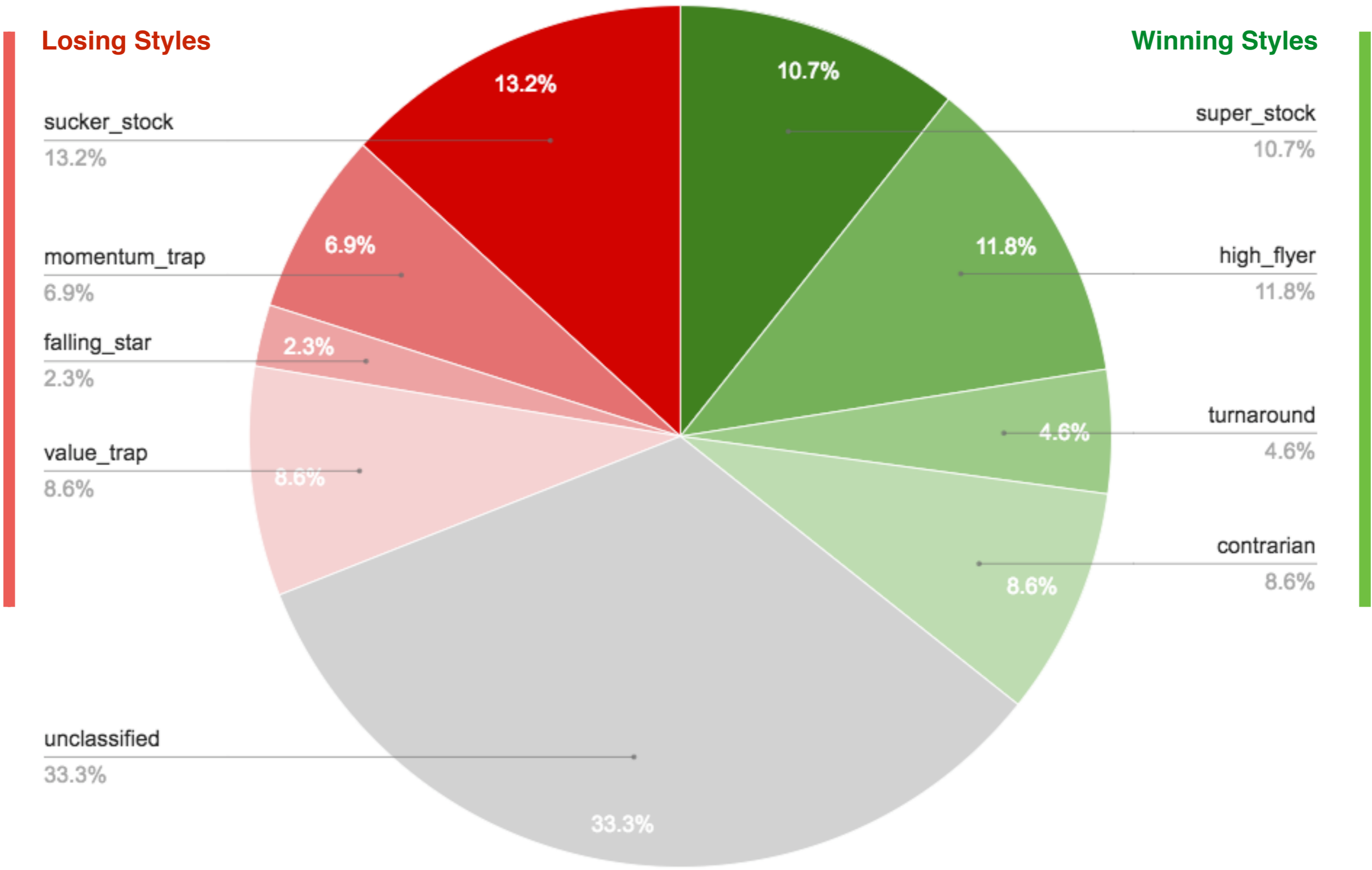


Bankruptcy Risk

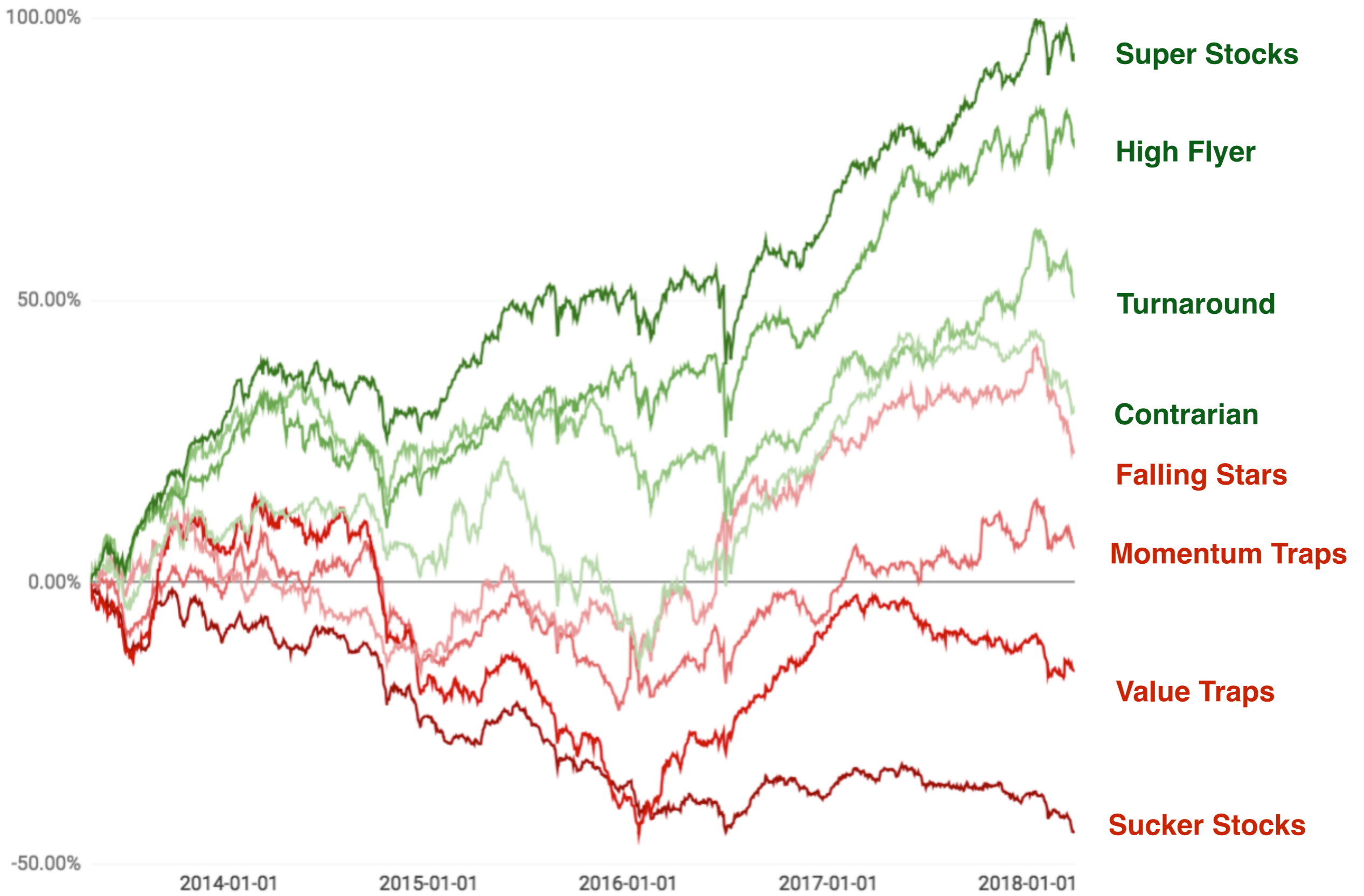
Altman Z1-Score ↗ 1.83



Market Segment in each StockRank Style



