Potential Enhancements to the MSCI Quality Indexes Methodology

SUPPLEMENTARY MATERIALS

June 2024

This consultation may or may not lead to the implementation of any or all of the proposed changes in the highlighted or any other MSCI indexes. Consultation feedback will remain confidential. MSCI may publicly disclose feedback if specifically requested by specific market participants. In that case, the relevant feedback would be published together with the final result of the consultation.

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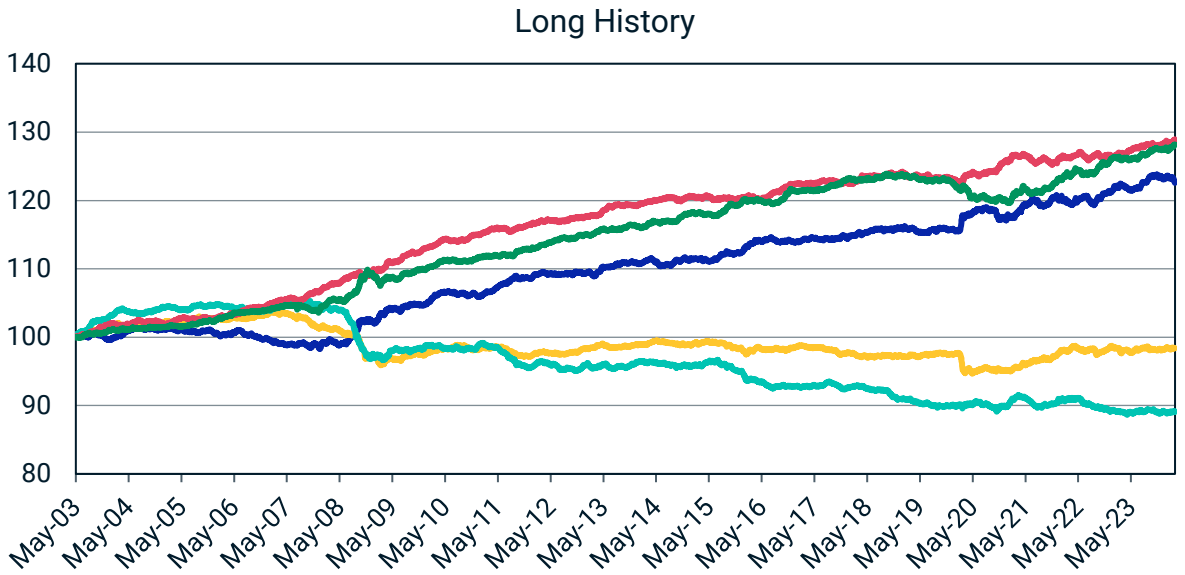
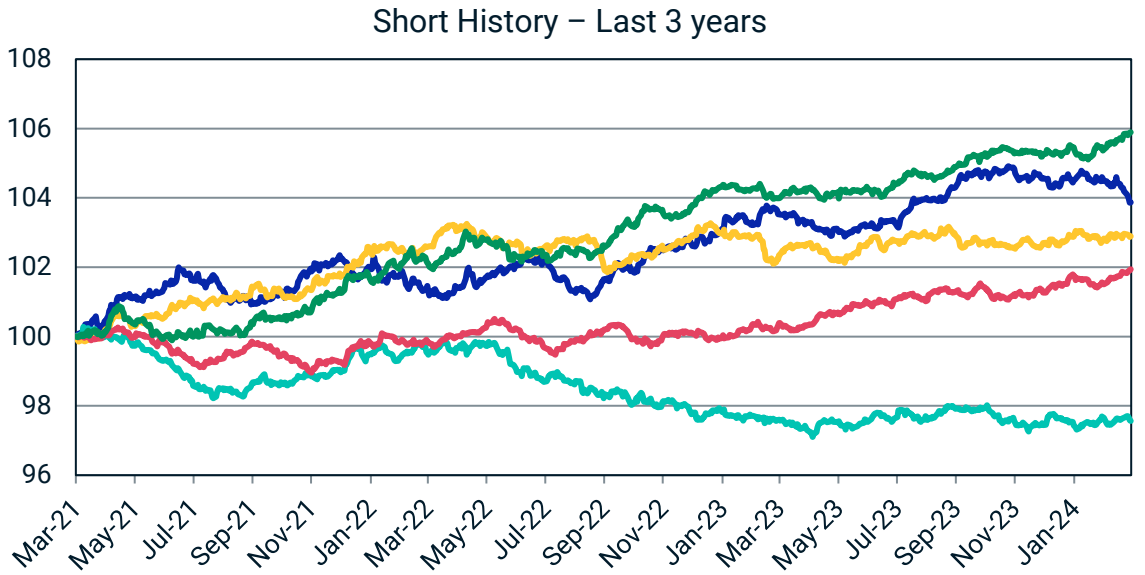
Information Classification: GENERAL

