

INVESTMENT PROCESS, CONSTRUCTION & PERFORMANCE ANALYSIS

Strategic Portfolio Management

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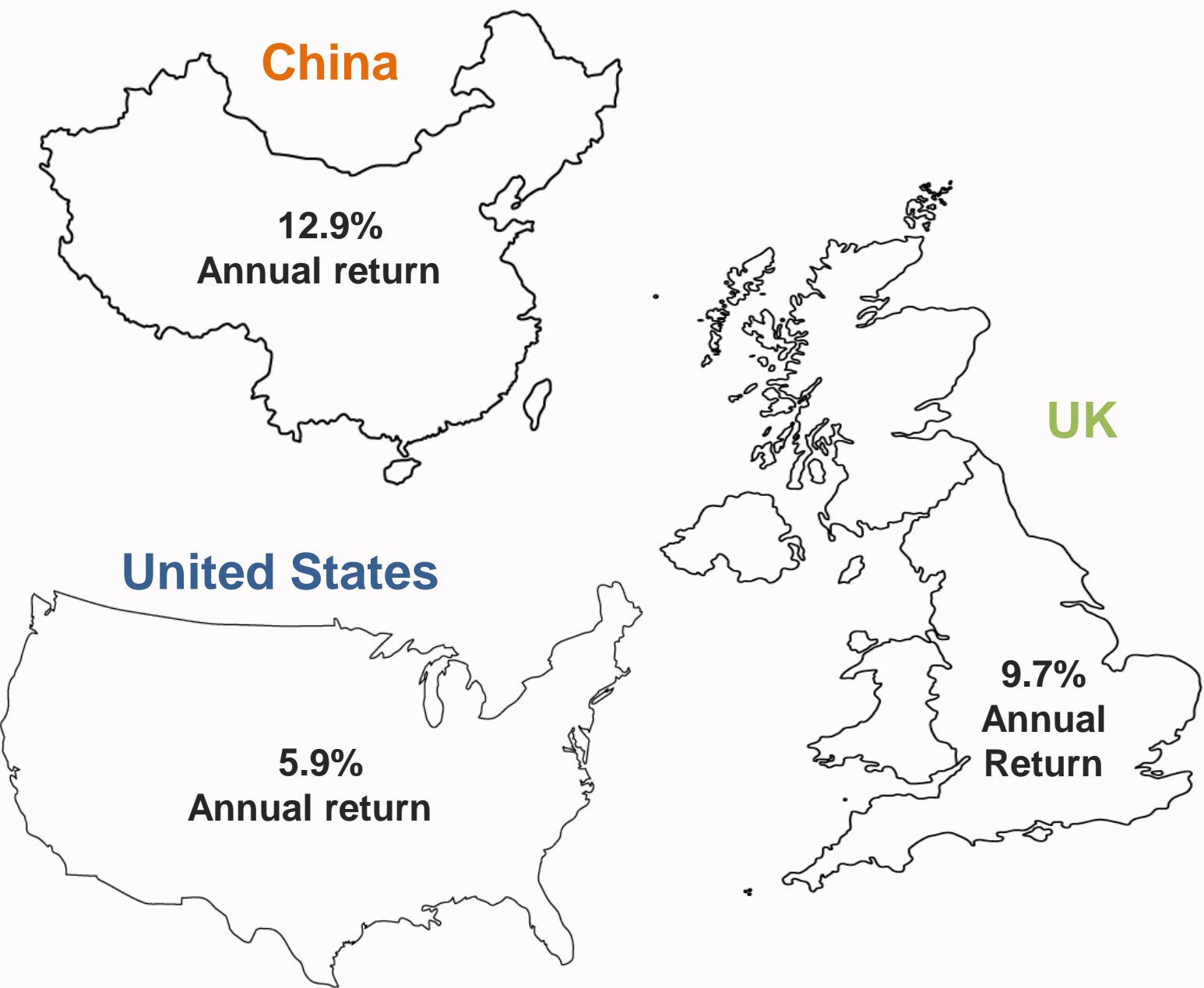
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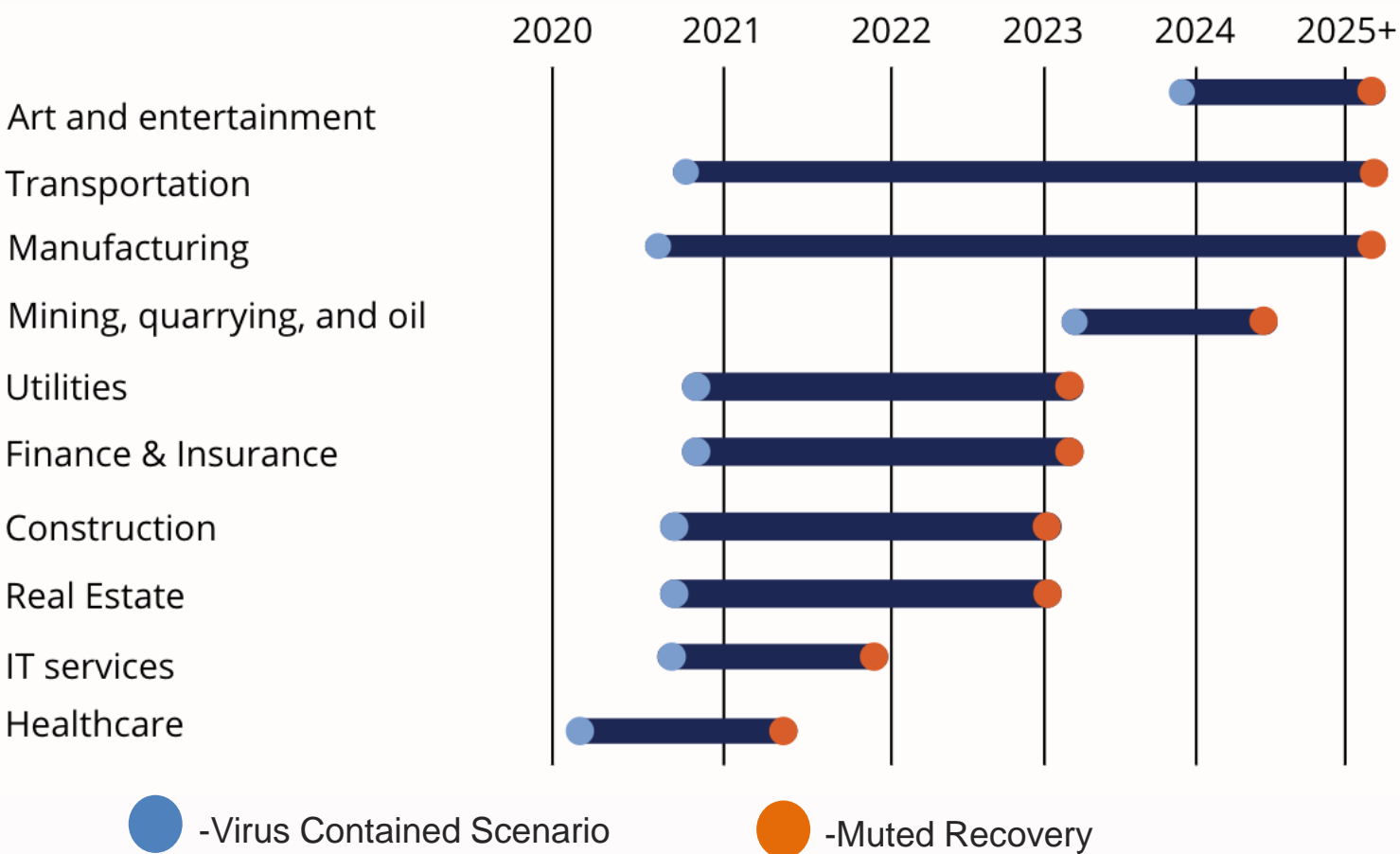
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Market Forecast & Research

Asian equities will deliver the highest reward while American equities are likely to underperform.