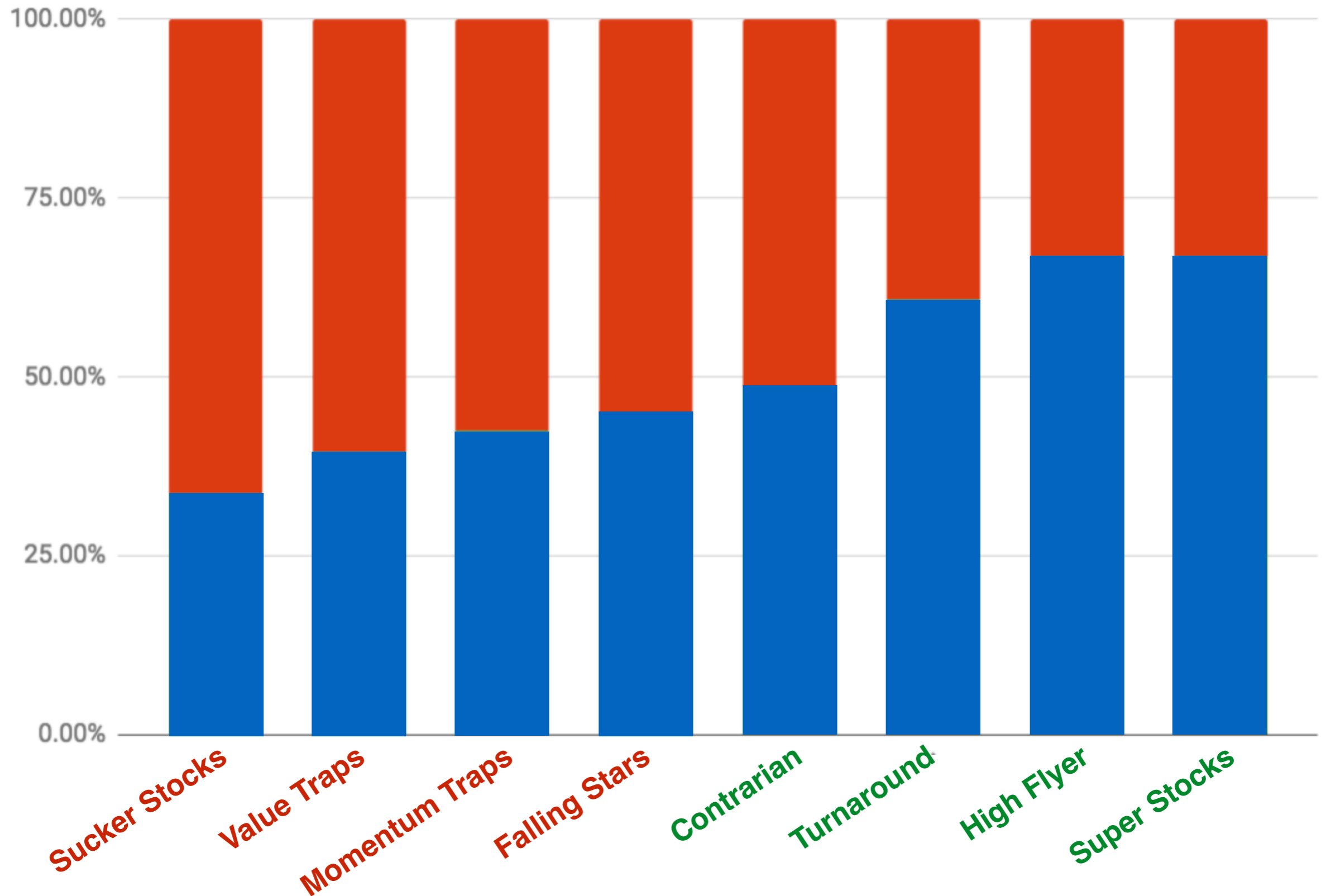
StockRank Styles Performance History




**Performance of UK stocks > £10m Mkt Cap rebalanced annually.*

Analysing the Annual Win Rate

% of winners vs % of losers across each class of share*



* Average annual win rates for each classification calculated from April 2013 to April 2018



What type of
investing style
best fits your
psychology?