Supplementary Materials

Information Classification: GENERAL

Risk Model (GEMLT) Quality Factor Returns





Profitability Leverage Earnings Variability Earnings Quality Investment Quality

MSCI

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USA

Information Classification: GENERAL

USA Simulation Summary – FaCS Weighting and GEMLT-based factor definition

		USA Quality					USA Sector Neutral Quality				
	MSCI USA Index	Quality (Simulated)	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors	Quality (Simulated)	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors
Total Return* (%)	10.7	12.2	12.3	12.6	12.1	12.0	11.3	11.1	11.4	11.5	11.8
Total Risk (%)	14.8	14.0	14.0	13.9	13.8	13.3	14.3	14.3	14.4	14.3	13.8
Return / Risk	0.72	0.87	0.88	0.90	0.87	0.90	0.78	0.78	0.79	0.81	0.86
Tracking Error (%)	--	3.6	3.6	3.7	4.3	4.2	2.8	2.9	2.7	3.3	3.3
Turnover** (%)	3.1	30.7	29.7	31.6	20.9	35.1	49.4	45.5	48.5	32.4	51.2
Quality Active Factor Family Exposure***	--	0.52	0.53	0.50	0.80	0.91	0.40	0.41	0.39	0.68	0.83
Specific Active Return Attribution (%)	--	-0.07	0.03	0.13	-0.65	-0.63	-0.31	-0.40	-0.22	-0.31	-0.86
Countries Active Return Attribution (%)	--	-0.06	-0.06	-0.06	-0.05	-0.10	-0.07	-0.08	-0.07	-0.06	-0.06
Industries Active Return Attribution (%)	--	1.29	1.29	1.32	1.45	0.69	0.25	0.27	0.28	0.25	0.23
Styles Active Return Attribution (%)	--	0.33	0.33	0.50	0.64	1.39	0.71	0.63	0.72	0.99	1.85
Turnover (%) (Semi Annual)	--	24.1	23.3	24.5	15.4	26.9	36.6	34.6	37.2	24.4	39.5
Quality Active Factor Family Exposure (Semi Annual)	--	0.52	0.52	0.49	0.79	0.90	0.39	0.40	0.38	0.68	0.82
Return / Risk (Semi Annual)	--	0.86	0.86	0.89	0.88	0.90	0.78	0.78	0.80	0.82	0.86

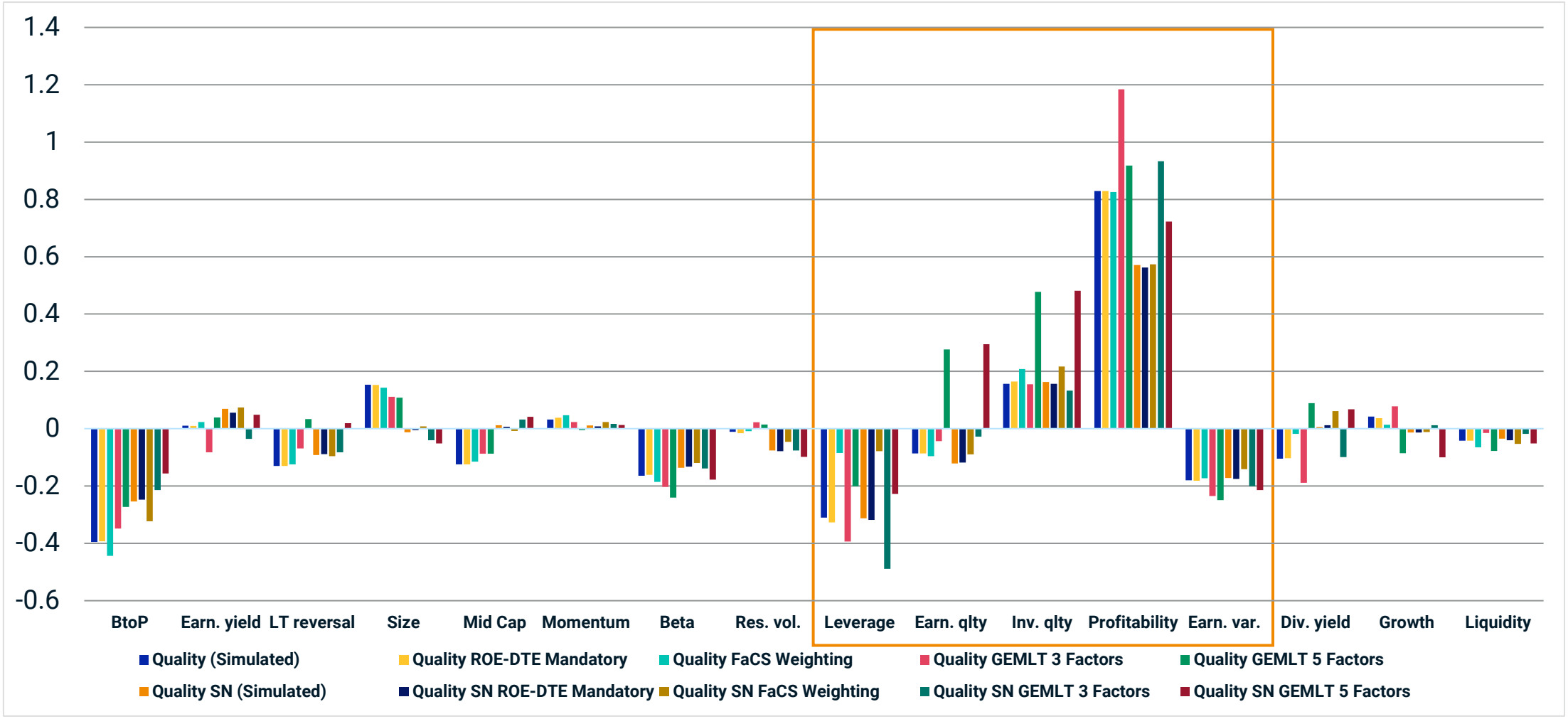
Period: May 30, 2003 to Mar 29, 2024. * Gross returns annualized in USD ** Annualized one-way index turnover over index reviews *** Active values are w.r.t MSCI USA Index. Simulated Indexes use quarterly rebalance frequency.
The monthly average number of securities were 125 for all the variants.

