



# The NAPS Portfolio

A primer on investing in Quality, Value and Momentum

# Who is this webinar for?

- 1. Improving investors** looking for a time-proven framework to bring more discipline to their investing process.
- 2. Experienced investors** looking for an effective way to save time when managing equity portfolios.
- 3. International investors** - we will have some insights into applying the principles in global markets.

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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 in January 2023.



# Ed Page Croft, CFA

Founder & CEO, [Stockopedia.com](https://www.stockopedia.com)  
ex-GS Private Clients, Oxford Scholar



**@edcroft**

# Agenda

One hour (or more), invested in yourself...

# What you will learn in this webinar

- Understand the basic “factor investing” principles of the NAPS
  1. How to select stocks, that have a high potential for outperformance
  2. How to diversify a portfolio to weather changing market environments
  3. How to manage changes over time - to maintain high ongoing potential
- The results from 8 years of applying this process - both in the UK and across international markets.
- Subscriber Questions & Answers

# The UK NAPS Portfolio

*The “No Admin Portfolio System” that’s been published for the last 8 years*

# What is the “NAPS” Portfolio?

A portfolio of shares selected according to the following simple rules

## 1. Select shares

- Sort the market by StockRank (QVM, VM, QM etc)\*
- Exclude small & hard to trade shares

## 2. Construct a portfolio

- Diversify with ~2 stocks from each of our 10 sectors\*\*
- Equal weighted positions

## 3. Rebalance the portfolio on a schedule

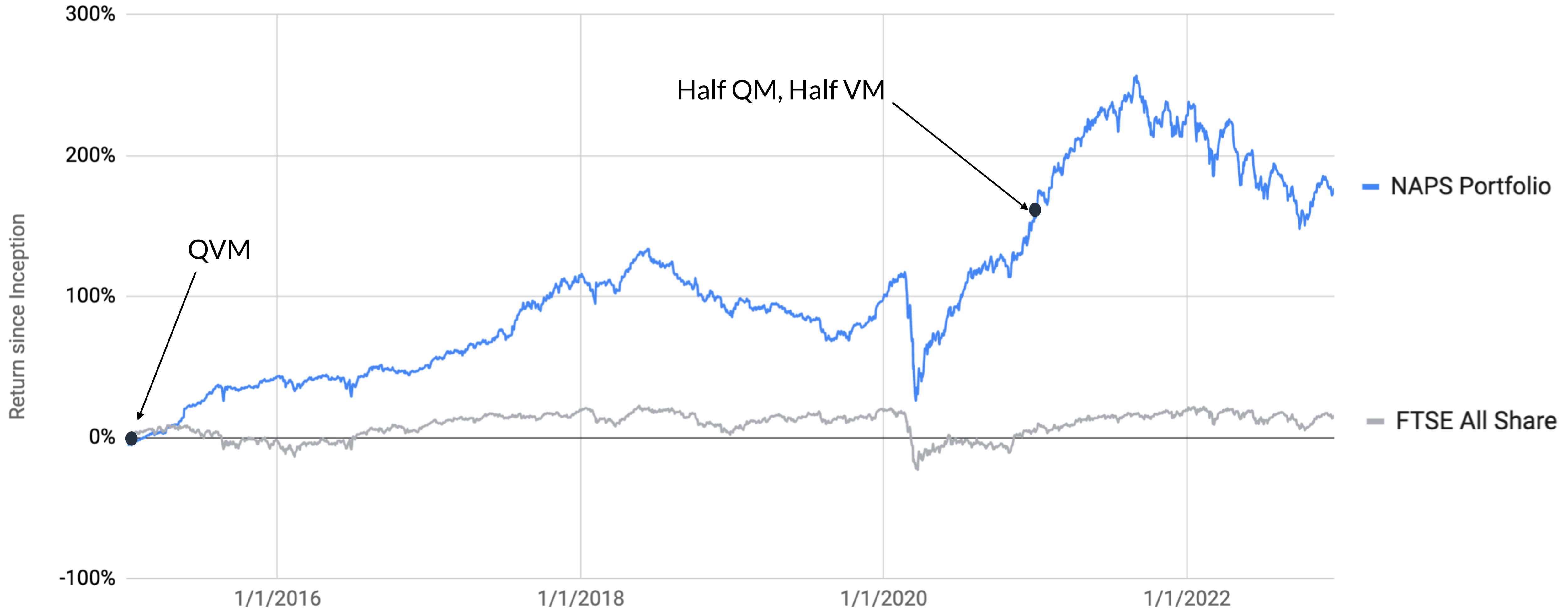
- On each anniversary, start again at 1.



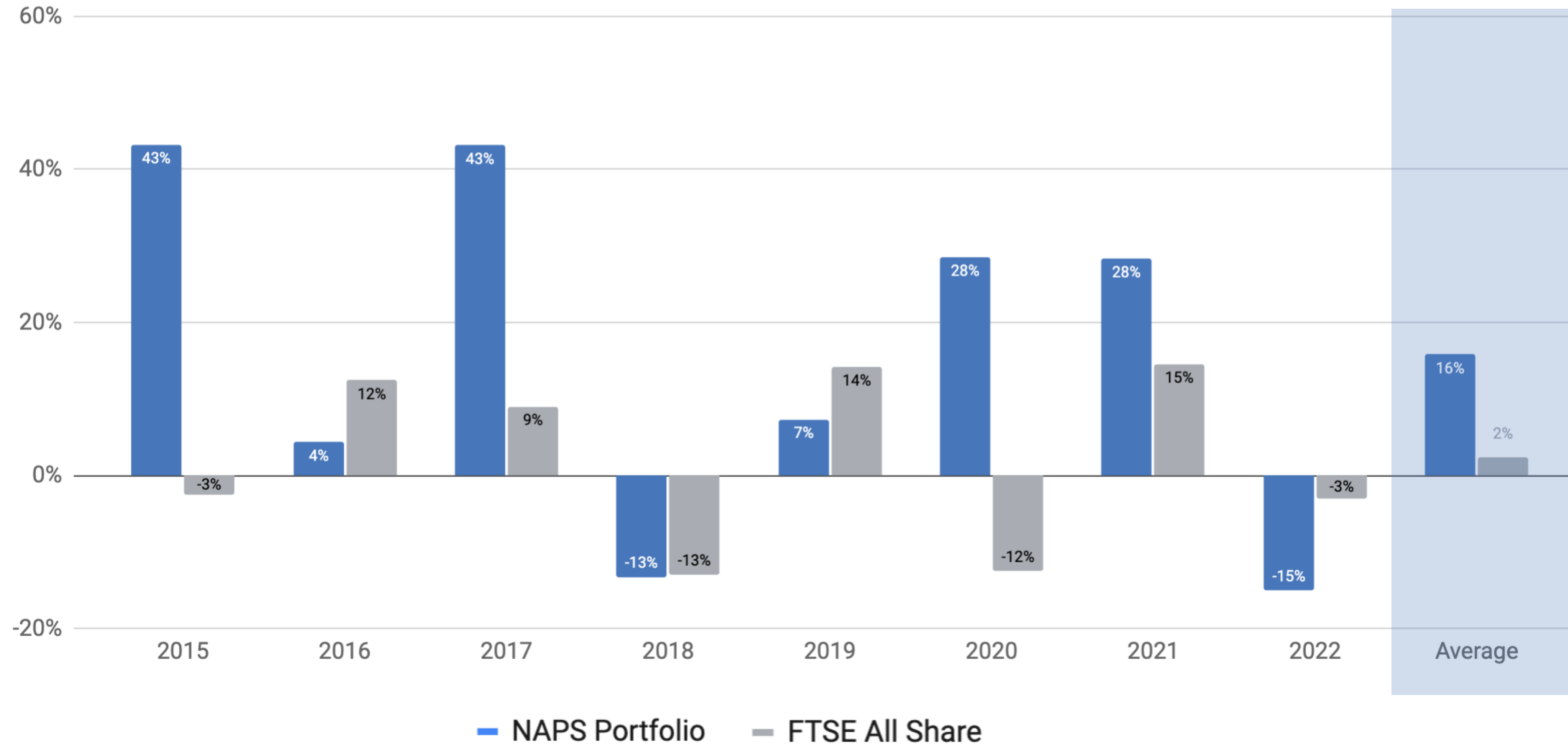
# FTSE All Share



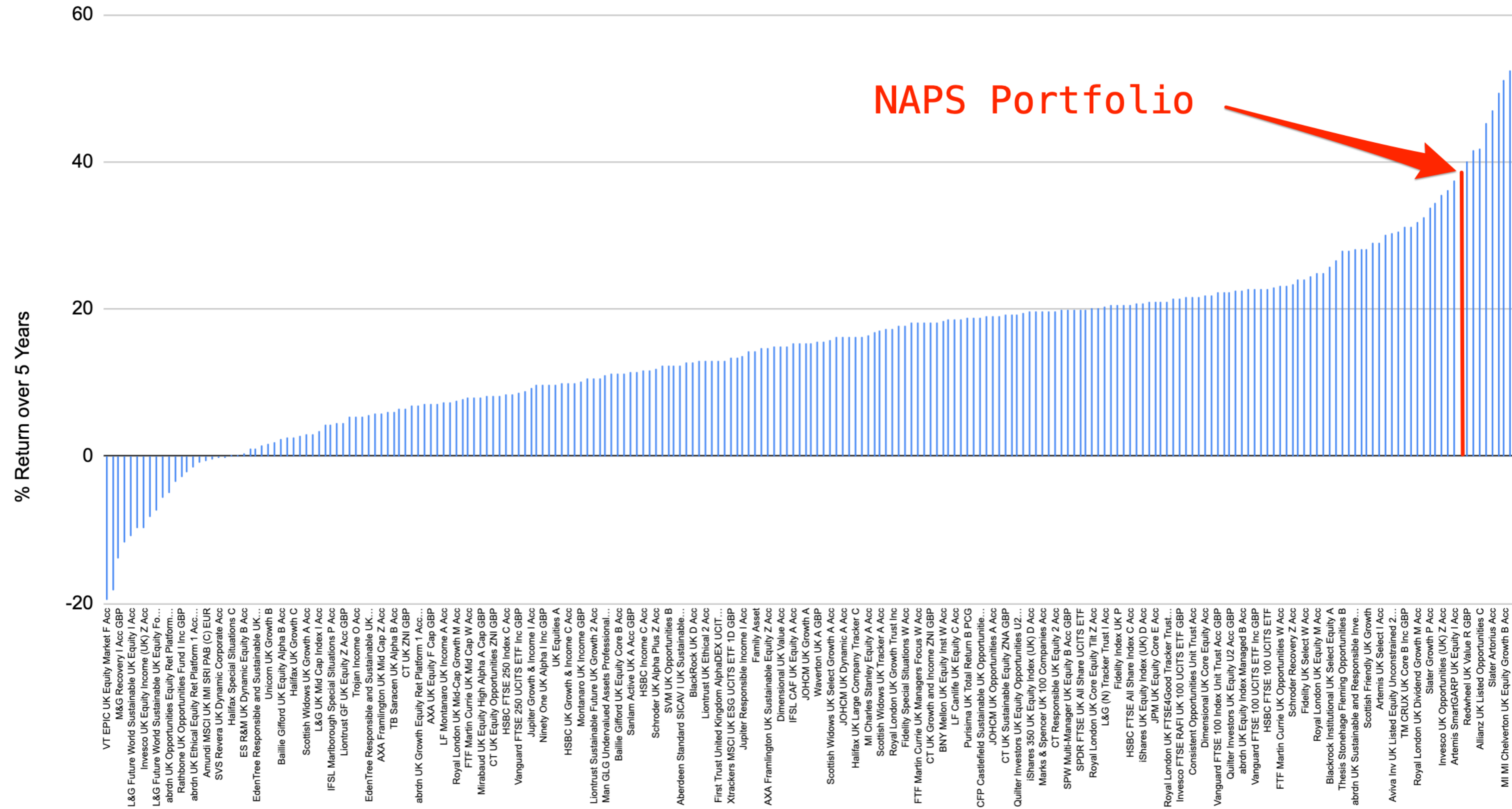
# FTSE All Share vs “NAPS” Portfolio



# FTSE All Share vs “NAPS” Portfolio



# NAPS beat the majority of “actively managed funds”

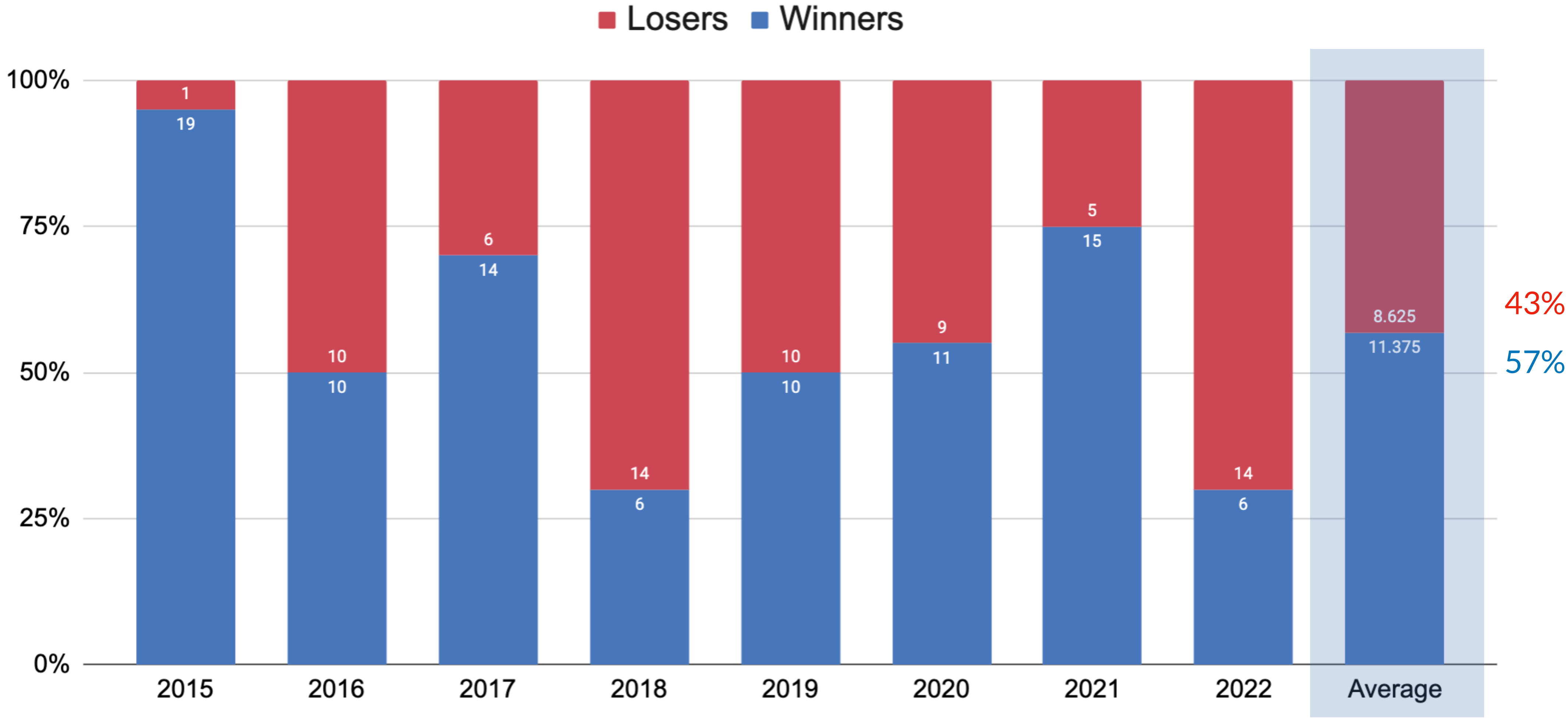


## IA UK All Companies Funds

# Picking Winners without Picking Stocks

*A review of some of the outstanding names held by the NAPS over time*

# Winners vs Losers Picked Each Year



# Some of the Standout Winners Owned

Company	Year	~ Price Return (excl dividends)
<b>Games Workshop</b>	2017	260%
<b>IQE</b>	2017	260%
<b>IG Design</b>	2015	145%
<b>Ergomed</b>	2020	120%
<b>Dart Group (now Jet2)</b>	2015, 2019	103%, 119%
<b>Premier Foods</b>	2020	118%
<b>Frontier Developments</b>	2020	104%
<b>Petropavlovsk</b>	2020	103%
<b>Wizz Air</b>	2017	100%

# The Method

*Simple habits, repeated regularly, without distraction*



# Four Principles

## Mindset

1. Manage the Monkey



## Method

2. Expose to Return Drivers



3. Diversify for Resilience



4. Rebalance on Change



## Important point

The principles provide a jazz sheet to riff on 🎷

The precise rules I use are not a score to recite 🎵

# Principle 1. Manage the “Monkey”

Why a rules-based process is essential to avoid emotional investing

# Why do we make investing mistakes?



Avoiding realising losses



Being suckers for stories



Overinfluenced by the news



Being wildly overconfident



Over-projecting recent events



Ignoring contrary opinion



Seeking safety in the herd



Having blind faith in gurus

**Under pressure** 🥵  
**we make simple mistakes** 🤔  
**due to emotional biases.** 😡

“ *People don't need extraordinary insight or intelligence. What they need most is the character to adopt simple rules and stick to them.* ”