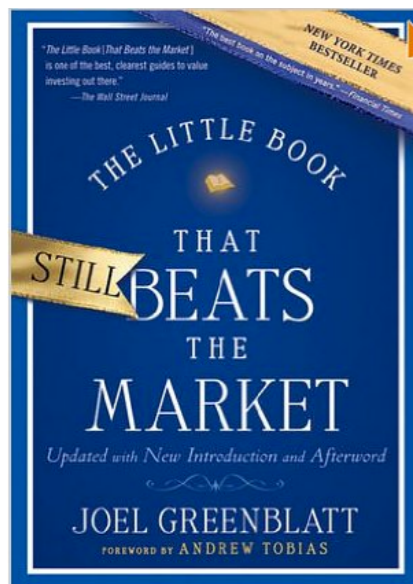
Using the **StockRanks**

Additional Material

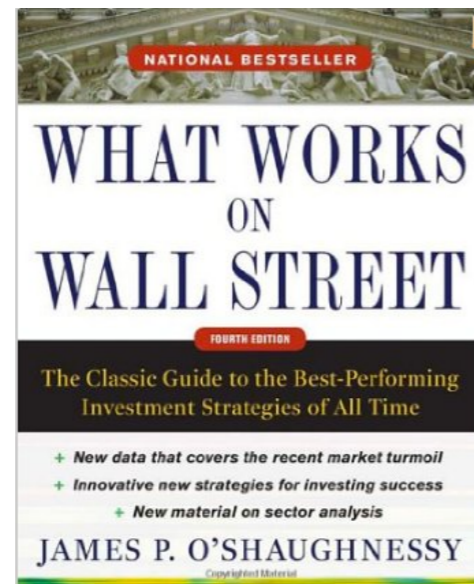
Further Reading

To understand factors & stock ranking systems

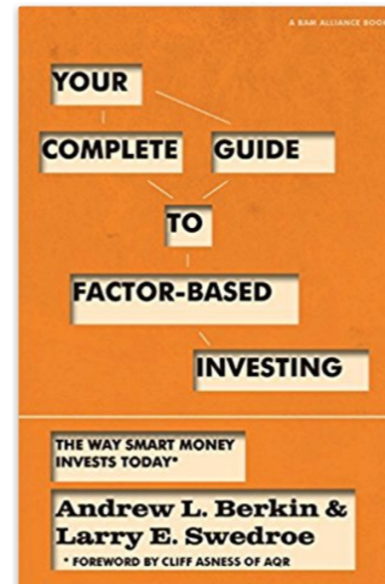
Light Intro



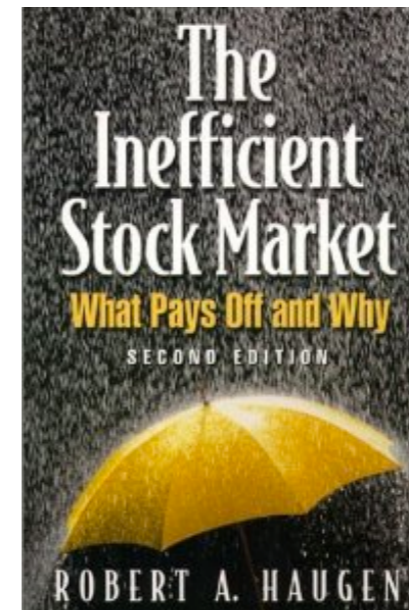
All the Historical Data



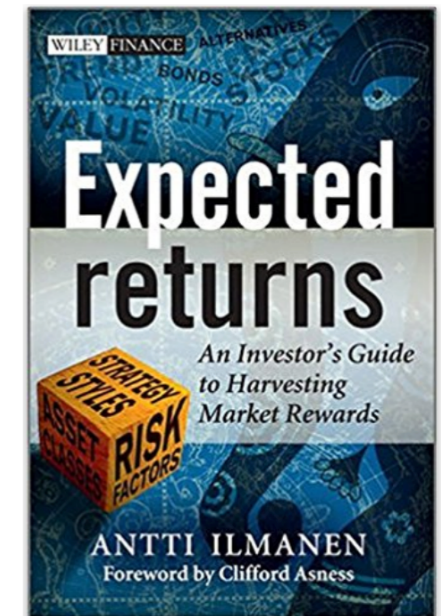
Factor Research Summary



Super Stocks for the Geeks



For Serious Geeks



Academic Papers

To understand QVM approach

Novy Marx

1

The Quality Dimension of Value Investing

Robert Novy-Marx

Robert Novy-Marx is assistant professor of finance at the Simon Graduate School of Business at the University of Rochester, New York, and a faculty research fellow of the National Bureau of Economic Research.

Buying high quality assets without paying premium prices is just as much value investing as buying average quality assets at discount prices. Strategies that exploit the quality dimension of value are profitable on their own, and accounting for both dimensions of value by trading on combined quality and price signals yields dramatic performance improvements over traditional value strategies. Accounting for quality also yields significant performance improvements for investors trading momentum as well as value.

Benjamin Graham will always be remembered as the father of value investing. Today he is primarily associated with selecting stocks on the basis of valuation metrics like price-to-earnings or market-to-book ratios. But Graham never advocated just buying cheap stocks. He believed in buying undervalued firms, which means buying high quality firms cheaply.

Graham was just as concerned with the quality of a firm's assets as he was with the price that one had to pay to purchase them. According to Graham, an equity investor should "...apply a set of standards to each [stock] purchase, to make sure that he obtains (1) a minimum of *quality* in the past performance and current financial position of the company, and also (2) a minimum of *quantity* in terms of earnings and assets per dollar of price" (Graham 1973, pp. 183). Of the seven "quality and quantity criteria" that Graham suggested a firm should meet for inclusion in an investor's portfolio, five were directly concerned with firm quality, while only two were related to valuation.

While Graham devoted as much attention to the quality dimension of value as its price dimension, he is nevertheless primarily associated with buying firms cheaply because it is his valuation metrics that have delivered