Estimated time to recovery to pre-COVID-19 sector GDP



(McKinsey, 2020)

5-Year Forecasted Industry Sector Returns

Industry	Yield	Trend & Valuation	Total Return (USD)
Energy	3.6	-2.1	4.8
Materials	0.7	-3.8	4.9
Industrials	-0.1	0.9	8.7
Cons. Discretionary	-1.3	1.3	5.6
Con. Staples	0.5	0.5	11.3
Health Care	-0.4	1.8	10.1
Financials	1.4	0.8	3.6
Real Estate	1.6	-0.2	7.7
IT	-1	1.6	9.3
Communication SVS.	-0.6	0.6	6.5
Utilities	1.7	-1.9	0.9

(Pictet Asset Management, 2020)

Market Forecast & Research

Resiliency

ESG

Through analysis of sustainable indices and open-ended funds in the top 10% score of Morningstar’s sustainability ratings, BlackRock observed funds with ESG principles outperformed their counterparts in times of notable market drawdown and volatility (2021).

Recovering Sectors

Through investment into sectors with characteristics that facilitate them from recovering quickly after periods of high market volatility, as displayed by the IT sector, healthcare, and finance industries after the COVID-19 pandemic, will facilitate the construction of a portfolio that is robust in the case of future volatility.

Return

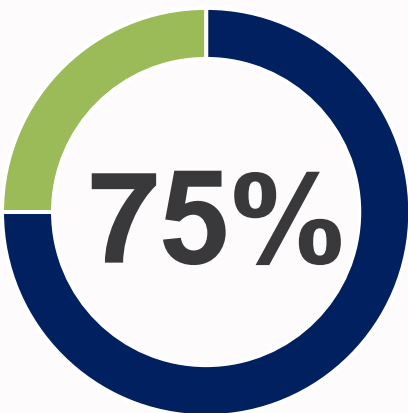
Emerging Markets

As the U.S. equity market is forecasted to underperform as they lose the valuation premium they have developed and Asian markets display the most future return, it is suggested emerging markets will play a pivotal role in outperforming the assigned benchmark.

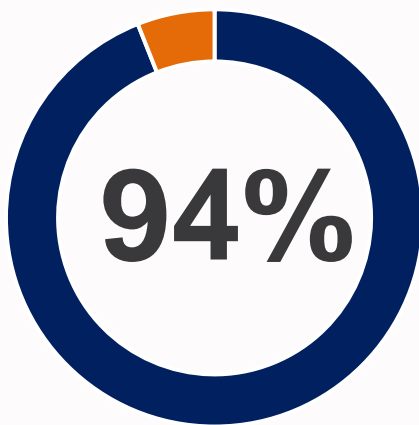
Forecasted Sectors

Additionally, the portfolio can utilise sector forecasts to identify lucrative industries that will facilitate the portfolio in outperforming the benchmark.

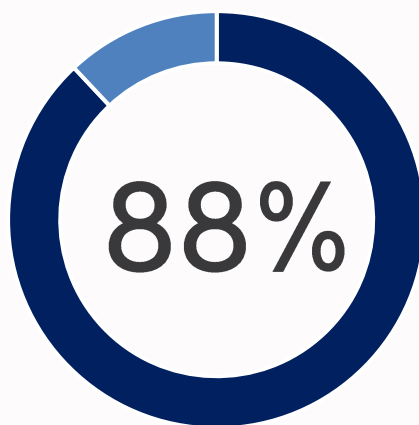
Percentage of sustainable indices that have outperformed during historical downturns:



Fed Policy Reaction 2018



COVID-19 Q1 2020

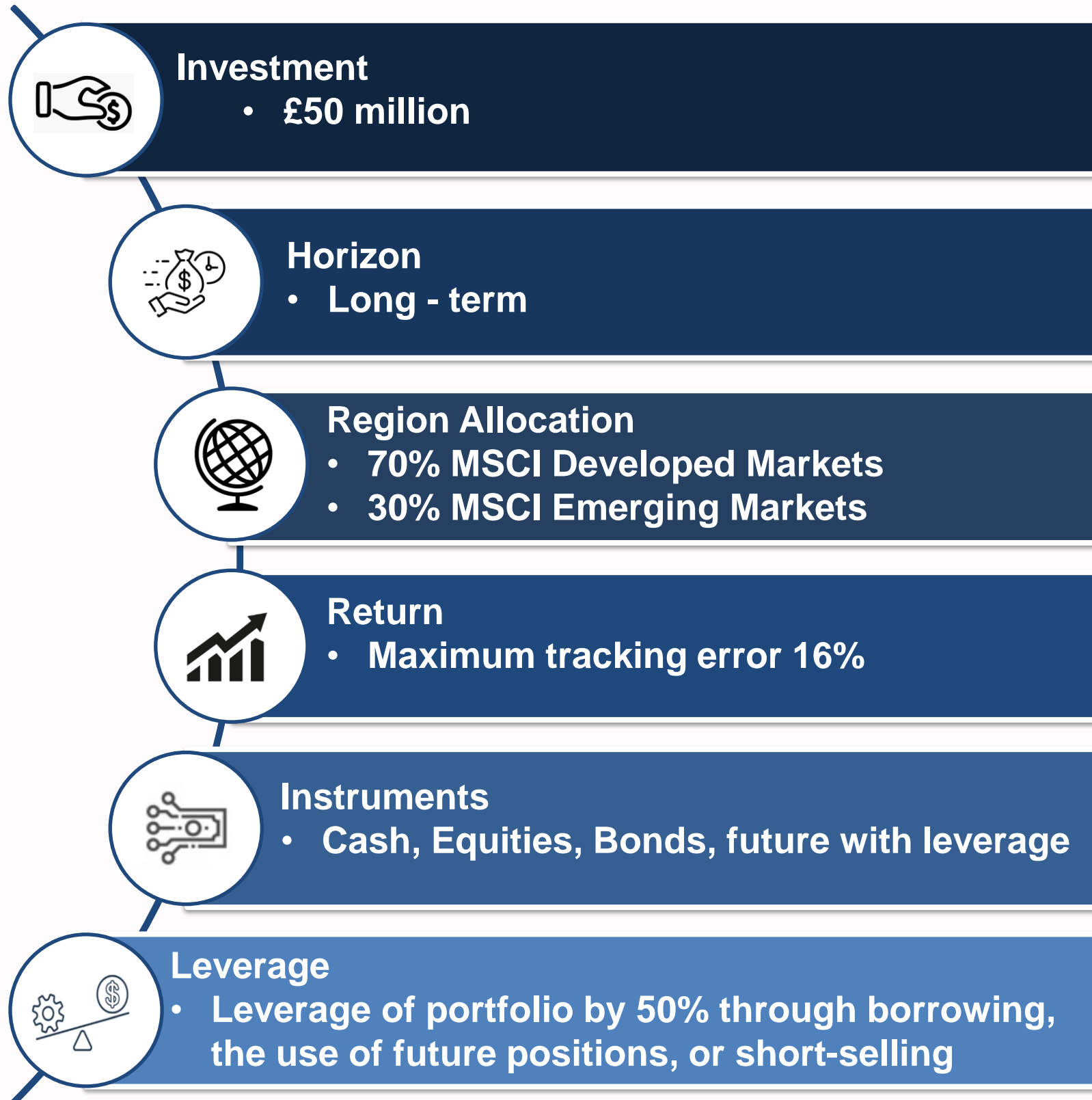


YTD 2020

(BlackRock 2021)

Investor's Financial Objectives & Constraints

Return & Risk Objectives



Constraints:

Liquidity

- Meet demands for cash distribution
- Transaction Cost & Price volatility determine liquidity

