



Monthly
US Equity Market Insight

December-2022

BANK INVEST

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Investment strategies definitions

BIQ	Quality BIQ	Profitability, profitability growth and safety
	Momentum BIQ	Price Momentum and Sentiment
	Stability BIQ	A composite of low beta, low price volatility and total shareholder yield
	Value BIQ	Industry specific composite value score. In most industries more emphasis on cash flow value
Academic	Dividend Yield	LTM dividend yield
	Growth	Composite growth in historical and forward-looking earnings and revenue growth
	High volatility	High volatility
	Low Volatility	Low volatility
	Price Momentum	Price momentum on different time horizons (risk-adjusted)
	Classic Quality	Rentability, debt burden and variation in earnings
	Sentiment	A composite measure of analyst revision and recommendation changes
Cap-Size	Deep value	Blend of book and earning measures
	Size: Large Cap	Size: Large Cap
Multi-factor	Size: Mid Cap	Size: Mid Cap
	BIQ-QARP	A multi-factor model emphasizing quality, valuation and safety in earnings.
Cycle model	BIQ-Score	A multi-factor model focusing on classic empirically validated factors
	Expansion	Multi-factor, emphasis on factors that work in expansion ie. low quality, value and momentum
	Recession	Multi-factor, emphasis on factors that work in recession ie. high quality, low volatility, large cap
	Recovery	Multi-factor, emphasis on factors that work in recovery ie. value, high risk, low quality, small cap
Sustainable Target	Slowdown	Multi-factor, emphasis on factors that work in slowdown ie. high quality, growth, large cap
	ESG	Highest ESG
	Low Carbon	Lowest Carbon
	SDG	Highest SDG



Performance

Investable portfolios

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Investable Portfolios - methodology



Portfolios are rebalanced every 2. month



Sector neutral



Size adjusted



Regional neutral



Single Stock capped



Liquidity

Investable Portfolios - methodology

All **Investable** portfolios have been constructed the following

- Portfolios are rebalanced every 2. month
- Sector neutral
- Size adjusted (zSIZE +/-0.20), except the cap portfolios
- Regional neutral
- Single Stock capped at +/-1% active weight
- All companies has a minimum USD 10 m daily traded

	#Stocks
Global	200
US	125
EU	125
JP	80
EM	125

Definition of sustainability



Exclude controversial industries



Low carbon emissions



High ESG Rating



Impact Investing



Norm based screening

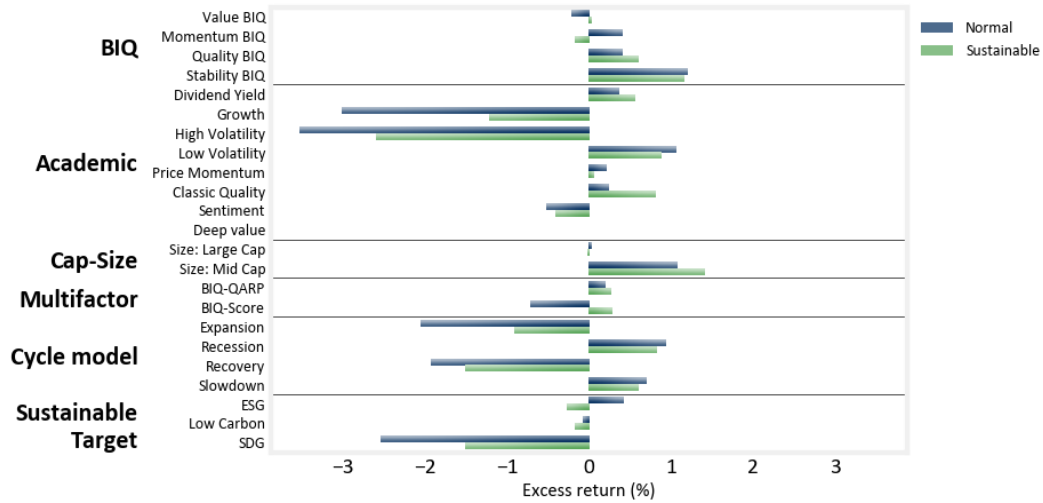
Sustainability

It is hard to define sustainability unambiguously. As it has multiple dimensions and to some extent is individual. At BankInvest we have created the following definition:

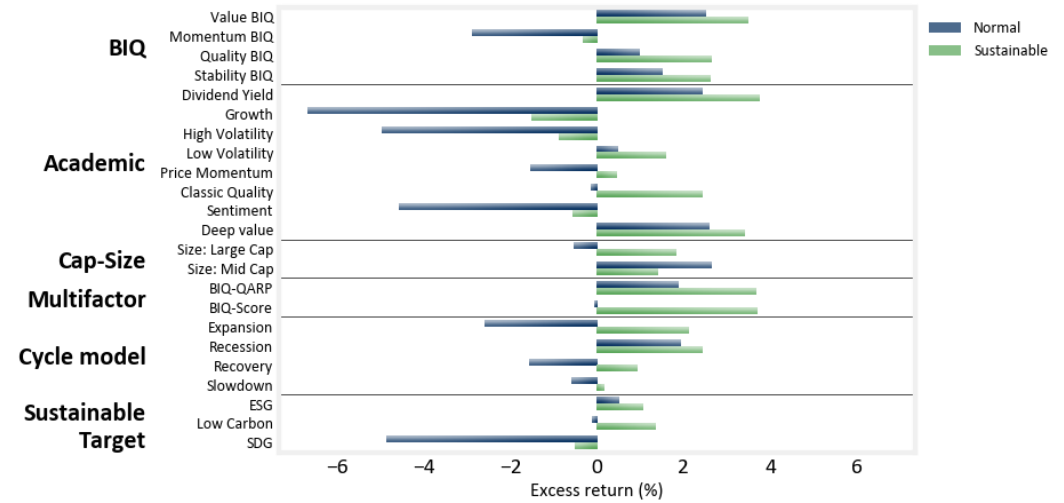
- Exclusion of: tobacco, fossil fuels, weapons and nuclear power
- A sustainable portfolio must not emit more than half as much CO2 as its benchmark
- The individual companies cannot have a CCC or B ESG rating (MSCI). The overall portfolio must have an AA rating except the EM portfolios that have an A.
- Minimum 20% of the revenue in the portfolio must have a positive effect on the UN's global sustainability goals
- All companies must obey the UN's global compact principles

US style factors

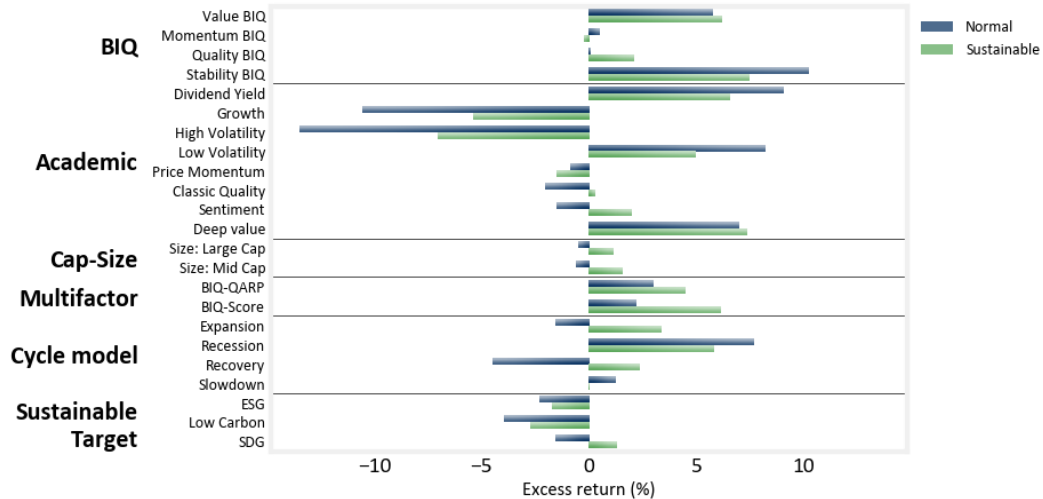
Month-to-date



Quarter-to-date



Year-to-date



US: Portfolios

Benchmark: MSCI USA NR

			Month-to-date			Quarter-to-date			Year-to-date		
Factor group	Factor name	Date	Factor	Bm	Excess	Factor	Bm	Excess	Factor	Bm	Excess
BIQ	Value BIQ	2022-12-30	-9.48 %	-9.25 %	-22 bps	0.73 %	-1.79 %	252 bps	-8.85 %	-14.60 %	576 bps
	Momentum BIQ	2022-12-30	-8.85 %	-9.25 %	41 bps	-4.67 %	-1.79 %	-288 bps	-14.08 %	-14.60 %	52 bps
	Quality BIQ	2022-12-30	-8.84 %	-9.25 %	41 bps	-0.78 %	-1.79 %	100 bps	-14.50 %	-14.60 %	10 bps
	Stability BIQ	2022-12-30	-8.04 %	-9.25 %	121 bps	-0.26 %	-1.79 %	153 bps	-4.36 %	-14.60 %	1025 bps
Academic	Dividend Yield	2022-12-30	-8.89 %	-9.25 %	37 bps	0.66 %	-1.79 %	245 bps	-5.50 %	-14.60 %	910 bps
	Growth	2022-12-30	-12.26 %	-9.25 %	-301 bps	-8.47 %	-1.79 %	-668 bps	-25.16 %	-14.60 %	-1055 bps
	High Volatility	2022-12-30	-12.78 %	-9.25 %	-352 bps	-6.75 %	-1.79 %	-497 bps	-28.08 %	-14.60 %	-1347 bps
	Low Volatility	2022-12-30	-8.18 %	-9.25 %	107 bps	-1.31 %	-1.79 %	48 bps	-6.38 %	-14.60 %	822 bps
	Price Momentum	2022-12-30	-9.04 %	-9.25 %	21 bps	-3.34 %	-1.79 %	-155 bps	-15.46 %	-14.60 %	-86 bps
	Classic Quality	2022-12-30	-9.00 %	-9.25 %	25 bps	-1.93 %	-1.79 %	-14 bps	-16.64 %	-14.60 %	-204 bps
	Sentiment	2022-12-30	-9.78 %	-9.25 %	-52 bps	-6.38 %	-1.79 %	-459 bps	-16.12 %	-14.60 %	-152 bps
	Deep value	2022-12-30	-9.25 %	-9.25 %	0 bps	0.81 %	-1.79 %	260 bps	-7.62 %	-14.60 %	699 bps
Cap-Size	Size: Large Cap	2022-12-30	-9.22 %	-9.25 %	3 bps	-2.34 %	-1.79 %	-55 bps	-15.09 %	-14.60 %	-48 bps
	Size: Mid Cap	2022-12-30	-8.17 %	-9.25 %	108 bps	0.85 %	-1.79 %	264 bps	-15.20 %	-14.60 %	-59 bps
Multifactor	BIQ-QARP	2022-12-30	-9.05 %	-9.25 %	20 bps	0.09 %	-1.79 %	188 bps	-11.61 %	-14.60 %	299 bps
	BIQ-Score	2022-12-30	-9.96 %	-9.25 %	-71 bps	-1.85 %	-1.79 %	-6 bps	-12.39 %	-14.60 %	221 bps
Cycle model	Expansion	2022-12-30	-11.31 %	-9.25 %	-205 bps	-4.38 %	-1.79 %	-259 bps	-16.16 %	-14.60 %	-156 bps
	Recession	2022-12-30	-8.31 %	-9.25 %	94 bps	0.15 %	-1.79 %	194 bps	-6.93 %	-14.60 %	768 bps
	Recovery	2022-12-30	-11.17 %	-9.25 %	-192 bps	-3.35 %	-1.79 %	-156 bps	-19.11 %	-14.60 %	-450 bps
	Slowdown	2022-12-30	-8.55 %	-9.25 %	70 bps	-2.39 %	-1.79 %	-60 bps	-13.34 %	-14.60 %	127 bps
Sustainable Target	ESG	2022-12-30	-8.83 %	-9.25 %	42 bps	-1.27 %	-1.79 %	52 bps	-16.93 %	-14.60 %	-233 bps
	Low Carbon	2022-12-30	-9.32 %	-9.25 %	-7 bps	-1.92 %	-1.79 %	-13 bps	-18.56 %	-14.60 %	-395 bps
	SDG	2022-12-30	-11.79 %	-9.25 %	-254 bps	-6.67 %	-1.79 %	-488 bps	-16.16 %	-14.60 %	-156 bps

US: Sustainable portfolios

Benchmark: MSCI USA NR

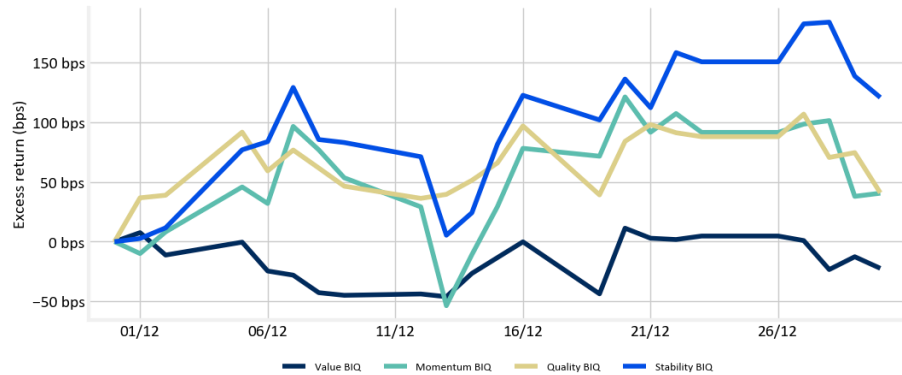
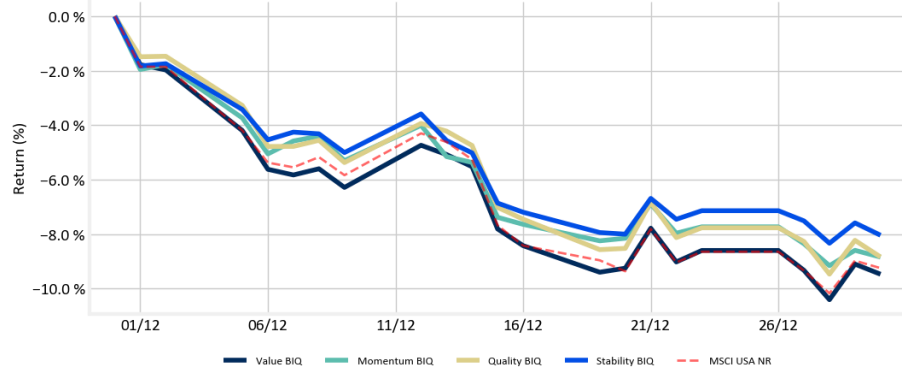
			Month-to-date			Quarter-to-date			Year-to-date		
Factor group	Factor name	Date	Factor	Bm	Excess	Factor	Bm	Excess	Factor	Bm	Excess
BIQ	Value BIQ	2022-12-30	-9.22 %	-9.25 %	3 bps	1.70 %	-1.79 %	349 bps	-8.42 %	-14.60 %	619 bps
	Momentum BIQ	2022-12-30	-9.42 %	-9.25 %	-17 bps	-2.11 %	-1.79 %	-33 bps	-14.83 %	-14.60 %	-23 bps
	Quality BIQ	2022-12-30	-8.65 %	-9.25 %	61 bps	0.86 %	-1.79 %	265 bps	-12.53 %	-14.60 %	208 bps
	Stability BIQ	2022-12-30	-8.09 %	-9.25 %	116 bps	0.83 %	-1.79 %	262 bps	-7.11 %	-14.60 %	750 bps
Academic	Dividend Yield	2022-12-30	-8.68 %	-9.25 %	57 bps	1.97 %	-1.79 %	375 bps	-8.04 %	-14.60 %	657 bps
	Growth	2022-12-30	-10.47 %	-9.25 %	-122 bps	-3.31 %	-1.79 %	-152 bps	-19.99 %	-14.60 %	-538 bps
	High Volatility	2022-12-30	-11.84 %	-9.25 %	-259 bps	-2.68 %	-1.79 %	-89 bps	-21.66 %	-14.60 %	-706 bps
	Low Volatility	2022-12-30	-8.37 %	-9.25 %	89 bps	-0.19 %	-1.79 %	159 bps	-9.63 %	-14.60 %	497 bps
	Price Momentum	2022-12-30	-9.19 %	-9.25 %	6 bps	-1.34 %	-1.79 %	45 bps	-16.13 %	-14.60 %	-153 bps
	Classic Quality	2022-12-30	-8.44 %	-9.25 %	81 bps	0.65 %	-1.79 %	244 bps	-14.32 %	-14.60 %	28 bps
	Sentiment	2022-12-30	-9.66 %	-9.25 %	-41 bps	-2.35 %	-1.79 %	-57 bps	-12.61 %	-14.60 %	199 bps
	Deep value	2022-12-30	-9.25 %	-9.25 %	-0 bps	1.64 %	-1.79 %	343 bps	-7.24 %	-14.60 %	736 bps
Cap-Size	Size: Large Cap	2022-12-30	-9.28 %	-9.25 %	-2 bps	0.05 %	-1.79 %	184 bps	-13.48 %	-14.60 %	112 bps
	Size: Mid Cap	2022-12-30	-7.84 %	-9.25 %	141 bps	-0.37 %	-1.79 %	142 bps	-13.05 %	-14.60 %	156 bps
Multifactor	BIQ-QARP	2022-12-30	-8.98 %	-9.25 %	27 bps	1.88 %	-1.79 %	367 bps	-10.09 %	-14.60 %	452 bps
	BIQ-Score	2022-12-30	-8.97 %	-9.25 %	28 bps	1.93 %	-1.79 %	372 bps	-8.47 %	-14.60 %	613 bps
Cycle model	Expansion	2022-12-30	-10.16 %	-9.25 %	-91 bps	0.33 %	-1.79 %	212 bps	-11.22 %	-14.60 %	339 bps
	Recession	2022-12-30	-8.42 %	-9.25 %	83 bps	0.66 %	-1.79 %	245 bps	-8.80 %	-14.60 %	581 bps
	Recovery	2022-12-30	-10.77 %	-9.25 %	-151 bps	-0.86 %	-1.79 %	93 bps	-12.25 %	-14.60 %	235 bps
	Slowdown	2022-12-30	-8.64 %	-9.25 %	61 bps	-1.62 %	-1.79 %	17 bps	-14.60 %	-14.60 %	1 bps
Sustainable Target	ESG	2022-12-30	-9.52 %	-9.25 %	-27 bps	-0.72 %	-1.79 %	107 bps	-16.32 %	-14.60 %	-171 bps
	Low Carbon	2022-12-30	-9.43 %	-9.25 %	-18 bps	-0.42 %	-1.79 %	136 bps	-17.37 %	-14.60 %	-276 bps
	SDG	2022-12-30	-10.76 %	-9.25 %	-151 bps	-2.30 %	-1.79 %	-51 bps	-13.32 %	-14.60 %	128 bps



US: BIQ (pure)

Benchmark: MSCI USA NR

Month-to-date

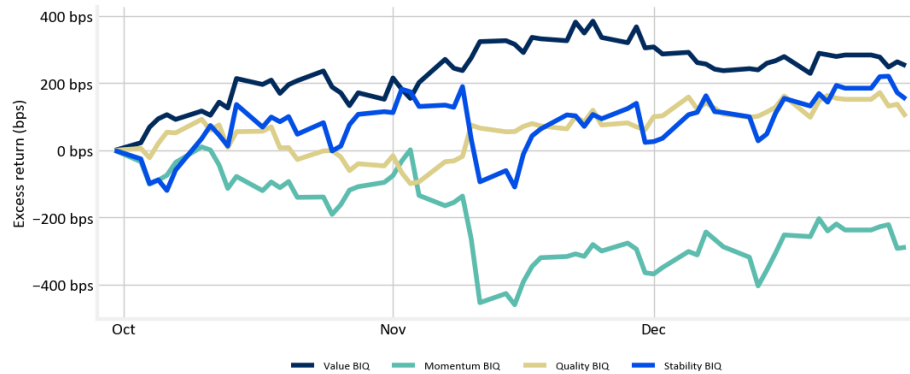
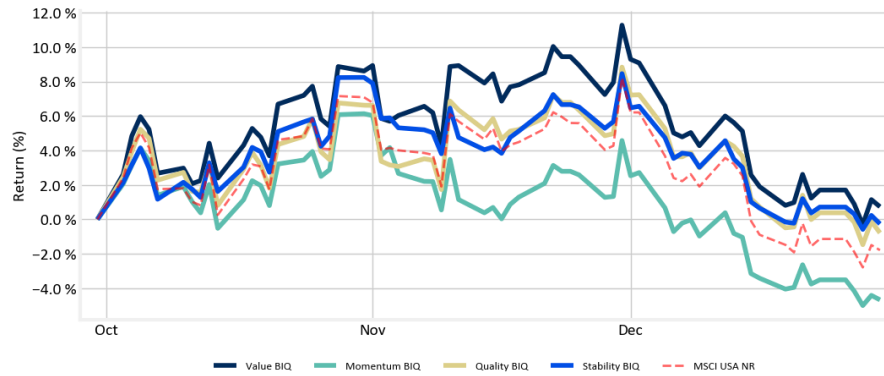


	Factor	Bm	Excess
Value BIQ	-9.48 %	-9.25 %	-22 bps
Momentum BIQ	-8.85 %	-9.25 %	41 bps
Quality BIQ	-8.84 %	-9.25 %	41 bps
Stability BIQ	-8.04 %	-9.25 %	121 bps

US: BIQ (pure)