Performance (%)	MSCI USA Index	Quality (Simulated)	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors	Quality (Simulated)	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors
1 Yr	32.9	42.8	43.0	42.4	40.4	32.7	37.9	38.0	39.0	31.9	27.9
3 Yr	10.9	14.8	14.9	15.1	15.2	12.8	13.0	12.9	13.4	13.3	10.7
5 Yr	15.0	17.9	18.0	17.9	17.6	15.4	15.2	15.1	15.6	16.3	14.0
10 Yr	13.0	15.3	15.4	15.6	15.7	14.2	13.4	13.4	13.9	14.4	13.4

Gross returns for the period ending Mar 29, 2024. Returns are annualized for periods longer than a year

Active GEMLT Factor Exposures

(w.r.t MSCI USA Index)



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Information Classification: GENERAL

GEMLT Active Performance Attribution

(w.r.t MSCI USA Index)

	USA Quality					USA Sector Neutral Quality				
	Quality	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors	Quality	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors
Total (%)	12.16	12.26	12.56	12.07	12.04	11.25	11.11	11.38	11.54	11.85
Active (%)	1.48	1.58	1.89	1.39	1.36	0.58	0.43	0.70	0.87	1.17
Specific (%)	-0.07	0.03	0.13	-0.65	-0.63	-0.31	-0.40	-0.22	-0.31	-0.86
Countries (%)	-0.06	-0.06	-0.06	-0.05	-0.10	-0.07	-0.08	-0.07	-0.06	-0.06
Industries (%)	1.29	1.29	1.32	1.45	0.69	0.25	0.27	0.28	0.25	0.23
Styles (%)	0.33	0.33	0.50	0.64	1.39	0.71	0.63	0.72	0.99	1.85
Style Factor Performance Attribution (in %):										
BtoP	-0.55	-0.54	-0.60	-0.50	-0.41	-0.35	-0.34	-0.44	-0.32	-0.25
Earn. Yield	0.03	0.03	0.05	-0.06	0.02	0.10	0.11	0.14	0.02	0.03
LT Reversal	-0.06	-0.06	-0.08	-0.02	0.03	-0.05	-0.06	-0.07	-0.04	0.01
Size	-0.01	-0.02	0.00	-0.00	0.00	-0.03	-0.05	-0.01	-0.02	0.02
Mid Cap	-0.05	-0.05	-0.03	-0.02	-0.03	-0.00	-0.00	0.01	0.02	0.03
Momentum	0.09	0.08	0.16	-0.04	-0.19	0.08	0.07	0.08	-0.01	0.00
Beta	-0.31	-0.29	-0.27	-0.32	-0.26	-0.11	-0.13	-0.15	-0.19	-0.17
Res. Vol.	0.03	0.04	0.08	0.00	0.09	0.17	0.17	0.18	0.13	0.25
Leverage	-0.04	-0.05	-0.02	-0.05	-0.00	-0.01	-0.02	0.02	-0.02	0.03
Earn. Qlty	-0.05	-0.05	-0.06	-0.01	0.31	-0.09	-0.09	-0.09	-0.01	0.30
Inv. Qlty	0.21	0.21	0.26	0.21	0.59	0.22	0.21	0.28	0.19	0.64
Profitability	0.88	0.87	0.88	1.26	0.96	0.61	0.60	0.62	1.00	0.77
Earn. Var.	0.09	0.09	0.07	0.13	0.15	0.08	0.08	0.07	0.11	0.10
Div. Yield	0.02	0.02	0.05	-0.00	0.08	0.07	0.07	0.09	0.06	0.09
Growth	0.03	0.03	0.00	0.07	-0.05	-0.01	-0.01	-0.01	0.03	-0.07
Liquidity	0.03	0.03	0.02	0.01	0.09	0.02	0.03	0.02	0.05	0.07

Period: May 30, 2003 to Mar 29, 2024.