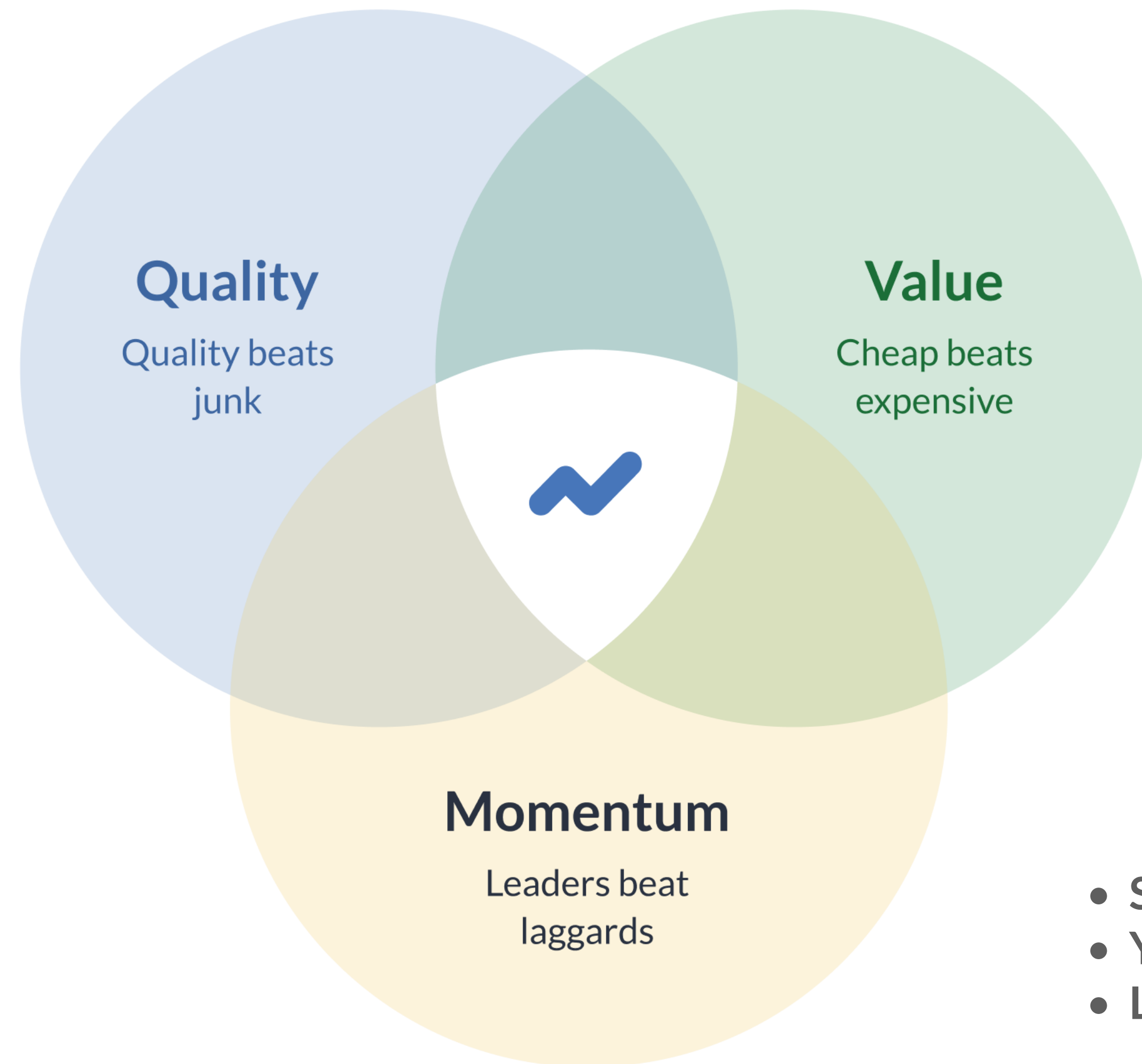
## Benjamin Graham

Investor, Professor, Author of “The Intelligent Investor”. Tutor to Warren Buffett.

# Principle 2. Expose to Return Drivers

How to create buy rules using Quality, Value & Momentum

# The 3 primary “factors” that drive stock returns\*



- **Size** (small caps vs large caps)
- **Yield** (high yield beats low yield)
- **Low Volatility** (low risk beats high risk)

\* other than the overall market direction.



# These return drivers have been proven for *decades*

1920

1950

1980



## Quality

*Quality beats Junk*



Warren Buffett



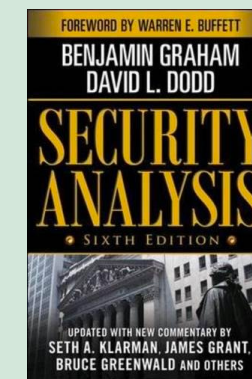
Novy Marx

## Value

*Cheap beats Expensive*



Ben Graham



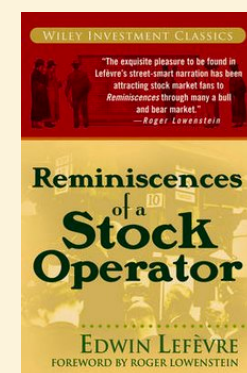
Fama & French

## Momentum

*Leaders beat Laggards*



Jesse Livermore



Jegadeesh & Titman



# OXY – Occidental Petroleum

**\$71.25** ↓ -3.58 -4.78%

🇺🇸 Last trade – 16:02 [Full quote](#)

Energy · Adventurous · Large Cap · *Super Stock*

Market Cap	£60.26b
Enterprise Value	£86.79b
Revenue	£29.35b
Position in Market	160th / 10,707

Quality	86
Value	62
Momentum	91
StockRank™	92



## Momentum

Relative Strength (%)	
1m	+1.17% ●
3m	+30.8% ●
6m	+32.8% ●
1y	+167% ●
Volume Change (%)	
10d / 3m	-36.4% ●
Price vs... (%)	
52w High	-2.98% ●
50d MA	+11.1% ●
200d MA	+24.5% ●

## Growth & Value

12m Forecast Rolling	Industry	Market	
PE Ratio (f)	9.1	●	
PEG Ratio (f)	n/a	●	
EPS Growth (f)	-10.6%	●	
Dividend Yield (f)	0.78%	●	
Valuation (ttm)		Industry	Market
Price to Book Value	3.85	●	●
Price to Tang. Book	3.85	●	●
Price to Free Cashflow	6.1	●	●
Price to Sales	2.05	●	●
EV to EBITDA	5.35	●	●



“Good, cheap, strong”

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

“Junk, expensive, weak”

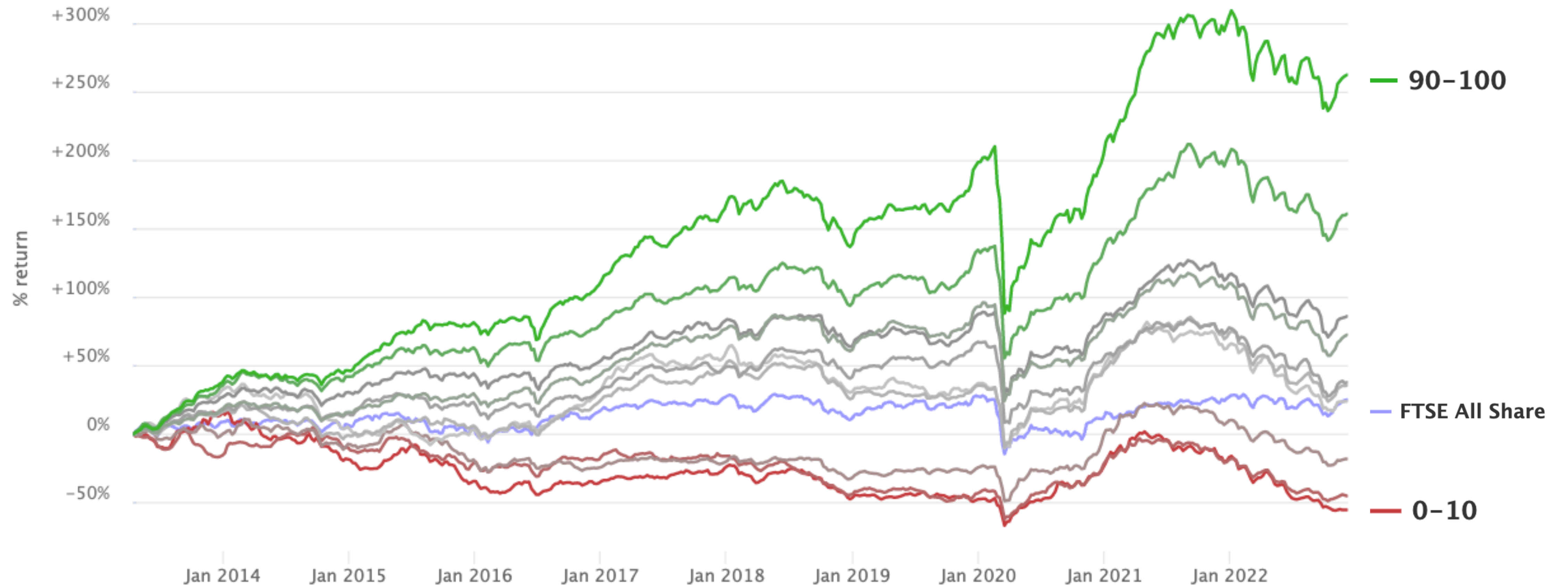
Market Cap	£60	Quality	86
Enterprise Value	£86	Value	62
Revenue	£29	Momentum	91
Position in Market	160th / 10	<b>StockRank™</b>	<b>92</b>

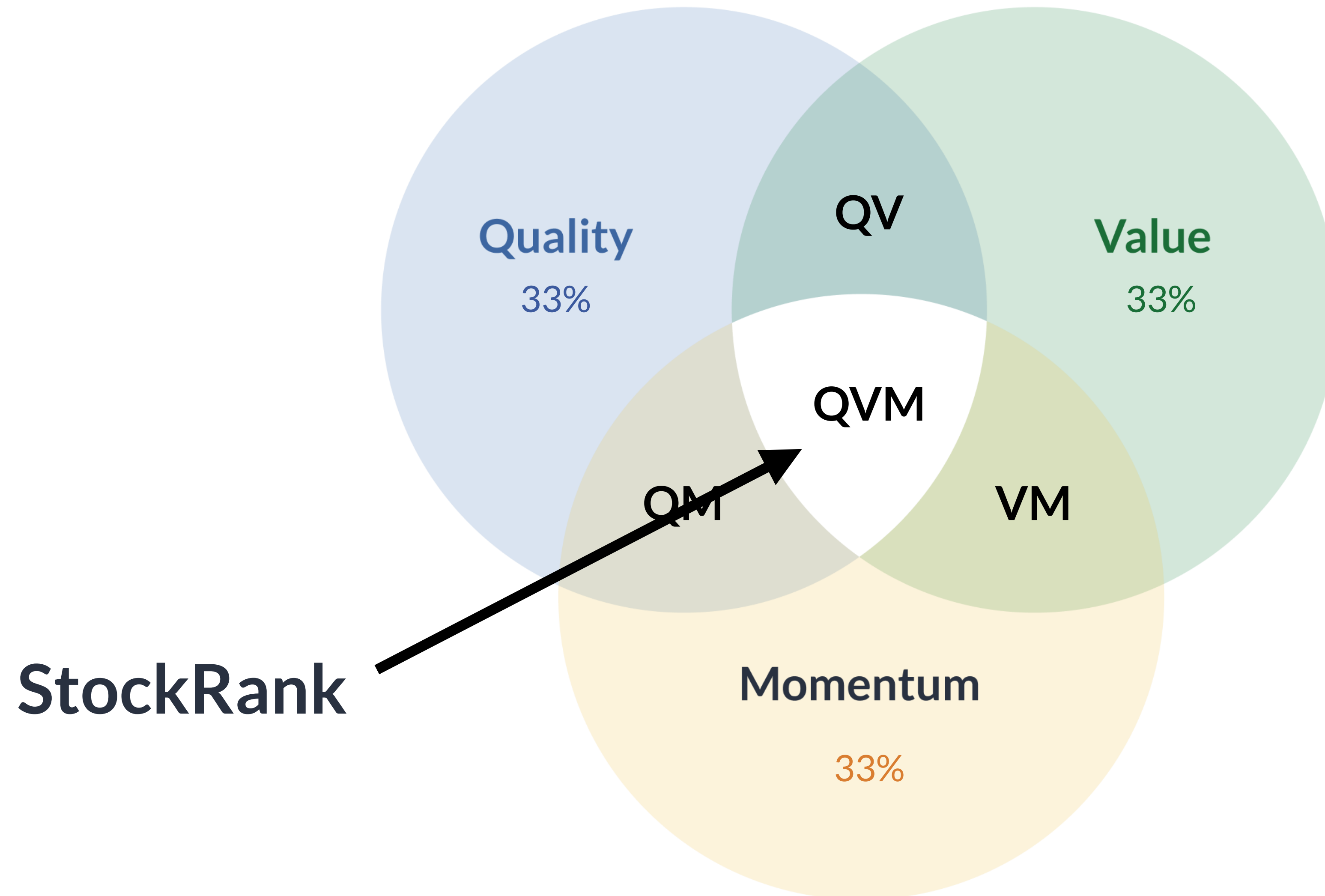
Growth & Value		12m Forecast Rolling		Industry	Market
Length (%)	+1.17%	PE Ratio (f)	9.1		
	+30.8%	PEG Ratio (f)	n/a		
	+32.8%	EPS Growth (f)	-10.6%		
	+167%	Dividend Yield (f)	0.78%		
Change (%)	-36.4%	Valuation (ttm)		Industry	Market
	-2.98%	Price to Book Value	3.85		
	+11.1%	Price to Tang. Book	3.85		
	+24.5%	Price to Free Cashflow	6.1		
		Price to Sales	2.05		
		EV to EBITDA	5.35		

# StockRank Performance History

\* Based on equal weighted portfolios of UK stocks, > £10m market cap, segmented by StockRank decile, rebalanced quarterly



# StockRanks - **quality**, **value** and **momentum**



# Choosing your Return Drivers

*Select the right return drivers for your psychology.*

Sort Method	Factors	Comment	Considerations
StockRank (QVM)	Quality, Value and Momentum	Good, cheap, improving.	Often cyclical
QM Rank	Quality and Momentum	Premium names, Leaders	High valuations
VM Rank	Value and Momentum	Cheaper, recovery stocks, turning around	Can be low quality
QV Rank	Quality and Value	Good companies, at reasonable valuations	Out of favour. <b>Need longer holding periods.</b>
<b>Build your own using financial ratios</b>	Quality, value, momentum, size, low volatility, yield	Depends on factors chosen	Fit to your own requirements

# Investing in high potential stocks is psychologically difficult

- **Value** stocks have problems 🙄
- **Quality** stocks are boring 🚗
- **Momentum** stocks give you vertigo 🪂

“ *It is impossible to produce superior performance unless you do something different from the majority.* ”



**Sir John Templeton**

Billionaire Investor and Philanthropist, founder of Templeton Funds



Coming soon...





# Principle 3. Diversify for Resilience

How to construct a portfolio to survive in volatile markets

“

*Diversification is a hedge for ignorance*

“

 Is this the most dangerous quote in finance?

The average investor holds **only 4 stocks ...**  
**often in the same sectors**

Barber & Odean. "The Common Stock Investment Performance of Individual Investors" 2000

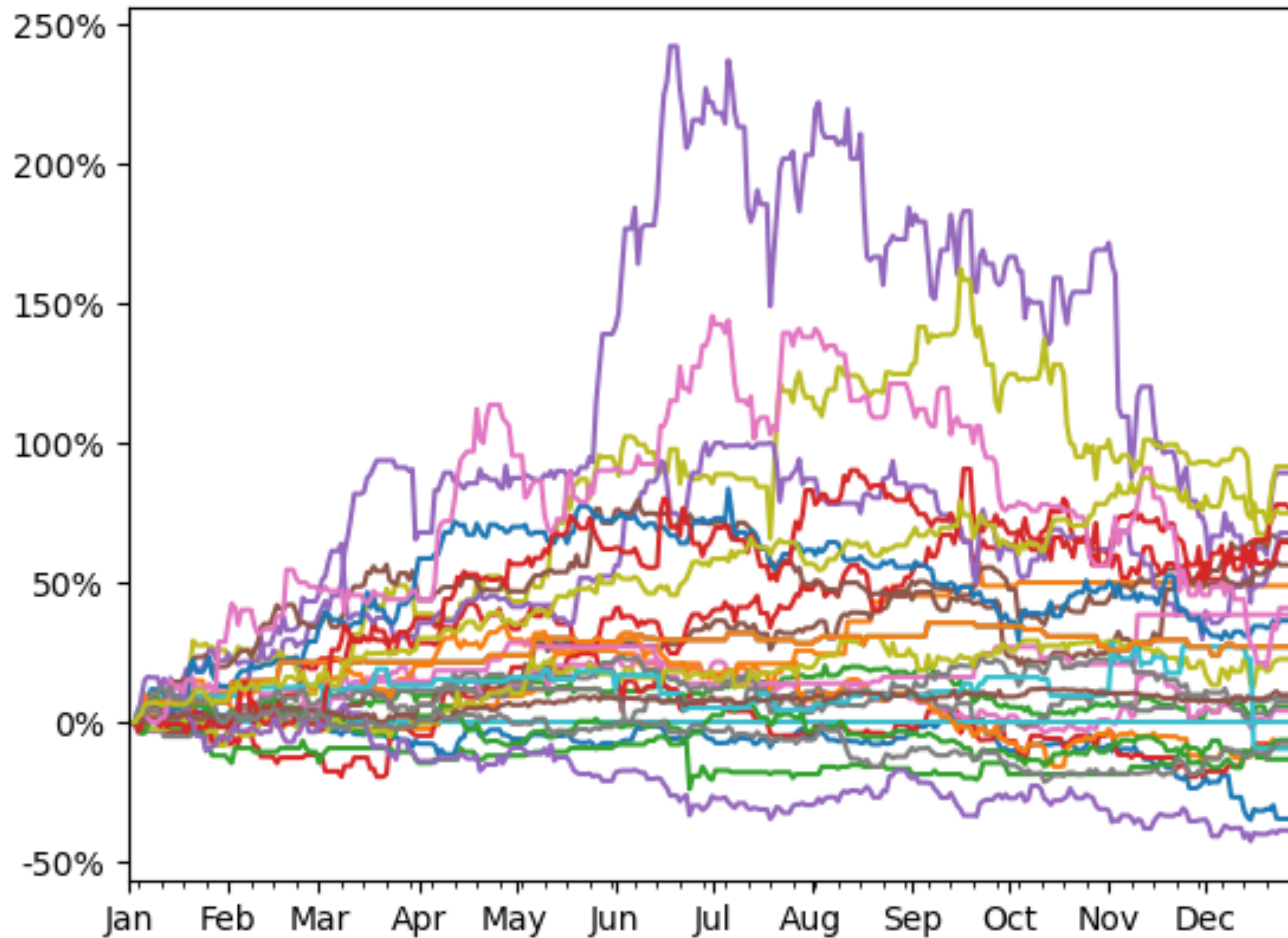
# 10 How many stocks are enough?