Benchmark: MSCI USA NR

Quarter-to-date

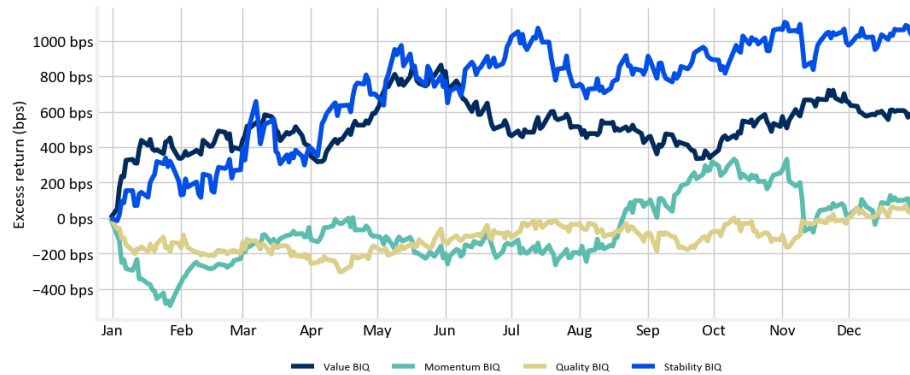
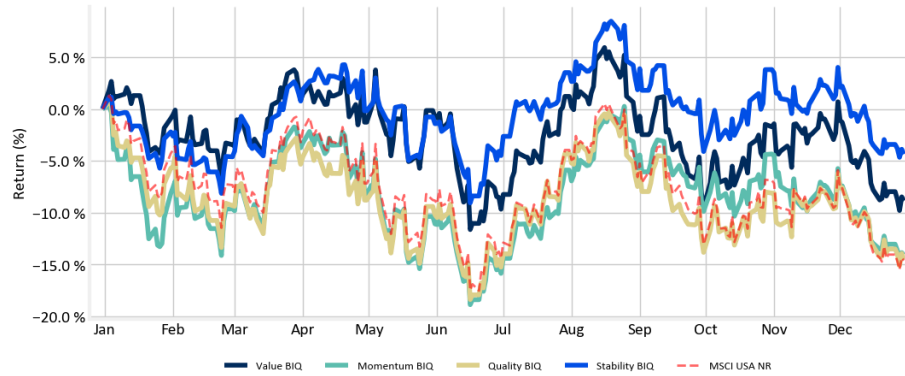


	Factor	Bm	Excess
Value BIQ	0.73 %	-1.79 %	252 bps
Momentum BIQ	-4.67 %	-1.79 %	-288 bps
Quality BIQ	-0.78 %	-1.79 %	100 bps
Stability BIQ	-0.26 %	-1.79 %	153 bps

US: BIQ (pure)

Benchmark: MSCI USA NR

Year-to-date

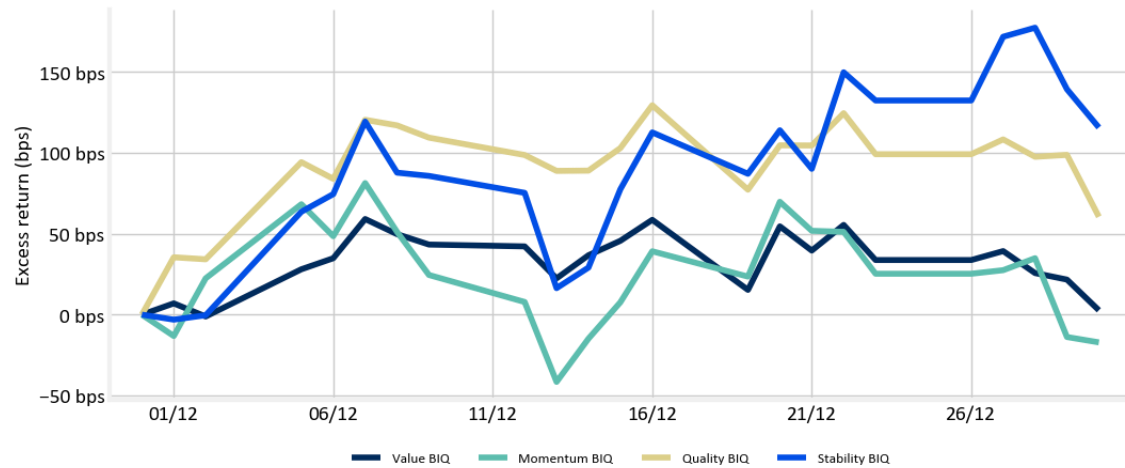
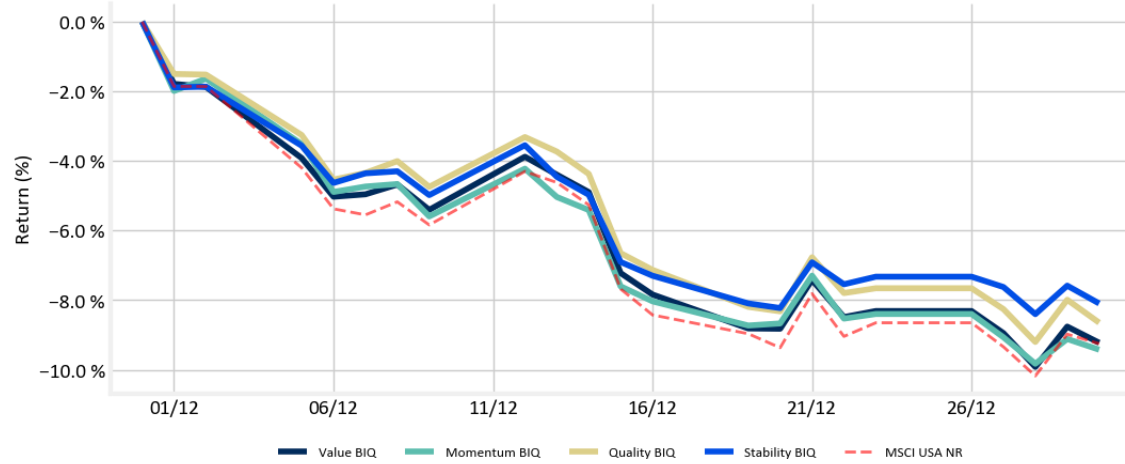


	Factor	Bm	Excess
Value BIQ	-8.85 %	-14.60 %	576 bps
Momentum BIQ	-14.08 %	-14.60 %	52 bps
Quality BIQ	-14.50 %	-14.60 %	10 bps
Stability BIQ	-4.36 %	-14.60 %	1025 bps

US: BIQ (sustainable)

Benchmark: MSCI USA NR

Month-to-date



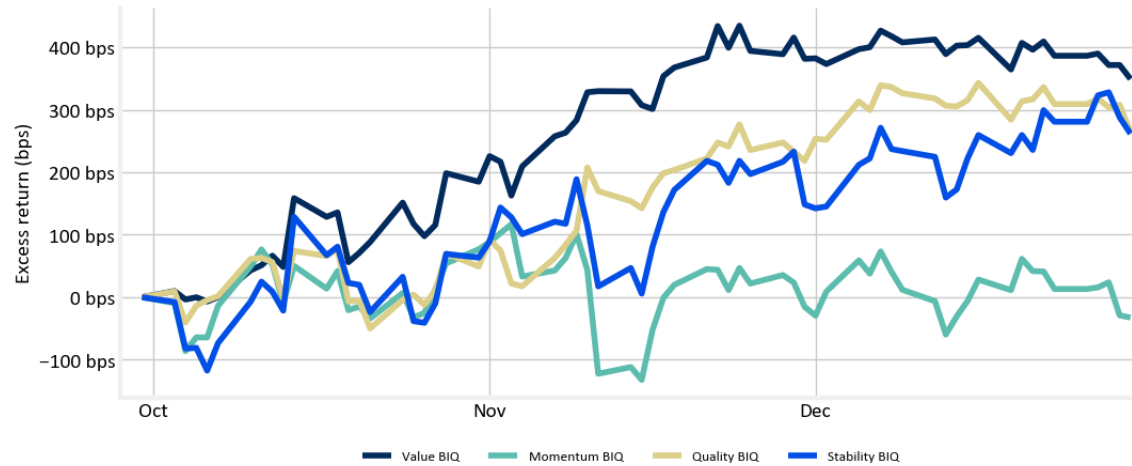
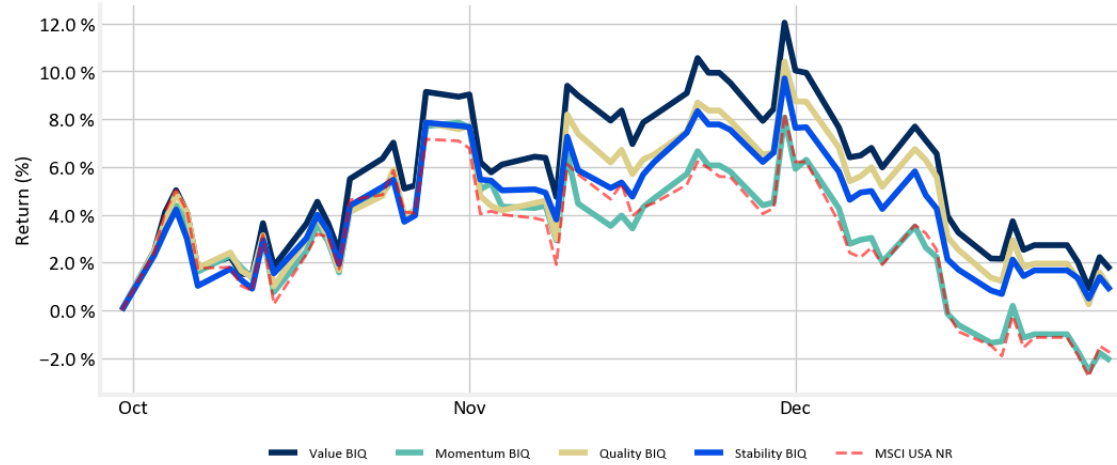
	Factor	Bm	Excess
Value BIQ	-9.22 %	-9.25 %	3 bps
Momentum BIQ	-9.42 %	-9.25 %	-17 bps
Quality BIQ	-8.65 %	-9.25 %	61 bps
Stability BIQ	-8.09 %	-9.25 %	116 bps



US: BIQ (sustainable)

Benchmark: MSCI USA NR

Quarter-to-date



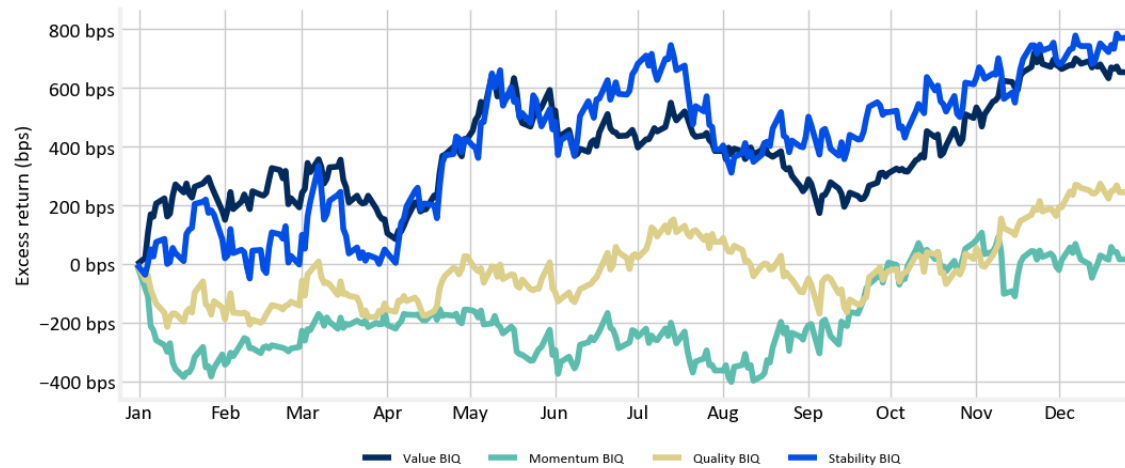
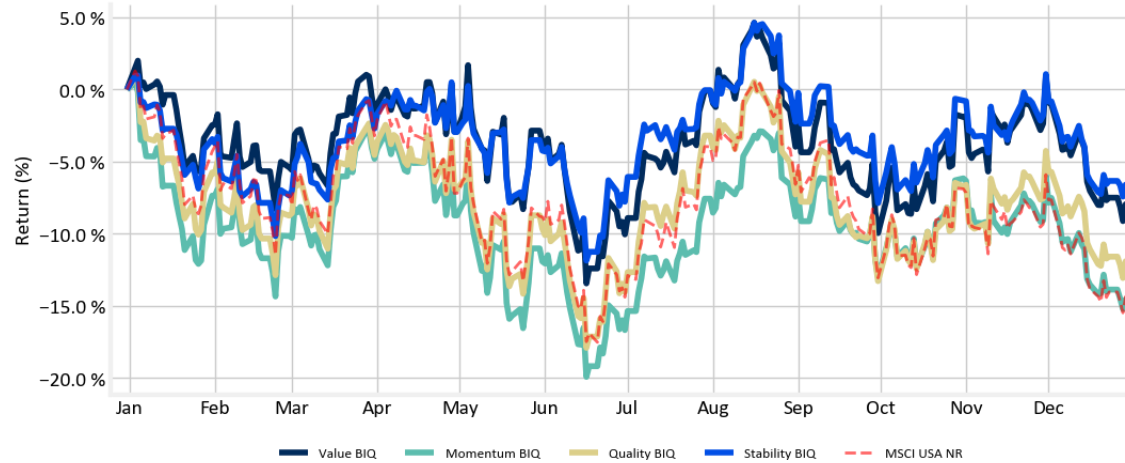
	Factor	Bm	Excess
Value BIQ	1.70 %	-1.79 %	349 bps
Momentum BIQ	-2.11 %	-1.79 %	-33 bps
Quality BIQ	0.86 %	-1.79 %	265 bps
Stability BIQ	0.83 %	-1.79 %	262 bps



US: BIQ (sustainable)

Benchmark: MSCI USA NR

Year-to-date



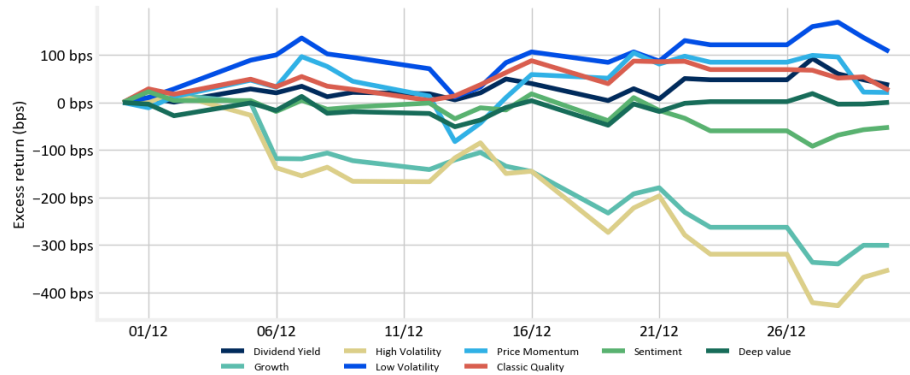
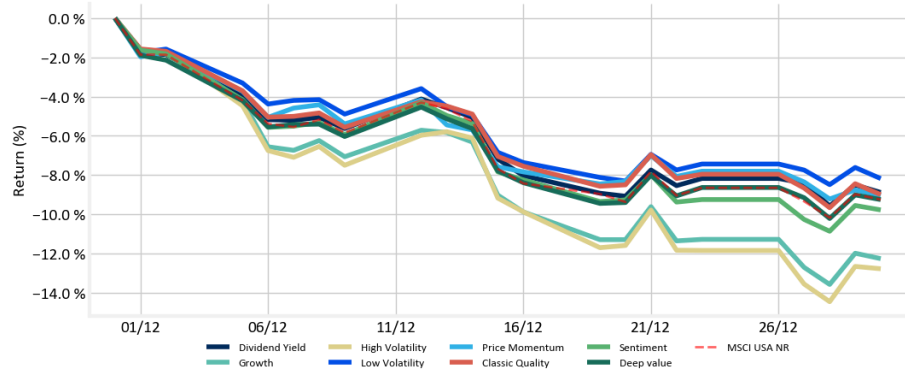
	Factor	Bm	Excess
Value BIQ	-8.42 %	-14.60 %	619 bps
Momentum BIQ	-14.83 %	-14.60 %	-23 bps
Quality BIQ	-12.53 %	-14.60 %	208 bps
Stability BIQ	-7.11 %	-14.60 %	750 bps



US: Academic (pure)

Benchmark: MSCI USA NR

Month-to-date

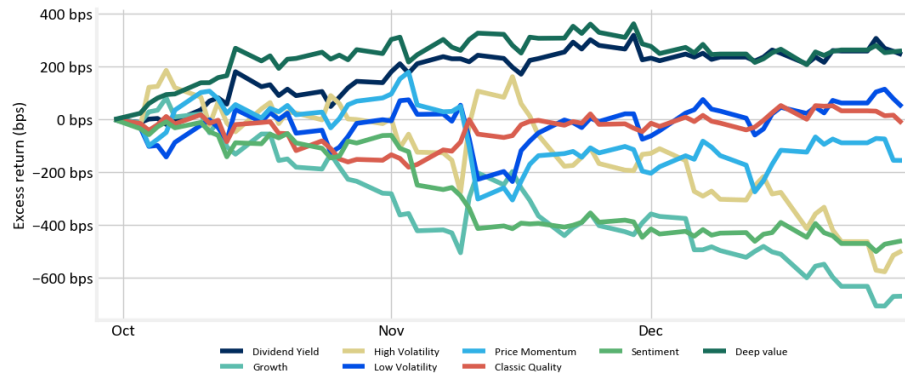
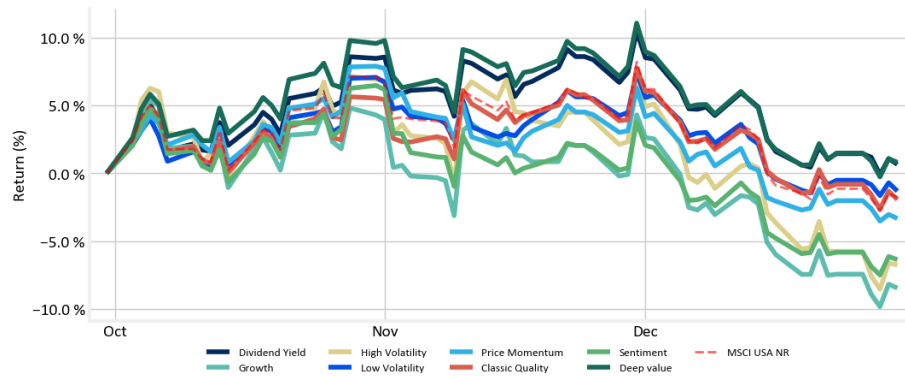


	Factor	Bm	Excess
Dividend Yield	-8.89 %	-9.25 %	37 bps
Growth	-12.26 %	-9.25 %	-301 bps
High Volatility	-12.78 %	-9.25 %	-352 bps
Low Volatility	-8.18 %	-9.25 %	107 bps
Price Momentum	-9.04 %	-9.25 %	21 bps
Classic Quality	-9.00 %	-9.25 %	25 bps
Sentiment	-9.78 %	-9.25 %	-52 bps
Deep value	-9.25 %	-9.25 %	0 bps

US: Academic (pure)

Benchmark: MSCI USA NR

Quarter-to-date

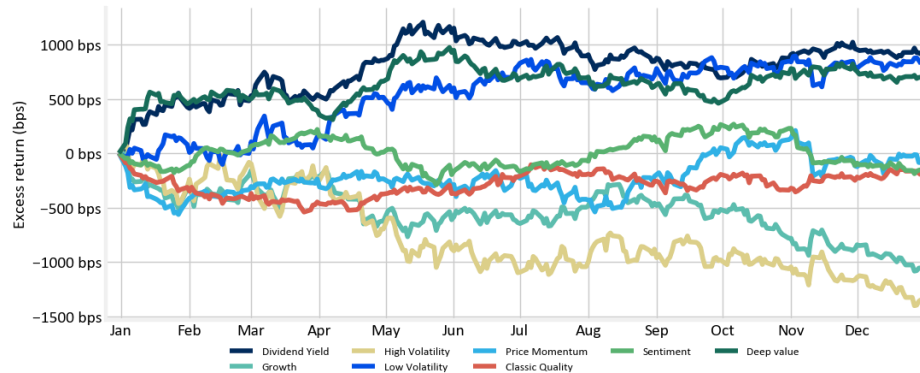
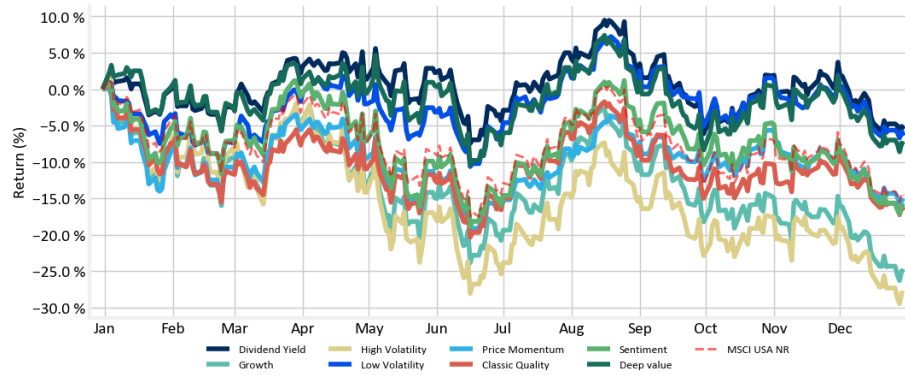


	Factor	Bm	Excess
Dividend Yield	0.66 %	-1.79 %	245 bps
Growth	-8.47 %	-1.79 %	-668 bps
High Volatility	-6.75 %	-1.79 %	-497 bps
Low Volatility	-1.31 %	-1.79 %	48 bps
Price Momentum	-3.34 %	-1.79 %	-155 bps
Classic Quality	-1.93 %	-1.79 %	-14 bps
Sentiment	-6.38 %	-1.79 %	-459 bps
Deep value	0.81 %	-1.79 %	260 bps

US: Academic (pure)