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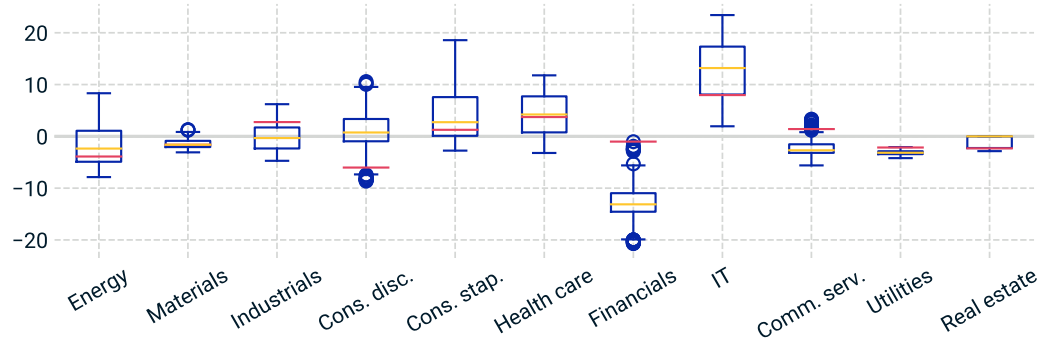
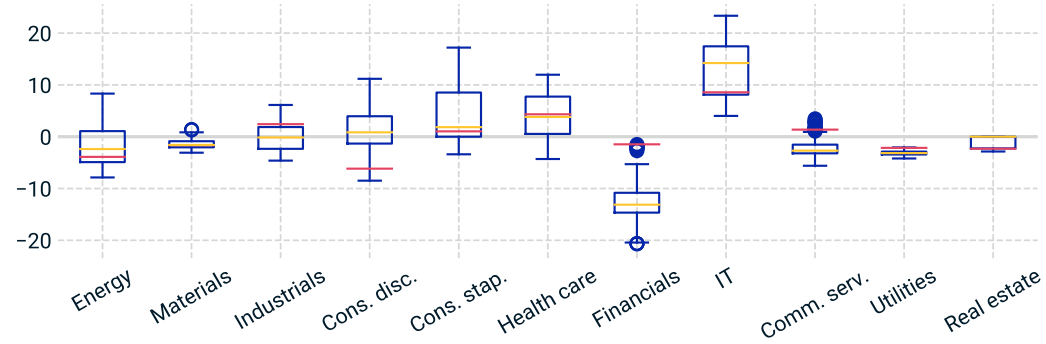
Information Classification: GENERAL

Active Sector Exposures - Quality
(w.r.t MSCI USA Index)

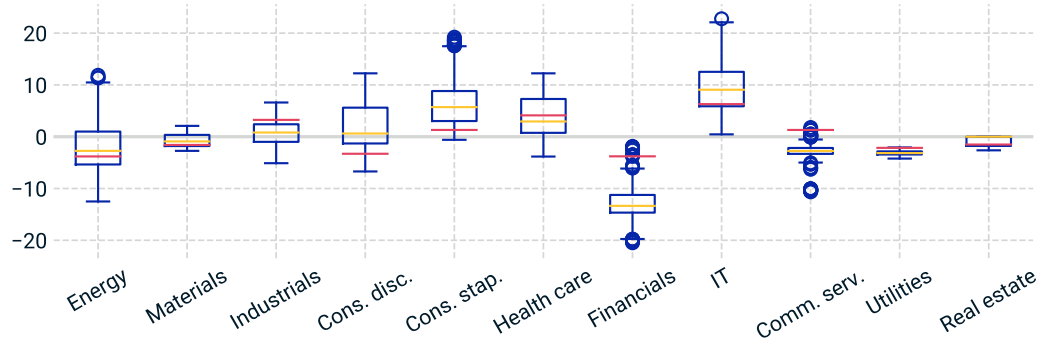
Quality (Simulated) (%)



Quality ROE-DTE Mandatory (%)



Quality FaCS Weighting (%)



Median | Current | Interquartile Range | Min-Max (capped at 1.5 of IQR) | Outliers

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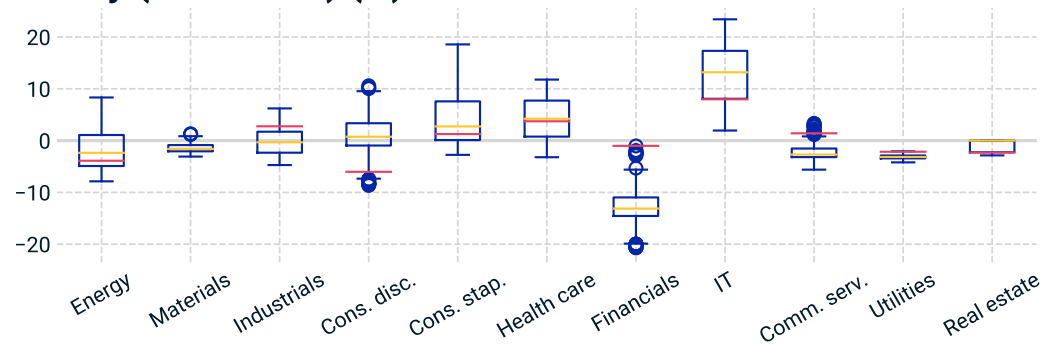
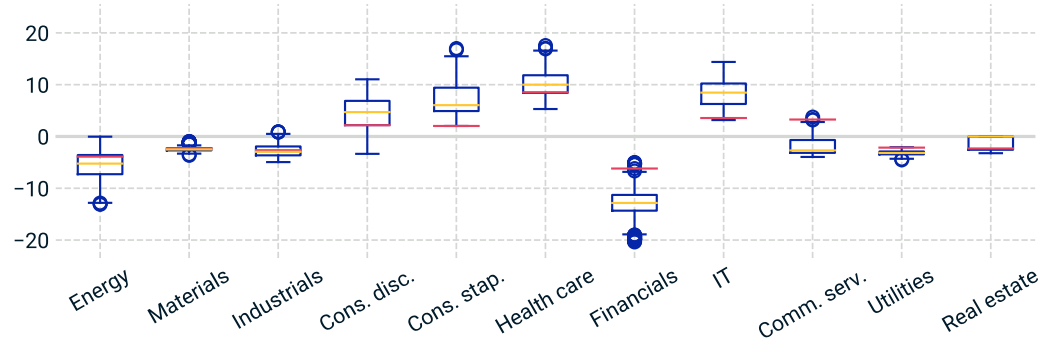
Period: May 30, 2003 to Mar 29, 2024, monthly data.