How diversification helps you capture the returns from factors

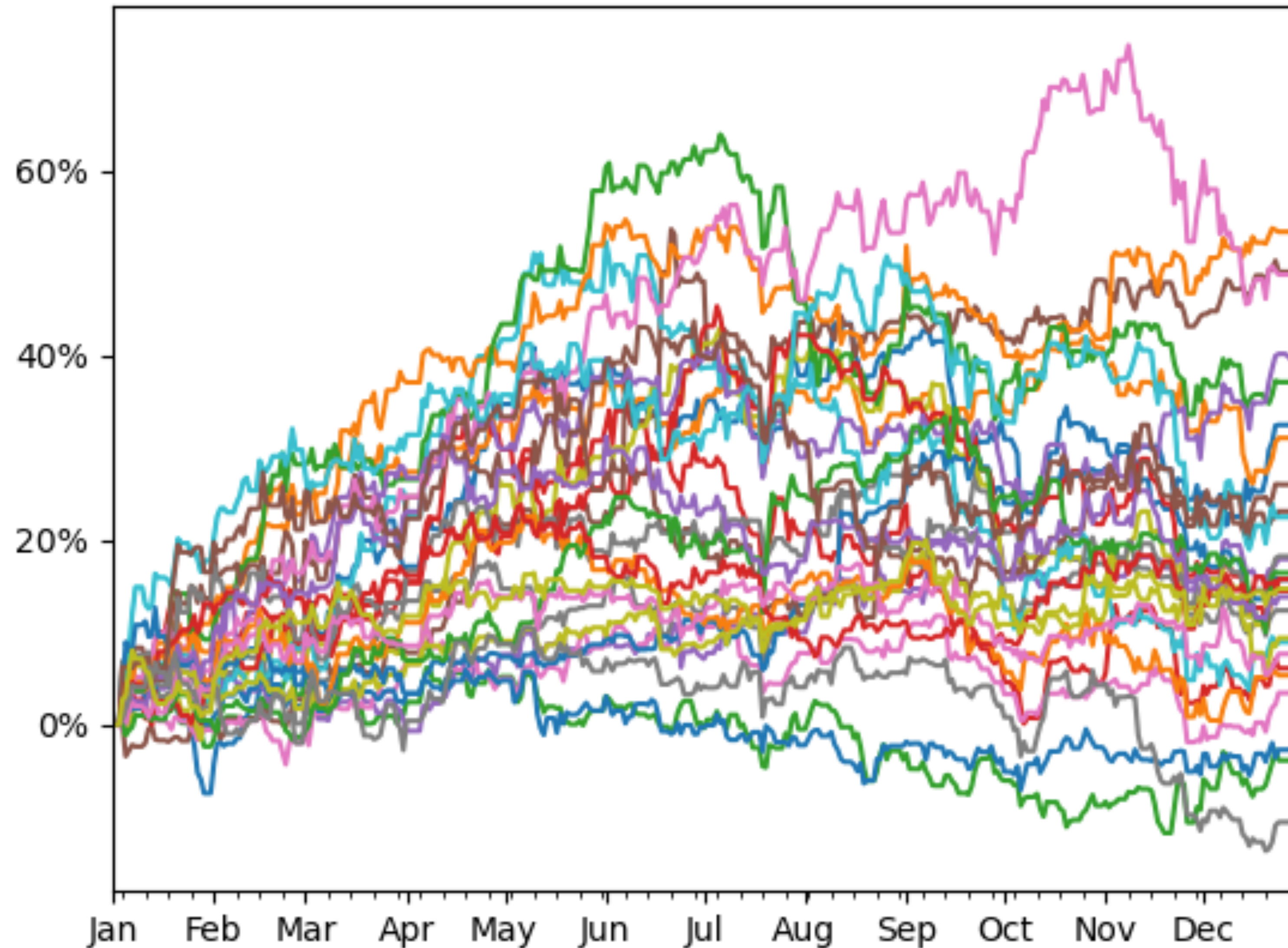
# Avg return of 168, 90+ ranked stocks in 2021



# 1 Random Stock Pick (90+ StockRank)

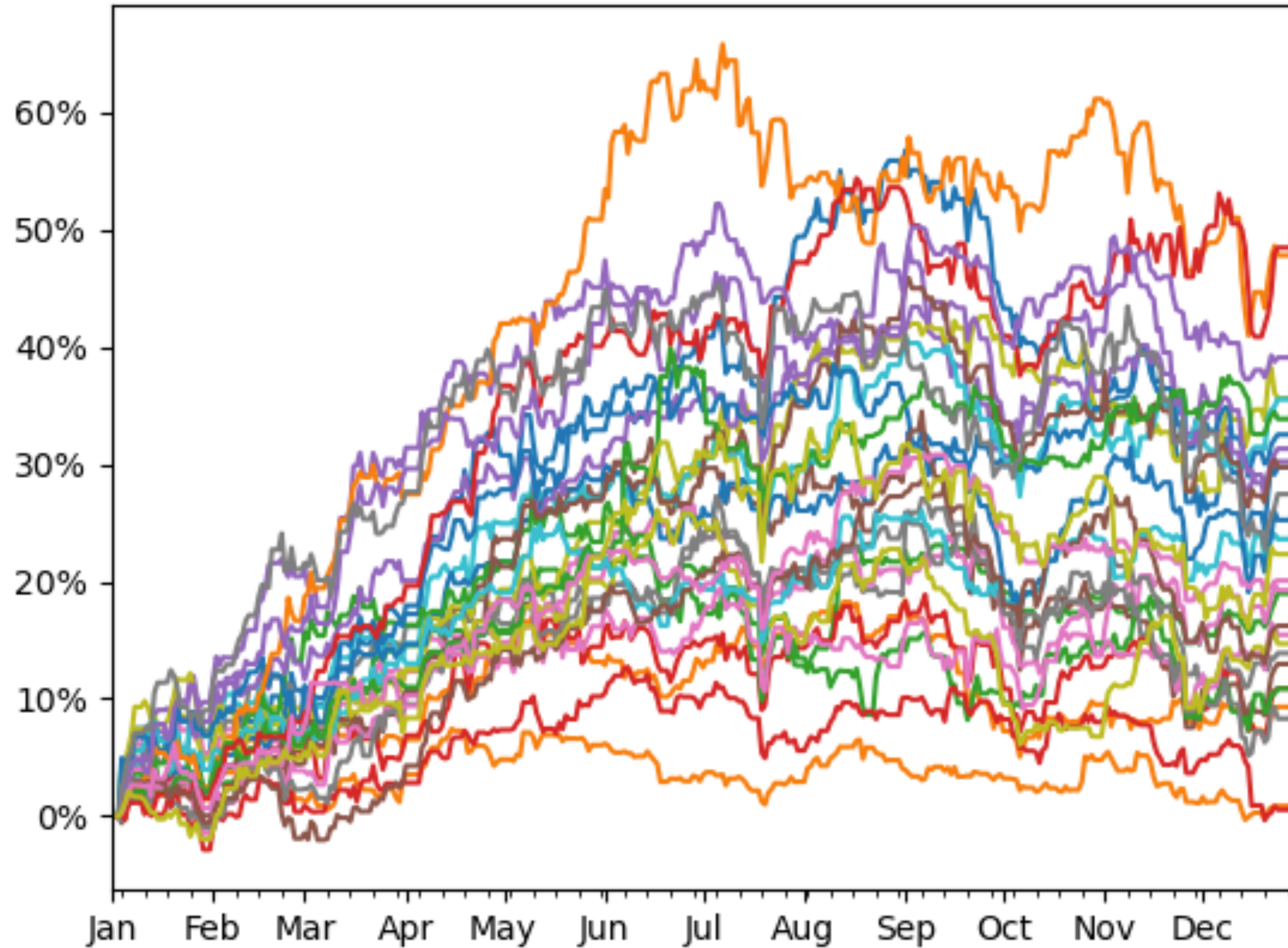


# Random 5 stock portfolios (90+ StockRank)

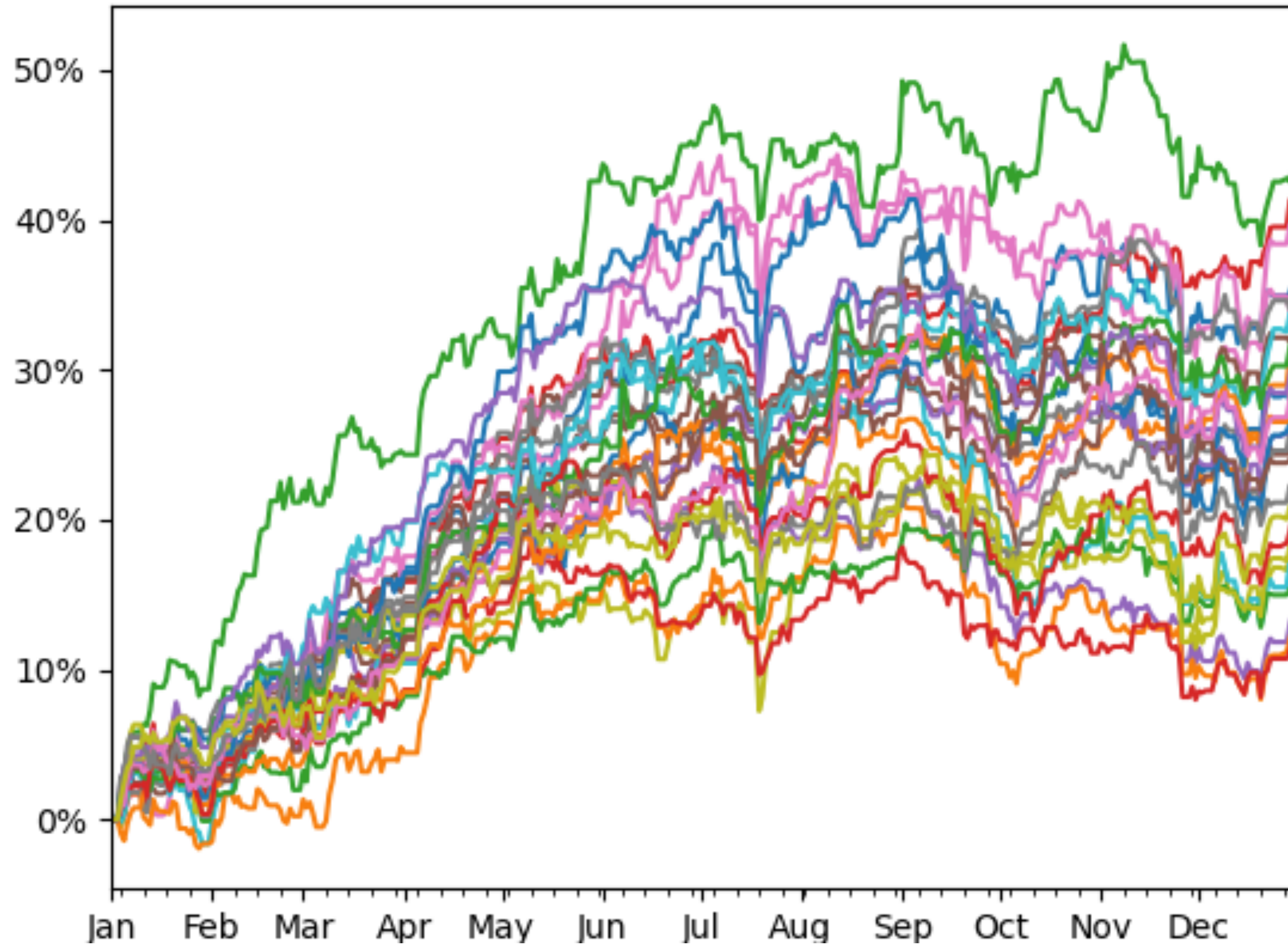




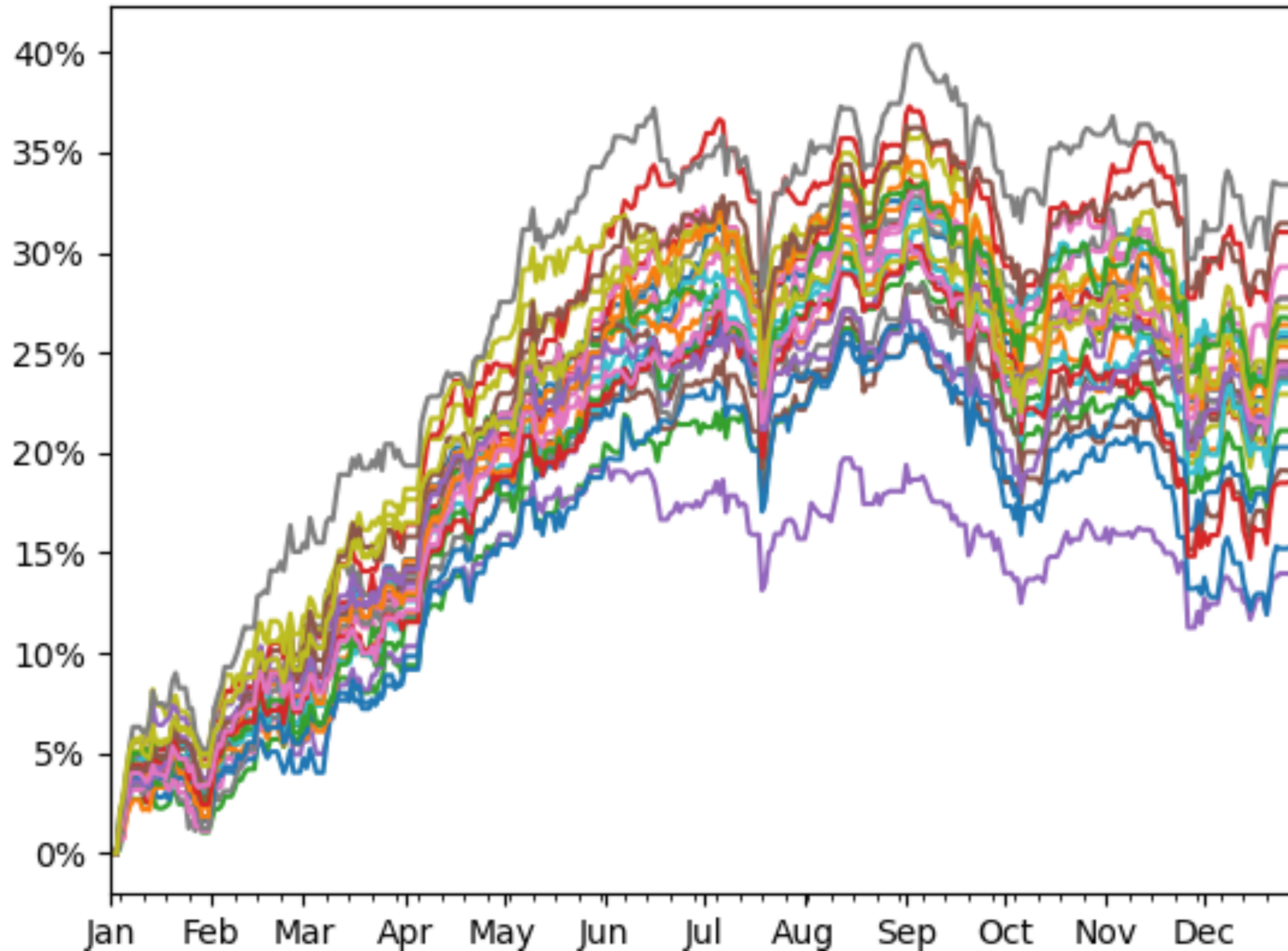
# Random 10 stock portfolios (90+ StockRank)



# Random 20 stock portfolios (90+ StockRank)



# Random 50 stock portfolios (90+ StockRank)



Diversify not just to **reduce downside risk** 

But to **increase your chance of upside** 

**Holding 20+ stocks in a 90+ Ranked Portfolio  
 reduces the risk of outlier downside performance  
 and increases the probability of holding big winners**

“If you are doing a limited amount of work on individual stocks or no work at all like most investors, diversifying with 20 or 30 [high ranking] stocks is most definitely the right plan for you.”