Benchmark: MSCI USA NR

Year-to-date

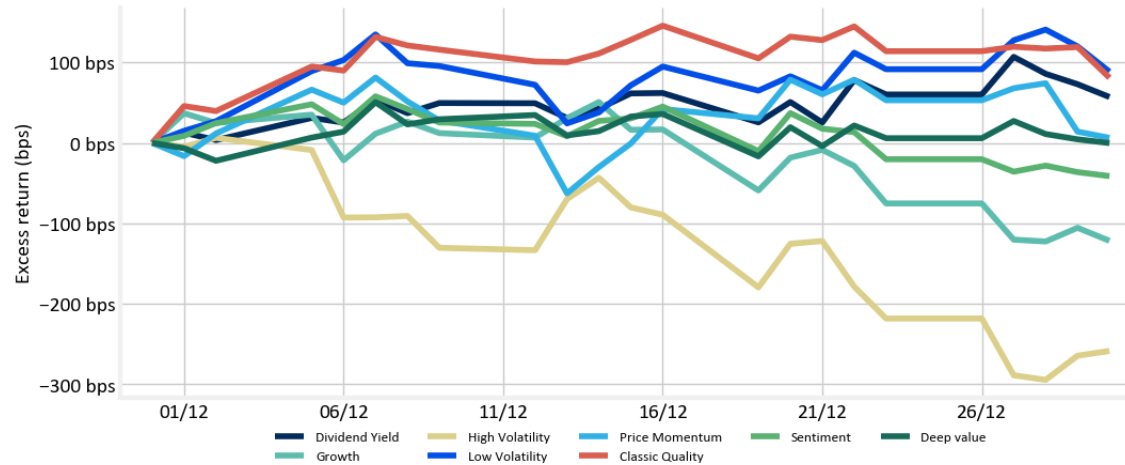
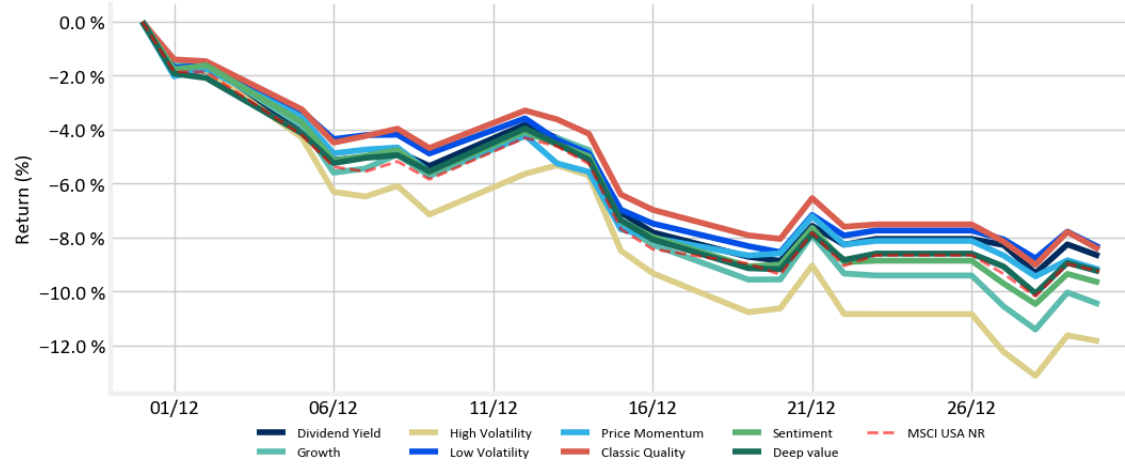


	Factor	Bm	Excess
Dividend Yield	-5.50 %	-14.60 %	910 bps
Growth	-25.16 %	-14.60 %	-1055 bps
High Volatility	-28.08 %	-14.60 %	-1347 bps
Low Volatility	-6.38 %	-14.60 %	822 bps
Price Momentum	-15.46 %	-14.60 %	-86 bps
Classic Quality	-16.64 %	-14.60 %	-204 bps
Sentiment	-16.12 %	-14.60 %	-152 bps
Deep value	-7.62 %	-14.60 %	699 bps

US: Academic (sustainable)

Benchmark: MSCI USA NR

Month-to-date



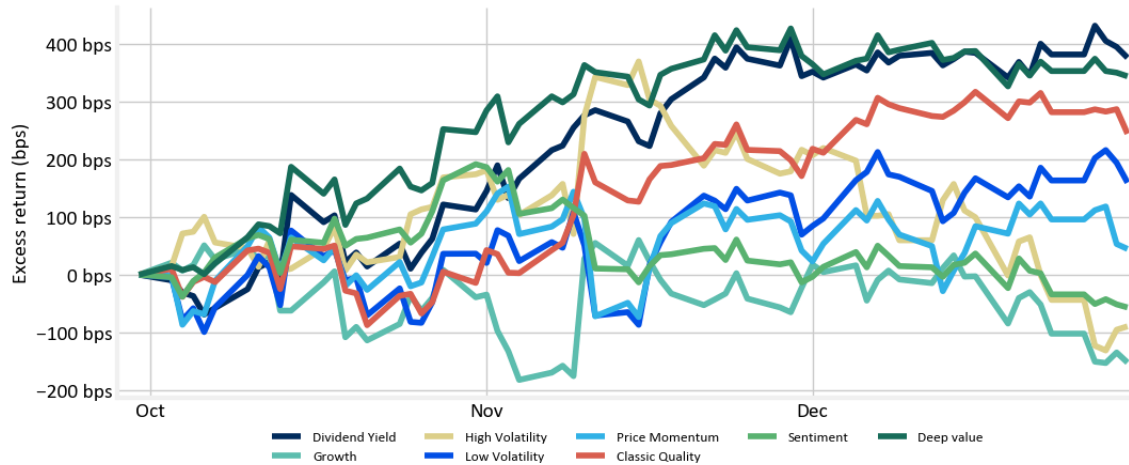
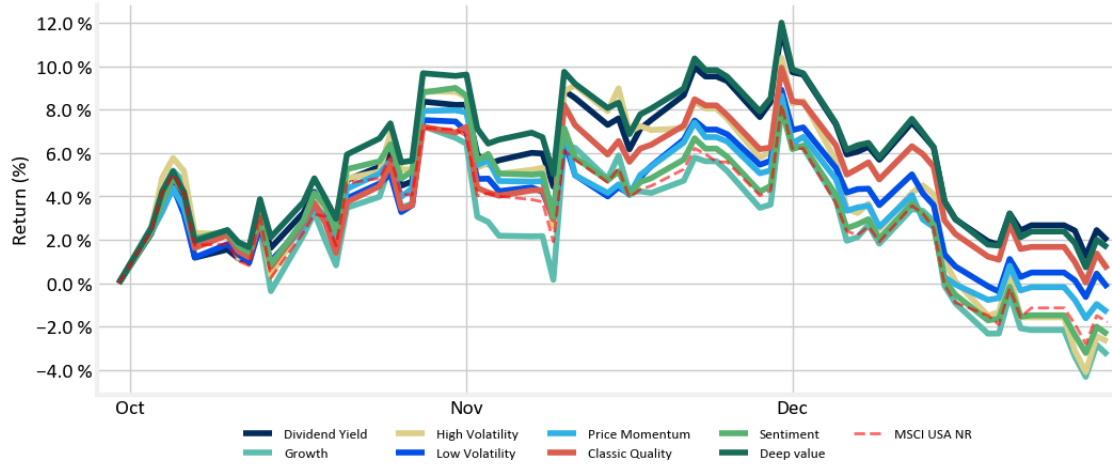
	Factor	Bm	Excess
Dividend Yield	-8.68 %	-9.25 %	57 bps
Growth	-10.47 %	-9.25 %	-122 bps
High Volatility	-11.84 %	-9.25 %	-259 bps
Low Volatility	-8.37 %	-9.25 %	89 bps
Price Momentum	-9.19 %	-9.25 %	6 bps
Classic Quality	-8.44 %	-9.25 %	81 bps
Sentiment	-9.66 %	-9.25 %	-41 bps
Deep value	-9.25 %	-9.25 %	-0 bps



US: Academic (sustainable)

Benchmark: MSCI USA NR

Quarter-to-date



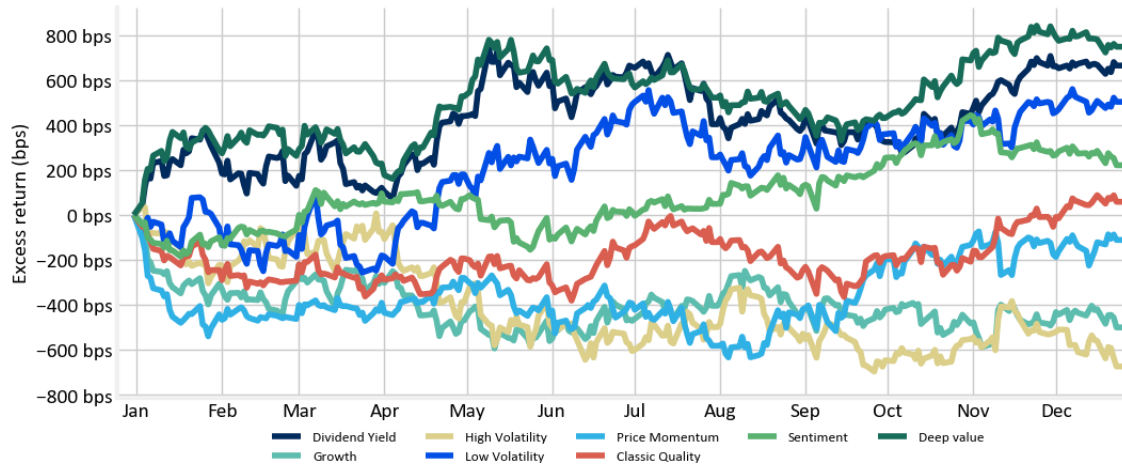
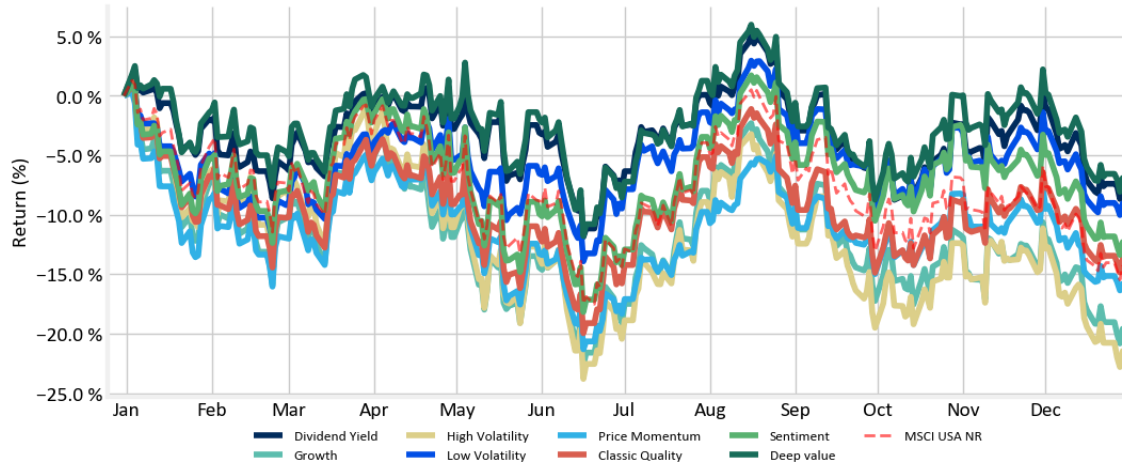
	Factor	Bm	Excess
Dividend Yield	1.97 %	-1.79 %	375 bps
Growth	-3.31 %	-1.79 %	-152 bps
High Volatility	-2.68 %	-1.79 %	-89 bps
Low Volatility	-0.19 %	-1.79 %	159 bps
Price Momentum	-1.34 %	-1.79 %	45 bps
Classic Quality	0.65 %	-1.79 %	244 bps
Sentiment	-2.35 %	-1.79 %	-57 bps
Deep value	1.64 %	-1.79 %	343 bps



US: Academic (sustainable)

Benchmark: MSCI USA NR

Year-to-date



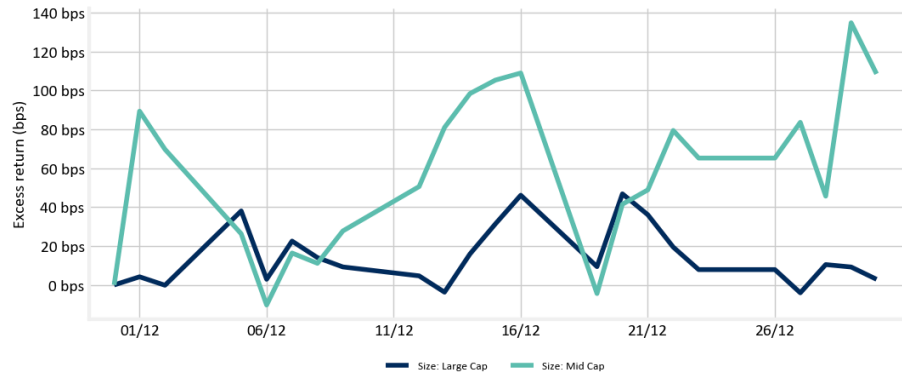
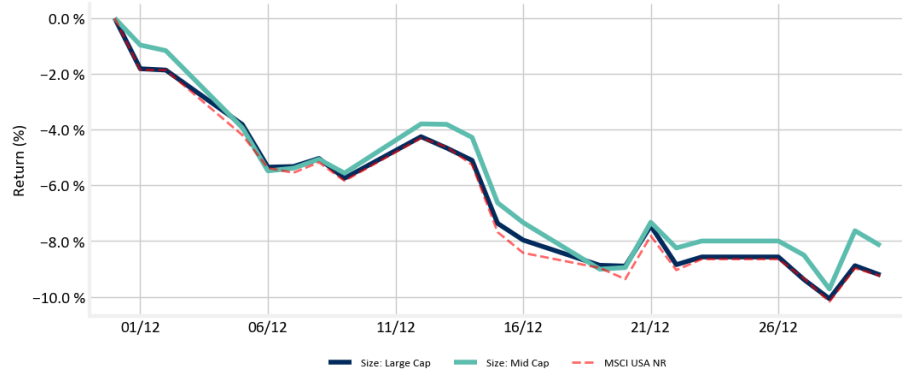
	Factor	Bm	Excess
Dividend Yield	-8.04 %	-14.60 %	657 bps
Growth	-19.99 %	-14.60 %	-538 bps
High Volatility	-21.66 %	-14.60 %	-706 bps
Low Volatility	-9.63 %	-14.60 %	497 bps
Price Momentum	-16.13 %	-14.60 %	-153 bps
Classic Quality	-14.32 %	-14.60 %	28 bps
Sentiment	-12.61 %	-14.60 %	199 bps
Deep value	-7.24 %	-14.60 %	736 bps



US: Cap-Size (pure)

Benchmark: MSCI USA NR

Month-to-date

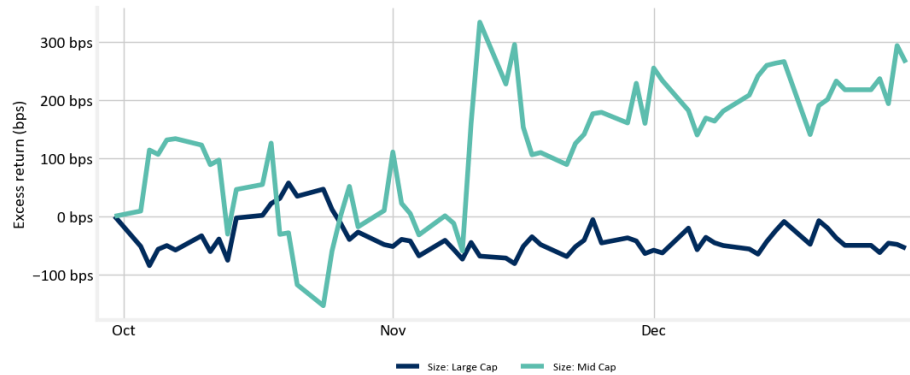
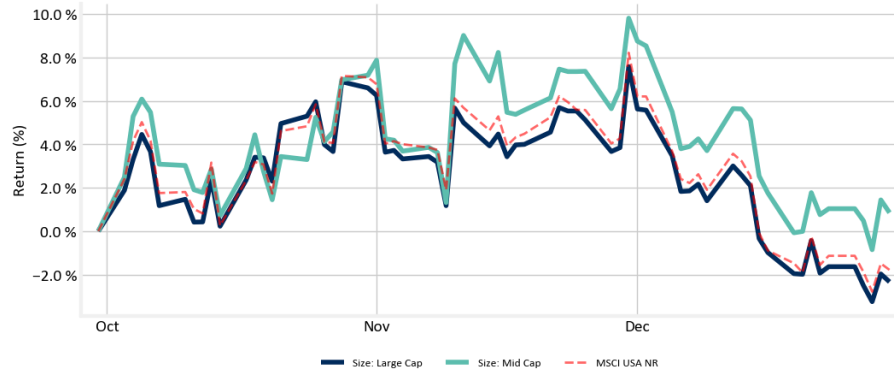


	Factor	Bm	Excess
Size: Large Cap	-9.22 %	-9.25 %	3 bps
Size: Mid Cap	-8.17 %	-9.25 %	108 bps

US: Cap-Size (pure)

Benchmark: MSCI USA NR

Quarter-to-date

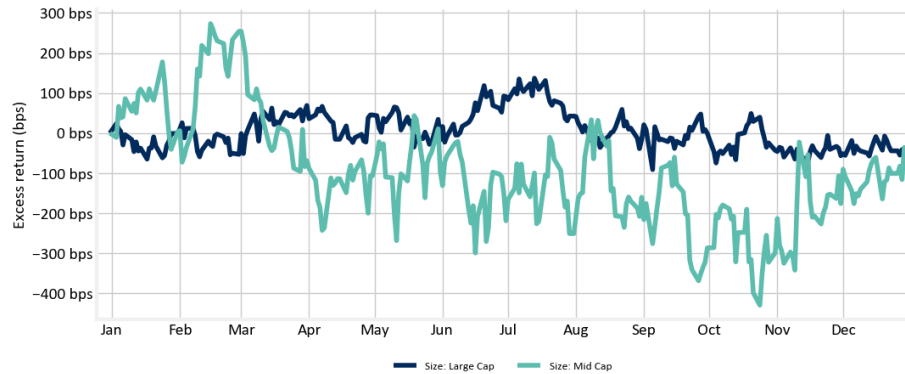
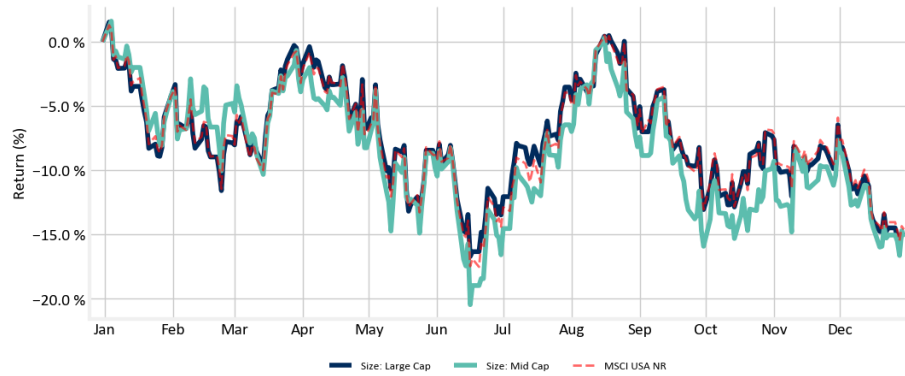


	Factor	Bm	Excess
Size: Large Cap	-2.34 %	-1.79 %	-55 bps
Size: Mid Cap	0.85 %	-1.79 %	264 bps

US: Cap-Size (pure)

Benchmark: MSCI USA NR

Year-to-date

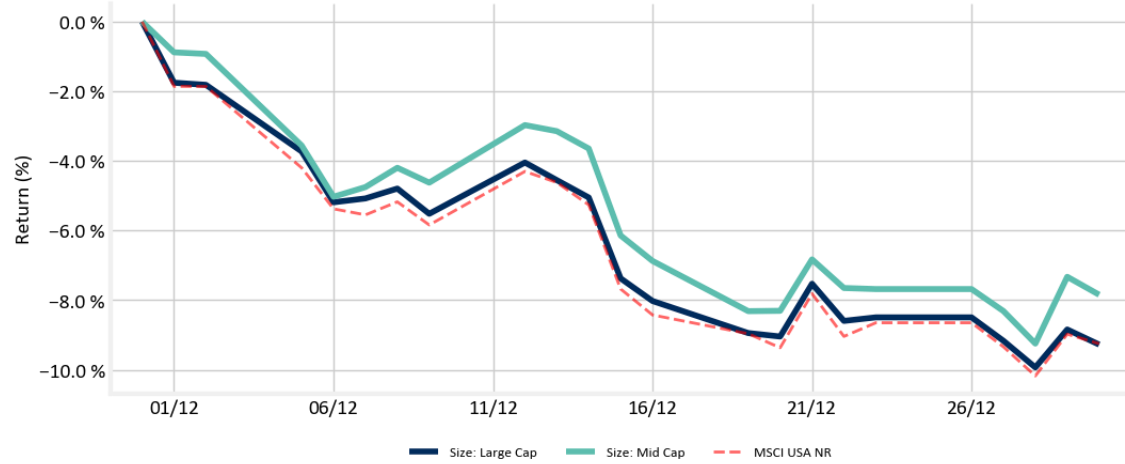


	Factor	Bm	Excess
Size: Large Cap	-15.09 %	-14.60 %	-48 bps
Size: Mid Cap	-15.20 %	-14.60 %	-59 bps

US: Cap-Size (sustainable)