Time Horizon

- Stage of life of the portfolio might vary by time

Taxes

- Universal and complex investment constraint for the portfolio

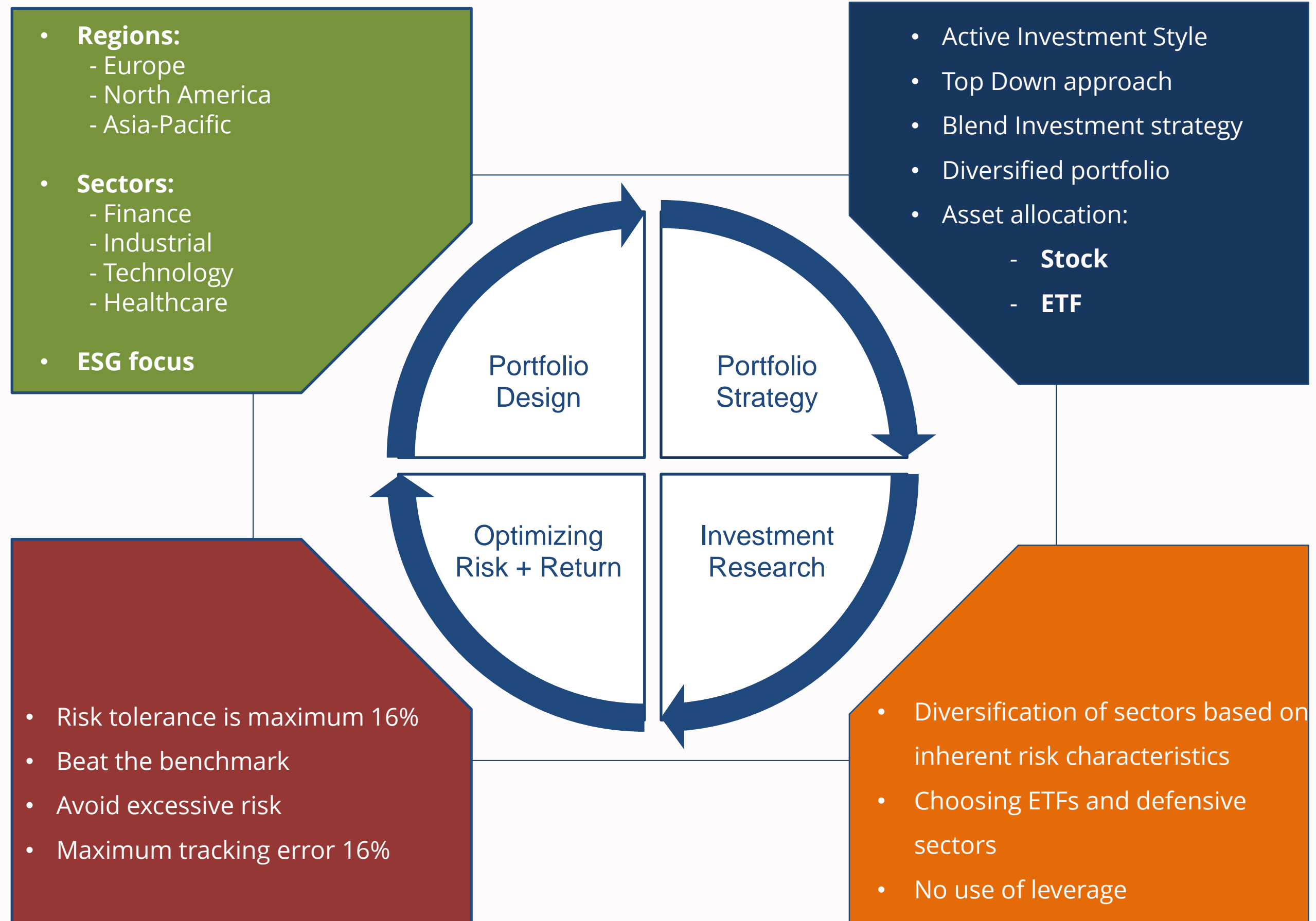
Legal and regulatory environment

- Vary greatly from country to country and change frequently

Unique circumstances

Investment Strategy

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Asset & Security Selection: Top Down

Regions

- **Europe:** best overall ESG and good return
- **North America:** wide array of available stocks, some with good ESG
- **Asia-Pacific:** highest return prospects, but with high risk and nascent ESG

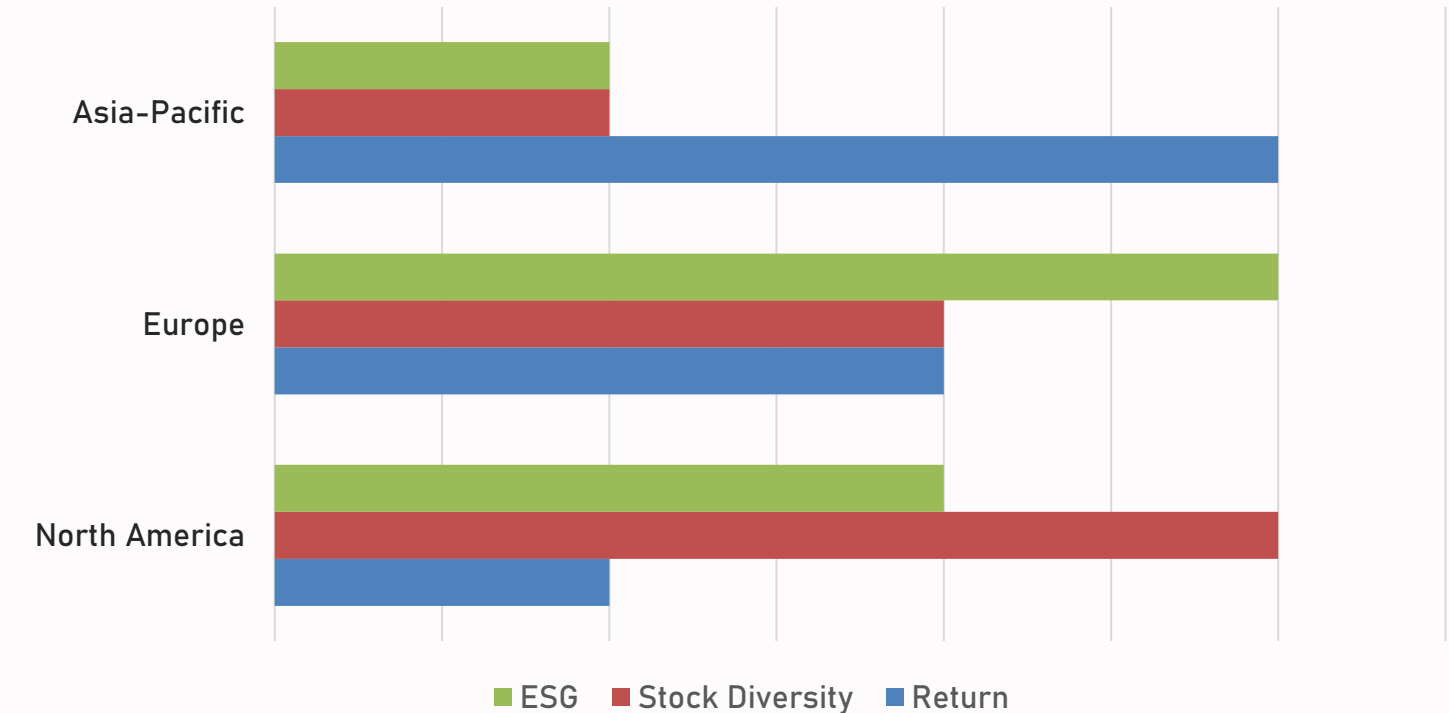
Asia-Pacific – specifically decided to choose mostly Indian stocks due to coupling of good growth prospects with ESG. China was also considered but human rights concerns (ESG-related) limited choices