**Joel Greenblatt**

Hedge fund manager, Lecturer & Author of “The Little Book that Beats the Market”

# How many stocks?

Select the right number of stocks for your portfolio size to reduce costs

No. of Stocks in portfolio	Portfolio Size (£)					
	5,000	10,000	20,000	30,000	50,000	100,000
1	1.32%	1.16%	1.08%	1.05%	1.03%	1.02%
5	2.60%	1.80%	1.40%	1.27%	1.16%	1.08%
10	4.20%	2.60%	1.80%	1.53%	1.32%	1.16%
15	5.79%	3.40%	2.20%	1.80%	1.48%	1.24%
20	7.39%	4.20%	2.60%	2.07%	1.64%	1.32%
25	8.99%	5.00%	3.00%	2.33%	1.80%	1.40%
30	10.59%	5.79%	3.40%	2.60%	1.96%	1.48%
50	16.98%	8.99%	5.00%	3.66%	2.60%	1.80%

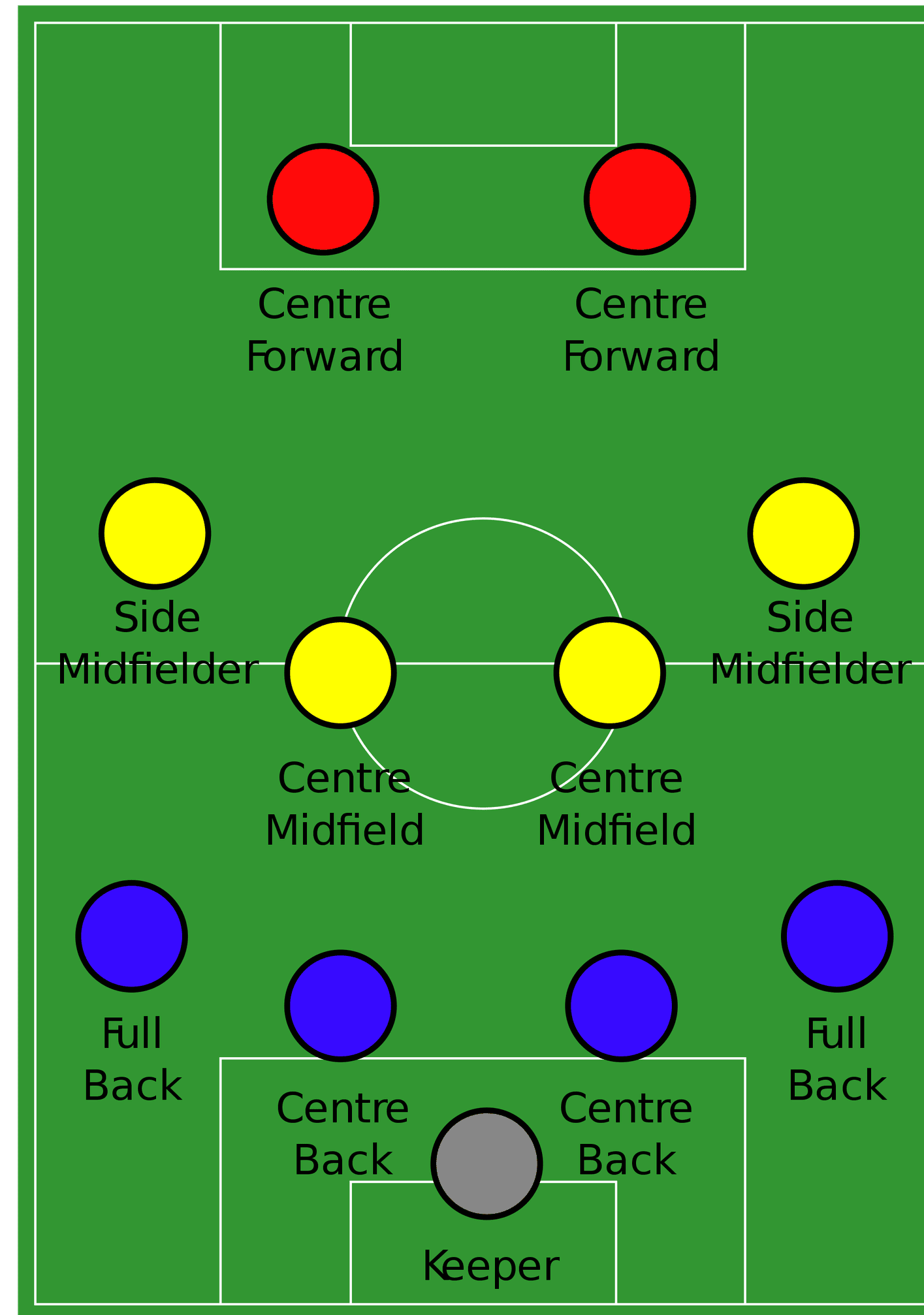
<https://bit.ly/3ZXftEr>

# How many sectors (or other groups)?

How diversification helps you capture the returns from factors



# ⚽ Play defense as well as offense



# Select stocks from different sectors

A 10 level classification based on every stock's economic sector.

## Defensives

- Healthcare
- Consumer Defensive
- Utilities

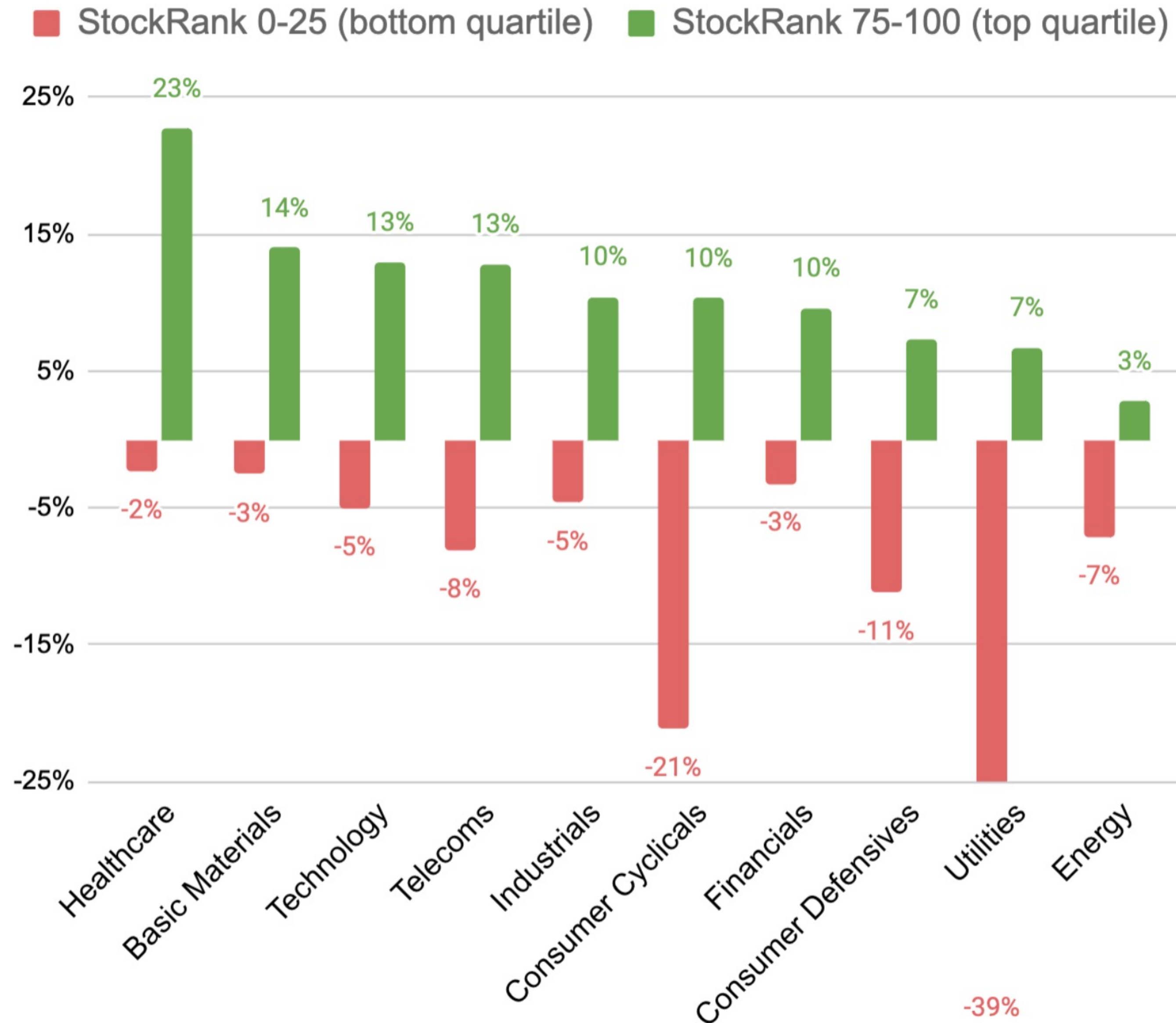
## Sensitives

- Industrials
- Energy
- Telecoms
- Technology

## Cyclicals

- Basic Materials
- Consumer Cyclical
- Financials

# Different sectors have different return qualities



# 2022 🐻 Market - Defensives saved the NAPS

## Defensives

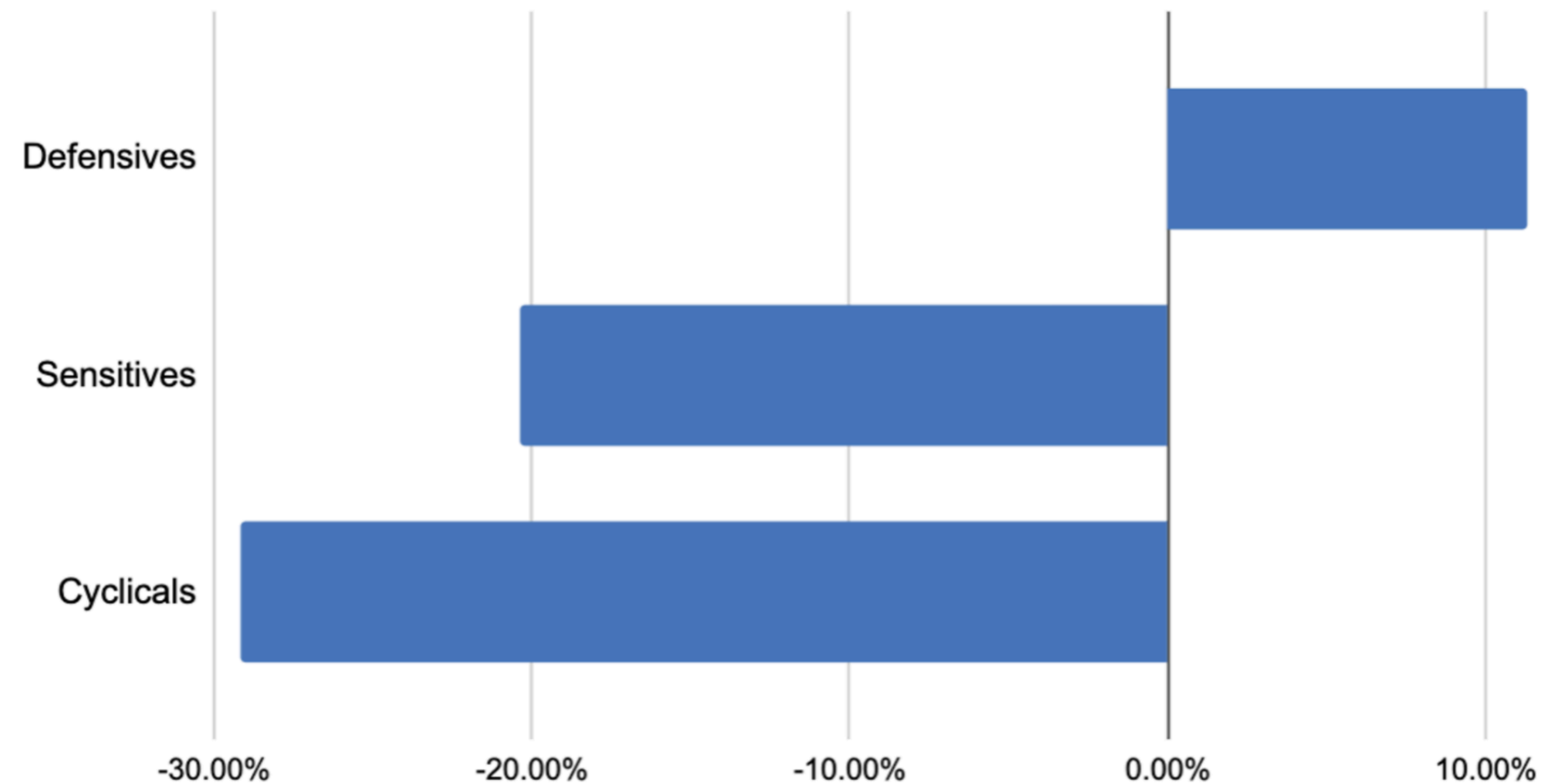
- Healthcare
- Consumer Defensive
- Utilities

## Sensitives

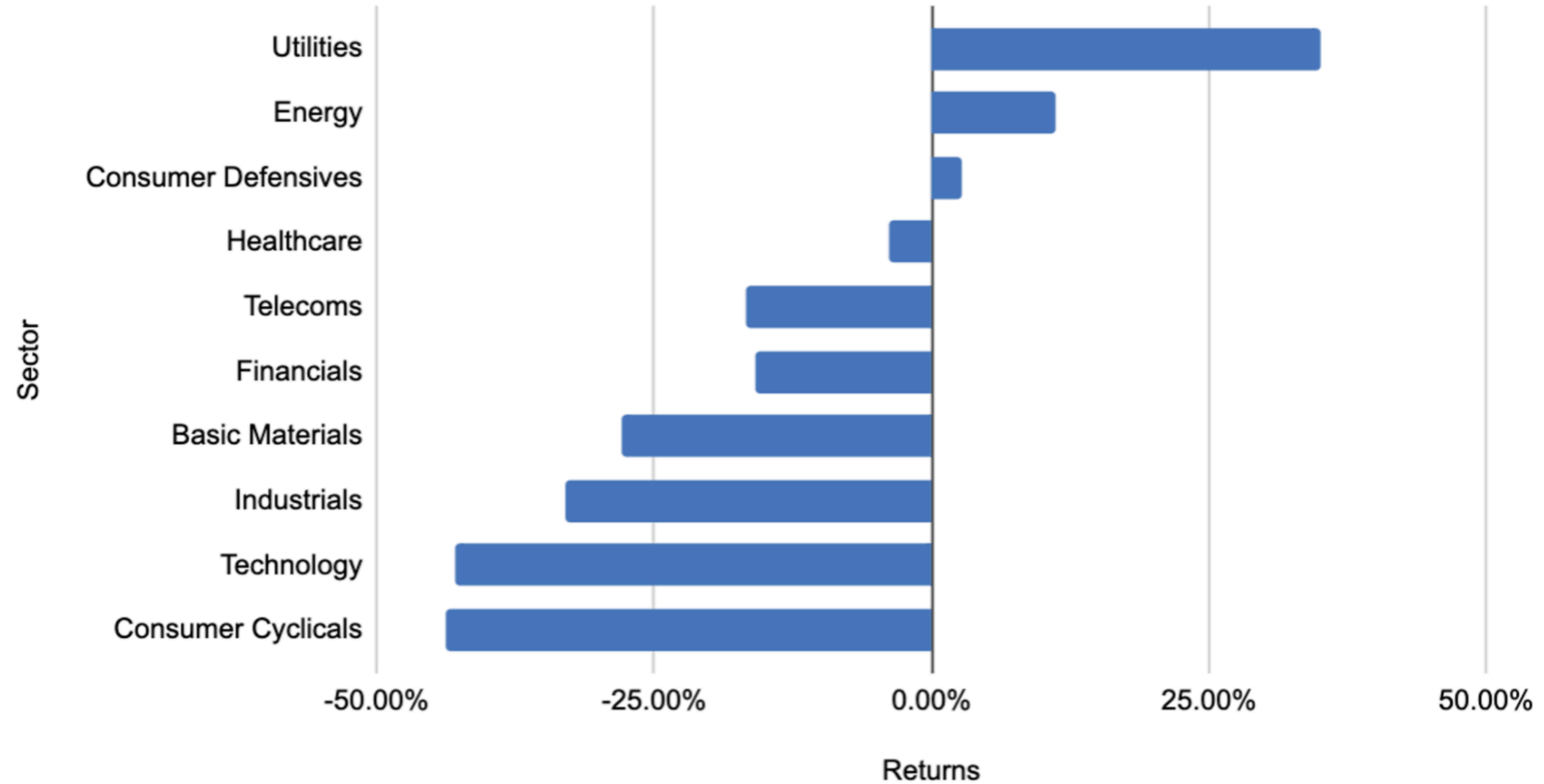
- Industrials
- Energy
- Telecoms
- Technology

## Cyclicals

- Basic Materials
- Consumer Cyclical
- Financials



# 2022 🐻 Market - Defensives saved the NAPS



**Diversifying across sectors, sizes & styles  
creates a more resilient portfolio**



# OXY – Occidental Petroleum

\$71.25 ↓ -3.58 -4.78%

🇺🇸 Last trade – 16:02 Full quote

Energy · Adventurous · Large Cap · **Super Stock**

1m 3m YTD **1y** 5y All



## Momentum

Relative Strength

1m

3m

6m

1y

Volume Change

10d / 3m

Price vs... (%)

52w High

50d MA

200d MA

# Groups you can use

5 different classifications:

1. Sector
2. Risk Rating
3. Size Group
4. Style
5. Country/Region



# Principle 4. Rebalance on change

How to size your positions and manage them through time & events



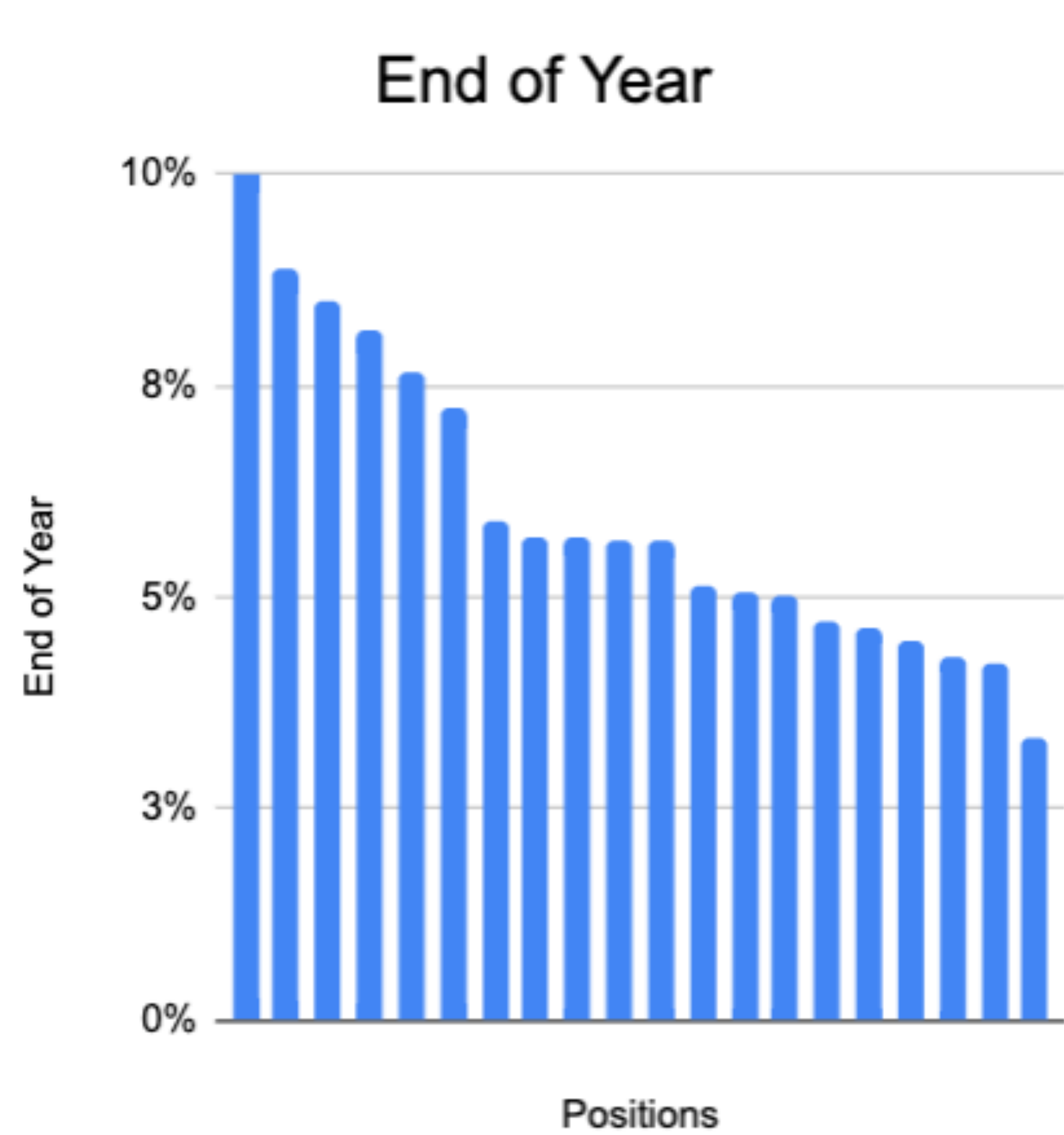
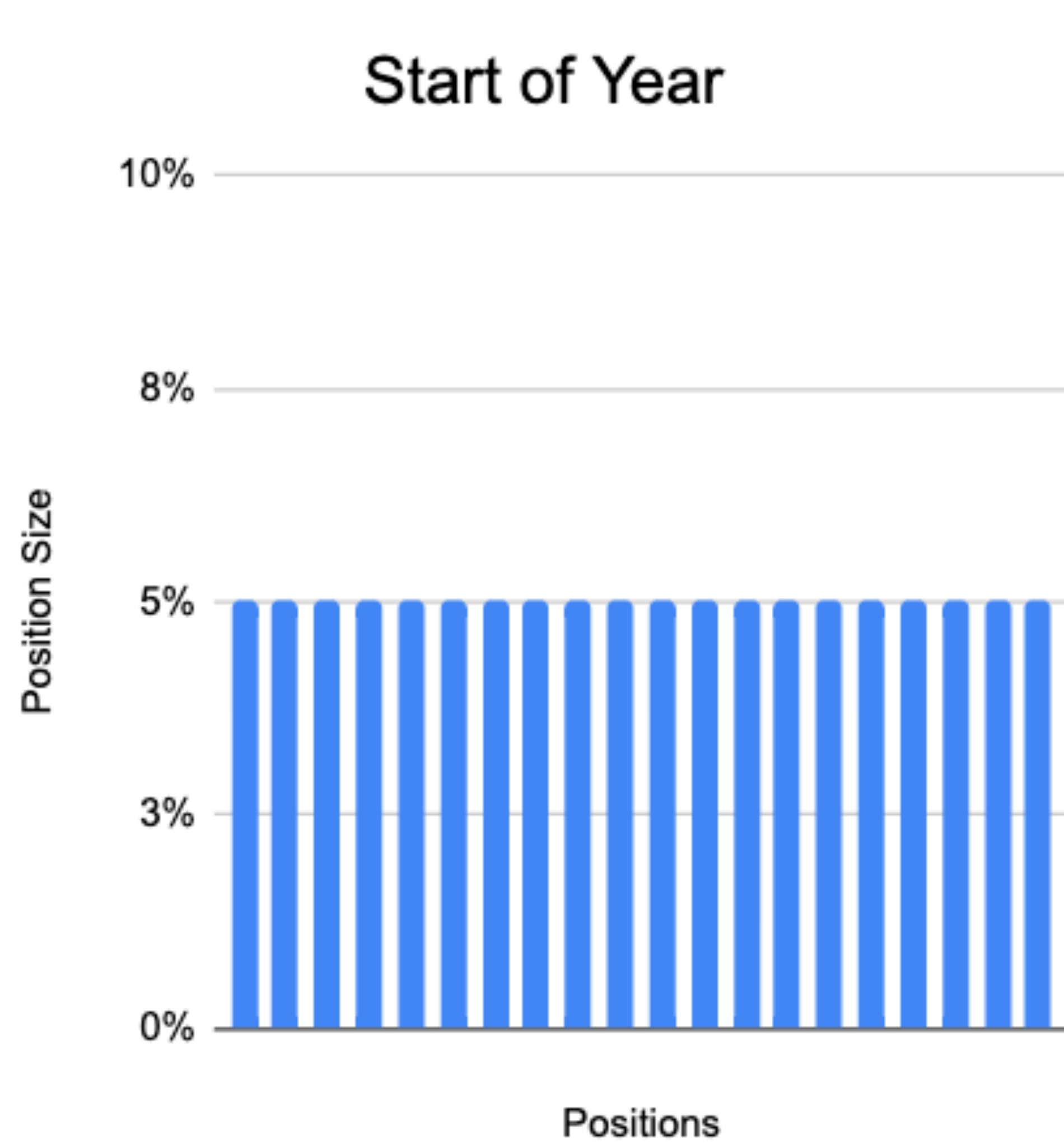
# How to size your positions?

- Equal weight, Rank weight, “Risk” weight
- Be wary of over-confidence - KISS
- Equal weighted positions are “good enough”  
e.g. 20 stocks, £100k → £5k position size.

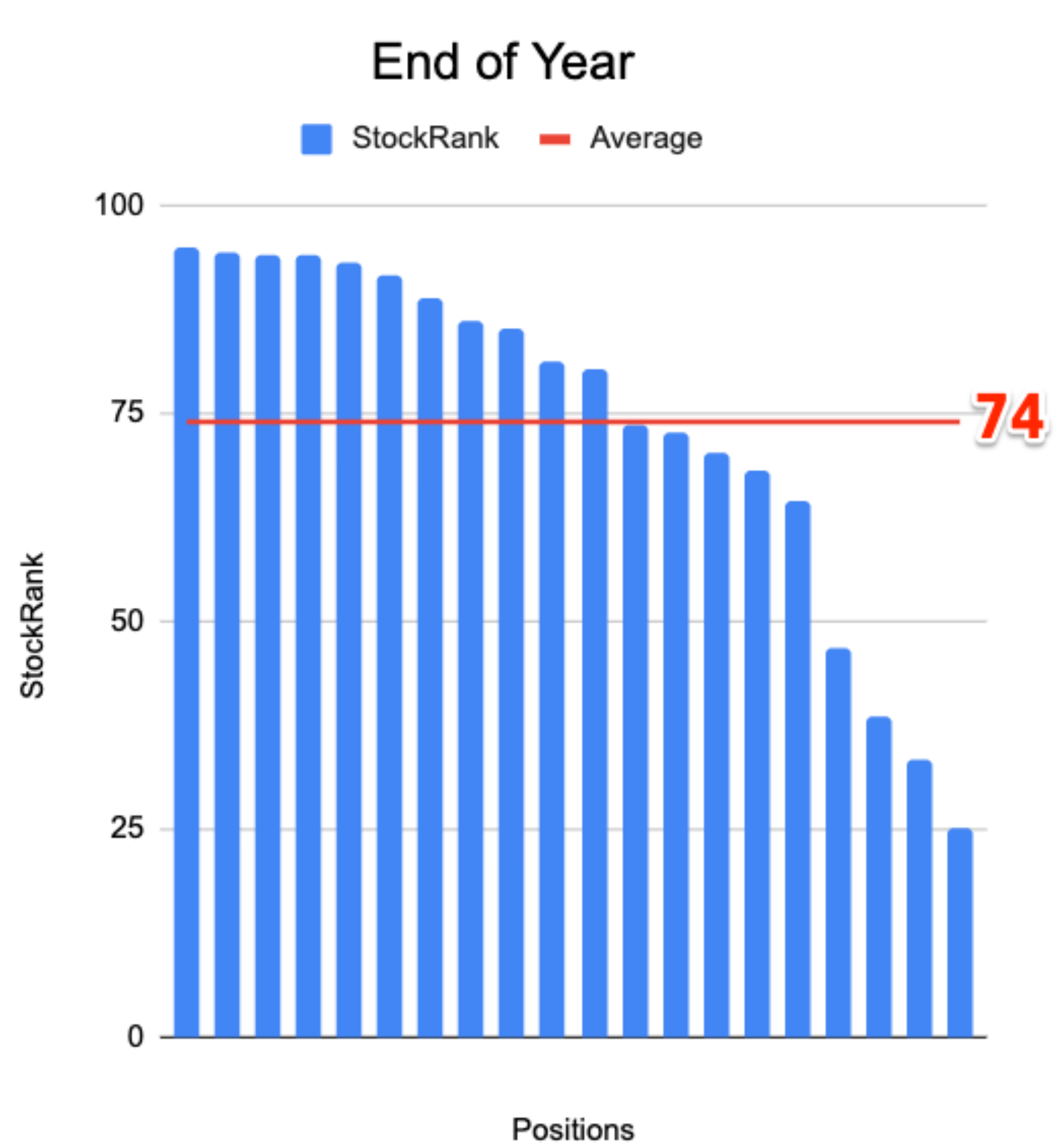
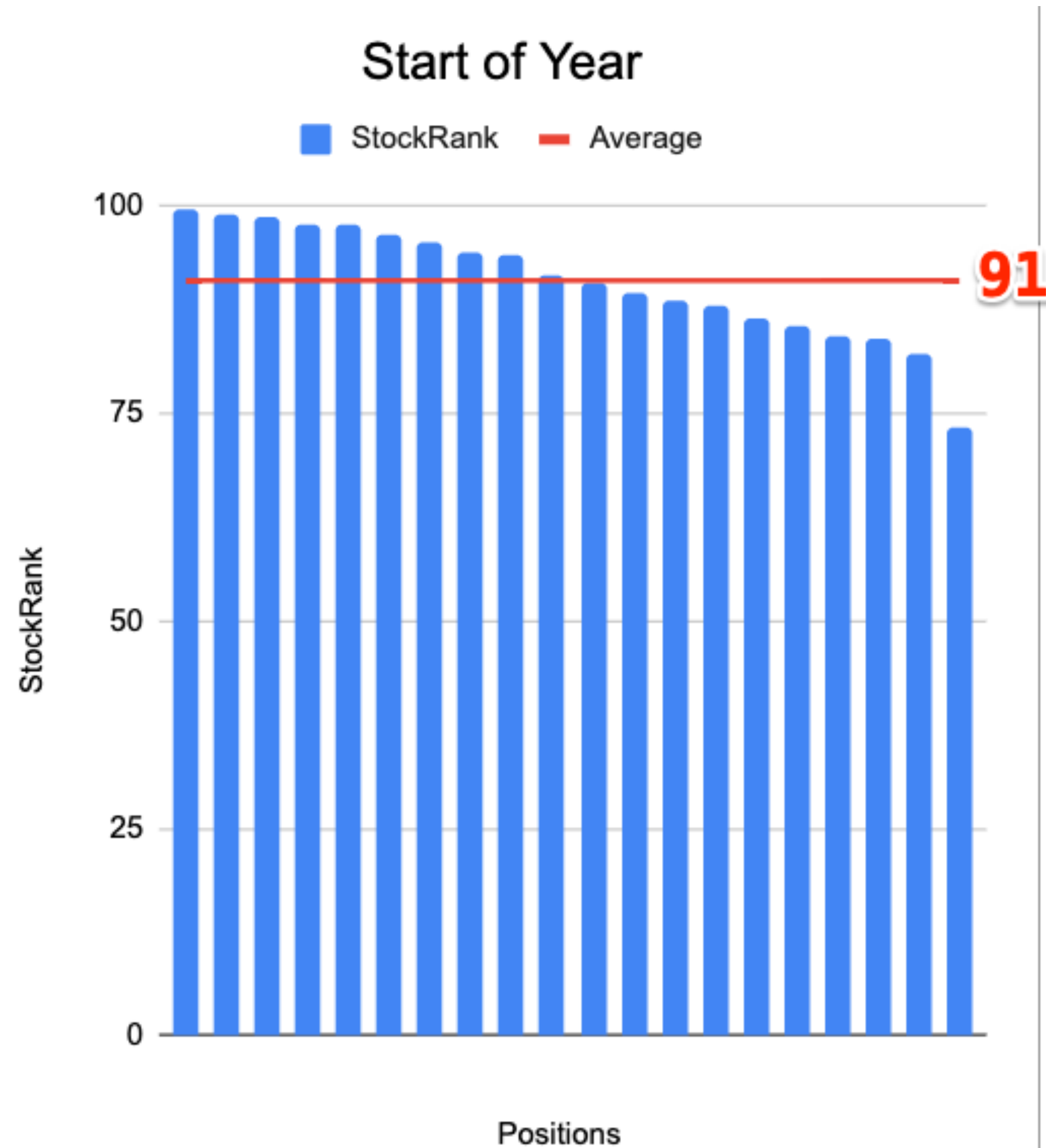
# Why rebalance positions over time?

- Prices change, position sizes change (risk)
- Valuations change, Businesses change (risk)
- Original QVM factor exposure will fall (return)

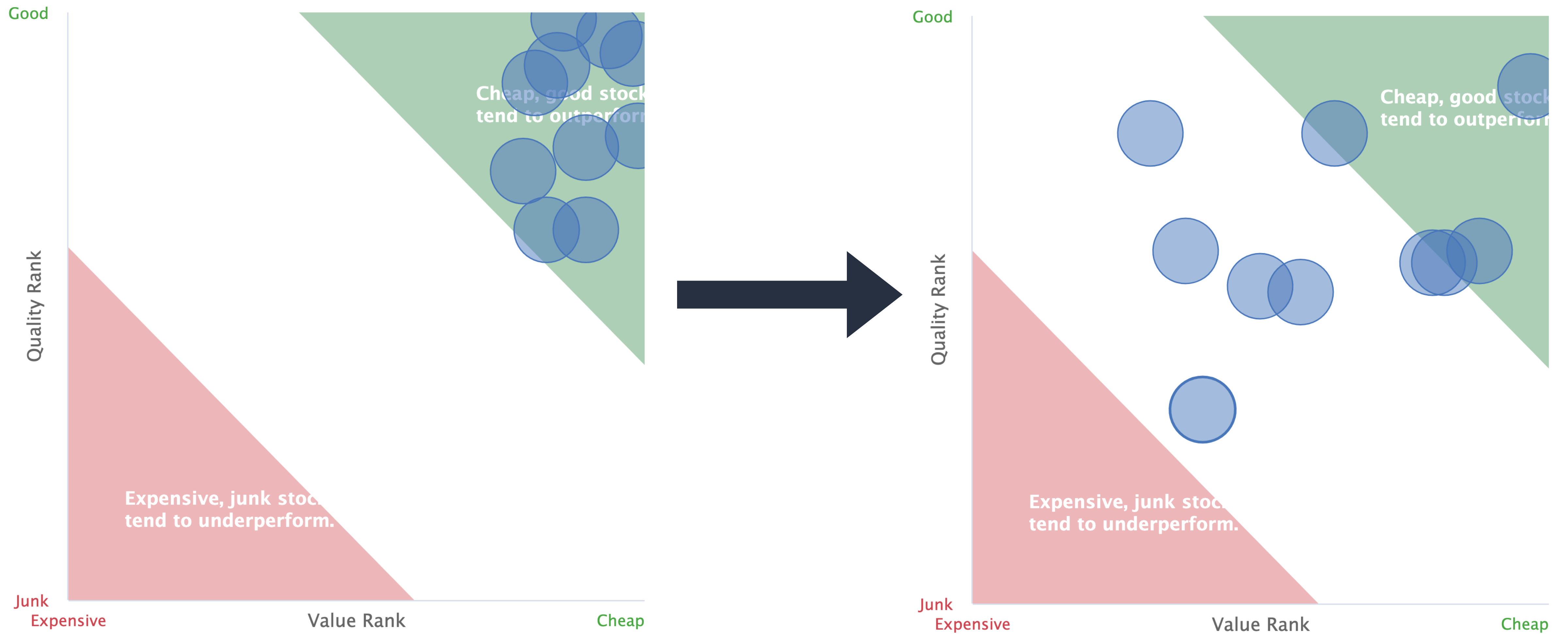
# Position Sizes drift



# Exposure to quality, value & momentum drifts



# Exposure to quality, value & momentum drifts



“

*Rebalancing is the simplest, and yet one of the most powerful ways of buying low and selling high.*



“



**Professor Andrew Ang**

Head of Factor Strategies, BlackRock, Author of “Asset Allocation”

## 2 Two Approaches to rebalancing

-  **TIME based (passive)**
  - e.g. annually on January 1st
-  **THRESHOLD based (active)**
  - e.g. when positions double/halve
  - e.g. when StockRank falls below 75