<http://bit.ly/Inc3RFv>

Buffett's Alpha

Buffett's Alpha

Andrea Frazzini, David Kabiller, and Lasse Heje Pedersen*

First Draft: May 3, 2012
This draft: November 21, 2013

Abstract

Berkshire Hathaway has realized a Sharpe ratio of 0.76, higher than any other stock or mutual fund with a history of more than 30 years, and Berkshire has a significant alpha to traditional risk factors. However, we find that the alpha becomes insignificant when controlling for exposures to Betting-Against-Beta and Quality-Minus-Junk factors. Further, we estimate that Buffett's leverage is about 1.6-to-1 on average. Buffett's returns appear to be neither luck nor magic, but, rather, reward for the use of leverage combined with a focus on cheap, safe, quality stocks. Decomposing Berkshires' portfolio into ownership in publicly traded stocks versus wholly-owned private companies, we find that the former performs the best, suggesting that Buffett's returns are more due to stock selection than to his effect on management. These results have broad implications for market efficiency and the implementability of academic factors.

JEL Classification: G11, G12, G14, G22, G23

Keywords: market efficiency, leverage, quality, value, betting against beta

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Buffett's Alpha 1

<http://bit.ly/IfQ6A7f>

Value & Momentum

Value and Momentum Everywhere

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Abstract

Value and momentum ubiquitously generate abnormal returns for individual stocks within several countries, across country equity indices, government bonds, currencies, and commodities. We study jointly the global returns to value and momentum and explore their common factor structure. We find that value (momentum) in one asset class is positively correlated with value (momentum) in other asset classes, and value and momentum are negatively correlated *within* and *across* asset classes. Liquidity risk is positively related to value and negatively to momentum, and its importance increases over time, particularly following the liquidity crisis of 1998. These patterns emerge from the power of examining value and momentum everywhere simultaneously and are not easily detectable when examining each asset class in isolation.

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1

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