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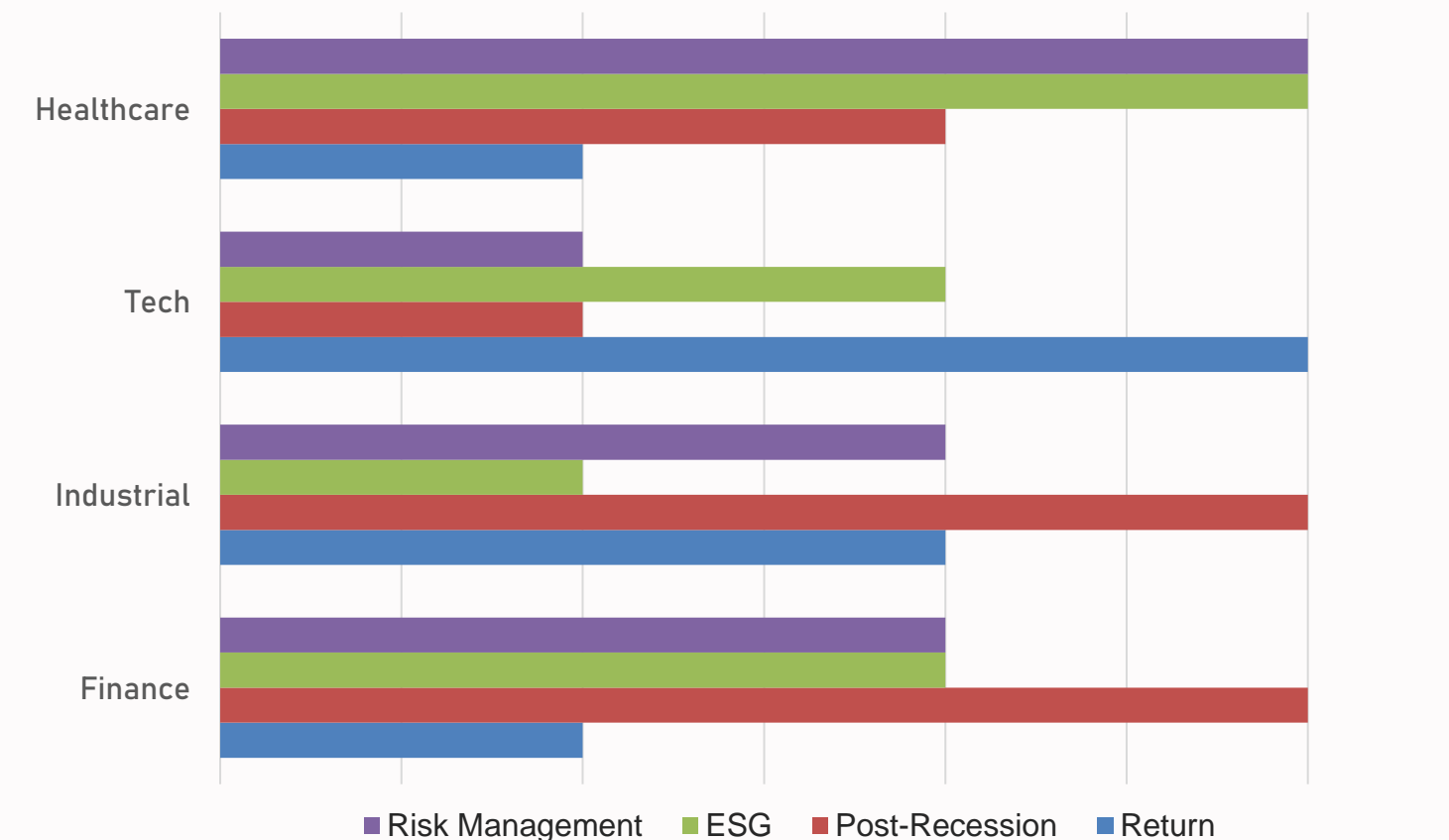
Sectors

- Finance and Industrial sectors are traditionally the biggest winners in an economic recovery
- Technology stocks have high return, useful in a portfolio seeking to beat the benchmark
- Healthcare stocks are defensive while having excellent ESG scores

Regional Characteristics



Sector Characteristics



Selected Securities: Stocks



General Electric GE:US

- Major players in renewable and nuclear energy
- As an industrial giant, poised to perform well in recovery from recession
- ESG Combined Score: C (2019)



Prudential

Prudential PRU:LN

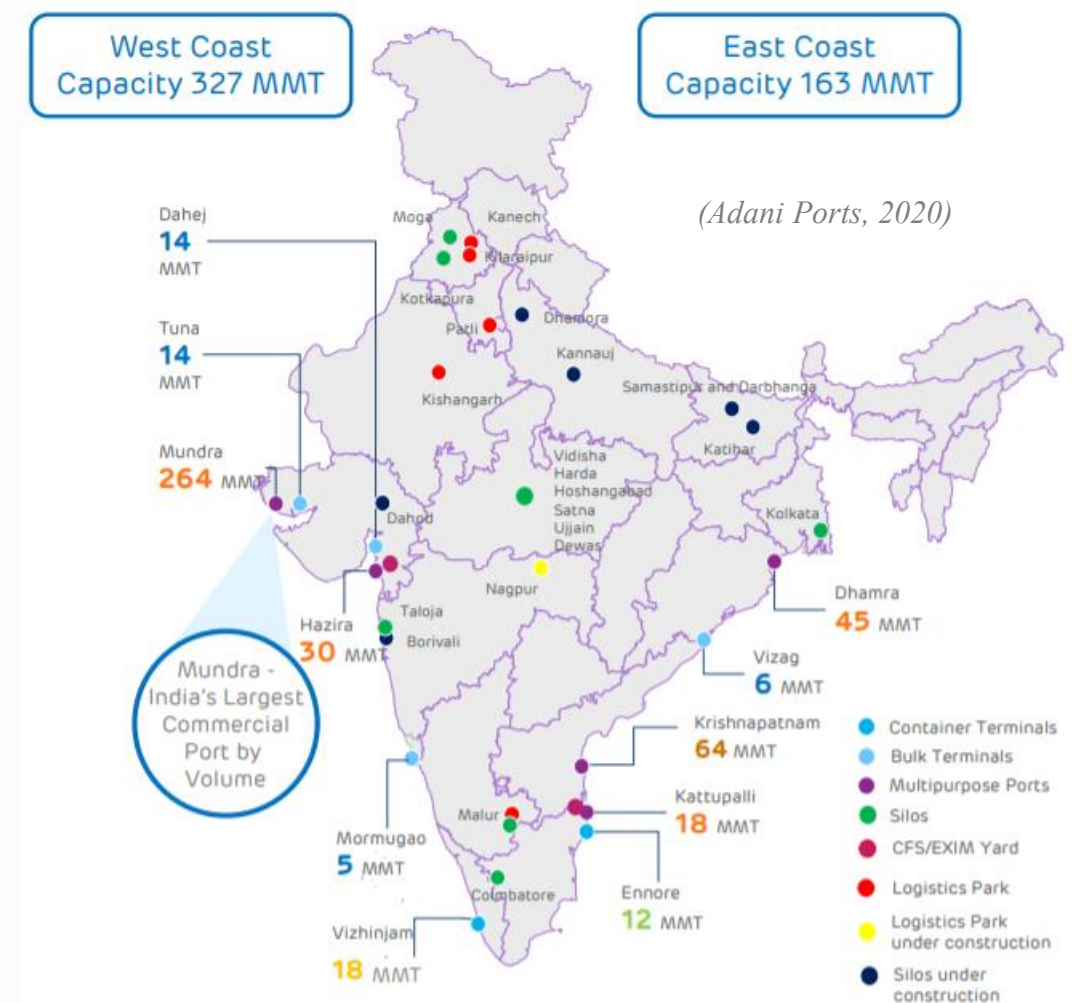
- International financial services company offering life insurance.
- Shows strong growth potential given current climate.
- Combined ESG score of B- (2019)



Ports and Logistics

Adani Ports ADSEZ:IN

- Largest port operator on both coasts of India, with an increasing presence in the busiest global transshipment route
- Strategic partnership with LNG giant Total S.A. ensures exposure to fast growing energy needs of India



Oracle ORCL:US

- Software company over four decades providing IaaS, PaaS, and SaaS solutions to SMEs to MNCs.
- Generates anaemic sales growth compared to competitors including Amazon and Microsoft
- ESG Combined Score: C+



Bayer CropScience

Bayer Cropscience BYRCS:IN

- Indian agrochemical company active in seed biotechnology, crop protection and digital farming
- Techno-innovative expertise enable Bayer Cropscience, expand their footprint sustainably in one of the biggest agricultural markets of world

Selected Securities: Stocks

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Humana

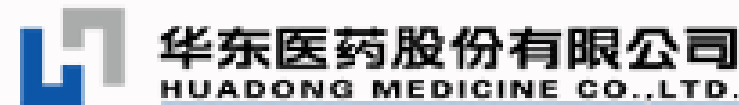
Humana HUM:US

- Health and well-being company, ranked highly in the US market.
- As of 2019, holds A and A+ ESG scores across several categories.
- Strong buy analyst views and holds attractive fundamental ratios.