# Time based rebalancing

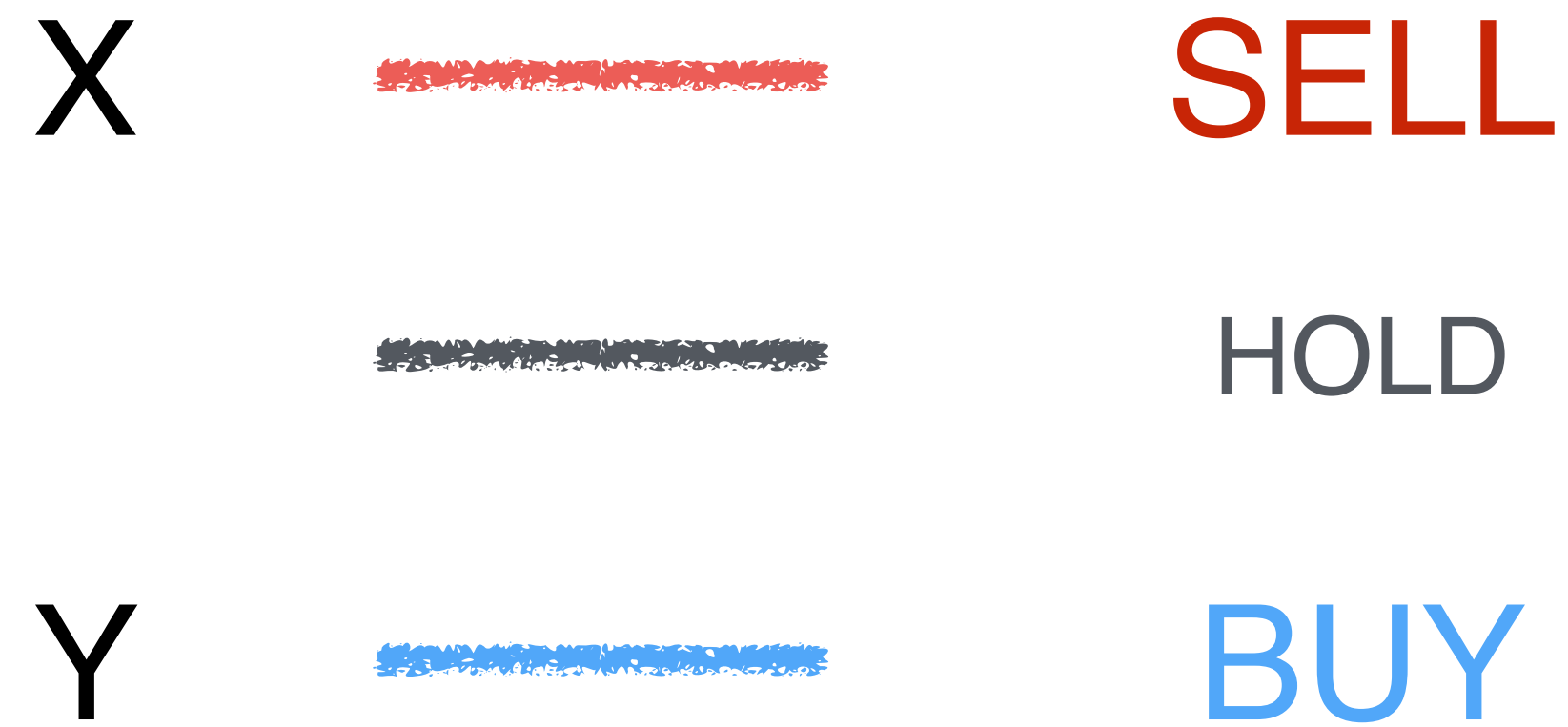
How often depends on personal situation

- **Ideal frequency depends on:**
  - Account Tax Status (you can avoid Capital Gains Tax in ISA/SIPP)
  - Portfolio Size (large accounts can trade more)
  - Frictional trading cost (small caps expensive for large accounts)
- **Annual rebalancing ideal for most investors**
- **Staggered rebalancing (a quarter quarterly)**



# Threshold based rebalancing

Trim or sell positions when thresholds or targets are hit



Take advantage of Mean Reversion

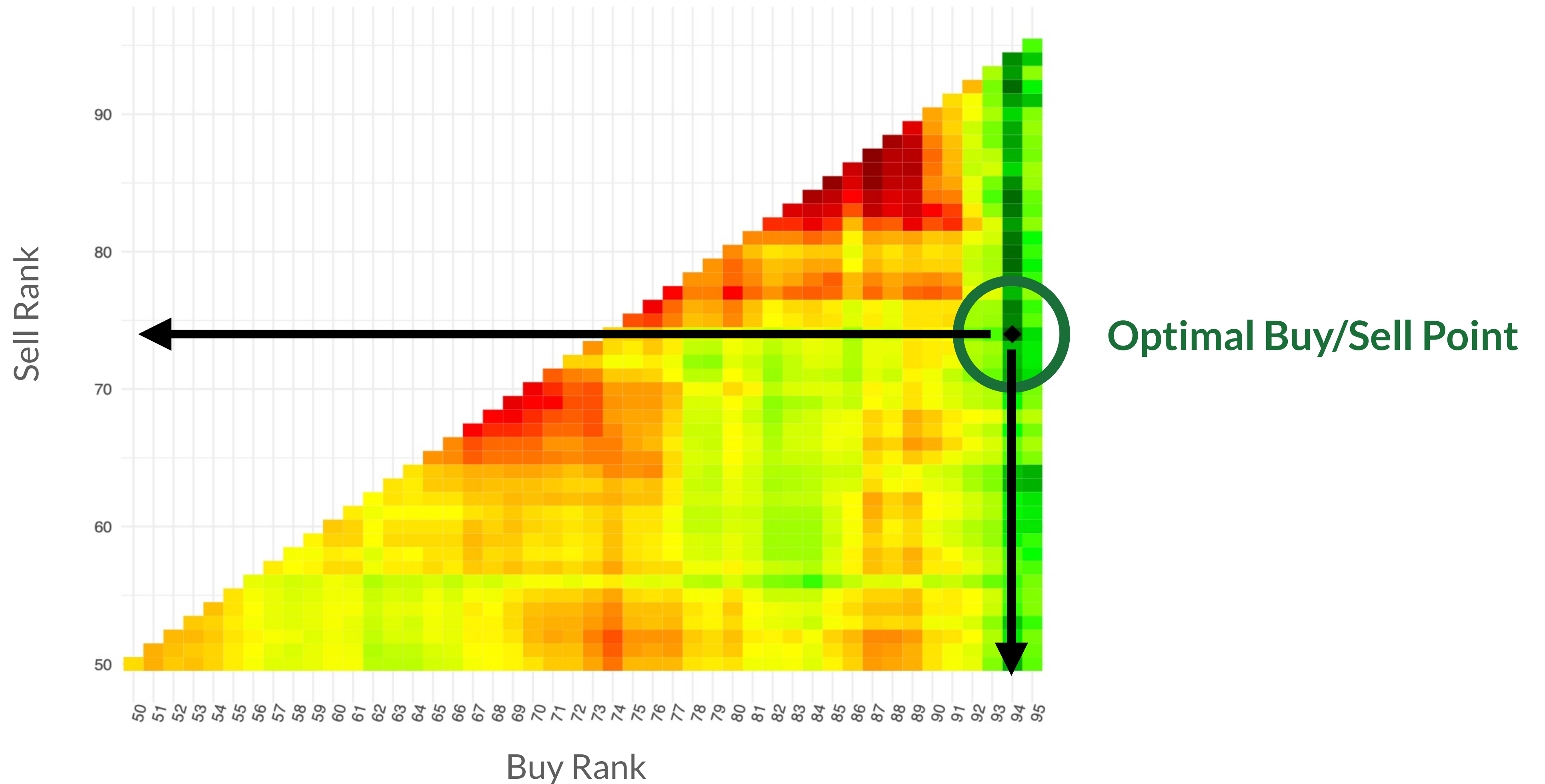
Better for more “active” investors

# When to sell? the 90/70 Rank Rule

The paper "Combining Factors" by Christoph Reschenhofer shows that simple buy and sell rules can maximise returns



PhD, Quantitative Research  
Vienna University



# NB - some sectors have lower StockRanks

e.g. 🏥 Healthcare & 💻 Technology Sectors

They hold more “*premium*” names (not worse prospects).

Set thresholds relative to sector starting rank.

<input type="checkbox"/> Name	Last Price	Mkt Cap £m	Yield % TTM	Stock Rank™ ▾
<input type="checkbox"/> 🇬🇧 <b>SPI</b> Spire Healthcare ⚙️	243.50	957.7	0.00	89
<input type="checkbox"/> 🇬🇧 <b>INDV</b> Indivior ⚙️	1,972.00	2,704.7	0.00	82
<input type="checkbox"/> 🇬🇧 <b>AZN</b> AstraZeneca ⚙️	10,694.00	167,504.0	2.16	79
<input type="checkbox"/> 🇬🇧 <b>SN.</b> Smith & Nephew ⚙️	1,134.50	9,886.2	2.89	78
<input type="checkbox"/> 🇬🇧 <b>MGP</b> Medica ⚙️	162.00	195.6	1.71	77

# Building a Portfolio

Using Stockopedia to build a NAPS style portfolio

# Building Folio on the Site ➡



# International Results

How the NAPS strategy has performed across different regions

# Rules of the Game

*NAPS Portfolios backtested against global markets using our as published archived database*

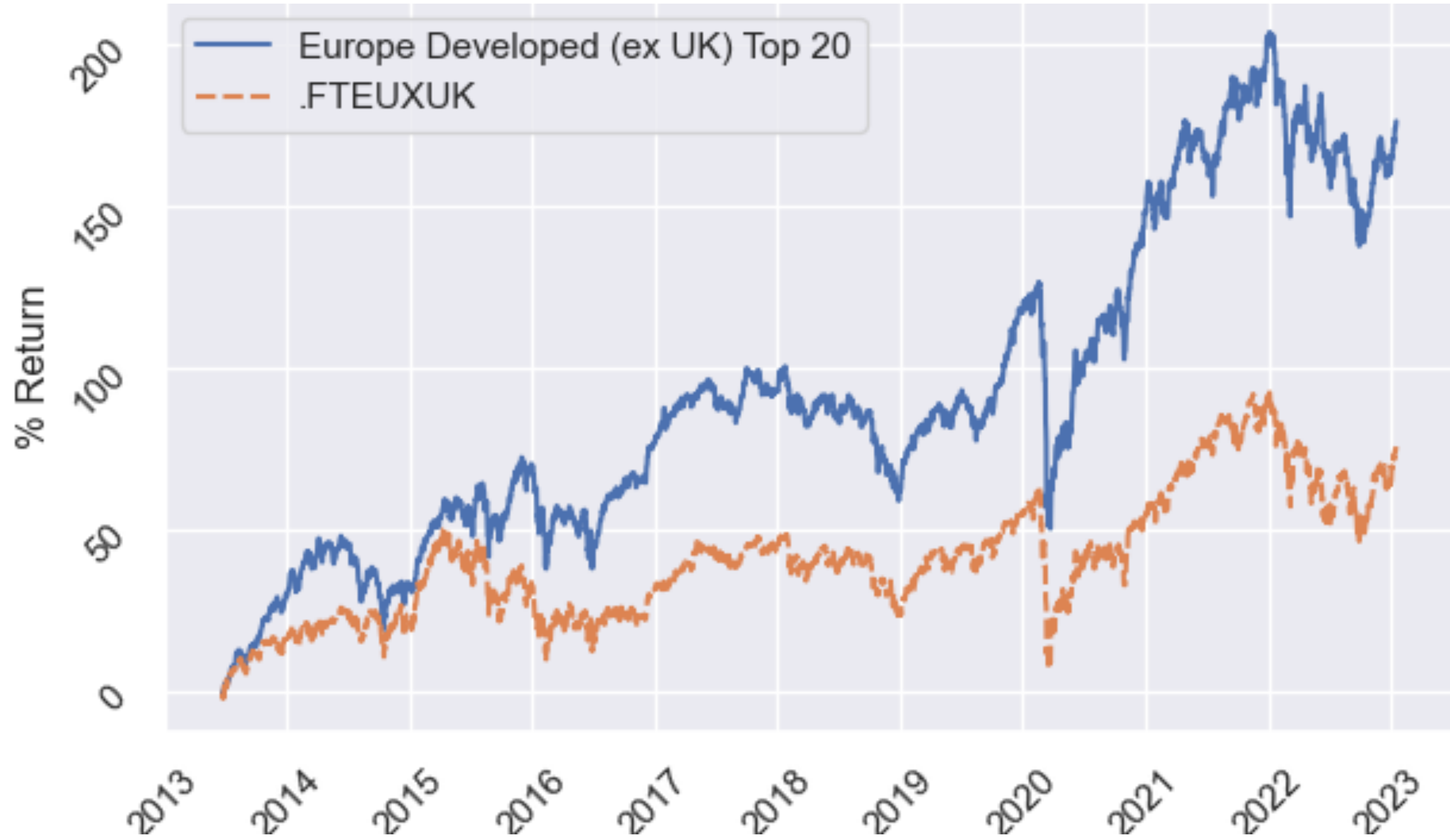
- **Factors:**
  - Sort the region's stocks by descending **StockRank** (QVM)
  - Minimum **StockRank** 75
  - Minimum market capitalisation of £20m at point of purchase
- **Diversity:**
  - Maximum of 2 selected from each of 10 sectors (20 stocks)
- **Rebalance:**
  - Annually rebalance. Equal weighted portfolios.



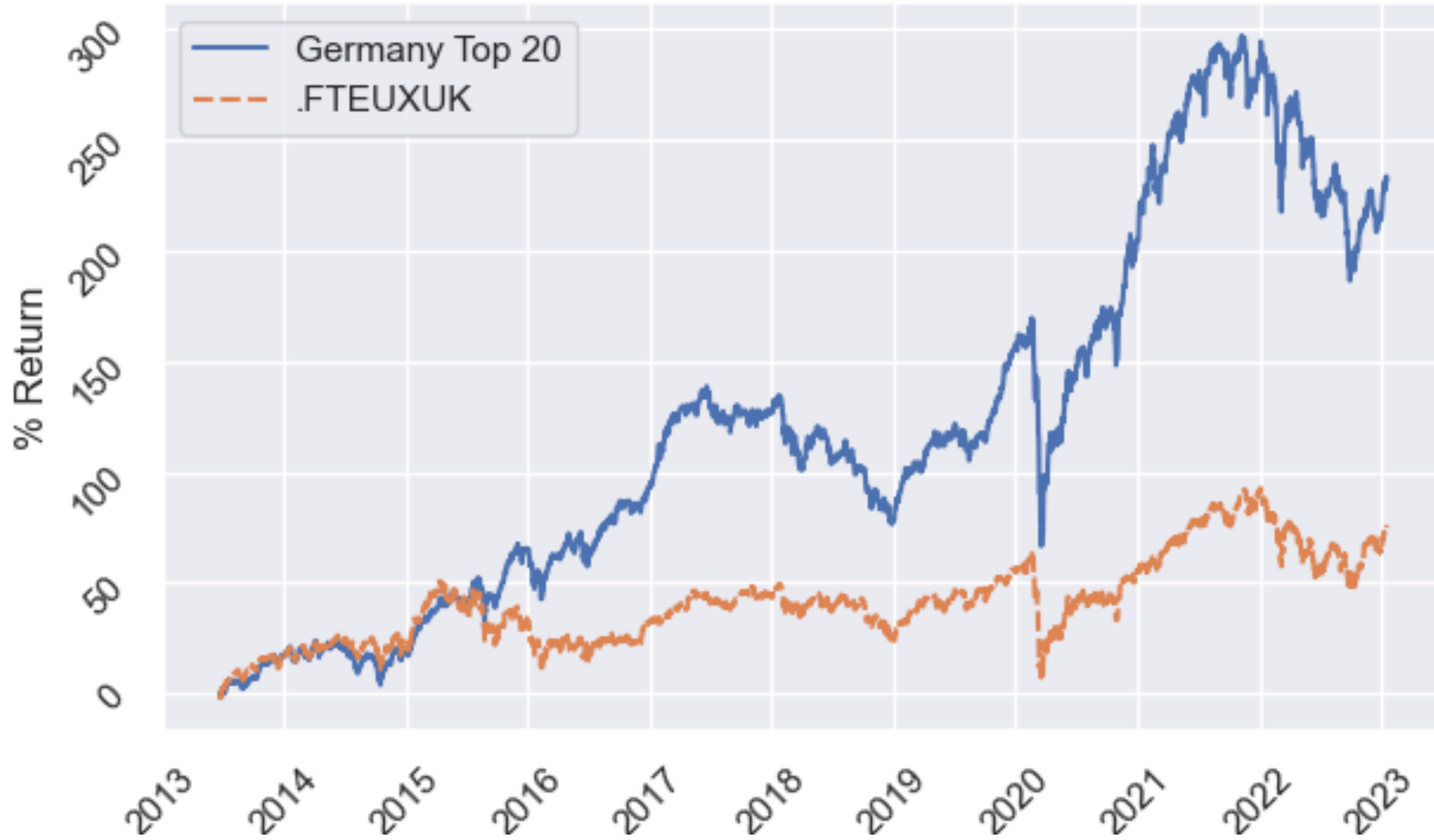
**2013 →**



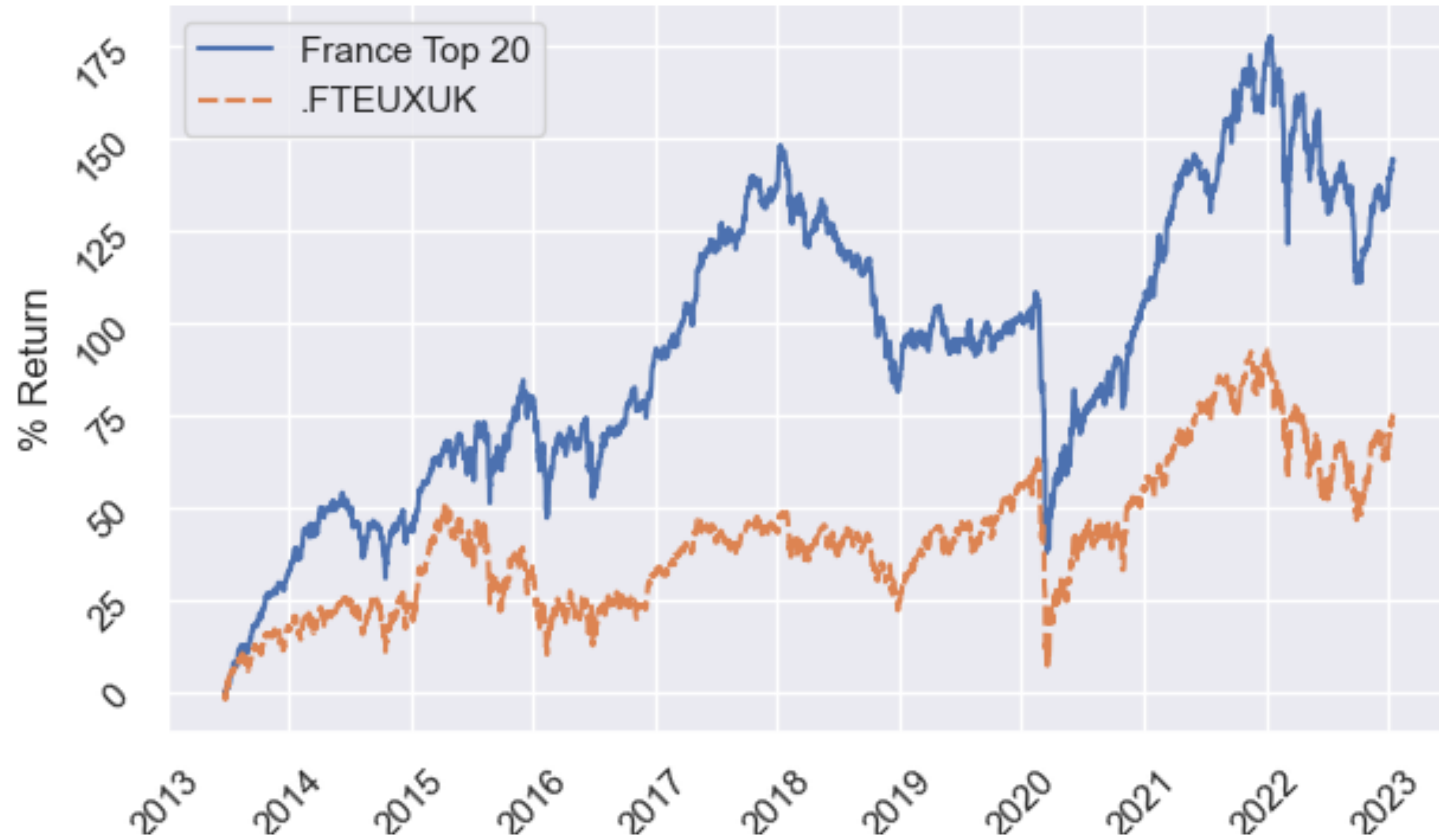
# 🇪🇺 Europe (ex UK)