Benchmark: MSCI USA NR

Month-to-date



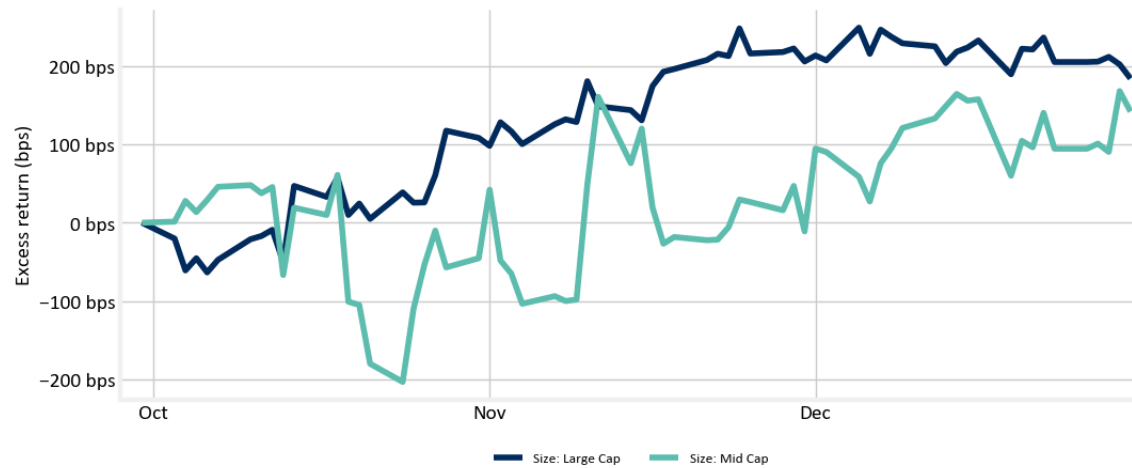
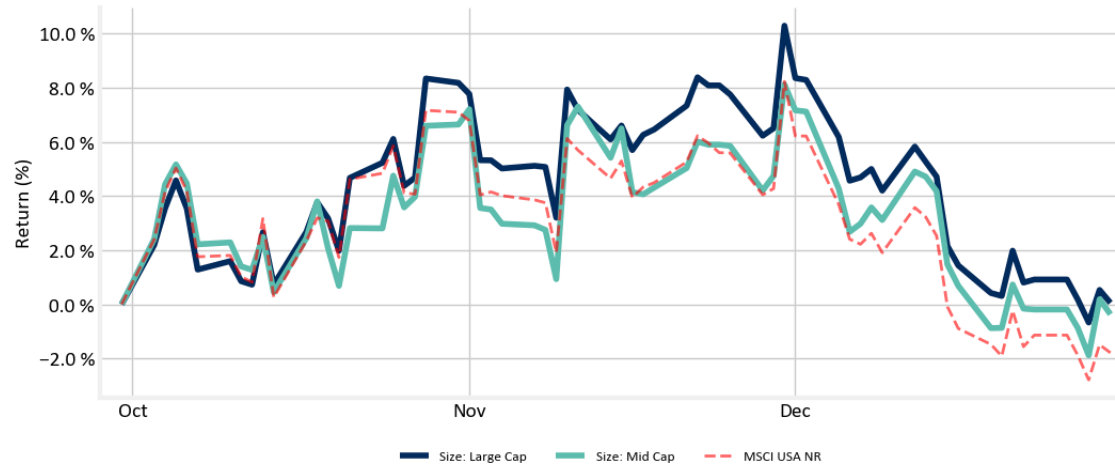
	Factor	Bm	Excess
Size: Large Cap	-9.28 %	-9.25 %	-2 bps
Size: Mid Cap	-7.84 %	-9.25 %	141 bps



US: Cap-Size (sustainable)

Benchmark: MSCI USA NR

Quarter-to-date



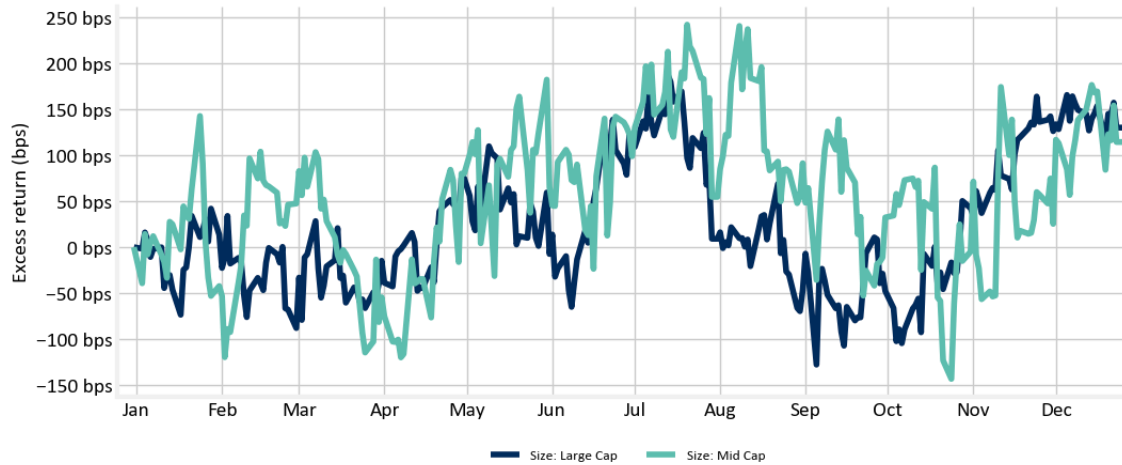
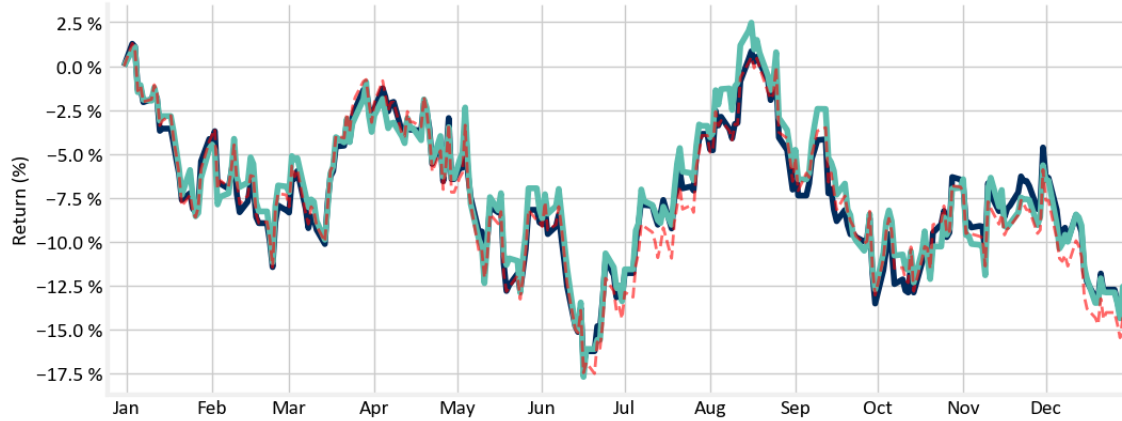
	Factor	Bm	Excess
Size: Large Cap	0.05 %	-1.79 %	184 bps
Size: Mid Cap	-0.37 %	-1.79 %	142 bps



US: Cap-Size (sustainable)

Benchmark: MSCI USA NR

Year-to-date



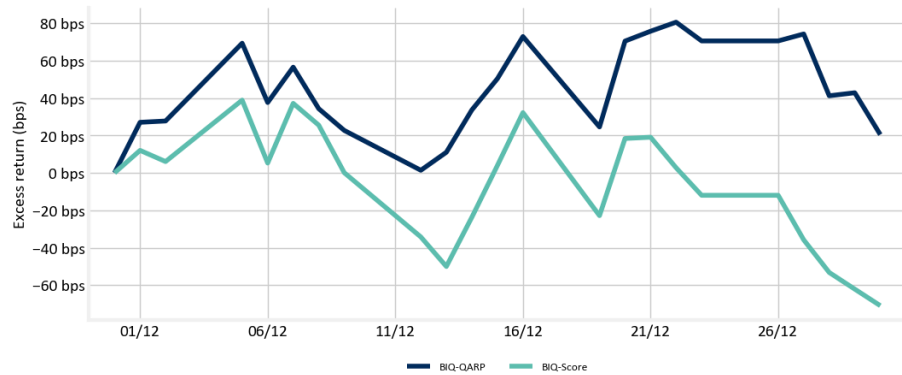
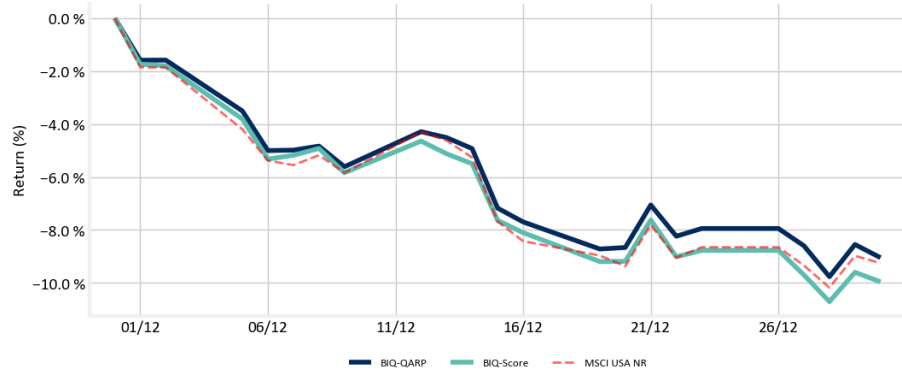
	Factor	Bm	Excess
Size: Large Cap	-13.48 %	-14.60 %	112 bps
Size: Mid Cap	-13.05 %	-14.60 %	156 bps



US: Multifactor (pure)

Benchmark: MSCI USA NR

Month-to-date

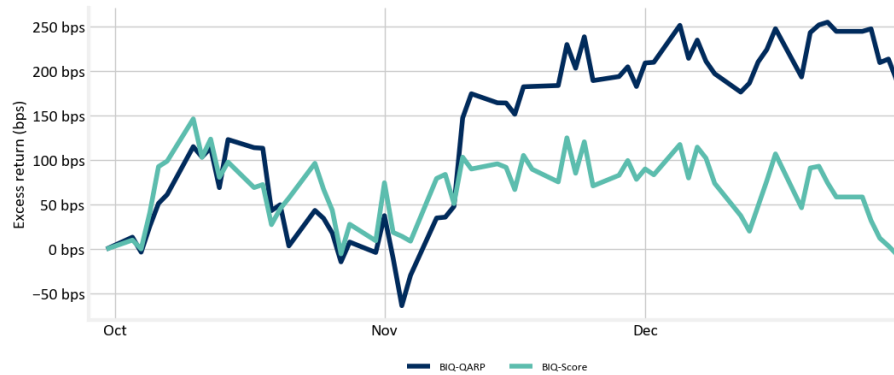
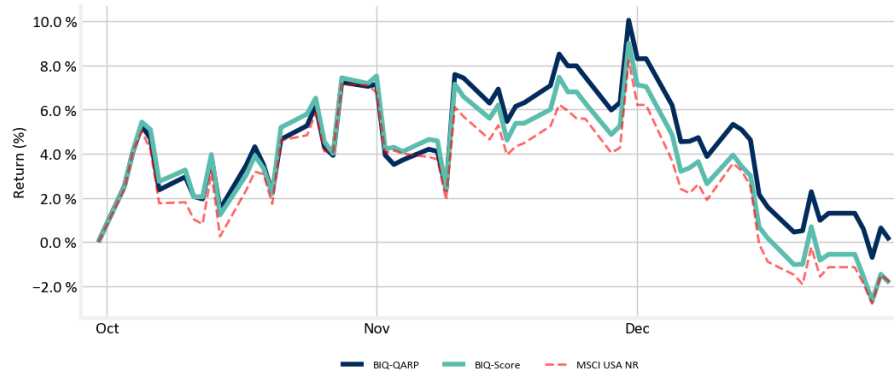


	Factor	Bm	Excess
BIQ-QARP	-9.05 %	-9.25 %	20 bps
BIQ-Score	-9.96 %	-9.25 %	-71 bps

US: Multifactor (pure)

Benchmark: MSCI USA NR

Quarter-to-date

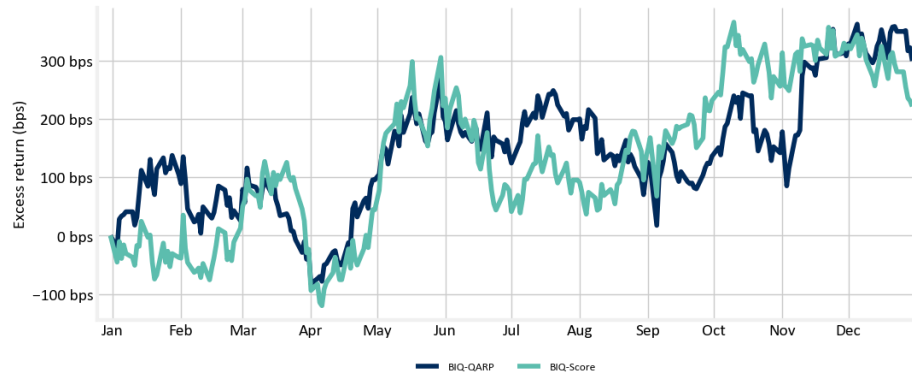
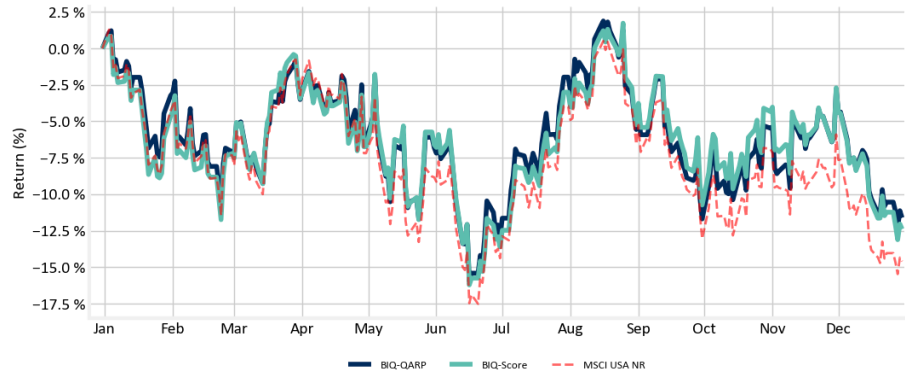


	Factor	Bm	Excess
BIQ-QARP	0.09 %	-1.79 %	188 bps
BIQ-Score	-1.85 %	-1.79 %	-6 bps

US: Multifactor (pure)

Benchmark: MSCI USA NR

Year-to-date

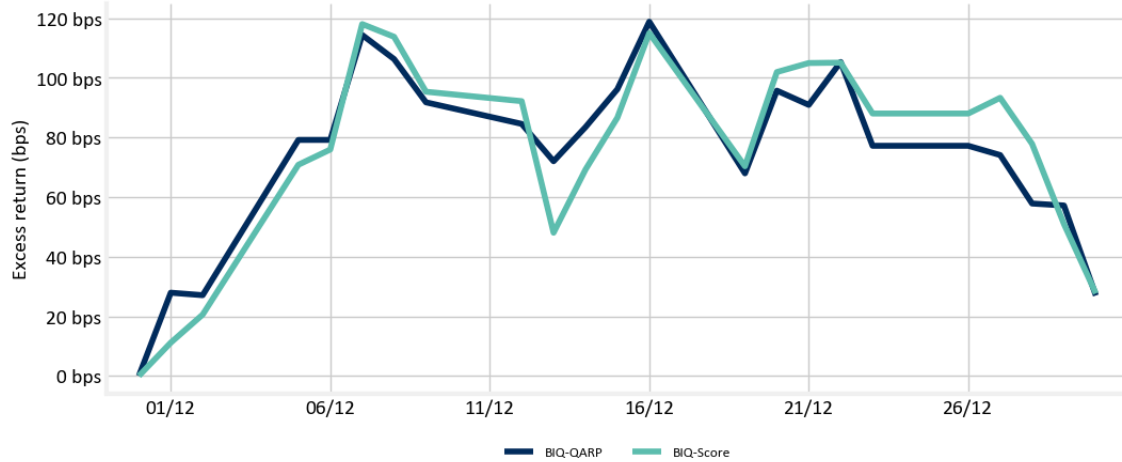
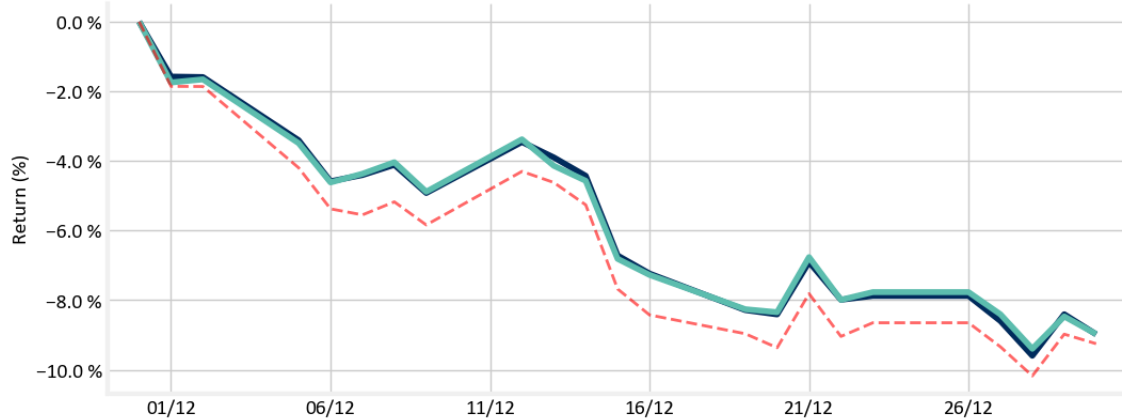


	Factor	Bm	Excess
BIQ-QARP	-11.61 %	-14.60 %	299 bps
BIQ-Score	-12.39 %	-14.60 %	221 bps

US: Multifactor (sustainable)

Benchmark: MSCI USA NR

Month-to-date



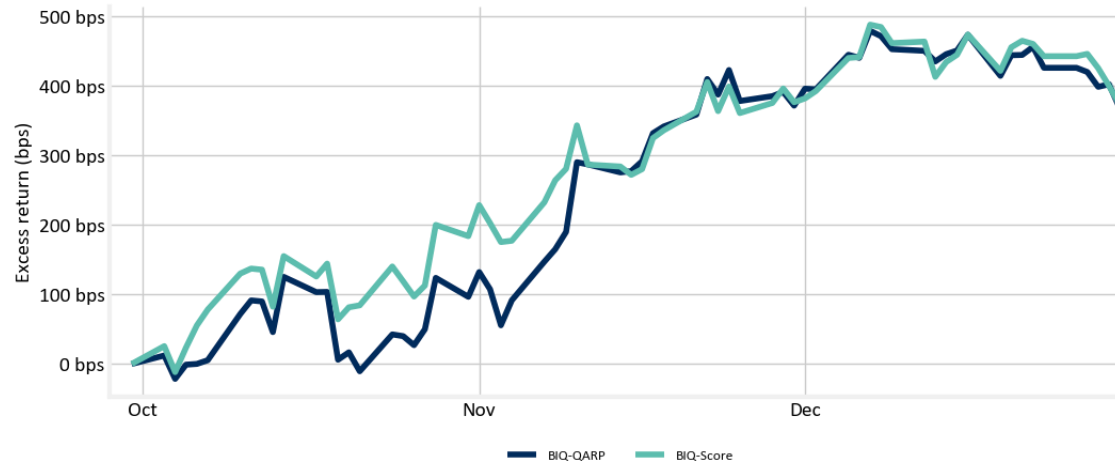
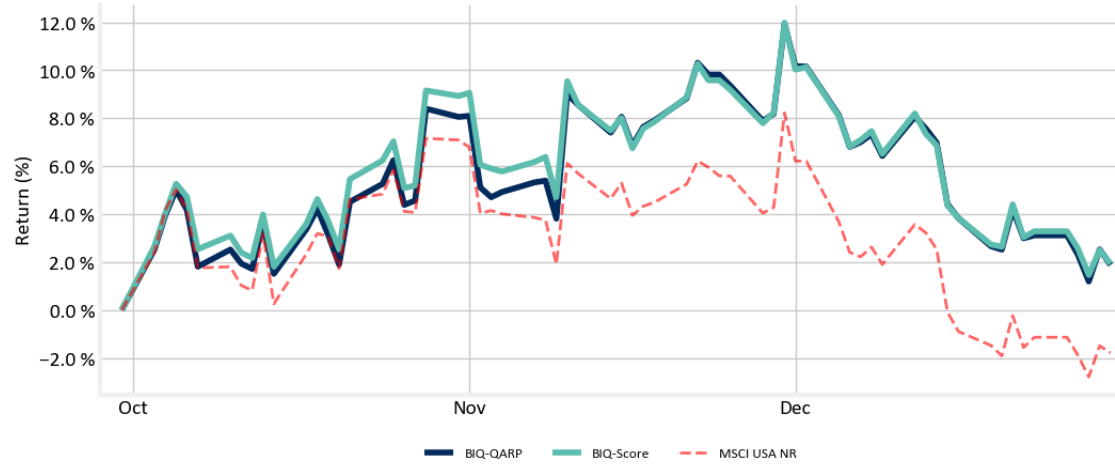
	Factor	Bm	Excess
BIQ-QARP	-8.98 %	-9.25 %	27 bps
BIQ-Score	-8.97 %	-9.25 %	28 bps



US: Multifactor (sustainable)