Vertex Pharmaceuticals VRTX:US

- Biotech firm rapidly revolutionising the treatment of cystic fibrosis (CF).
- FDA approval of Trikafta drug which can treat 90% of CF patients.
- Ranked in the top 10% for ESG score in industry (Combined Score B)



Huadong 000963:CH

- Chinese based pharmaceutical company, products mainly include patent drugs.
- ImmunoGen partnership leaves room for great future development.
- Sustainable company that strictly adhere to professional ethics
- ESG Combined Score: C (2019)



Sun Pharmaceuticals SUNP:IN

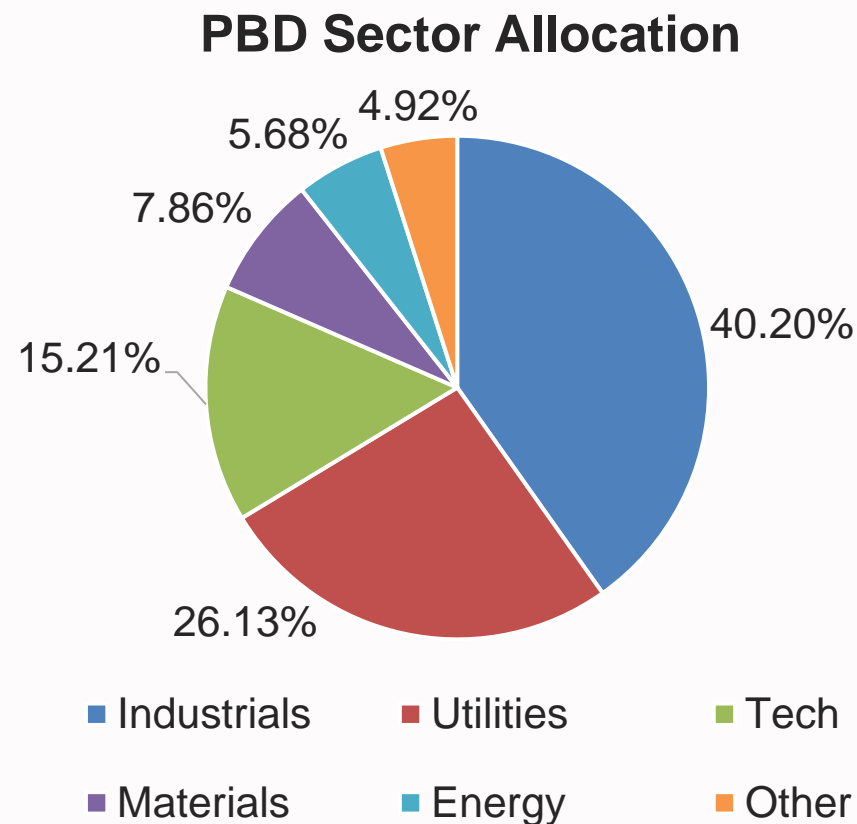
- The fourth largest global specialty company globally that is ranked No. 1 in India.
- Good fundamentals making the company a good long-term investment.
- CSR efforts focused on serving and helping needy underprivileged communities
- ESG Combined Score: C (2019)

Selected Securities: ETFs

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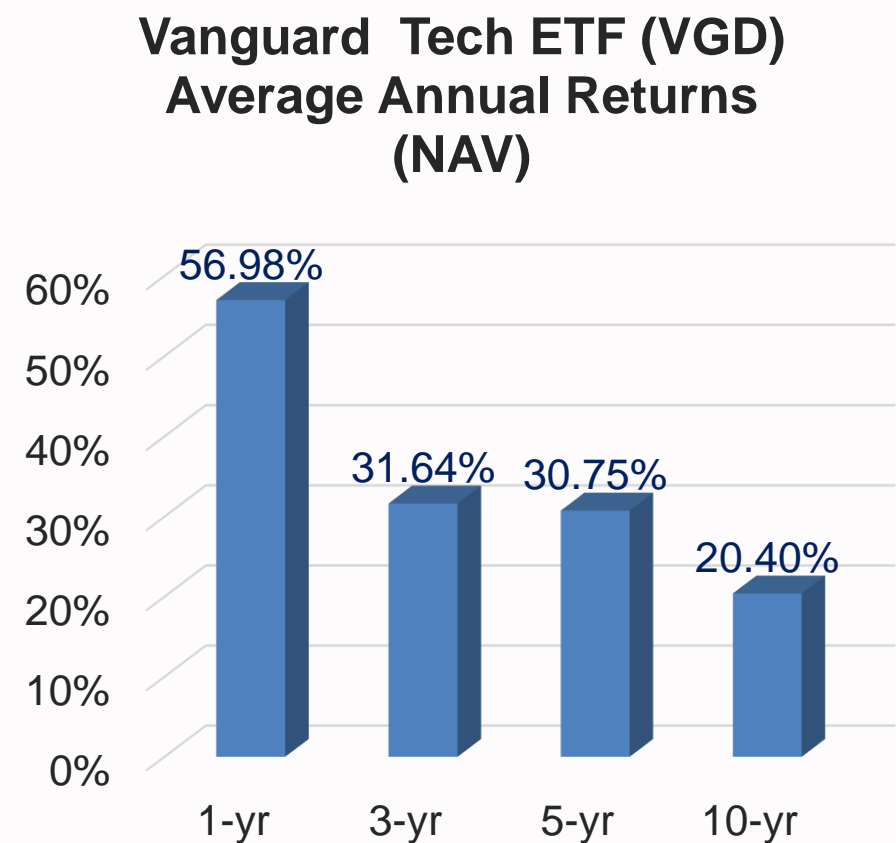
Invesco Global Clean Energy PBD:US

- ESG-focused ETF with emphasis on emerging sustainable industries
- Tracks at least 90% of the WilderHill New Energy Global Innovation Index (Index)
- *ESG*



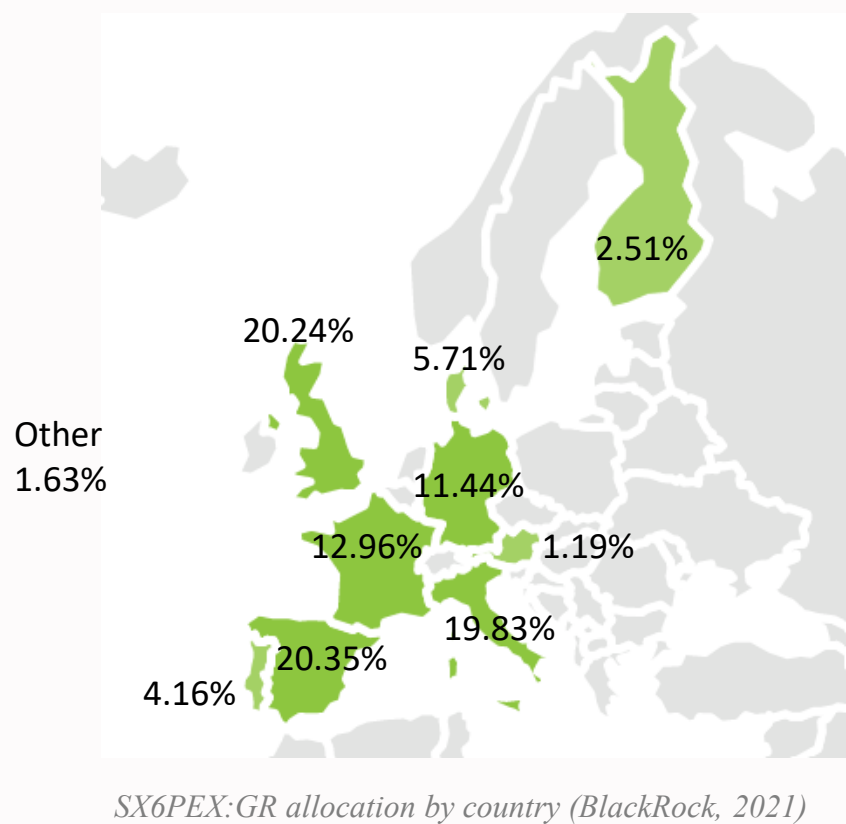
Vanguard Tech ETF VGT:US

- Tech-focused ETF investing in tech stocks across all market caps
- Tracks MSCI US Investable Market Index (IMI)/Information Technology 25/50
- *Return*