Active Sector Exposures - Quality
(w.r.t MSCI USA Index)

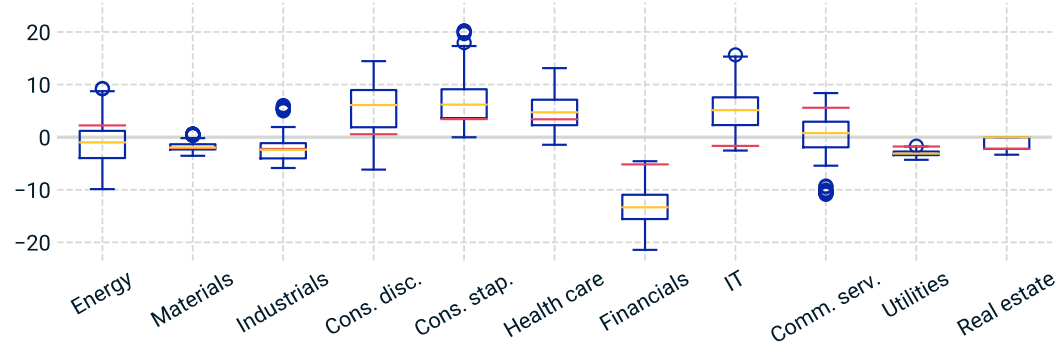
Quality (Simulated) (%)



Quality GEMLT 3 Factors (%)



Quality GEMLT 5 Factors (%)



Median | Current | Interquartile Range | Min-Max (capped at 1.5 of IQR) | Outliers

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Period: May 30, 2003 to Mar 29, 2024, monthly data.

Top 20 Constituents - Quality

USA Quality							
Security Name	Sector	MSCI USA Index Weight (%)	Quality Simulated Weight (%)	Quality ROE-DTE Mandatory Weight (%)	Quality FaCS Weighting Weight (%)	Quality GEMLT 3 Factors Weight (%)	Quality GEMLT 5 Factors Weight (%)
NVIDIA	Information Technology	4.8	5.6	5.6	5.6	5.6	
LILLY (ELI) & COMPANY	Health Care	1.4	5.1	5.1	5.0	3.9	
BROADCOM	Information Technology	1.3	5.0	5.0	4.9		3.9
MICROSOFT CORP	Information Technology	6.4	5.0	5.0	5.0	5.0	5.0
META PLATFORMS A	Communication Services	2.3	4.9	4.9	4.8	4.9	4.9
APPLE	Information Technology	5.5	4.7	4.6	4.6	4.7	4.7
VISA A	Financials	1.0	4.0	3.9	3.4	3.0	3.7
MASTERCARD A	Financials	0.9	3.8	3.6	3.8	3.1	2.9
UNITEDHEALTH GROUP	Health Care	1.0	3.4	3.2	2.5	4.1	4.6
JOHNSON & JOHNSON	Health Care	0.8	3.0	2.9	2.4	3.1	2.7
ALPHABET A	Communication Services	1.9	2.8	2.8	2.8	2.9	2.9
COSTCO WHOLESALE CORP	Consumer Staples	0.7	2.5	2.5	1.9	2.3	2.3
ALPHABET C	Communication Services	1.7	2.5	2.5	2.5	2.5	2.5
COCA COLA (THE)	Consumer Staples	0.5	2.0	1.9	1.8		
ADOBE	Information Technology	0.5	1.9	1.9	1.6	2.1	2.0
ACCENTURE A	Information Technology	0.5	1.9	1.9	1.5	1.7	1.7
PEPSICO	Consumer Staples	0.5	1.8	1.7	1.8		
CISCO SYSTEMS	Information Technology	0.4	1.7	1.7	1.4	1.5	1.8
APPLIED MATERIALS	Information Technology	0.4	1.6	1.5	1.3	1.3	1.3
CATERPILLAR	Industrials	0.4	1.5	1.4	1.5		

Simulated Snapshot as of Mar 29, 2024

MSCI

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Information Classification: GENERAL