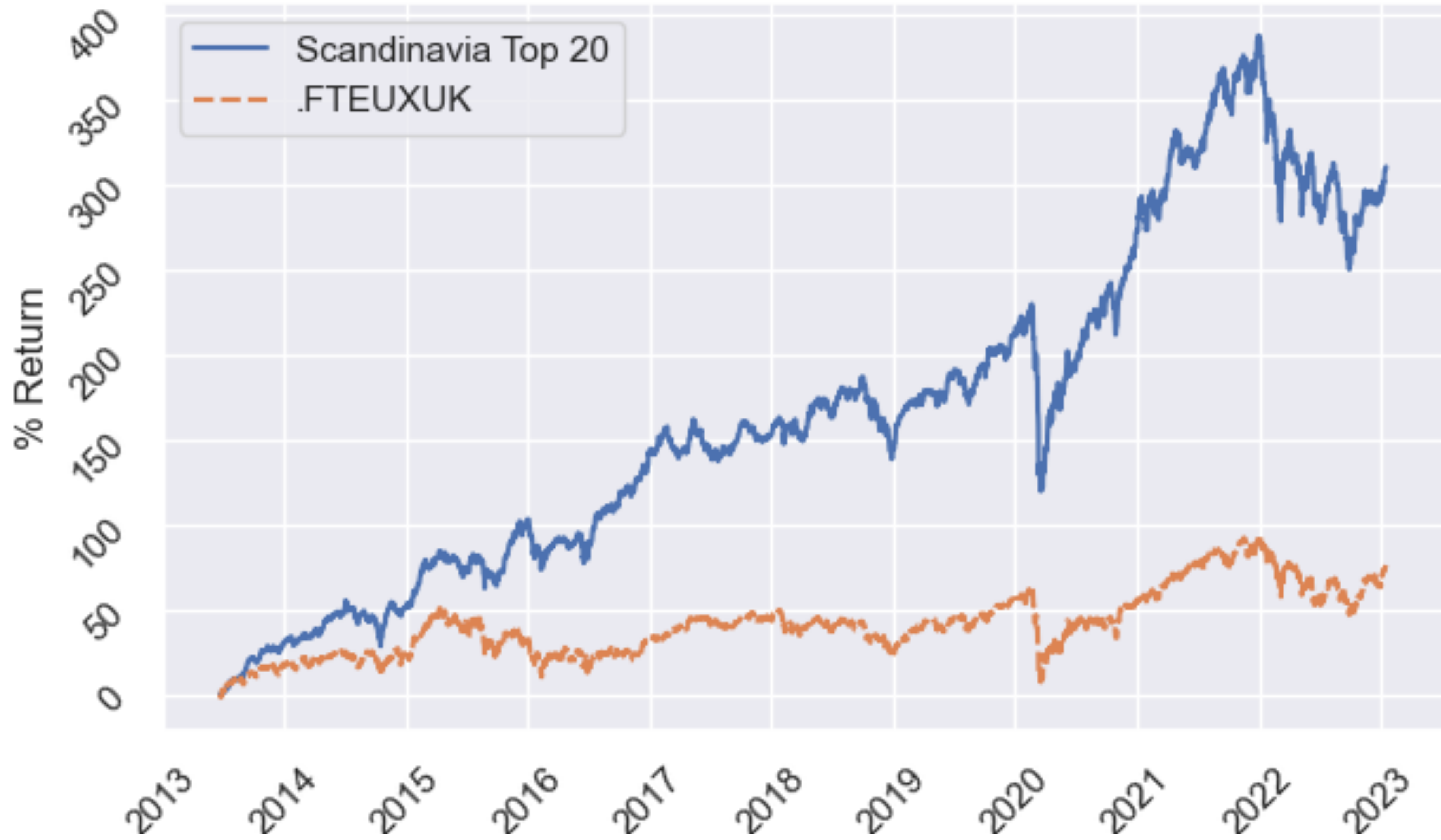
# 🇩🇪 Germany



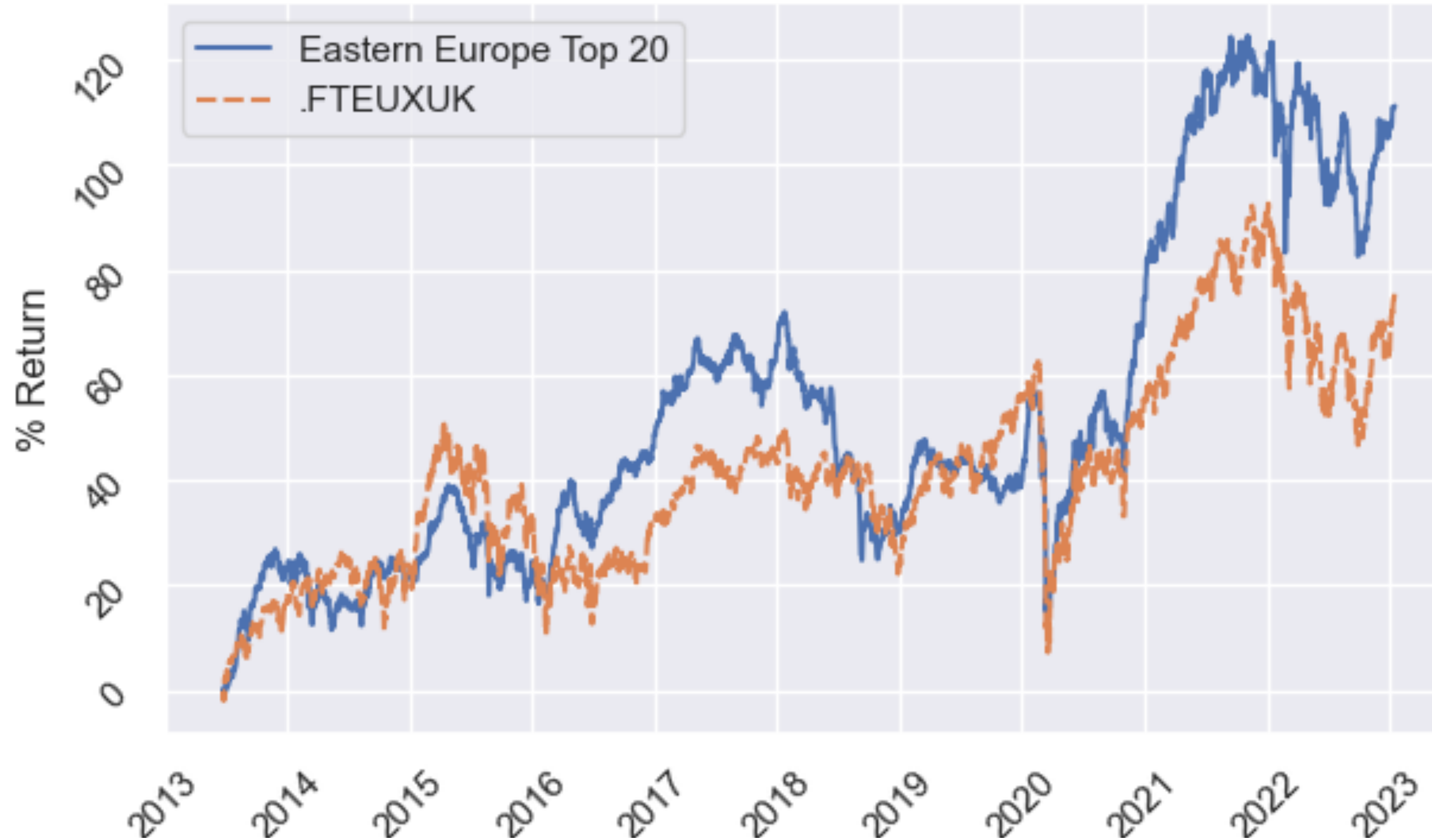
# 🇫🇷 France



# 🇸🇪 🇳🇴 🇩🇰 🇫🇮 Scandinavia



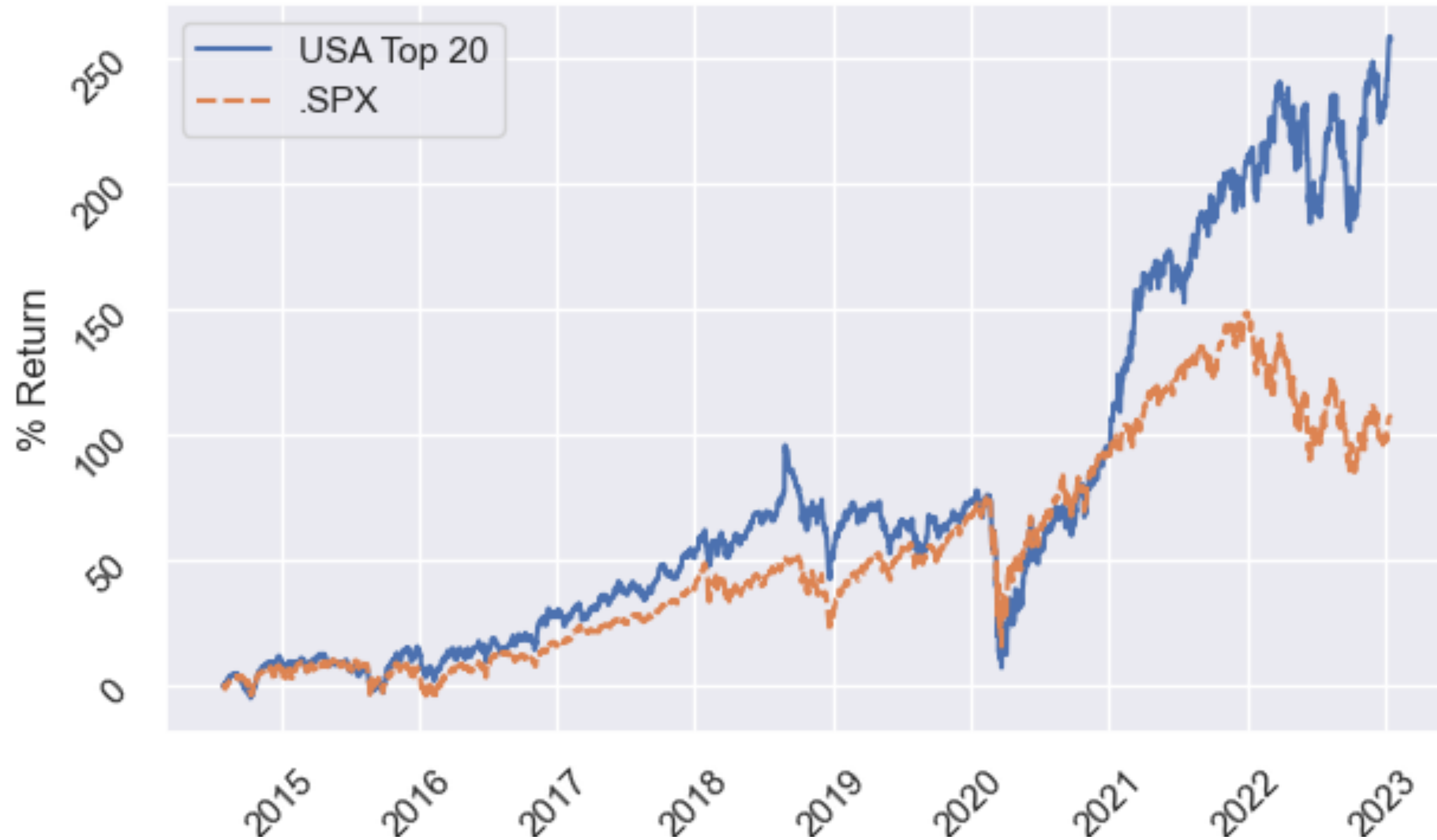
# Eastern Europe



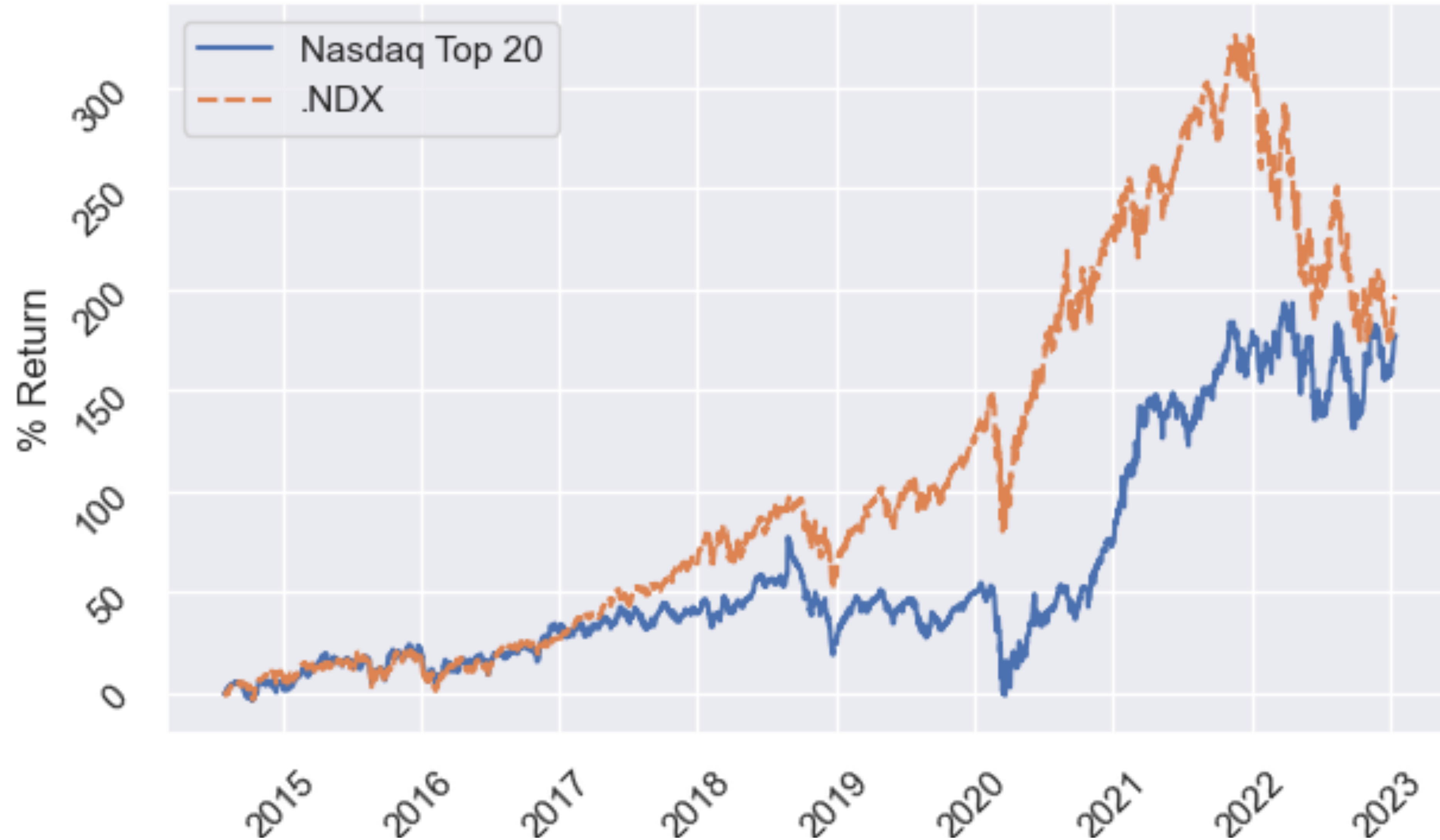


**2014 →**

# 🇺🇸 USA (Nasdaq & NYSE)



# 🇺🇸 USA (Nasdaq only)

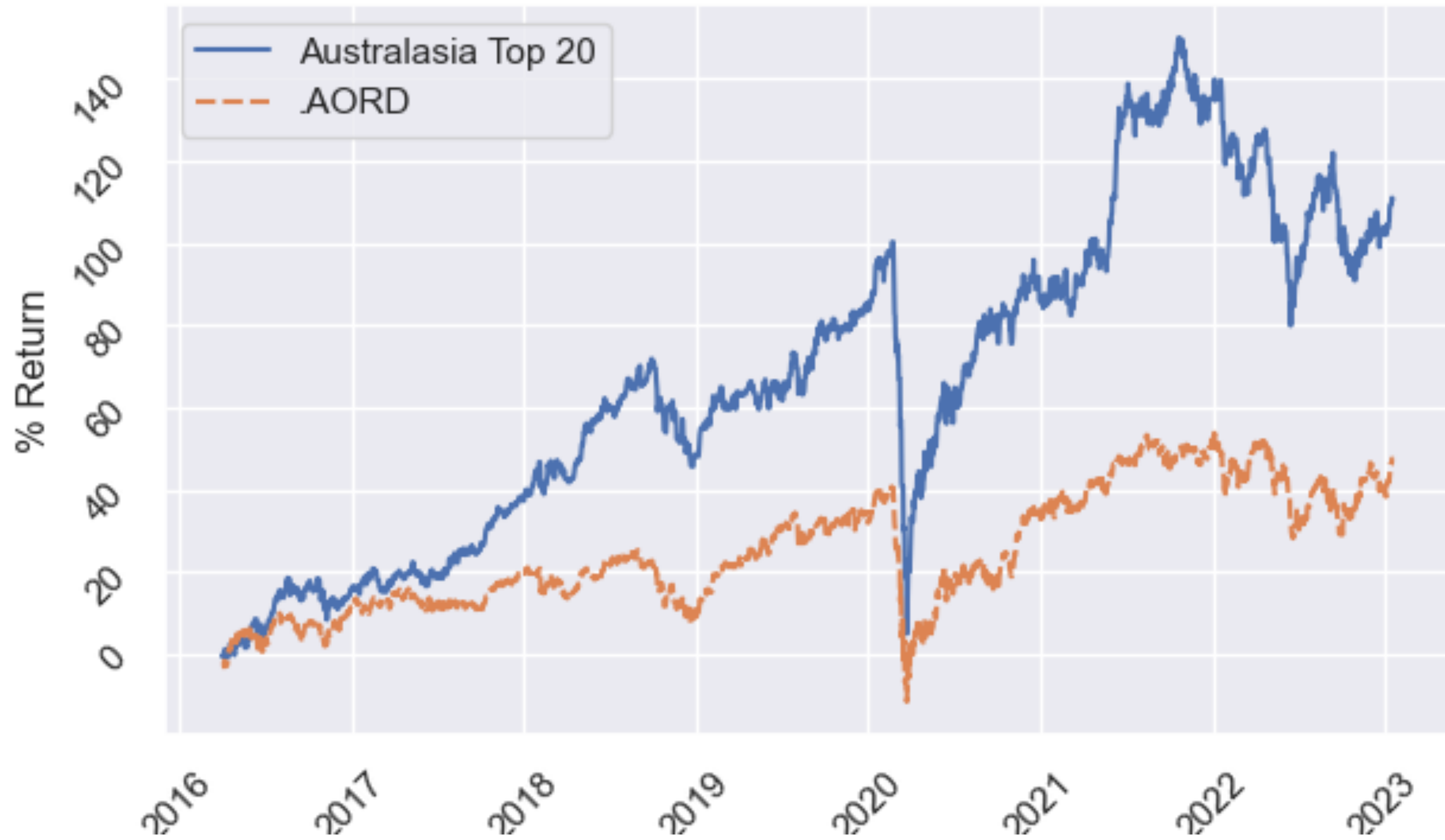




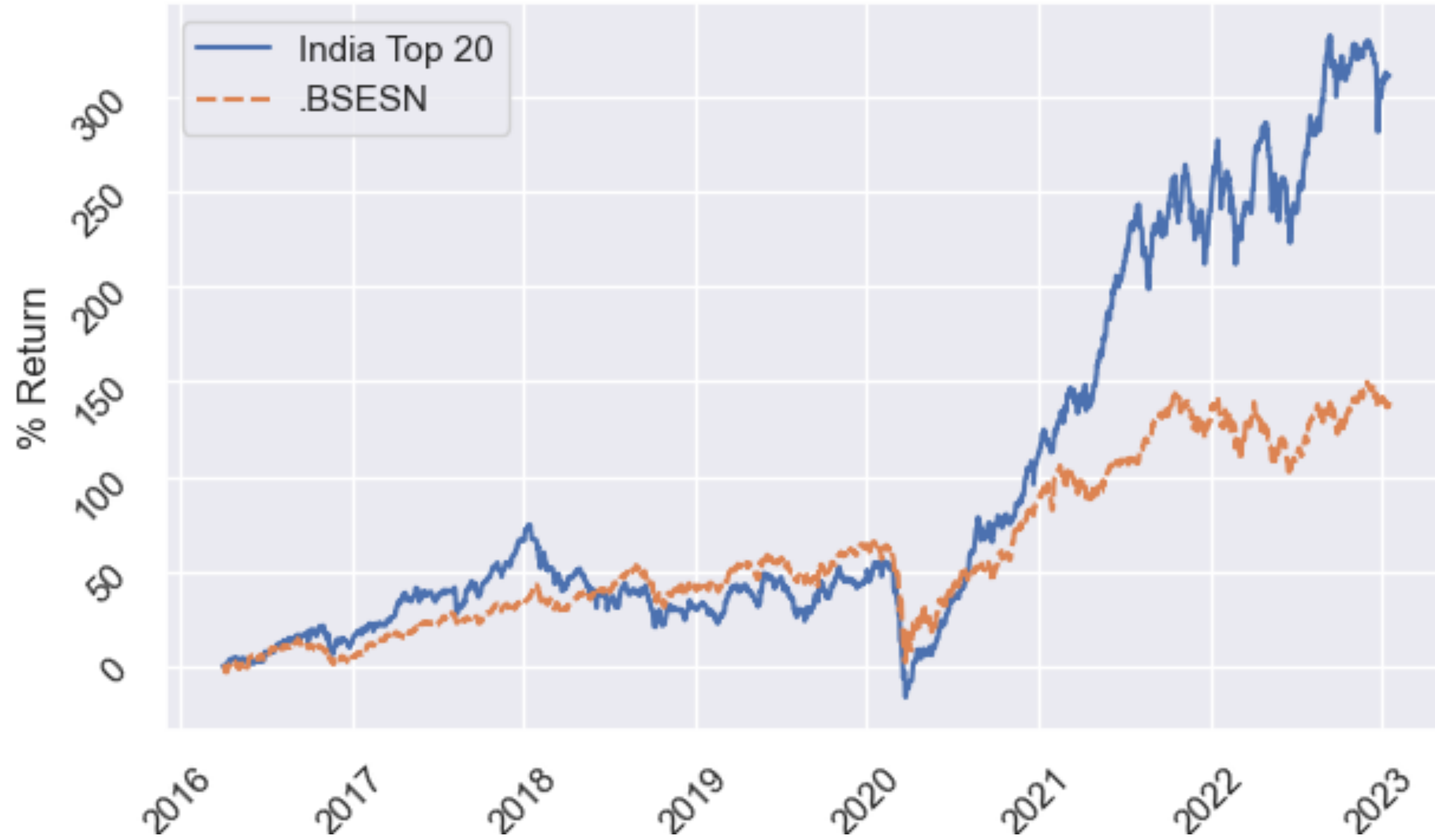


**2016 →**

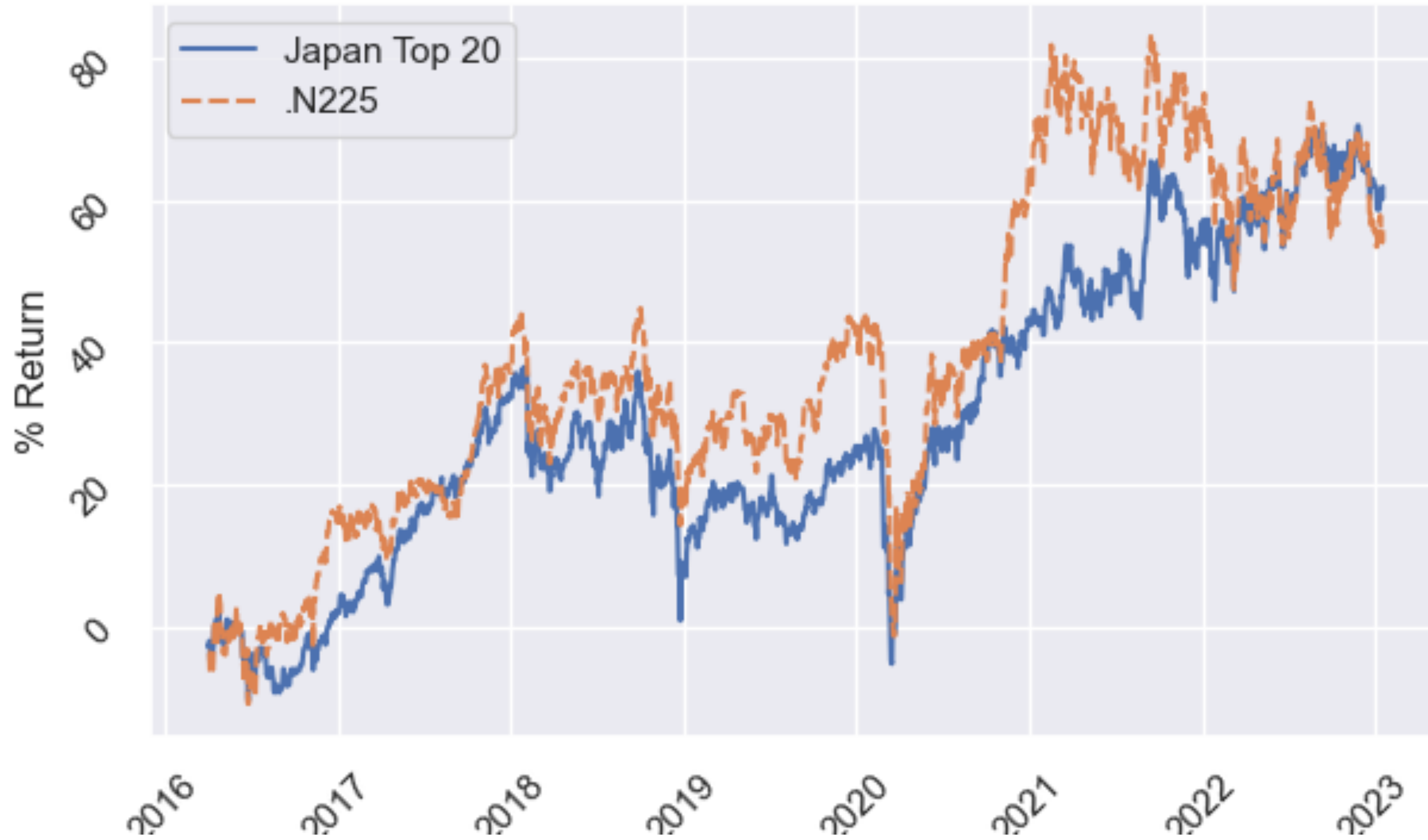
# Australia & New Zealand



# 🇮🇳 India



# 🇯🇵 Japan



# Internationally proven “factor” framework

Available for more than 35,000 stocks on 82 exchanges around the world in the UK, Europe, North America, Asia and Australasia.



MSFT – Microsoft

\$265.87 ↑ 1.29 +0.49%

Conservative • Large Cap

Quality

Value

Momentum

StockRank™



HSBA – Hsbc Holdings

496.75p ↑ 4.05 +0.82%

Balanced • Large Cap • Turnaround

Quality

44

Value

88

Momentum



94

StockRank™

91

TSLA – Tesla Inc

\$778.21 ↓ -8.90 -1.13%

Adventurous • Large Cap • High Flyer

83

3

95

65



# Questions

I'll try to answer survey and live questions !

# “How would you start a new portfolio from scratch?”

- **A personal example**

- 🟢 In early 2022, I began running a new £100k portfolio for a family member.
  - ⌚ I waited patiently for the market to bottom (under some pressure)
  - 🕒 On January 12th, my timing signal triggered ([timing model on the site](#))..
    - 💰 1/3 of the portfolio invested in 6 high “VM Rank” names.
      - YU. , SNWS, SPI, MER, KITW, TBCG
  - 3 I will wait 3 months.
    - If timing model is still in a “buy” zone, I’ll invest 1/3 more.
    - Repeat.
    - If timing model turns down. I’ll do nothing and wait.
- I expect to use a combination of 🎯 **threshold** and 📅 **calendar** rebalancing.

# Timing Model



- Very simple
- FTSE AIM All Share vs.