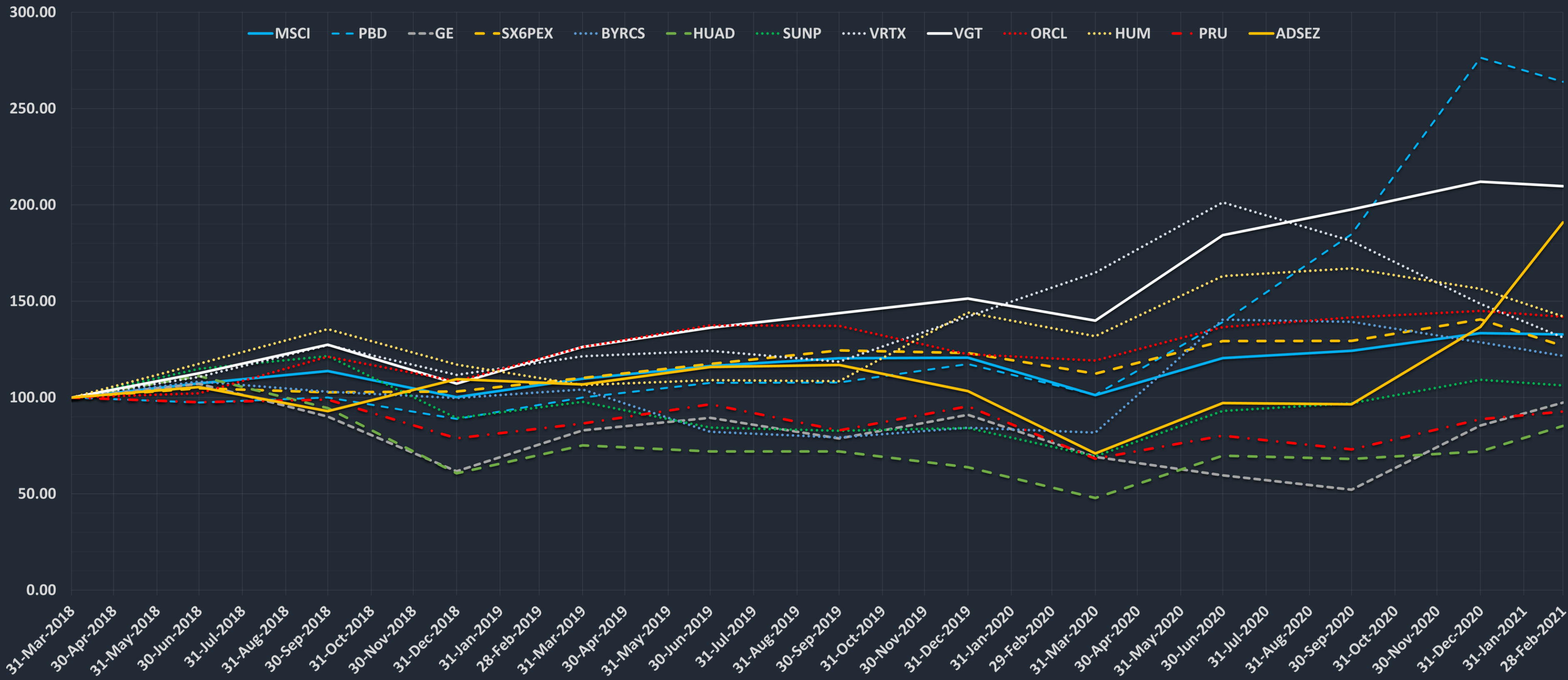


iShares STOXX Europe 600 Utilities ETF SX6PEX:GR

- Invests in 600 largest Utilities companies from European developed countries
- Allows for diversification of risk by investing in a broad basket of stocks across Europe
- *Diversification*



Comparative asset performance since 31 March 2018 (indexed to 100)



Portfolio Construction

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Import price data
from Eikon

- 3-month GBP LIBOR used as a proxy for risk-free rate
- Benchmarked to MSCI World Index (70% weight) and MSCI Emerging Markets Index (30% weight)

Excess returns
and check for
Autocorrelation

- Deducted risk-free rate from raw returns
- Oracle and Prudential found to have Autocorrelation (p-value < 5%)

Bootstrapping and
Var-Covar matrix

- Annualised sample return generated from 12 random data-points, which is then fed into a simulation
- The diagonal elements of the var-covar matrix are variances of assets. As expected, growth stocks had comparatively higher variances

Portfolio Optimisation

Treynor Black Model

	Invesco ETF	GE	ishares ETF	Bayer Cropscienc e	Huadong	Sun Pharma	Vertex Pharma	Vanguard ETF	Oracle	Humana	Prudential	Adani Ports
Forecast Alphas	6%	7.05%	3%	1.56%	4.39%	30.61%	8.41%	10%	8.41%	19.24%	2.45%	2.34%
Weights	4.46%	1.48%	6.29%	0.48%	1.58%	14.60%	3.51%	24.425	23.16%	10.41%	2.38%	0.45%