Benchmark: MSCI USA NR

Quarter-to-date



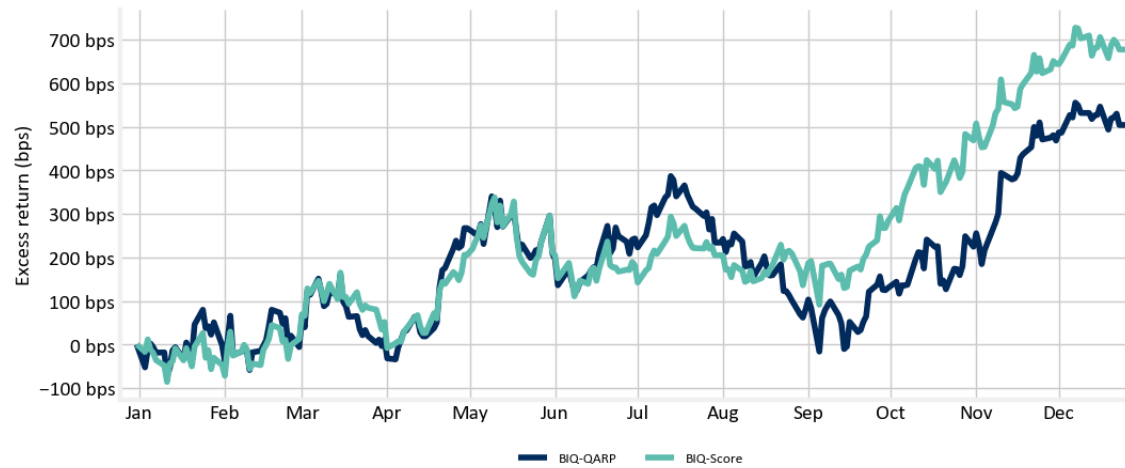
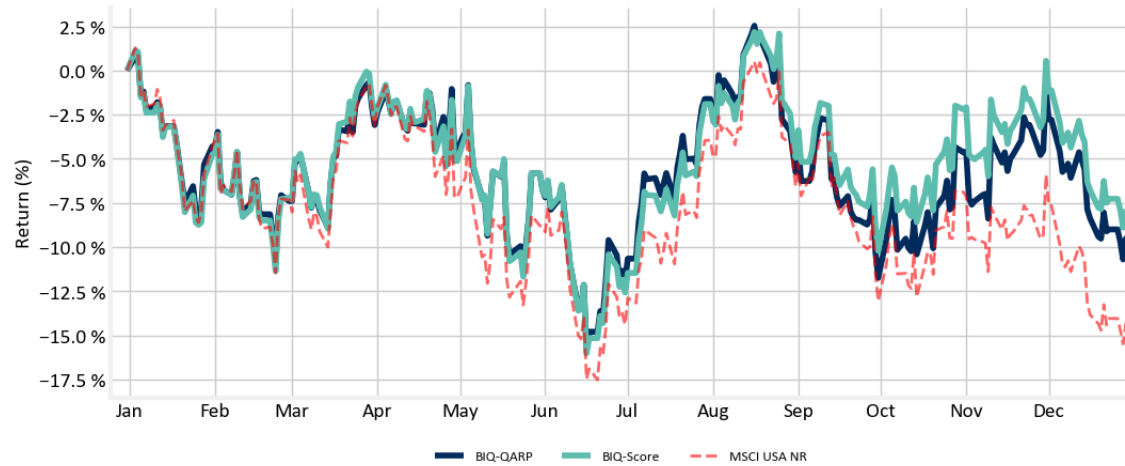
	Factor	Bm	Excess
BIQ-QARP	1.88 %	-1.79 %	367 bps
BIQ-Score	1.93 %	-1.79 %	372 bps



US: Multifactor (sustainable)

Benchmark: MSCI USA NR

Year-to-date



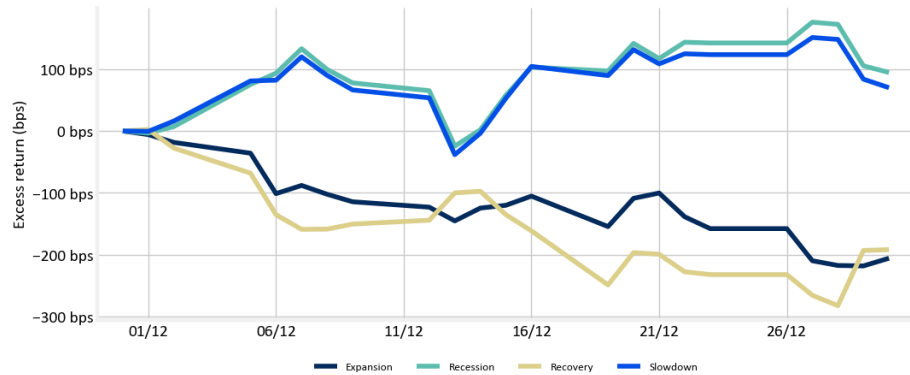
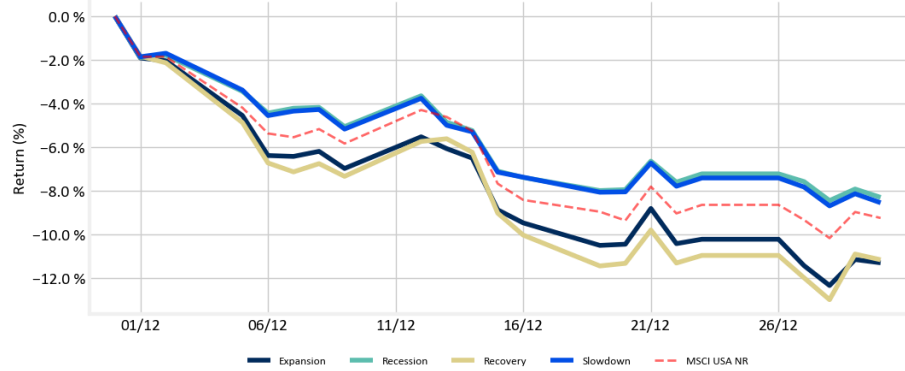
	Factor	Bm	Excess
BIQ-QARP	-10.09 %	-14.60 %	452 bps
BIQ-Score	-8.47 %	-14.60 %	613 bps



US: Cycle model (pure)

Benchmark: MSCI USA NR

Month-to-date

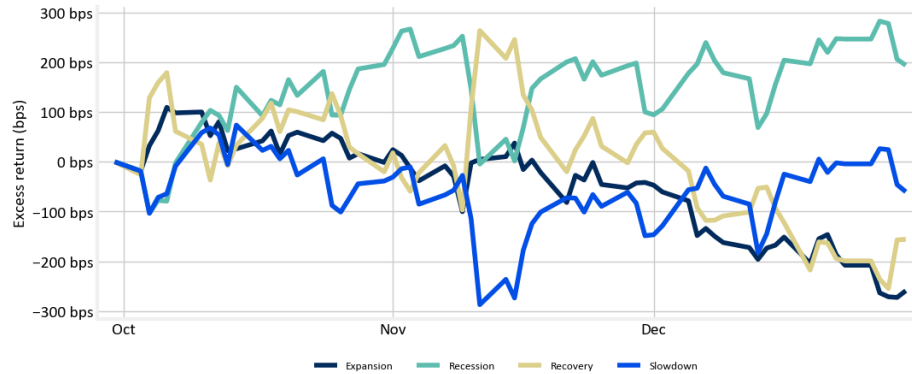
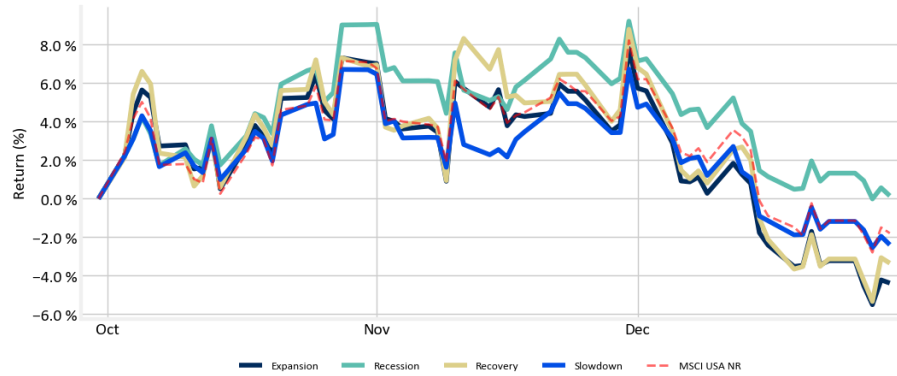


	Factor	Bm	Excess
Expansion	-11.31 %	-9.25 %	-205 bps
Recession	-8.31 %	-9.25 %	94 bps
Recovery	-11.17 %	-9.25 %	-192 bps
Slowdown	-8.55 %	-9.25 %	70 bps

US: Cycle model (pure)

Benchmark: MSCI USA NR

Quarter-to-date

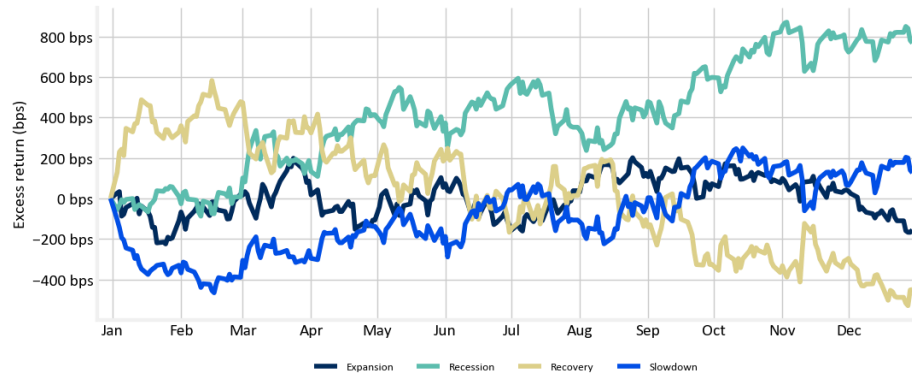
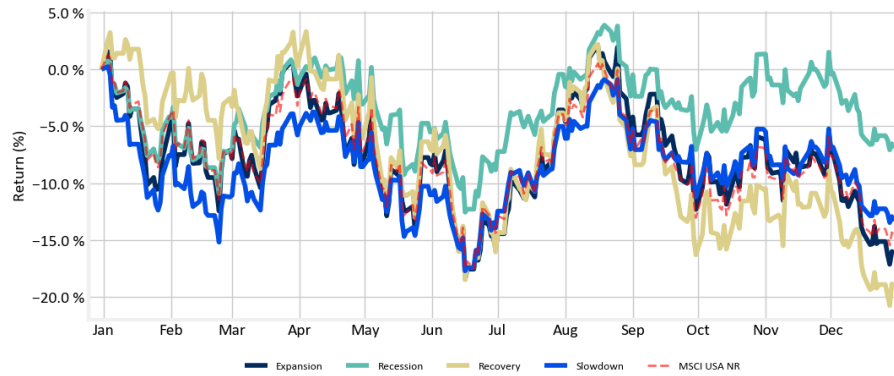


	Factor	Bm	Excess
Expansion	-4.38 %	-1.79 %	-259 bps
Recession	0.15 %	-1.79 %	194 bps
Recovery	-3.35 %	-1.79 %	-156 bps
Slowdown	-2.39 %	-1.79 %	-60 bps

US: Cycle model (pure)

Benchmark: MSCI USA NR

Year-to-date

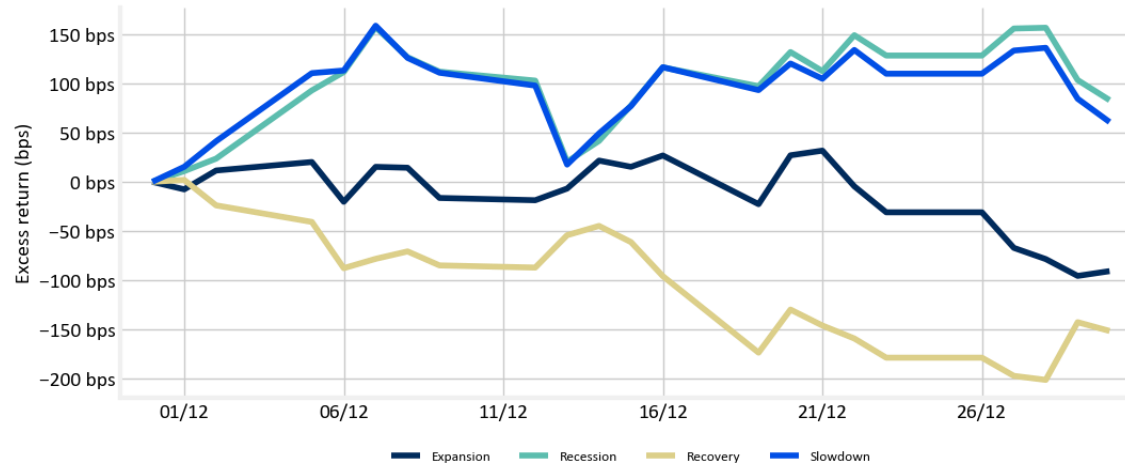
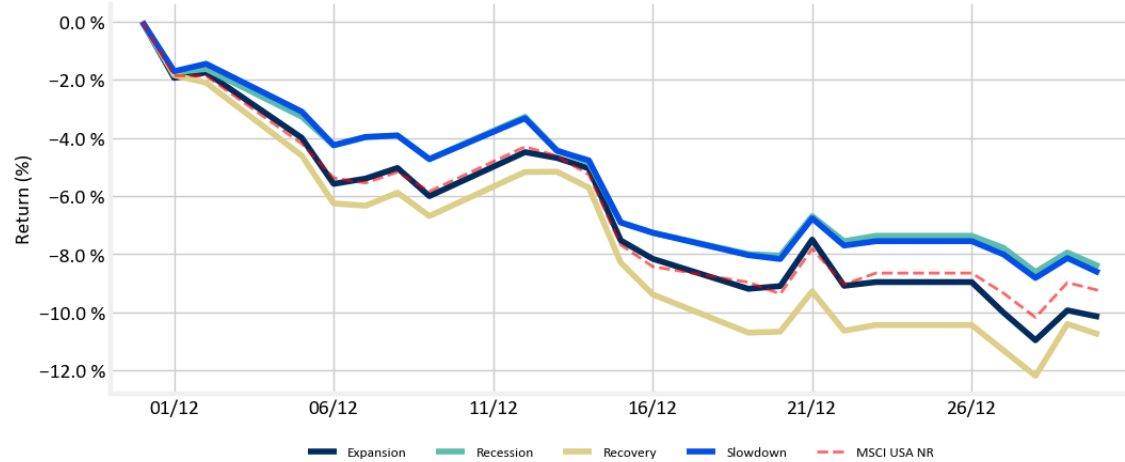


	Factor	Bm	Excess
Expansion	-16.16 %	-14.60 %	-156 bps
Recession	-6.93 %	-14.60 %	768 bps
Recovery	-19.11 %	-14.60 %	-450 bps
Slowdown	-13.34 %	-14.60 %	127 bps

US: Cycle model (sustainable)

Benchmark: MSCI USA NR

Month-to-date



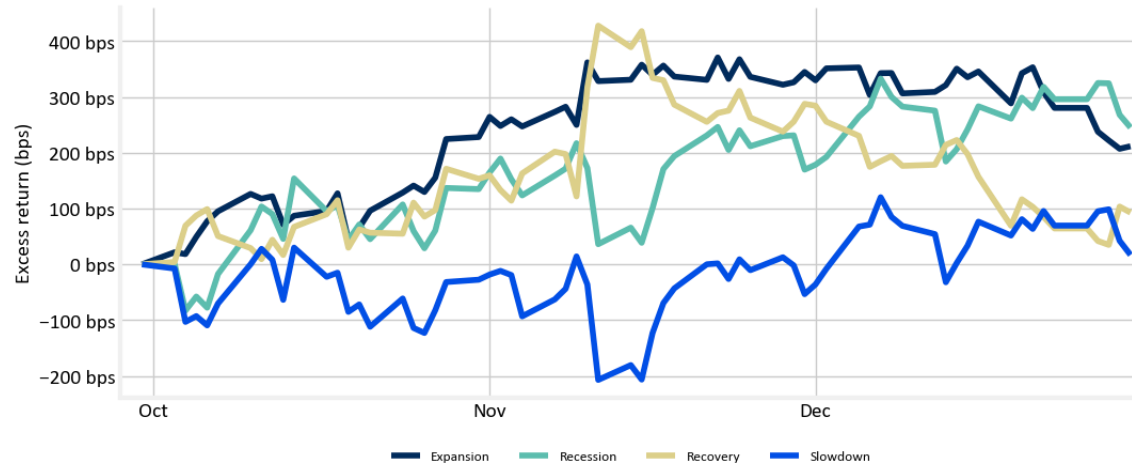
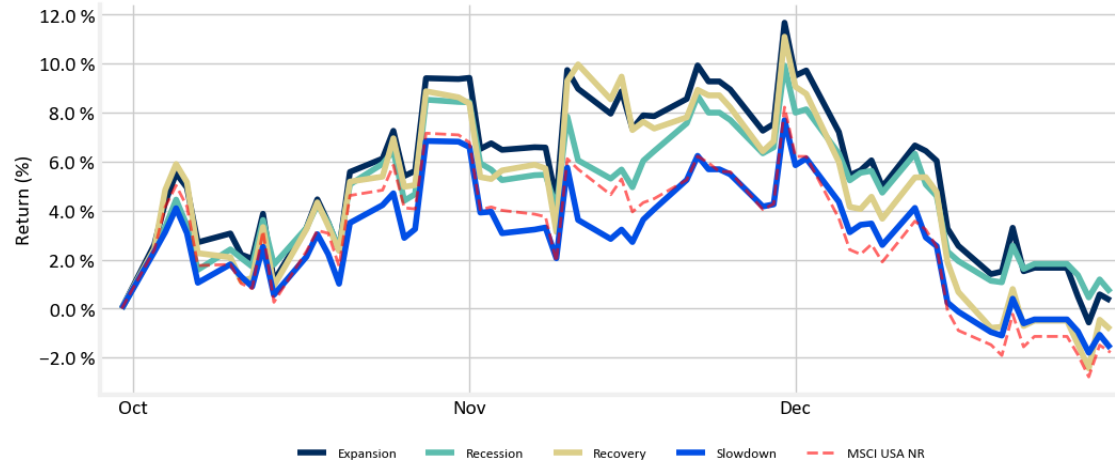
	Factor	Bm	Excess
Expansion	-10.16 %	-9.25 %	-91 bps
Recession	-8.42 %	-9.25 %	83 bps
Recovery	-10.77 %	-9.25 %	-151 bps
Slowdown	-8.64 %	-9.25 %	61 bps



US: Cycle model (sustainable)

Benchmark: MSCI USA NR

Quarter-to-date



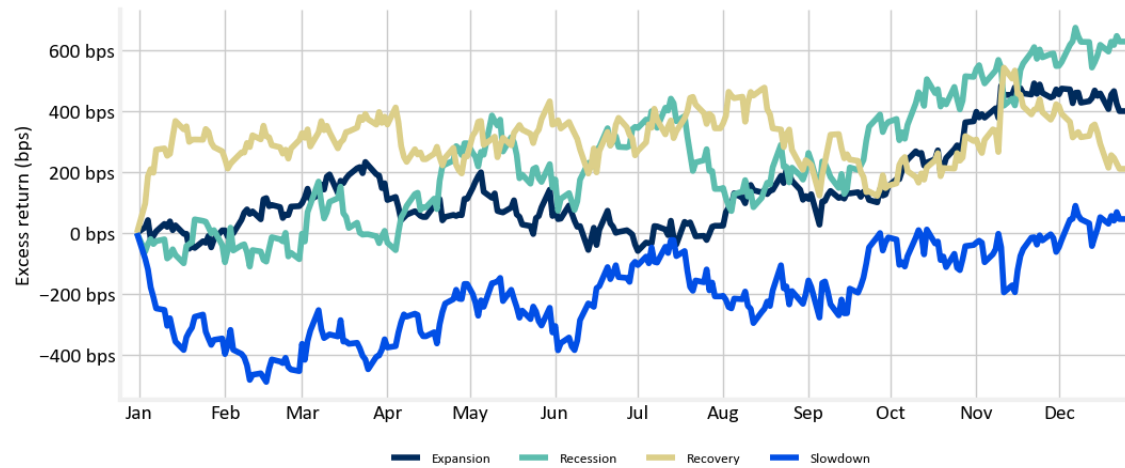
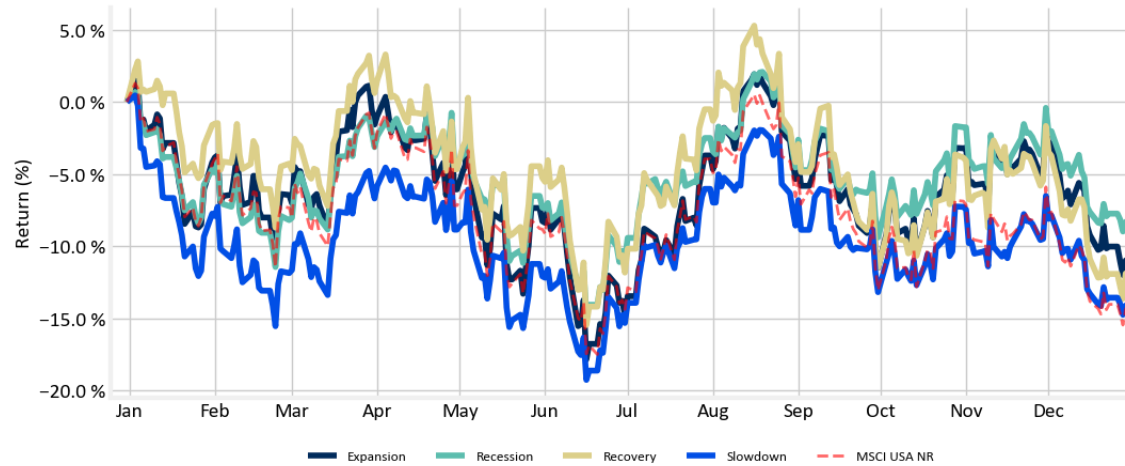
	Factor	Bm	Excess
Expansion	0.33 %	-1.79 %	212 bps
Recession	0.66 %	-1.79 %	245 bps
Recovery	-0.86 %	-1.79 %	93 bps
Slowdown	-1.62 %	-1.79 %	17 bps



US: Cycle model (sustainable)