- 120 day Moving Average Price




# *“Is performance improved by using stop losses?”*

- My view (research backed):
  - **Stop losses generally** - **reduce downside**, but **do not increase returns**.
    - Use stop losses for risk reduction / capital preservation.
    - Must “get back in”.
  - **One rule does not fit all.**
    - 20% stop losses won’t work for “Speculative / Highly Speculative” Names

# Risk Ratings can be a Stop Loss Guide

Setting stops at a 6 month volatility (~half annual) is reasonable - Market Timers can make stops much tighter

	Risk Rating	Volatility <i>Annualised &amp; Adjusted</i>	Stop Level
 Low Risk ↑ ↓ High Risk	1. Conservative	< 25%	12%
	2. Balanced	25%-35%	15%
	3. Adventurous	35%-45%	20%
	4. Speculative	45%-70%	25-35%
	5. Highly Speculative	>70%	😬

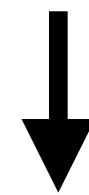
\* Bands vary over time

# The Data Process

1. Our primary data sources (including Refinitiv), employ **thousands of analysts** who scan, audit & standardise financial data entry into their databases before uploading to their financial cloud.



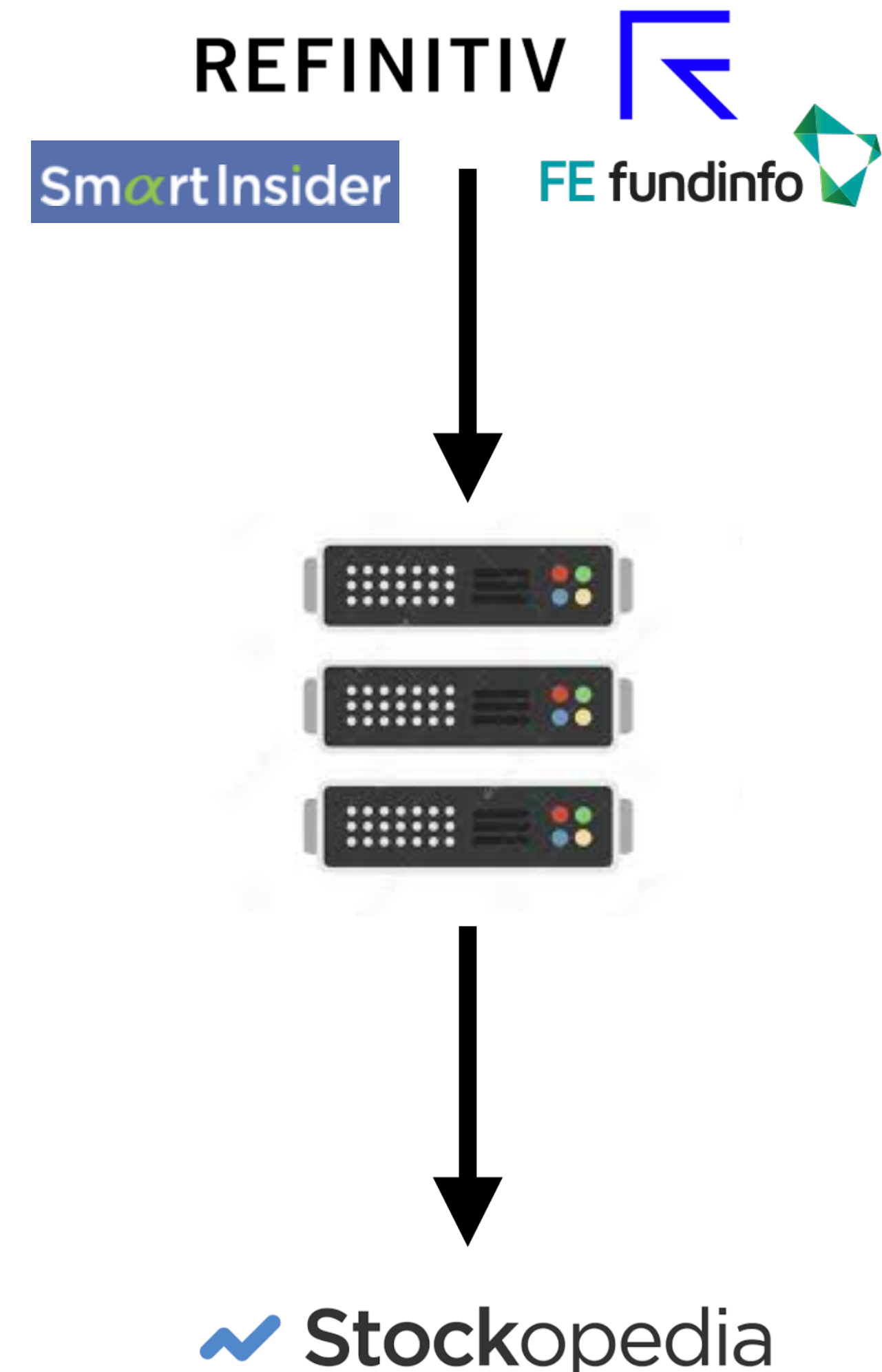
2. Throughout the day and night we download **financial statements, analyst estimate data, price quotes & histories and other company information** to our databases.



3. Our analyst & developer team organise it and clean it all up, and our servers **crunch over 60 million computations daily** to build up a **library of more than 2000 essential, accurate statistics** on every stock. From simple PE Ratios to Piotroski F-Scores.



4. We then rank and screen the market to filter the wheat from the chaff and publish the data on our **StockReports** and in our **Screening Database**.



# Everything you need to improve your investing



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