Top 20 Constituents – Sector Neutral Quality

USA Sector Neutral Quality							
Security Name	**Sector**	**MSCI USA Index Weight (%)**	**Quality Simulated Weight (%)**	**Quality ROE-DTE Mandatory Weight (%)**	**Quality FaCS Weighting Weight (%)**	**Quality GEMLT 3 Factors Weight (%)**	**Quality GEMLT 5 Factors Weight (%)**
NVIDIA	Information Technology	4.8	5.2	4.9	5.0	5.4	
MICROSOFT CORP	Information Technology	6.4	4.6	4.4	4.5	4.8	
VISA A	Financials	1.0	4.3	4.4	4.3	4.0	4.5
APPLE	Information Technology	5.5	4.3	4.1	4.2	4.5	7.6
LILLY (ELI) & COMPANY	Health Care	1.4	4.3	4.3	3.9		
BROADCOM	Information Technology	1.3	4.1	4.0	4.2		
MASTERCARD A	Financials	0.9	4.1	4.1	5.0	4.1	3.8
META PLATFORMS A	Communication Services	2.3	3.5	3.5	3.5	3.4	2.9
UNITEDHEALTH GROUP	Health Care	1.0	2.5	2.5	1.8	3.8	3.8
JOHNSON & JOHNSON	Health Care	0.8	2.4	2.4	1.8	2.7	2.3
NIKE B	Consumer Discretionary	0.2	2.3	2.1	1.1	1.8	0.9
ALPHABET A	Communication Services	1.9	2.0	2.0	2.1	2.0	1.7
COSTCO WHOLESALE CORP	Consumer Staples	0.7	2.0	2.0	1.3	2.2	1.4
CONOCOPHILLIPS	Energy	0.3	1.9	1.9	1.8		
ALPHABET C	Communication Services	1.7	1.8	1.8	1.8	1.7	1.5
CHIPOTLE MEXICAN GRILL A	Consumer Discretionary	0.2	1.6	1.5	0.8		
AUTOMATIC DATA PROCESS	Industrials	0.2	1.6	1.6	1.5		
COCA COLA (THE)	Consumer Staples	0.5	1.6	1.6	1.5		
ADOBE	Information Technology	0.5	1.5	1.5	1.2	2.5	3.9
ACCENTURE A	Information Technology	0.5	1.5	1.5	1.2	1.9	3.0

Simulated Snapshot as of Mar 29, 2024

MSCI

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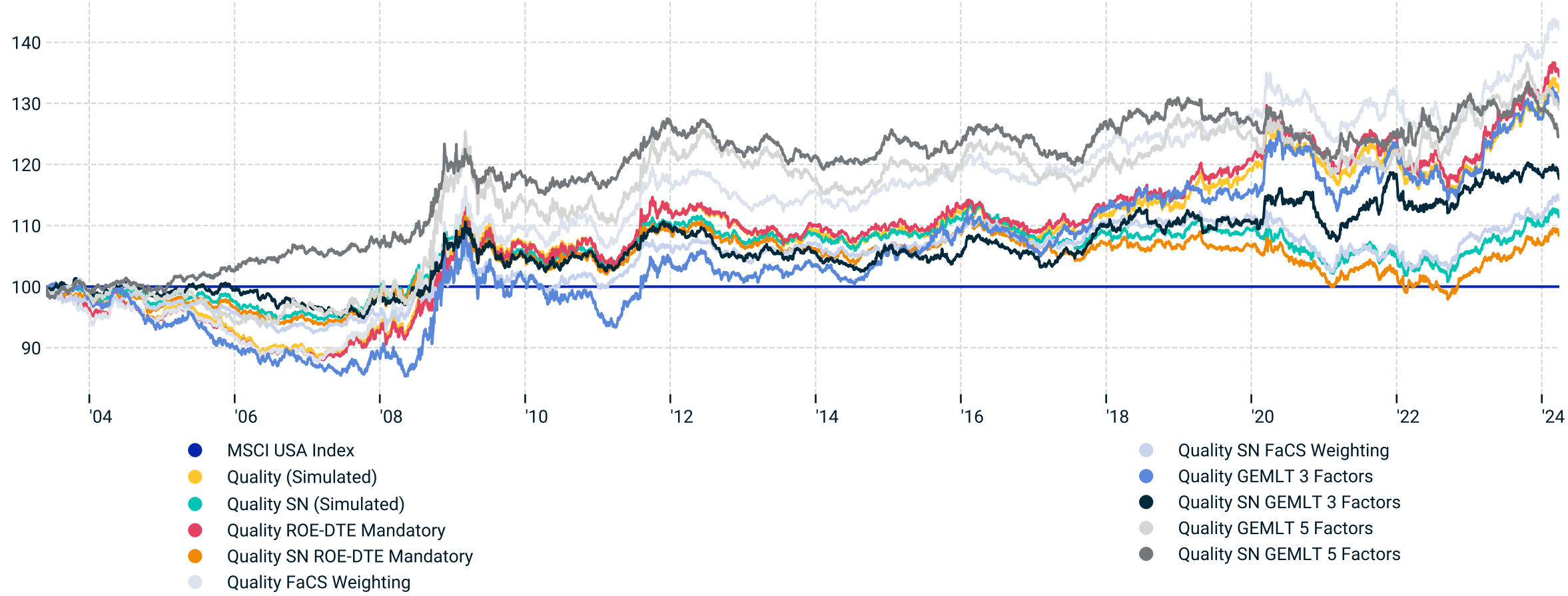
Relative Performance
(w.r.t MSCI USA Index)

Relative Performance



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Transition Analysis – Top Additions and Deletions