Benchmark: MSCI USA NR

Year-to-date



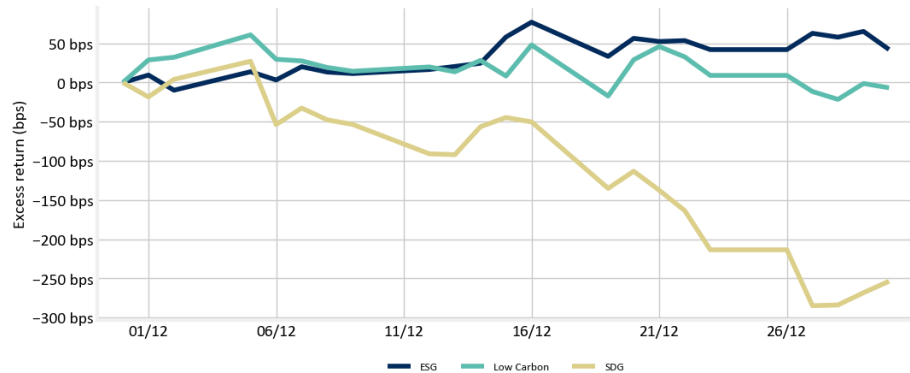
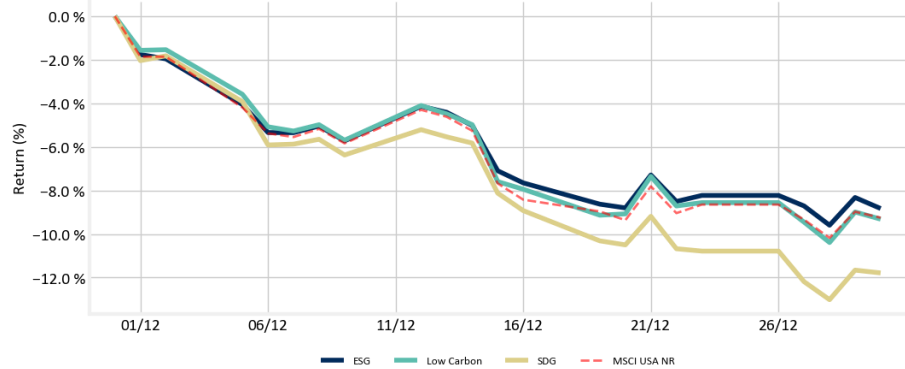
	Factor	Bm	Excess
Expansion	-11.22 %	-14.60 %	339 bps
Recession	-8.80 %	-14.60 %	581 bps
Recovery	-12.25 %	-14.60 %	235 bps
Slowdown	-14.60 %	-14.60 %	1 bps



US: Sustainable Target (pure)

Benchmark: MSCI USA NR

Month-to-date

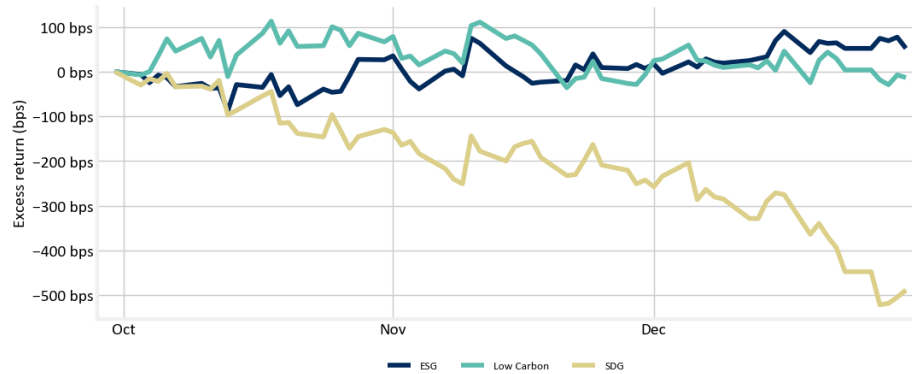
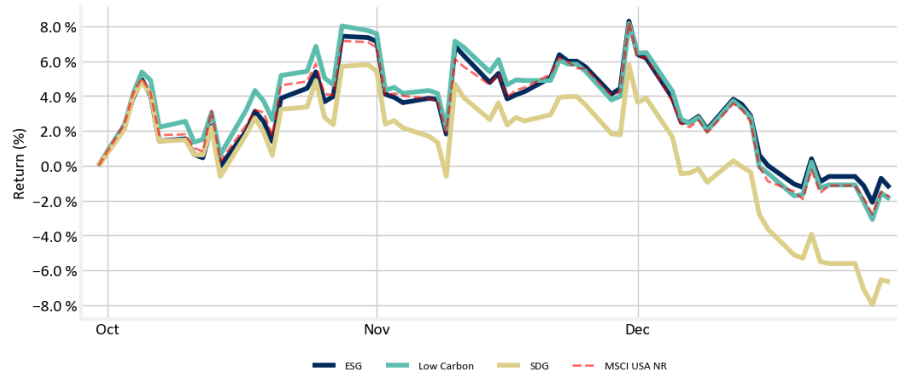


	Factor	Bm	Excess
ESG	-8.83 %	-9.25 %	42 bps
Low Carbon	-9.32 %	-9.25 %	-7 bps
SDG	-11.79 %	-9.25 %	-254 bps

US: Sustainable Target (pure)

Benchmark: MSCI USA NR

Quarter-to-date

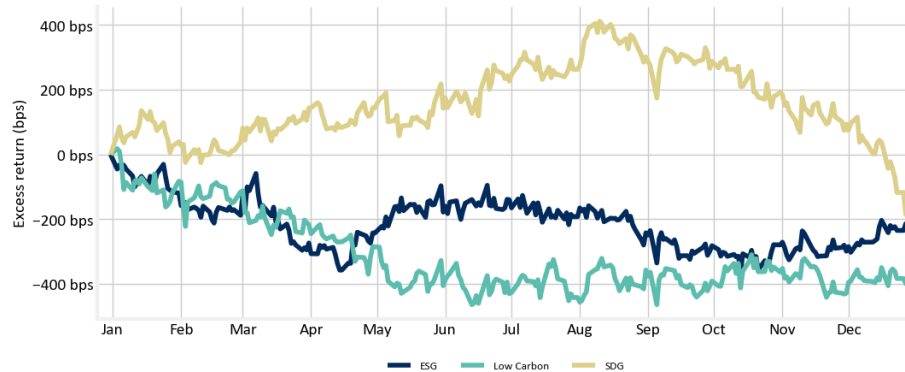
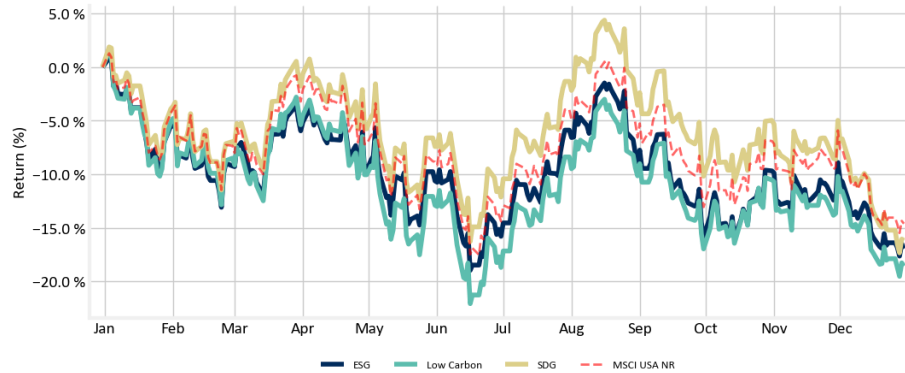


	Factor	Bm	Excess
ESG	-1.27 %	-1.79 %	52 bps
Low Carbon	-1.92 %	-1.79 %	-13 bps
SDG	-6.67 %	-1.79 %	-488 bps

US: Sustainable Target (pure)

Benchmark: MSCI USA NR

Year-to-date

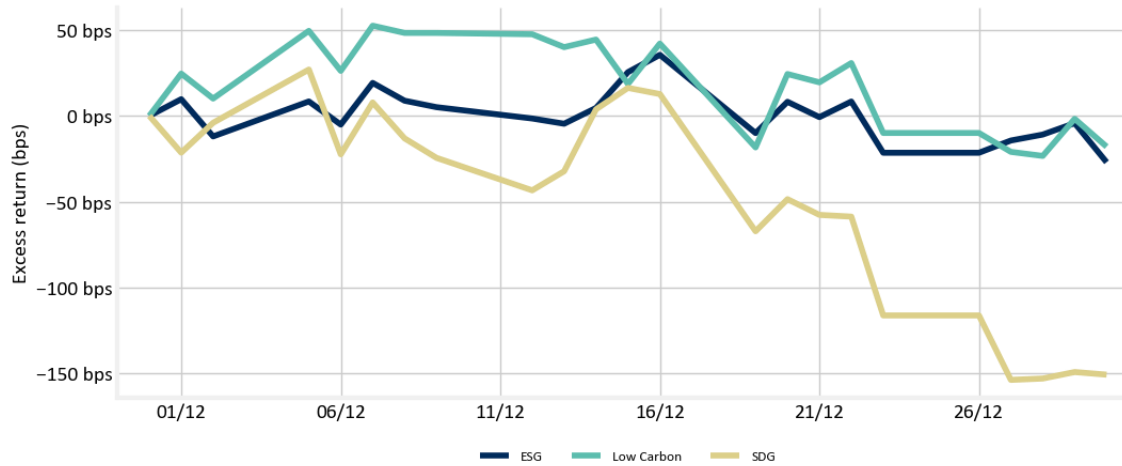
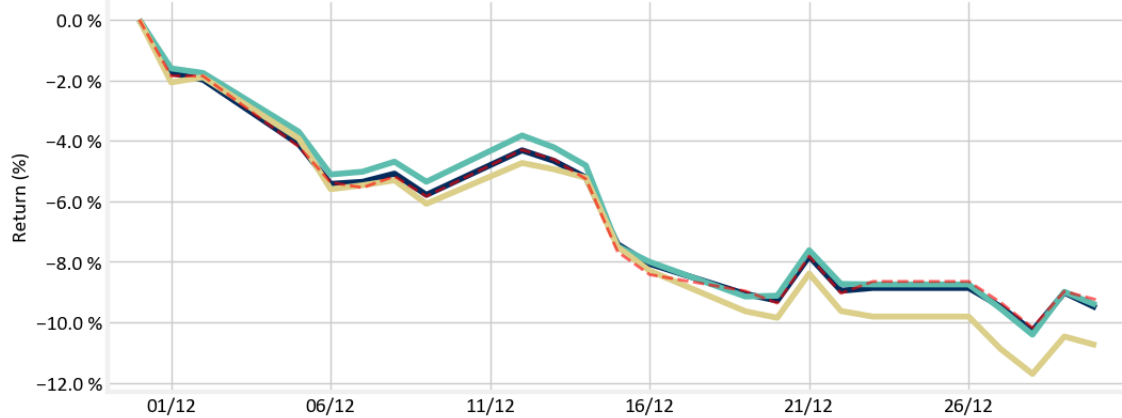


	Factor	Bm	Excess
ESG	-16.93 %	-14.60 %	-233 bps
Low Carbon	-18.56 %	-14.60 %	-395 bps
SDG	-16.16 %	-14.60 %	-156 bps

US: Sustainable Target (sustainable)

Benchmark: MSCI USA NR

Month-to-date



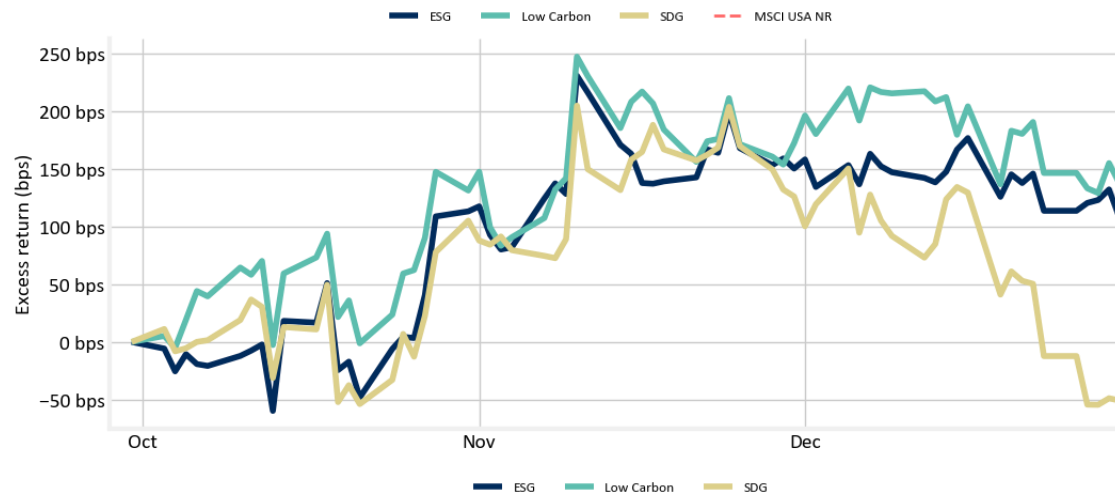
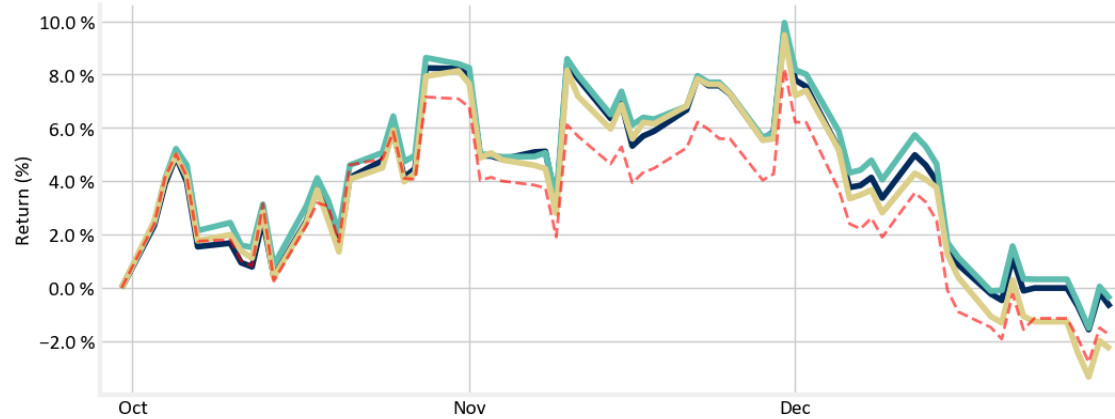
	Factor	Bm	Excess
ESG	-9.52 %	-9.25 %	-27 bps
Low Carbon	-9.43 %	-9.25 %	-18 bps
SDG	-10.76 %	-9.25 %	-151 bps



US: Sustainable Target (sustainable)

Benchmark: MSCI USA NR

Quarter-to-date



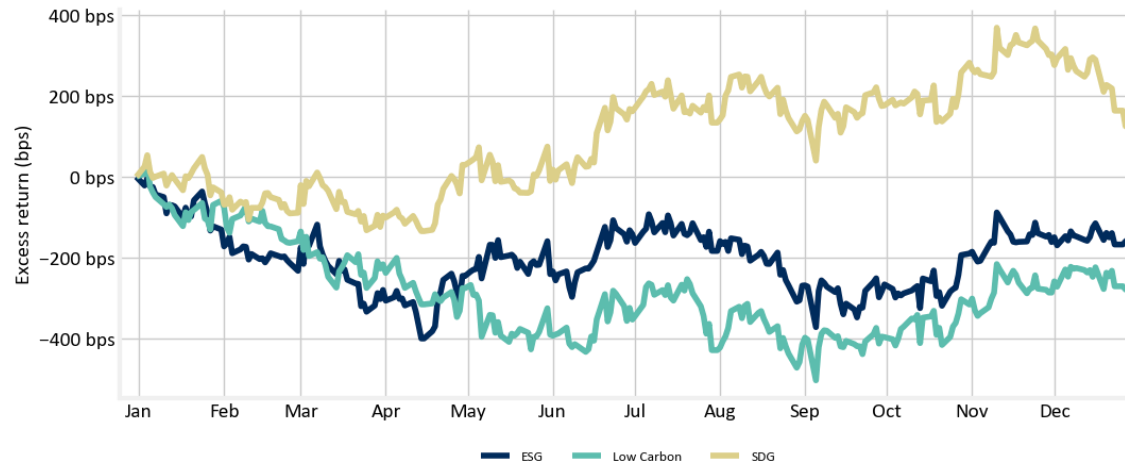
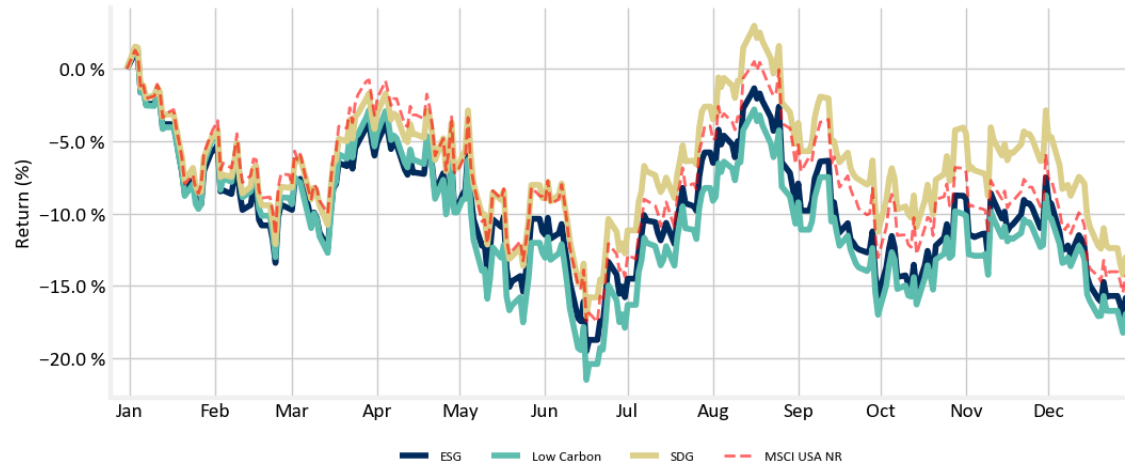
	Factor	Bm	Excess
ESG	-0.72 %	-1.79 %	107 bps
Low Carbon	-0.42 %	-1.79 %	136 bps
SDG	-2.30 %	-1.79 %	-51 bps



US: Sustainable Target (sustainable)

Benchmark: MSCI USA NR

Year-to-date



	Factor	Bm	Excess
ESG	-16.32 %	-14.60 %	-171 bps
Low Carbon	-17.37 %	-14.60 %	-276 bps
SDG	-13.32 %	-14.60 %	128 bps





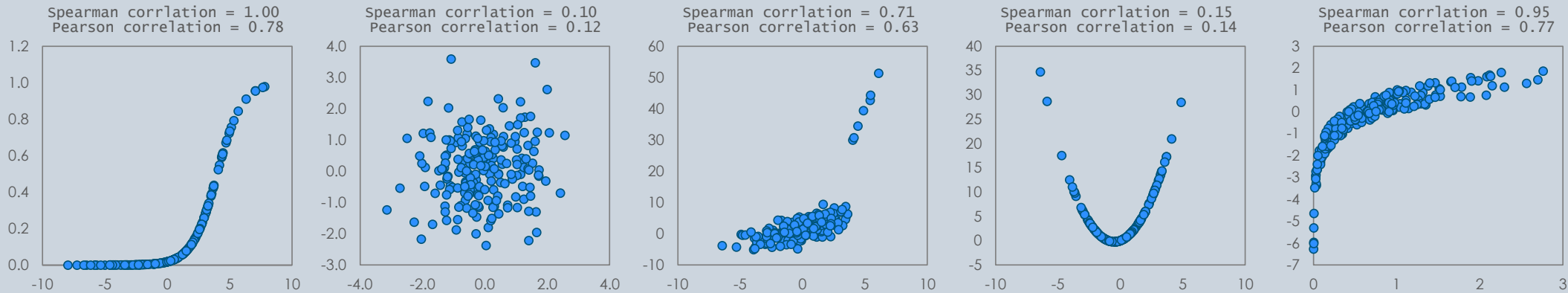
Rank Correlations

BANKINVEST

Handler
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Methodology

Rank correlation, or Spearman correlation, measures the rank relationship between two variables. Instead of assessing the linear relationship as a "normal" (Pearson) correlation coefficient, the Spearman correlation measures the ordinal relationship. A few examples:



When evaluating the rank correlation between two factors, we try to **quantify the level of co-variation and underlying commonalities**. At a given point in time all N stocks are ranked from 1 to N on factor loadings, and the correlation between rankings are calculated.

The **benefit** of using this kind of correlation measure is that we are capable of giving a current state of factor-correlation. We are not dependent on factor time series. On huge market rotations we do not need to wait until the new relationships materialize in the time series.