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Active
Allocation:
93.2%

Market
Allocation:
6.8%

Risk Premium
9.79%

Sharpe Ratio
3.58

Beta
1.002

Variance
0.0274

Standard
Deviation
16.538%

M^2
0.45

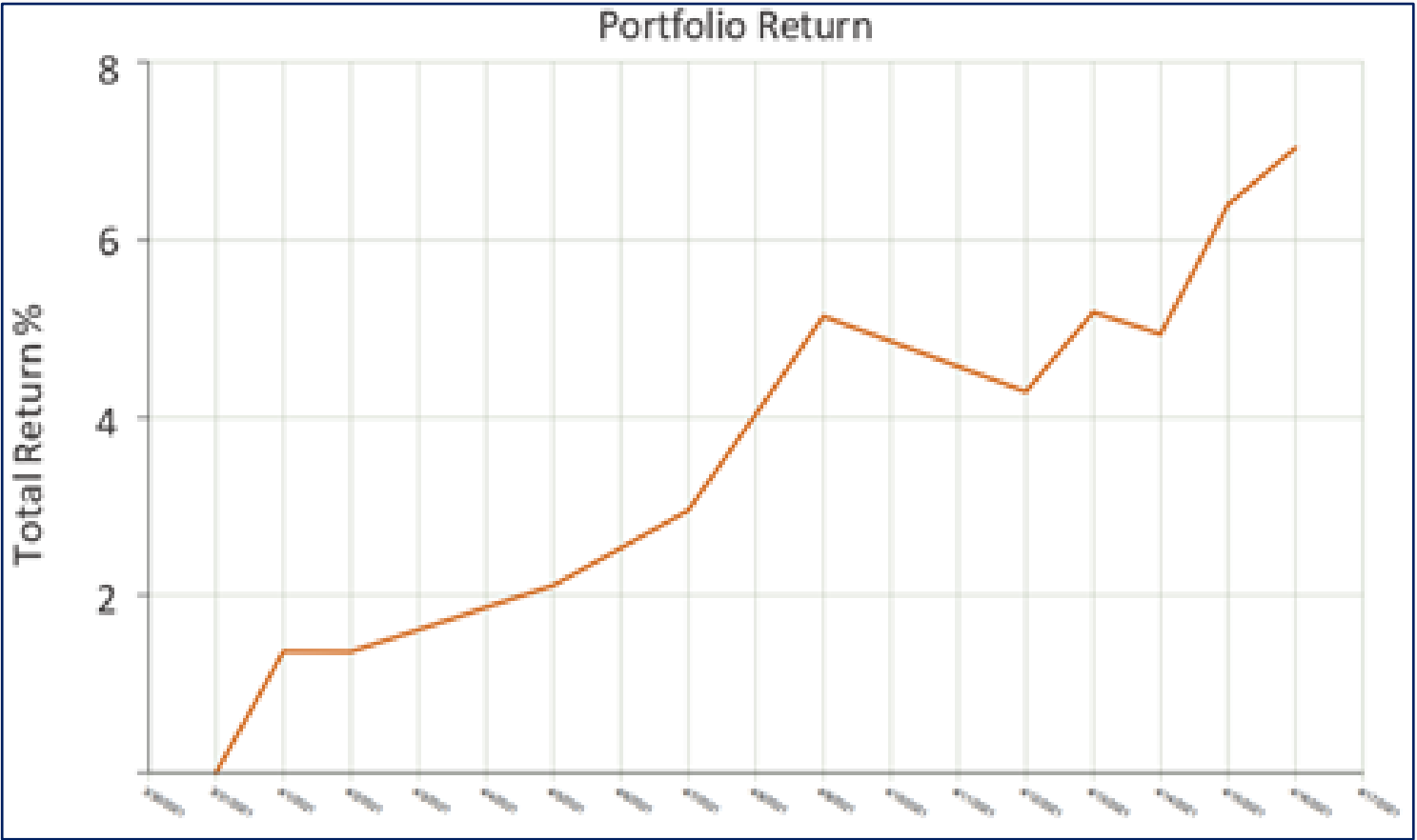
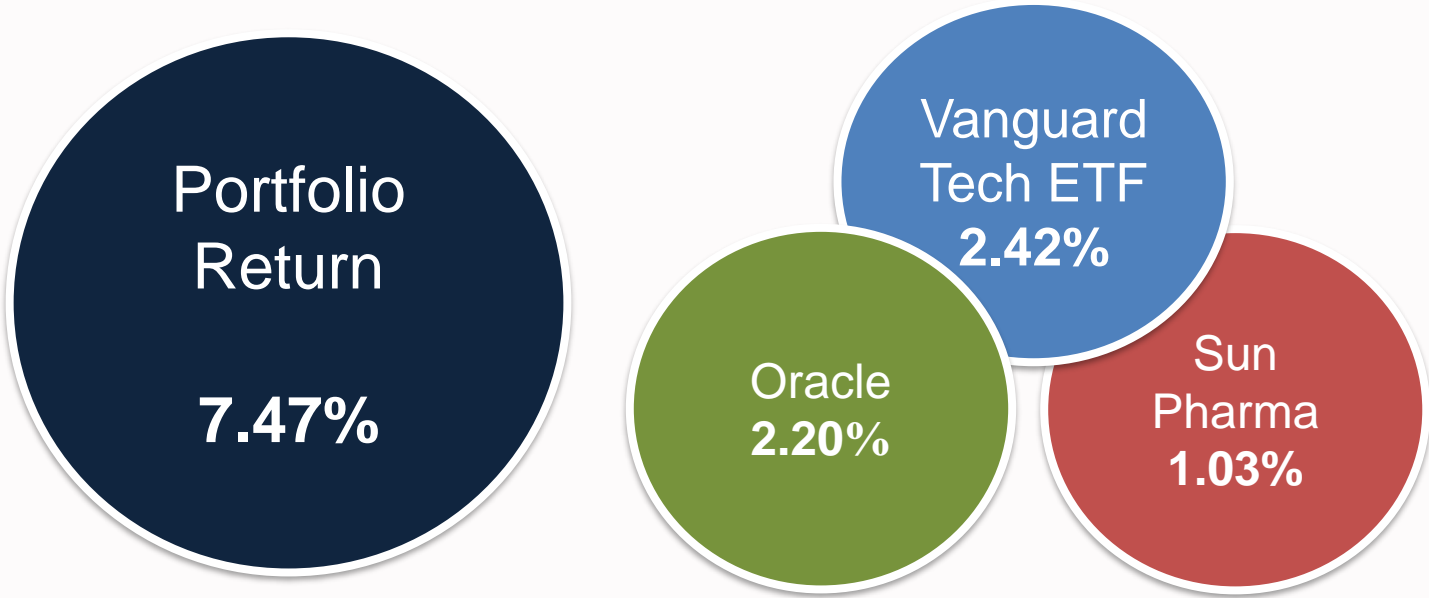
Tracking Error
0.51%

Long Positions
100%

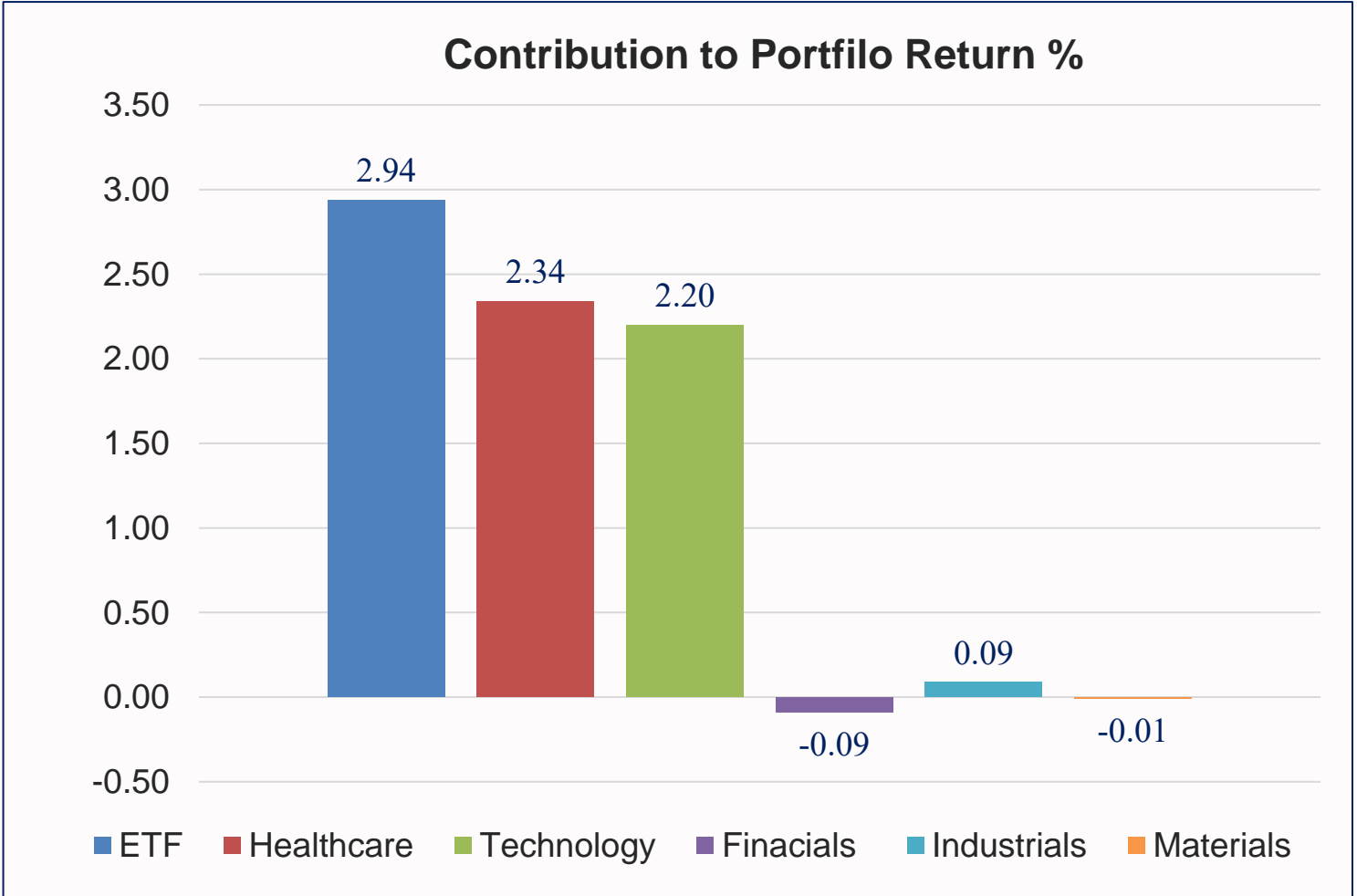
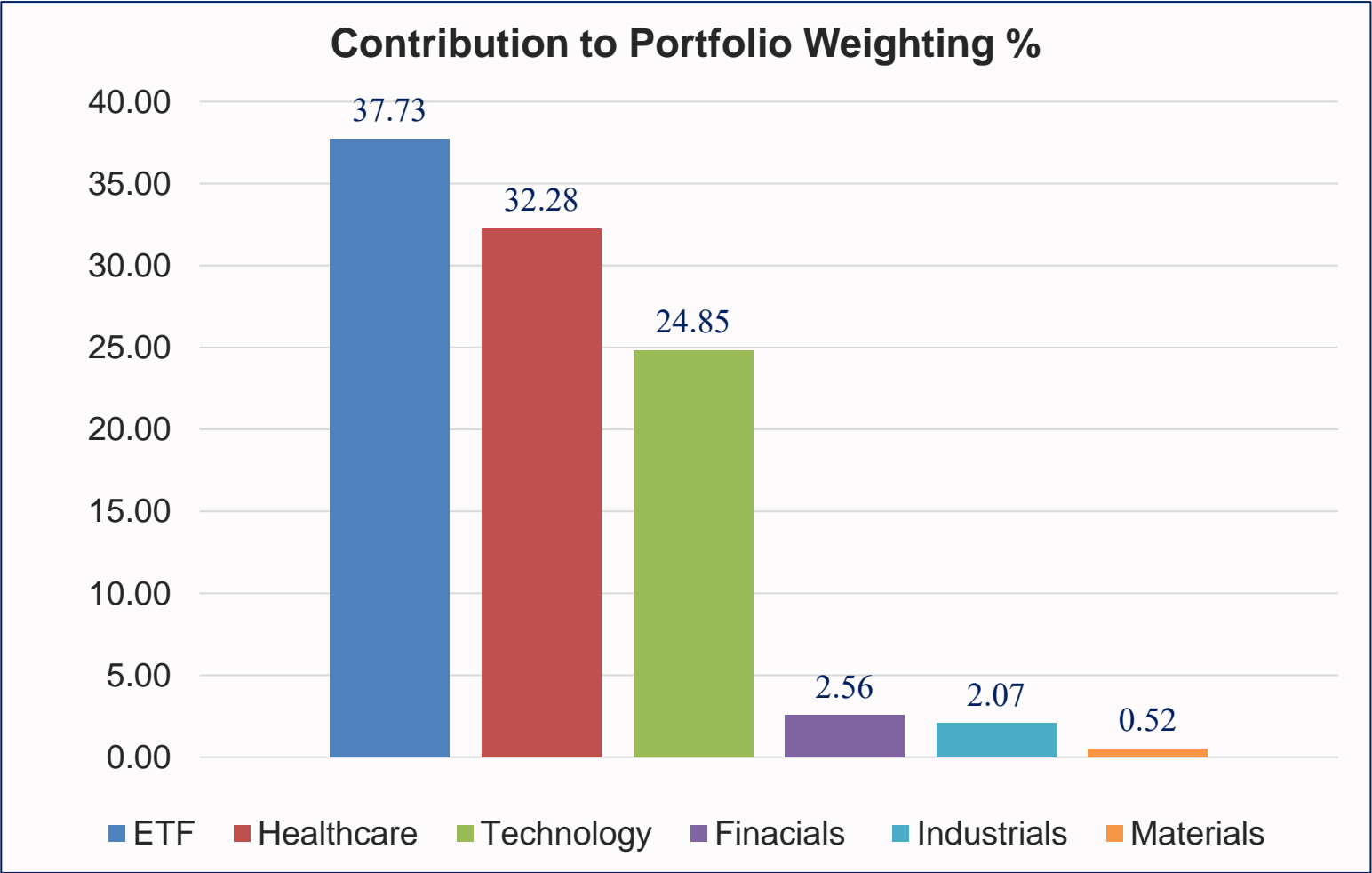
Desired Level of
Benchmark Risk
16%