USA Quality

Quality ROE-DTE Mandatory		Quality FaCS Weighting		Quality GEMLT 3 Factors		Quality GEMLT 5 Factors	
Top Additions	**Top Deletions**	**Top Additions**	**Top Deletions**	**Top Additions**	**Top Deletions**	**Top Additions**	**Top Deletions**
GE HEALTHCARE TECH @ 0.24%	FORTINET @ 0.52%	HOME DEPOT @ 2.67%	META PLATFORMS A @ 5%	HOME DEPOT @ 2.79%	COCA COLA (THE) @ 1.93%	AMAZON.COM @ 5%	NVIDIA @ 5%
HEICO CORP A @ 0.08%	CENCORA @ 0.51%	ORACLE CORP @ 1.64%	BLACKROCK A @ 0.83%	WALMART @ 2.22%	ABBVIE @ 1.92%	EXXON MOBIL CORP @ 3.07%	COCA COLA (THE) @ 1.93%
HEICO CORP @ 0.06%	LENNOX INTERNATIONAL @ 0.20%	AMGEN @ 1.22%	REGENERON PHARMA @ 0.66%	MERCK & CO @ 1.81%	PFIZER @ 1.33%	PROCTOR AND GAMBLE CO @ 2.46%	ABBVIE @ 1.92%
		CATERPILLAR @ 1.05%	FORTINET @ 0.52%	INTUIT @ 1.34%	AUTOMATIC DATA PROCESS @ 1.19%	WALMART @ 2.05%	PFIZER @ 1.33%
		UNION PACIFIC CORP @ 0.96%	CENCORA @ 0.51%	ELEVANCE HEALTH @ 1.17%	LOCKHEED MARTIN CORP @ 1.11%	CHEVRON CORP @ 2.02%	QUALCOMM @ 1.32%

USA Sector Neutral Quality

Quality ROE-DTE Mandatory		Quality FaCS Weighting		Quality GEMLT 3 Factors		Quality GEMLT 5 Factors	
Top Additions	**Top Deletions**	**Top Additions**	**Top Deletions**	**Top Additions**	**Top Deletions**	**Top Additions**	**Top Deletions**
REGENERON PHARMACEUTICALS @ 0.40%	NETFLIX @ 1.11%	HOME DEPOT @ 4.2%	LINDE (NEW) @ 1.37%	HOME DEPOT @ 4.68%	BROADCOM @ 3.35%	AMAZON.COM @ 5.46%	NVIDIA @ 4.47%
COPART @ 0.36%	FORTINET @ 0.51%	NEXTERA ENERGY @ 1.61%	NETFLIX @ 1.11%	EOG RESOURCES @ 2.32%	CONOCOPHILLIPS @ 2.53%	CHEVRON CORP @ 2.6%	CONOCOPHILLIPS @ 2.53%
BUILDERS FIRSTSOURCE @ 0.14%	CENCORA @ 0.39%	TJX COMPANIES @ 1.39%	SEMPRA ENERGY @ 1.08%	WALMART @ 1.97%	AUTOMATIC DATA PROCESS @ 1.66%	WALMART @ 1.91%	AUTOMATIC DATA PROCESS @ 1.66%
PAYCOM SOFTWARE @ 0.08%	LENNOX INTERNATIONAL @ 0.28%	ORACLE CORP @ 1.27%	PROLOGIS @ 0.8%	UNITED PARCEL SERVICE B @ 1.59%	COCA COLA (THE) @ 1.58%	INTEL CORP @ 1.83%	COCA COLA (THE) @ 1.58%
F5 @ 0.06%	KENVUE @ 0.20%	SHERWIN-WILLIAMS CO @ 1.05%	LENNAR CORP A @ 0.66%	ELEVANCE HEALTH @ 0.86%	LOCKHEED MARTIN CORP @ 1.42%	PROCTER & GAMBLE CO @ 1.81%	PEPSICO @ 1.55%

Transition simulation during Dec-23 Index Review

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Information Classification: GENERAL

World ex USA

Information Classification: GENERAL

World ex USA Simulation Summary – FaCS Weighting and GEMLT-based factor definition

		World ex USA Quality					World ex USA Sector Neutral Quality				
	MSCI World ex USA Index	Quality	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors	Quality	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors
Total Return* (%)	7.6	9.2	9.2	9.3	9.7	9.0	9.4	9.5	9.2	9.3	9.3
Total Risk (%)	16.6	15.8	15.8	16.0	14.7	14.6	16.4	16.4	16.5	15.6	15.7
Return / Risk	0.46	0.58	0.58	0.58	0.66	0.62	0.57	0.58	0.56	0.60	0.59
Tracking Error (%)	--	4.4	4.4	4.4	5.0	3.9	2.7	2.7	2.8	3.2	2.5
Turnover (%)**	2.9	23.8	24.4	27.2	19.4	29.7	33.0	33.7	37.4	31.1	47.6
Quality Active Factor Family Exposure***	--	0.49	0.49	0.46	0.70	0.88	0.32	0.32	0.30	0.55	0.71
Specific Active Return Attribution (%)	--	0.47	0.51	0.61	0.54	-0.47	1.13	1.23	1.08	1.16	0.21
Countries Active Return Attribution (%)	--	0.10	0.11	0.02	0.27	0.07	-0.09	-0.09	-0.28	0.01	-0.20
Industries Active Return Attribution (%)	--	0.98	0.92	0.96	1.32	0.58	0.31	0.32	0.36	0.03	0.00
Styles Active Return Attribution (%)	--	-0.05	-0.06	0.01	0.00	1.10	0.24	0.25	0.27	0.32	1.45
Turnover (%) (Semi Annual)	--	19.8	20.2	22.0	15.4	24.3	26.2	26.0	27.6	25.1	38.6
Quality Active Factor Family Exposure (Semi Annual)	--	0.49	0.49	0.46	0.70	0.87	0.32	0.32	0.30	0.54	0.71
Return / Risk (Semi Annual)	--	0.58	0.58	0.58	0.65	0.63	0.57	0.57	0.56	0.60	0.60