US Factor Correlations

	Value BIQ	Momentum BIQ	Quality BIQ	Stability BIQ	Dividend Yield	Growth	Profitability Growth	High Volatility	Price Momentum	Classic Quality	Profitability	Sentiment	Deep Value	Safety	Leverage	Size: Large Cap	BIQ-Score	BIQ-QARP
Value BIQ	100	4	19	35	36	-4	31	-10	19	13	16	-20	69	7	-17	9	61	56
Momentum BIQ	4	100	1	10	-8	-9	9	-8	86	-5	0	71	-5	-5	-6	4	31	-1
Quality BIQ	19	1	100	16	3	23	53	-14	14	68	82	-18	-13	72	-13	16	67	86
Stability BIQ	35	10	16	100	54	-29	-1	-82	18	21	-2	-4	26	33	12	17	15	28
Dividend Yield	36	-8	3	54	100	-21	8	-41	5	7	-13	-22	45	12	11	12	5	15
Growth	-4	-9	23	-29	-21	100	30	28	-4	10	34	-9	-7	-4	-10	0	36	12
Profitability Growth	31	9	53	-1	8	30	100	10	22	19	47	-11	19	6	-19	8	70	39
High Volatility	-10	-8	-14	-82	-41	28	10	100	-11	-30	9	-5	-5	-43	-14	-17	2	-18
Price Momentum	19	86	14	18	5	-4	22	-11	100	3	10	30	10	3	-13	10	43	14
Classic Quality	13	-5	68	21	7	10	19	-30	3	100	49	-13	-3	70	-36	12	36	65
Profitability	16	0	82	-2	-13	34	47	9	10	49	100	-13	-21	33	-12	16	72	72
Sentiment	-20	71	-18	-4	-22	-9	-11	-5	30	-13	-13	100	-25	-12	5	-7	3	-22
Deep Value	69	-5	-13	26	45	-7	19	-5	10	-3	-21	-25	100	-12	-29	2	21	13
Safety	7	-5	72	33	12	-4	6	-43	3	70	33	-12	-12	100	-5	10	21	69
Leverage	-17	-6	-13	12	11	-10	-19	-14	-13	-36	-12	5	-29	-5	100	-8	-22	-17
Size: Large Cap	9	4	16	17	12	0	8	-17	10	12	16	-7	2	10	-8	100	16	15
BIQ-Score	61	31	67	15	5	36	70	2	43	36	72	3	21	21	-22	16	100	73
BIQ-QARP	56	-1	86	28	15	12	39	-18	14	65	72	-22	13	69	-17	15	73	100

Rankcorrelation matrix

A snapshot of the current factor rank correlations.

On the following slide is the changes in one month and three months horizon shown to illustrate the changes in the relationship between the factors.

Changes in US factor correlations

1-month changes

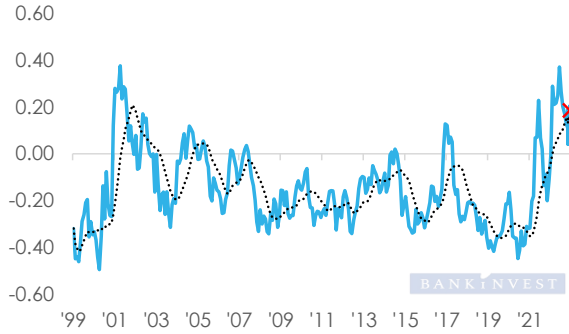
	Value BIQ	Momentum BIQ	Quality BIQ	Stability BIQ	Dividend Yield	Growth	Profitability Growth	High Volatility	Price Momentum	Classic Quality	Profitability	Sentiment	Deep Value	Safety	Leverage	Size: Large Cap	BIQ-Score	BIQ-QARP
Value BIQ		-3	-1	-1	0	-1	-1	2	0	0	1	-7	-1	-1	0	-1	0	1
Momentum BIQ	-3		-2	-5	-5	-5	0	3	-2	-3	-3	-4	-2	0	2	-2	-7	-3
Quality BIQ	-1	-2		-1	0	0	0	1	3	-2	1	-7	-3	-2	4	0	1	-1
Stability BIQ	-1	-5	-1		0	-2	0	0	-6	0	0	-1	-1	0	0	1	-3	-1
Dividend Yield	0	-5	0	0		0	1	0	1	0	0	-8	-1	0	0	3	0	1
Growth	-1	-5	0	-2	0		-2	1	-1	-2	0	-5	0	-2	3	-2	-1	-1
Profitability Growth	-1	0	0	0	1	-2		0	5	-1	0	-7	-1	-1	2	-2	1	0
High Volatility	2	3	1	0	0	1	0		5	-1	0	-3	2	-1	0	0	4	2
Price Momentum	0	-2	3	-6	1	-1	5	5		1	4	-8	0	2	-1	0	-1	3
Classic Quality	0	-3	-2	0	0	-2	-1	-1	1		-1	-2	-1	-1	1	0	-2	-1
Profitability	1	-3	1	0	0	0	0	0	4	-1		-7	-1	-1	2	0	2	1
Sentiment	-7	-4	-7	-1	-8	-5	-7	-3	-8	-2	-7	0	-6	-1	4	-5	-12	-7
Deep Value	-1	-2	-3	-1	-1	0	-1	2	0	-1	-1	-6		-2	-1	0	-1	-2
Safety	-1	0	-2	0	0	-2	-1	-1	2	-1	-1	-1	-2	0	2	1	-1	-2
Leverage	0	2	4	0	0	3	2	0	-1	1	2	4	-1	2		3	2	2
Size: Large Cap	-1	-2	0	1	3	-2	-2	0	0	0	0	-5	0	1	3		-3	-1
BIQ-Score	0	-7	1	-3	0	-1	1	4	-1	-2	2	-12	-1	-1	2	-3		2
BIQ-QARP	1	-3	-1	-1	1	-1	0	2	3	-1	1	-7	-2	-2	2	-1	2	

3-month changes

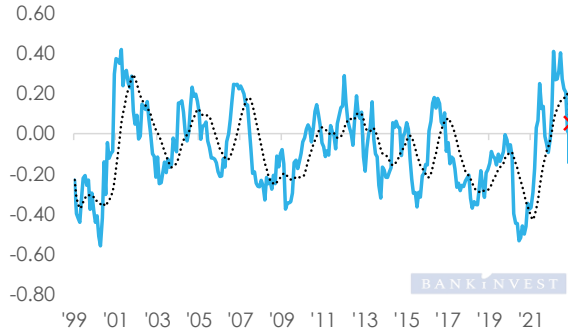
	Value BIQ	Momentum BIQ	Quality BIQ	Stability BIQ	Dividend Yield	Growth	Profitability Growth	High Volatility	Price Momentum	Classic Quality	Profitability	Sentiment	Deep Value	Safety	Leverage	Size: Large Cap	BIQ-Score	BIQ-QARP
Value BIQ		-2	-3	3	-1	2	-4	-1	1	3	-1	-11	-4	-3	3	-1	-2	-2
Momentum BIQ	-2		-4	-9	-18	-9	-1	12	-4	-6	4	-3	-3	-8	-10	-3	0	-4
Quality BIQ	-3	-4		0	-3	-4	-2	1	3	1	0	-11	-6	1	1	0	-3	1
Stability BIQ	3	-9	0		-5	-2	-2	0	-11	3	-1	0	2	1	-3	-1	-1	1
Dividend Yield	-1	-18	-3	-5		4	-4	2	-15	2	-3	-13	-1	-2	0	1	-7	-3
Growth	2	-9	-4	-2	4		-1	0	-6	-3	2	-8	2	-5	5	1	0	-2
Profitability Growth	-4	-1	-2	-2	-4	-1		2	9	2	0	-15	-5	-5	2	0	-2	-4
High Volatility	-1	12	1	0	2	0	2		16	-1	3	-3	-2	-2	2	3	4	0
Price Momentum	1	-4	3	-11	-15	-6	9	16		-3	8	-11	1	-5	-16	2	5	2
Classic Quality	3	-6	1	3	2	-3	2	-1	-3		1	-7	0	-1	1	-1	1	2
Profitability	-1	4	0	-1	-3	2	0	3	8	1		-1	-4	1	-1	-1	2	1
Sentiment	-11	-3	-11	0	-13	-8	-15	-3	-11	-7	-1	0	-11	-7	5	-10	-11	-12
Deep Value	-4	-3	-6	2	-1	2	-5	-2	1	0	-4	-11		-6	1	0	-6	-7
Safety	-3	-8	1	1	-2	-5	-5	-2	-5	-1	1	-7	-6	0	3	0	-6	-1
Leverage	3	-10	1	-3	0	5	2	2	-16	1	-1	5	1	3		3	-1	2
Size: Large Cap	-1	-3	0	-1	1	1	0	3	2	-1	-1	-10	0	0	3		-1	-1
BIQ-Score	-2	0	-3	-1	-7	0	-2	4	5	1	2	-11	-6	-6	-1	-1		-3
BIQ-QARP	-2	-4	1	1	-3	-2	-4	0	2	2	1	-12	-7	-1	2	-1	-3	

Selected correlation charts in US

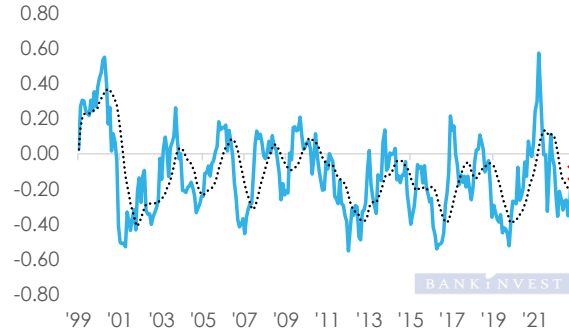
Price Momentum vs. Value BIQ
Rank Correlation in United States



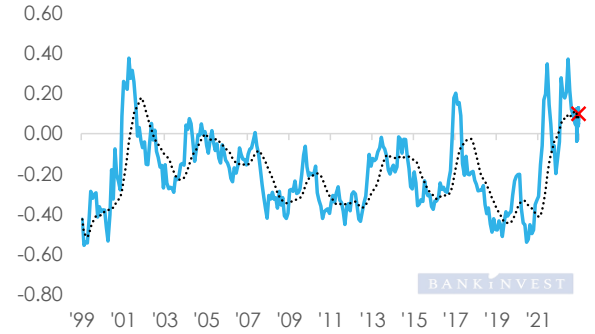
Price Momentum vs. Dividend Yield
Rank Correlation in United States



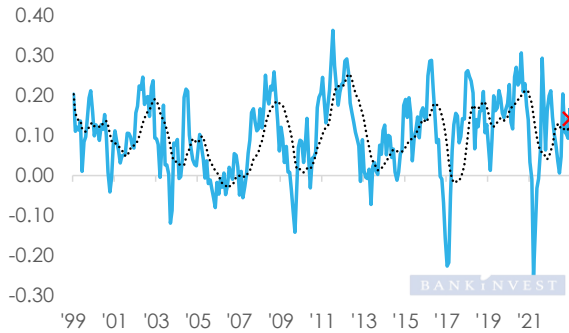
Price Momentum vs. High Volatility
Rank Correlation in United States



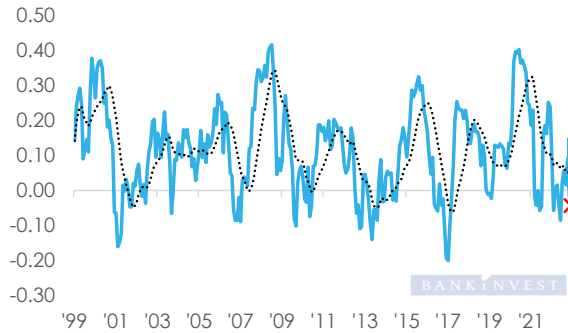
Price Momentum vs. Deep Value
Rank Correlation in United States



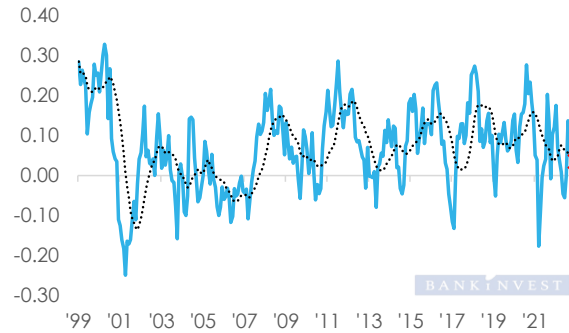
Price Momentum vs. Quality BIQ
Rank Correlation in United States



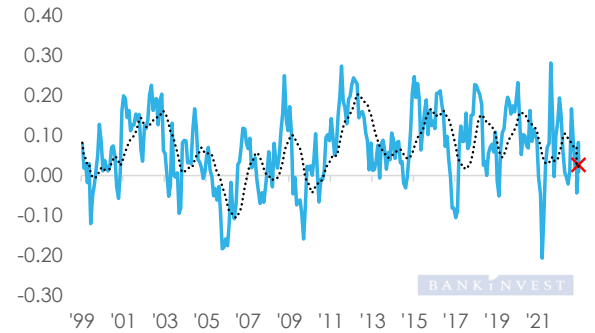
Price Momentum vs. Growth
Rank Correlation in United States



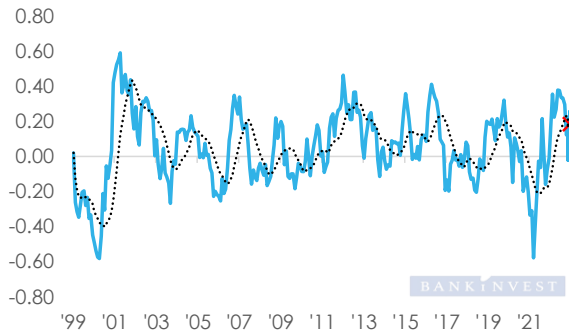
Price Momentum vs. Classic Quality
Rank Correlation in United States



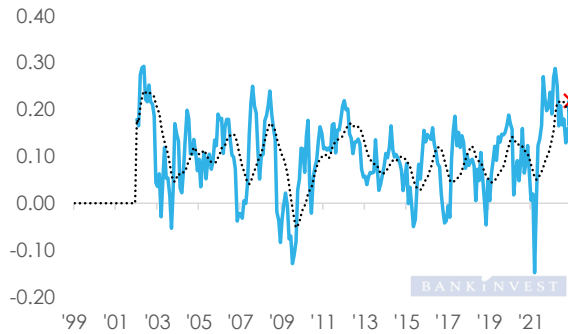
Price Momentum vs. Safety
Rank Correlation in United States



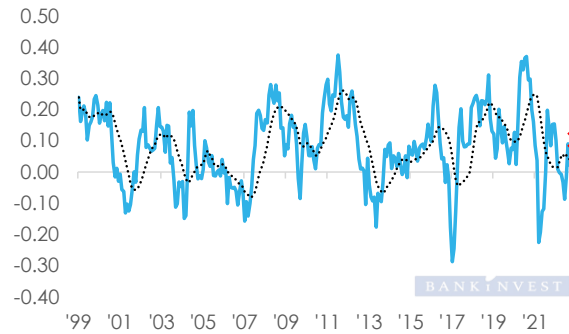
Price Momentum vs. Stability BIQ
Rank Correlation in United States



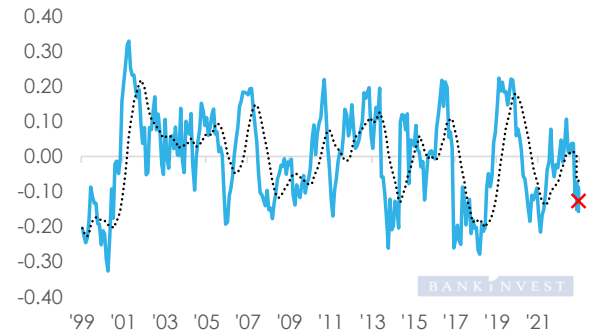
Price Momentum vs. Profitability Growth
Rank Correlation in United States



Price Momentum vs. Profitability
Rank Correlation in United States

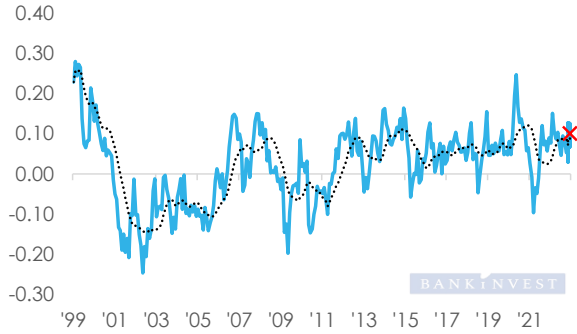


Price Momentum vs. Leverage
Rank Correlation in United States

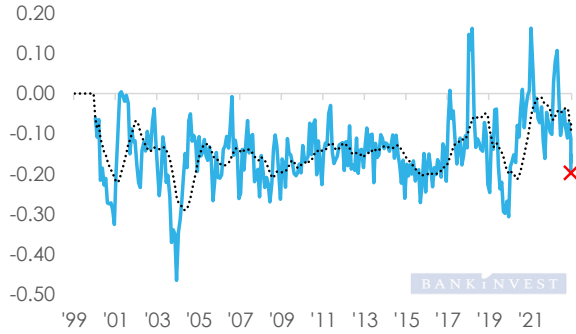


Selected correlation charts in US

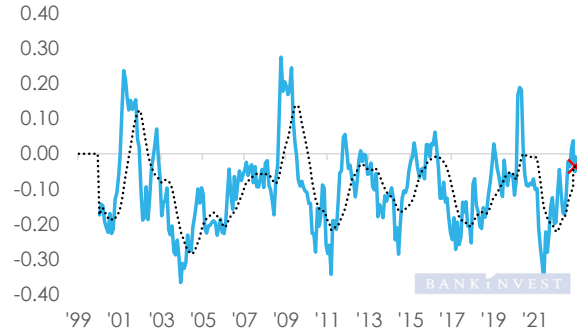
Price Momentum vs. Size: Large Cap
Rank Correlation in United States



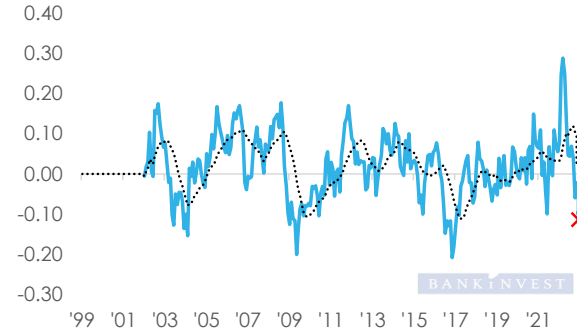
Sentiment vs. Value BIQ
Rank Correlation in United States



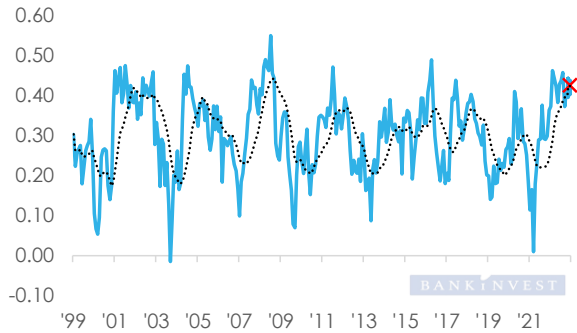
Sentiment vs. Stability BIQ
Rank Correlation in United States



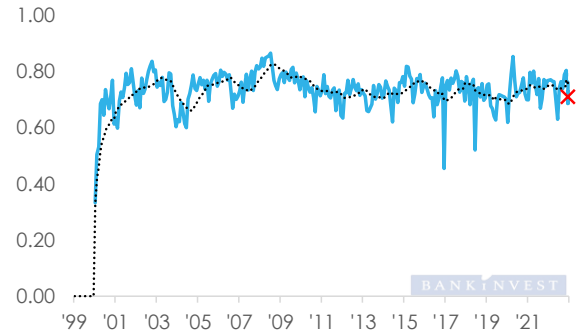
Sentiment vs. Profitability Growth
Rank Correlation in United States



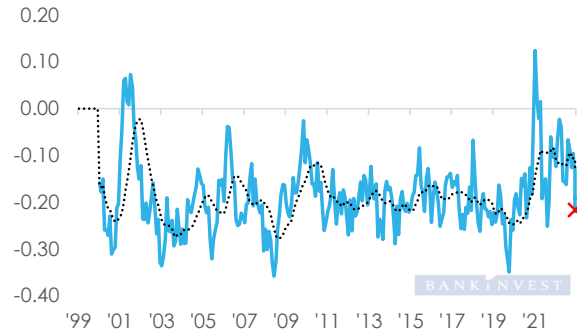
Price Momentum vs. BIQ-Score
Rank Correlation in United States



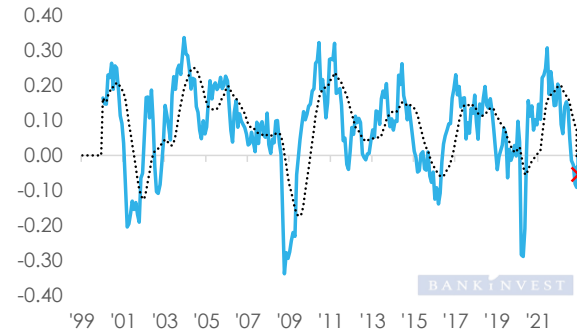
Sentiment vs. Momentum BIQ
Rank Correlation in United States



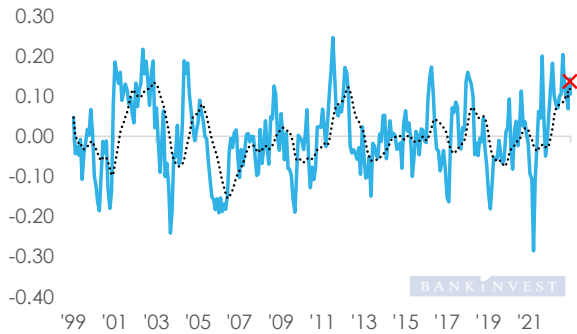
Sentiment vs. Dividend Yield
Rank Correlation in United States



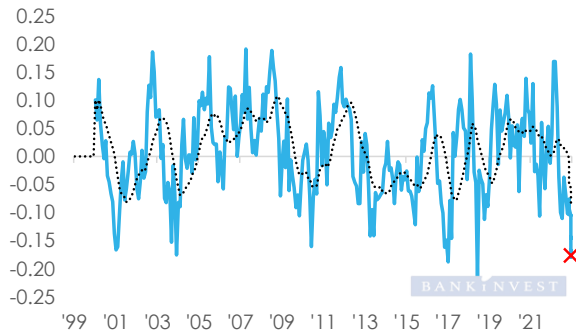
Sentiment vs. High Volatility
Rank Correlation in United States



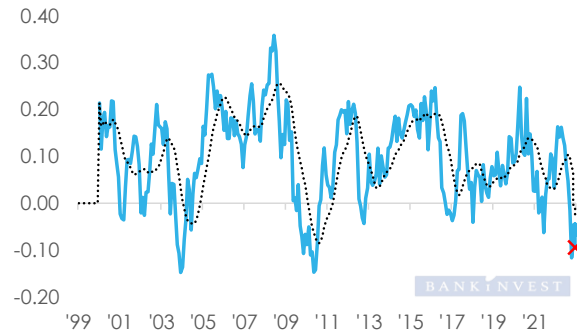
Price Momentum vs. BIQ-QARP
Rank Correlation in United States