Portfolio Performance

Top Contributing Assets:



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Reflection

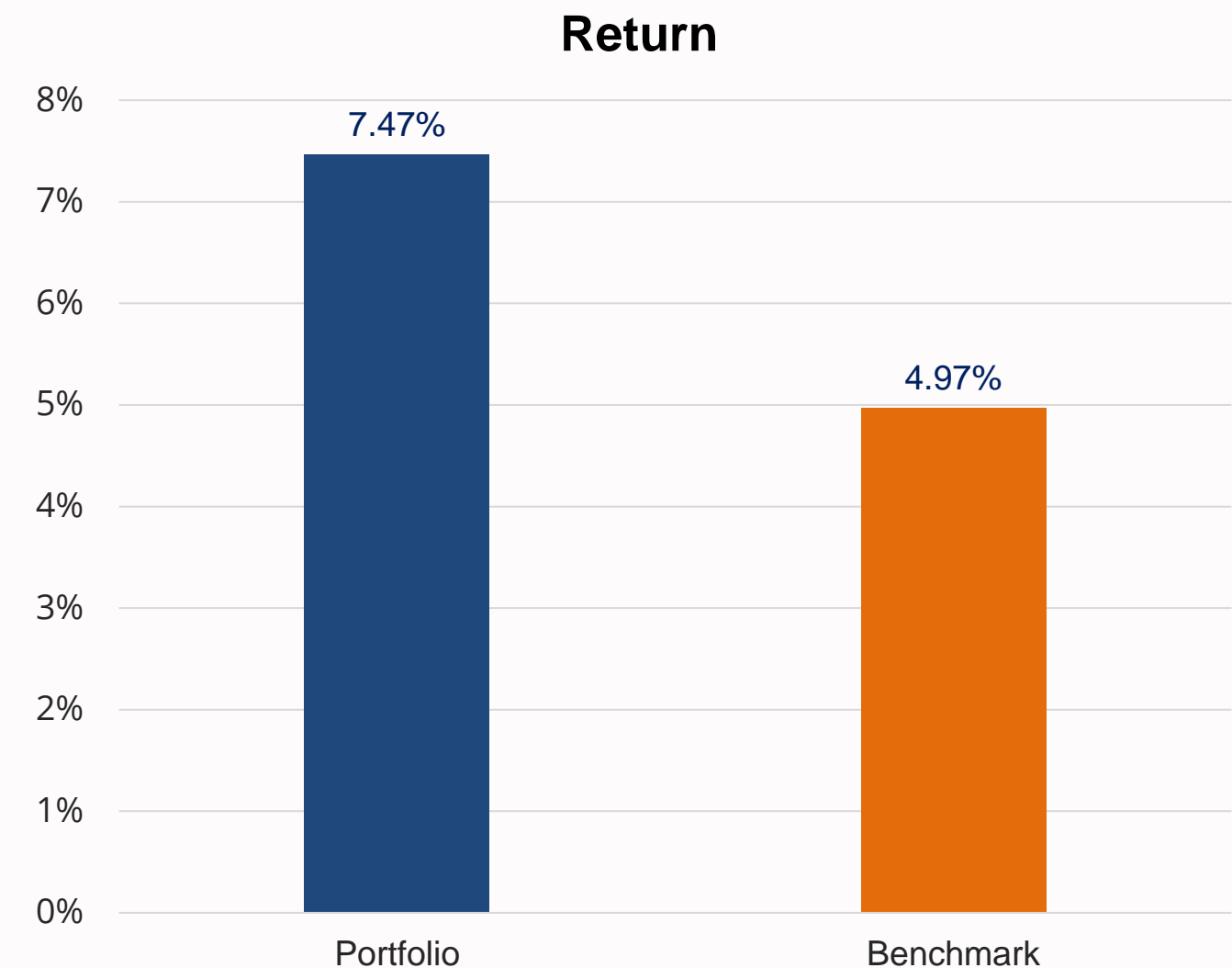
Successes

- Portfolio earned 1.5x return of the Benchmark
- TB model ran successfully, with high-return stocks having high weightings and low-return stocks having low weightings
- Detailed analysis of companies enabled good choices
- Effective teamwork: regular meetings, appropriate delegation of tasks, productive mentality

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Possible Improvements

- Increase ESG-focused stocks
- Short ESG-deficient sectors such as oil & gas
- Use bonds for risk management
- Too much weighting in too few assets



Reflection

A new set of risks!

- Adapt to an inflationary environment
 - Seek exposure to commodities and precious metals
- Prepare for a higher interest rate environment
 - Transition away from growth (tech and clean energy) to value, income stocks
 - Easy money policies nearing end
- Currency risk
 - Reduce exposure to US Dollar,
 - Increase allotment to GBP and Euro
- Political Risk
 - US Midterm elections November 2022: Democratic Party's slim majority in House and Senate under threat
 - Leadership crisis looms for EU as Angela Merkel steps down from power after September 2021

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Thank You!