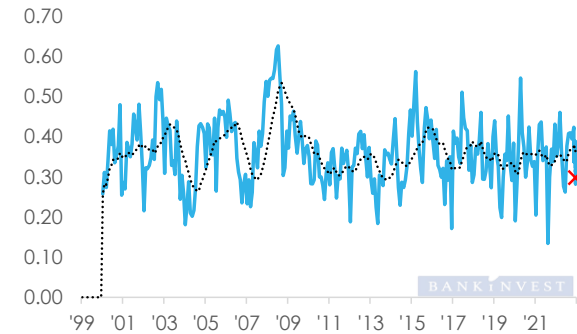
Sentiment vs. Quality BIQ
Rank Correlation in United States



Sentiment vs. Growth
Rank Correlation in United States

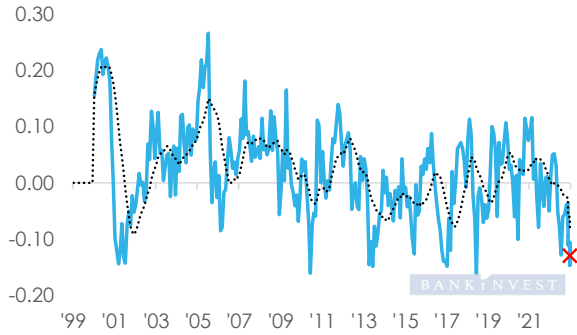


Sentiment vs. Price Momentum
Rank Correlation in United States

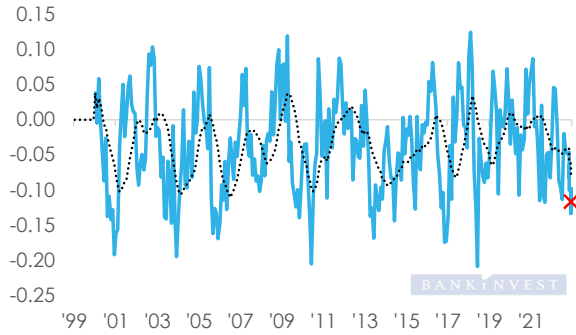


Selected correlation charts in US

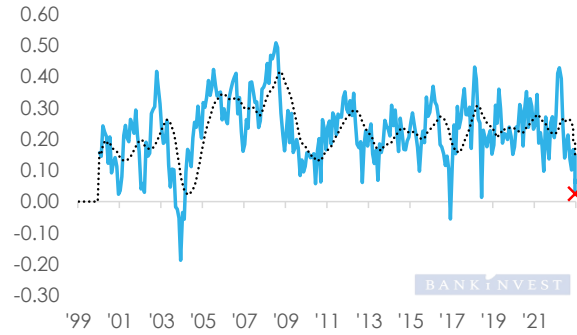
Sentiment vs. Classic Quality
Rank Correlation in United States



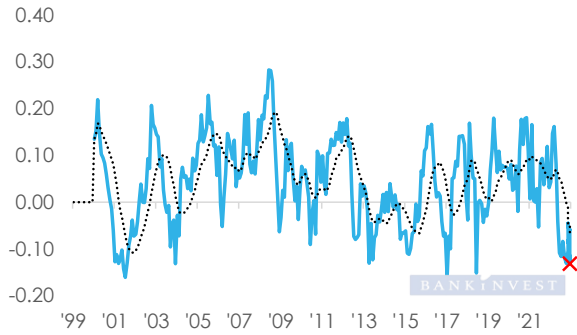
Sentiment vs. Safety
Rank Correlation in United States



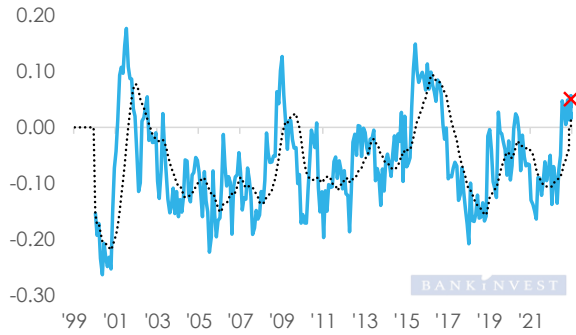
Sentiment vs. BIQ-Score
Rank Correlation in United States



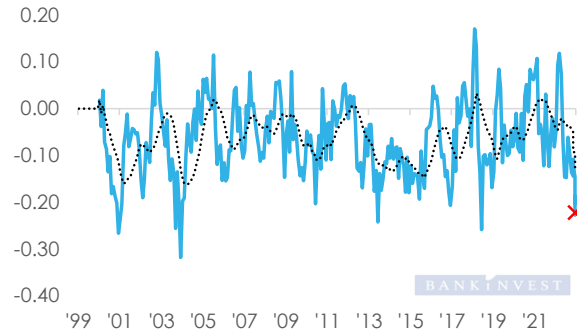
Sentiment vs. Profitability
Rank Correlation in United States



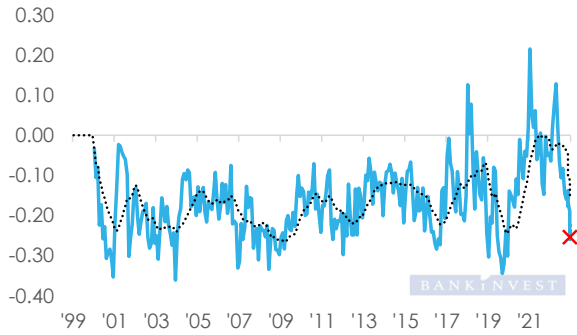
Sentiment vs. Leverage
Rank Correlation in United States



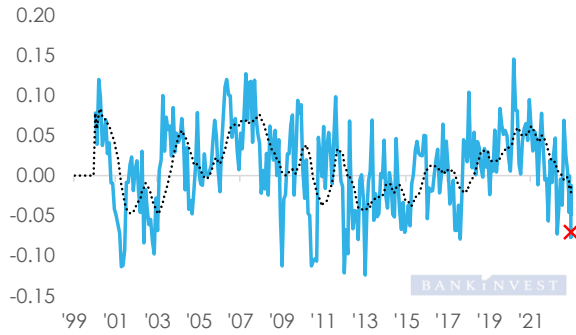
Sentiment vs. BIQ-QARP
Rank Correlation in United States



Sentiment vs. Deep Value
Rank Correlation in United States



Sentiment vs. Size: Large Cap
Rank Correlation in United States





Valuation charts

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Methodology

- To express the valuation level we use blended **12 month forward Price/Earnings** (FPE NTM).
- The aggregation method used is **weighted harmonic mean**, which is preferred when dealing with averages of rates. This method mitigates the impact of outliers.
- FPE values are **winsorized at 3 and 100**.
- Negative values are set to the largest value.
- Missing values are replaced by the associated regional-industry average.
- Factors are formed daily by sorting stocks on the factor score and **equal weighting the top quintile**.
- Confidence intervals are calculated with rolling 7 years monthly data

Overall market valuation

Broad Market - est P/E (NTM)



Broad Market (US) vs. Broad Market (Global)
est P/E (NTM)

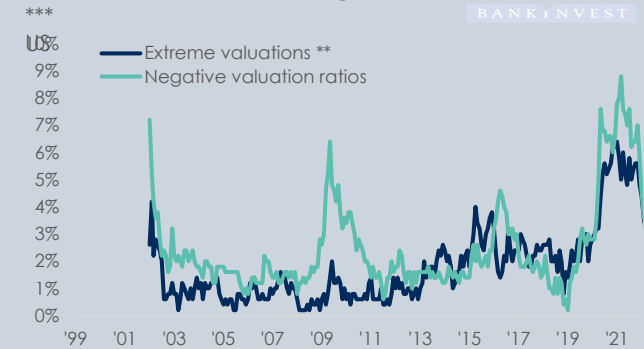


Broad Market - Valuation Dispersion *



* Dispersion measures the mean absolute deviation from the median. In other words a measure of the difference between the most expensive and the least expensive stocks in the selected universe.

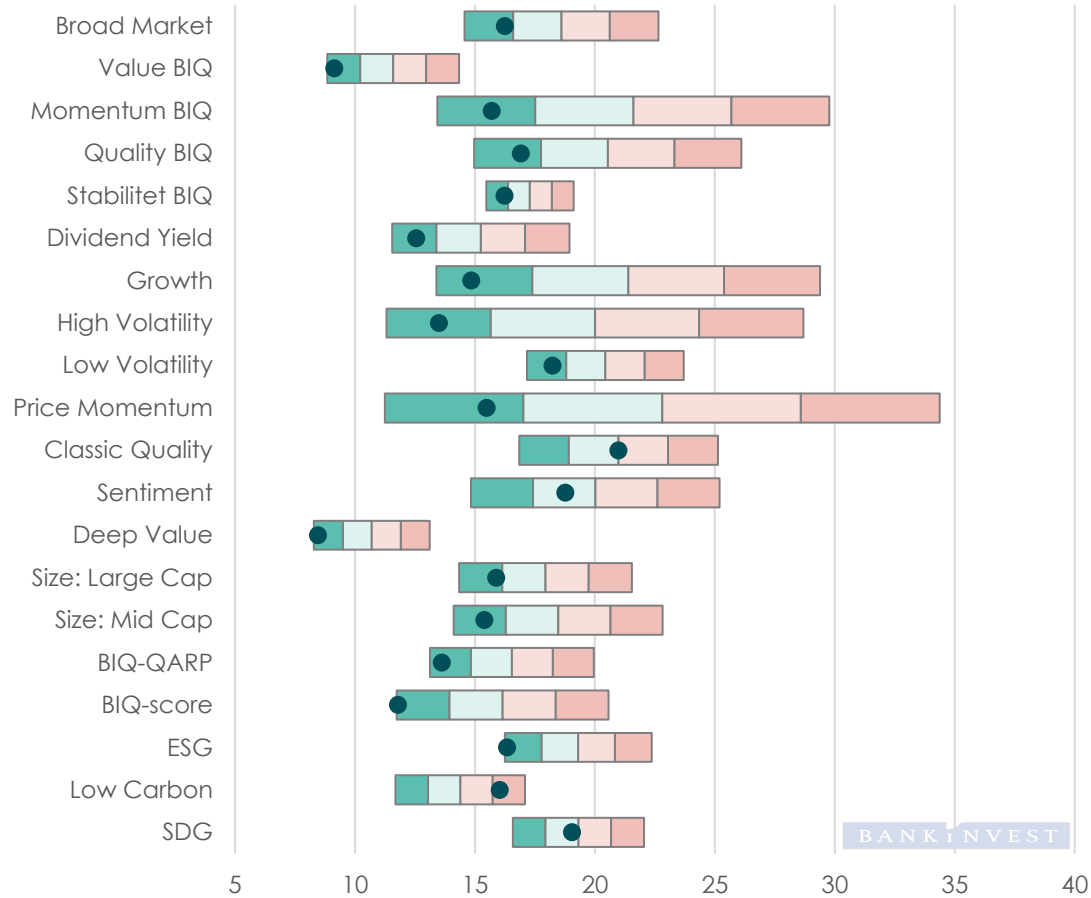
Broad Market - Extreme & negative P/E ratios



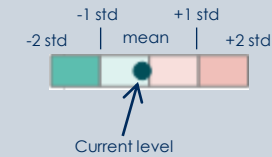
** An extreme valuation is defined as: estimate P/E (NTM) > 100.

*** In terms of number of stocks in the universe. 5% extreme valuations means that 5% of the stocks in the selected universe are above est P/E 100.

Factor valuation overview



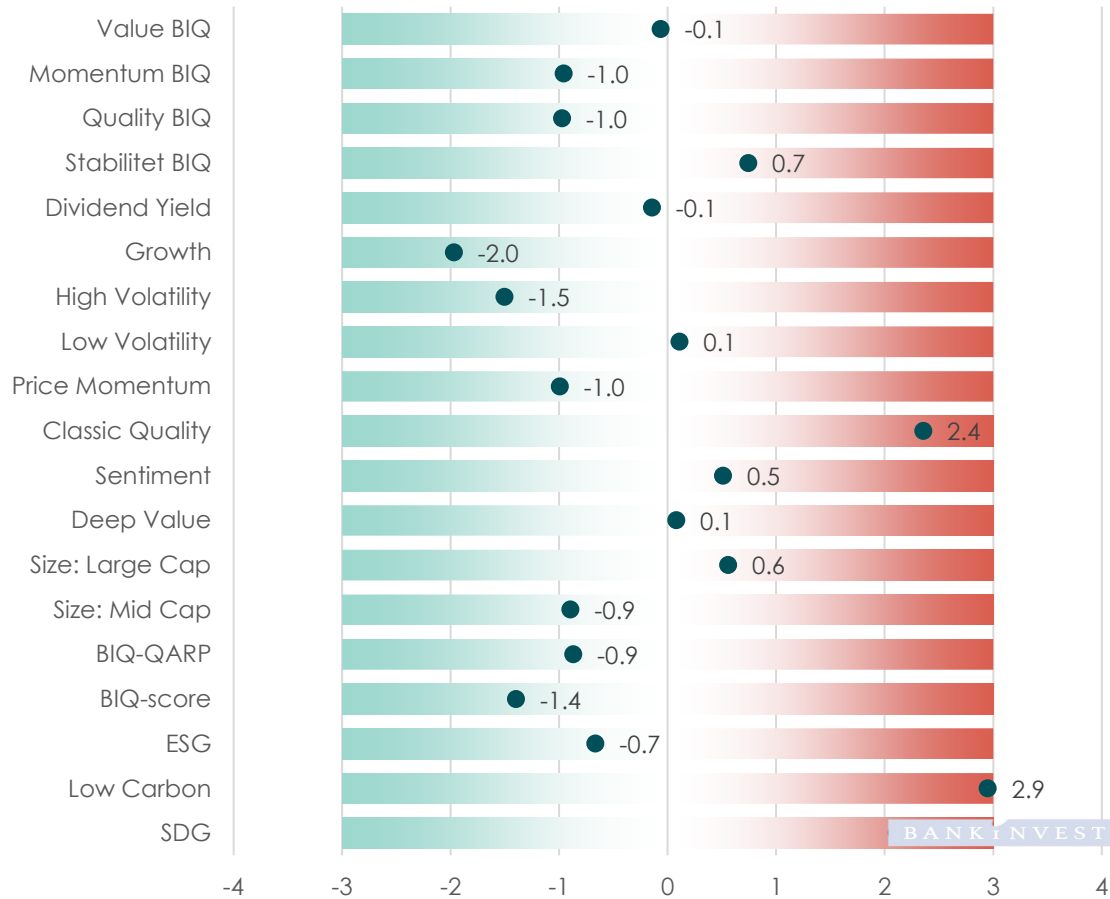
- Absolute valuation levels compared.
- The bar visualizes the given factor's historical confidence intervals, i.e., "valuation range":



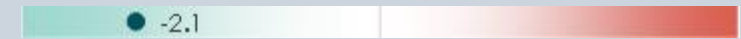
corresponding to the chart figures:



Factor relative valuation overview



- Relative valuation vs. the broad market.
- How is that premium/discount compared to the factor's own historical premium/discount?
- E.g. this factor trades -2.1 standard deviations below is historical average premium to the market:



Corresponding to the relative valuation chart figures:



Factor valuation charts

Value BIQ

Value BIQ - est P/E (NTM)



Momentum BIQ

Momentum BIQ - est P/E (NTM)



Quality BIQ

Quality BIQ - est P/E (NTM)



Value BIQ(US) vs. Broad Market(US)
est P/E (NTM)



Momentum BIQ(US) vs. Broad Market(US)
est P/E (NTM)



Quality BIQ(US) vs. Broad Market(US)
est P/E (NTM)



Factor valuation charts

Stability BIQ

Stabilitet BIQ - est P/E (NTM)



Dividend Yield

Dividend Yield - est P/E (NTM)



Growth

Growth - est P/E (NTM)



Stabilitet BIQ(US) vs. Broad Market(US)
est P/E (NTM)



Dividend Yield(US) vs. Broad Market(US)
est P/E (NTM)



Growth(US) vs. Broad Market(US)
est P/E (NTM)



Factor valuation charts

High Volatility

High Volatility - est P/E (NTM)



Low Volatility

Low Volatility - est P/E (NTM)



Price Momentum

Price Momentum - est P/E (NTM)



High Volatility(US) vs. Broad Market(US)
est P/E (NTM)



Low Volatility(US) vs. Broad Market(US)
est P/E (NTM)



Price Momentum(US) vs. Broad Market(US)
est P/E (NTM)



Factor valuation charts

Classic Quality

Classic Quality - est P/E (NTM)



Sentiment

Sentiment - est P/E (NTM)



Deep Value

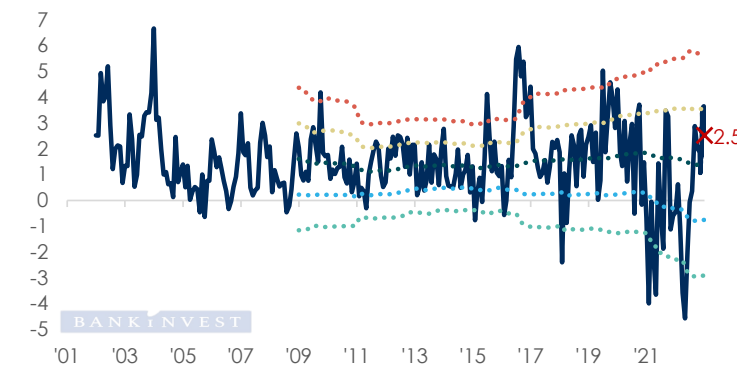
Deep Value - est P/E (NTM)



Classic Quality(US) vs. Broad Market(US)
est P/E (NTM)



Sentiment(US) vs. Broad Market(US)
est P/E (NTM)



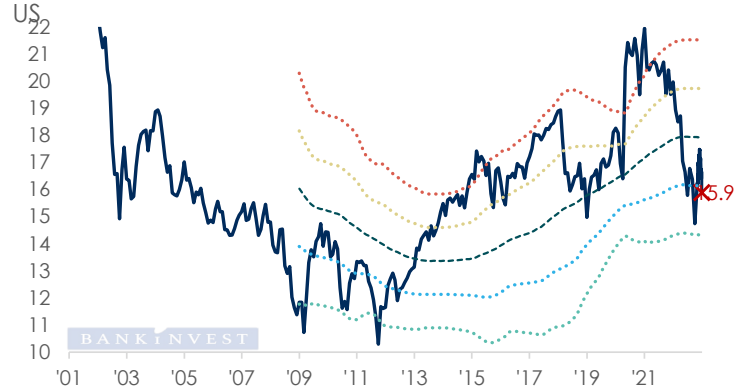
Deep Value(US) vs. Broad Market(US)
est P/E (NTM)



Factor valuation charts

Large Cap

Size: Large Cap - est P/E (NTM)



Mid Cap

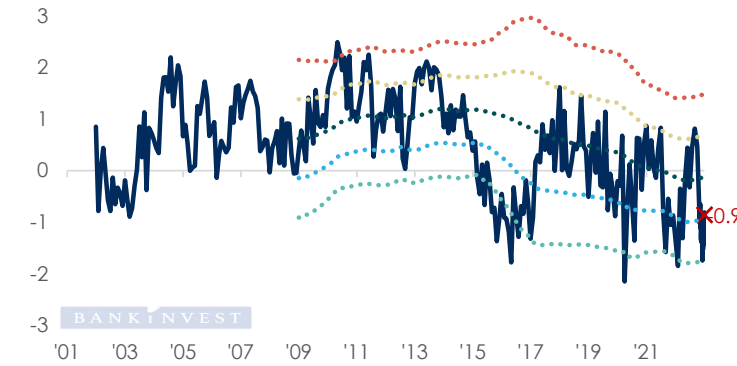
Size: Mid Cap - est P/E (NTM)



Size: Large Cap(US) vs. Broad Market(US)
est P/E (NTM)



Size: Mid Cap(US) vs. Broad Market(US)
est P/E (NTM)



Factor valuation charts in Global

BIQ-QARP

BIQ-QARP - est P/E (NTM)



BIQ-score

BIQ-score - est P/E (NTM)



BIQ-QARP(US) vs. Broad Market(US)
est P/E (NTM)



BIQ-score(US) vs. Broad Market(US)
est P/E (NTM)



Factor valuation charts

ESG

ESG - est P/E (NTM)



Low Carbon

Low Carbon - est P/E (NTM)



SDG

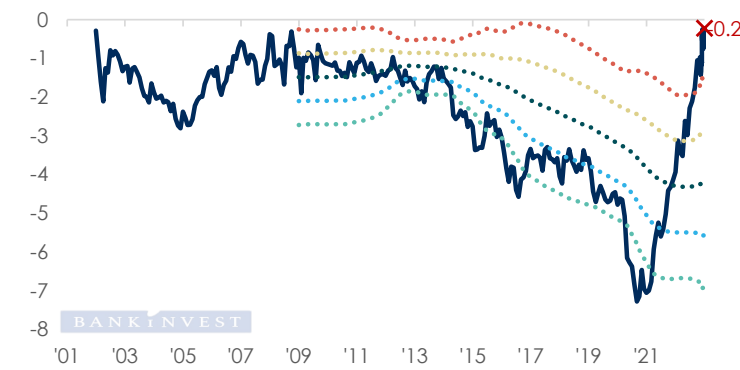
SDG - est P/E (NTM)



ESG(US) vs. Broad Market(US)
est P/E (NTM)



Low Carbon(US) vs. Broad Market(US)
est P/E (NTM)



SDG(US) vs. Broad Market(US)
est P/E (NTM)



In case of questions, request for time-series or current holdings within a strategy your more than welcome to contact us.

Quant@bankinvest.dk

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