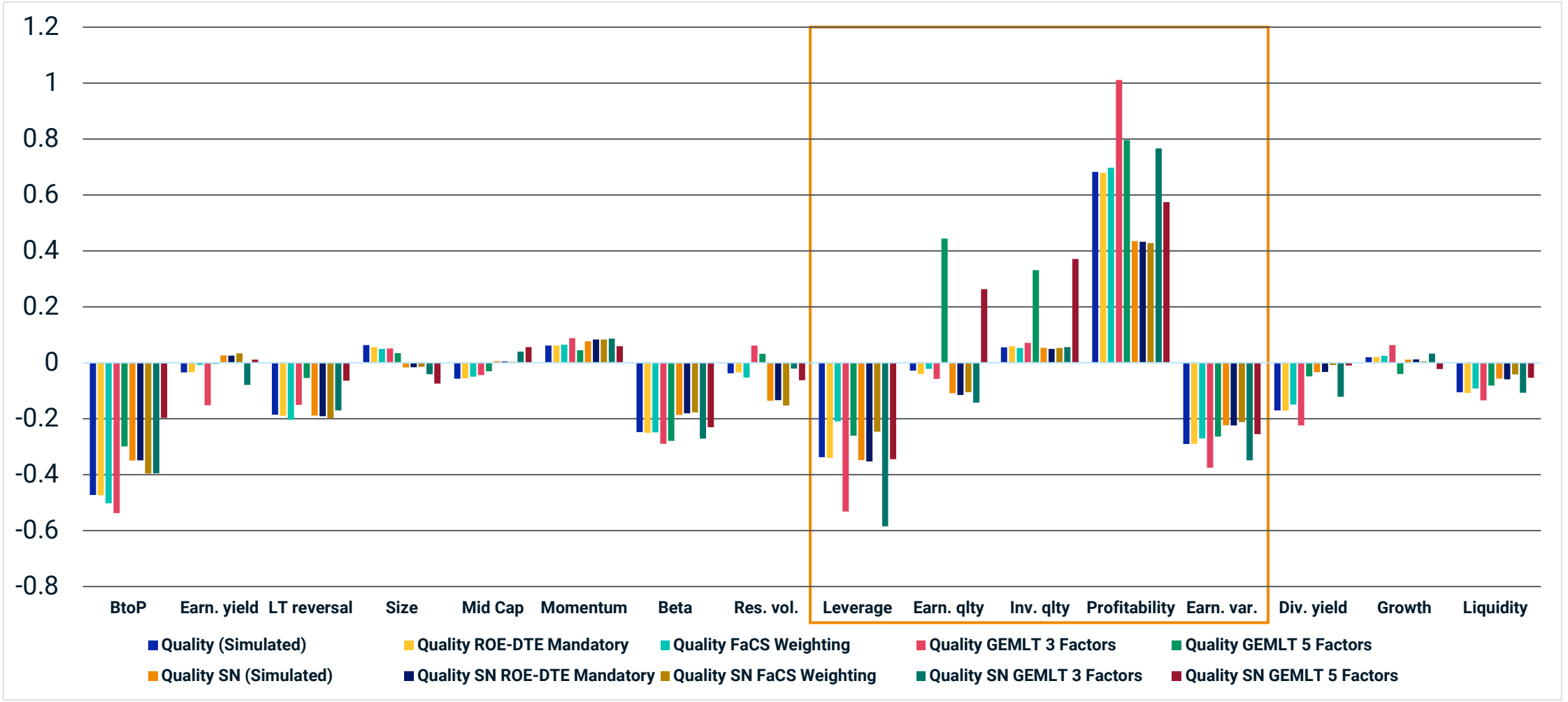
Period: May 30, 2003 to Mar 29, 2024. * Gross returns annualized in USD ** Annualized one-way index turnover over index reviews *** Active values are w.r.t MSCI World ex USA Index. Simulated Indexes use quarterly rebalance frequency.
The monthly average number of securities were 300 for all the variants.

Performance (%)	MSCI World ex USA Index	Quality	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors	Quality	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors
1 Yr	17.9	15.7	16.3	17.1	17.4	17.9	18.6	18.4	18.8	16.4	17.2
3 Yr	5.4	4.6	4.9	5.5	5.6	6.8	6.2	6.4	6.0	5.0	6.2
5 Yr	8.0	9.4	9.6	9.7	10.4	8.4	9.4	9.6	9.1	8.8	8.6
10 Yr	5.4	6.9	6.9	6.8	7.9	6.2	6.9	7.0	6.6	7.4	6.9

Gross returns for the period ending Mar 29, 2024. Returns are annualized for periods longer than a year

Active GEMLT Factor Exposures

(w.r.t MSCI World ex USA Index)



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Information Classification: GENERAL

GEMLT Active Performance Attribution

(w.r.t MSCI World ex USA Index)

	World ex USA Quality					World ex USA Sector Neutral Quality				
	Quality	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors	Quality	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors
Total (%)	9.17	9.15	9.25	9.73	8.96	9.40	9.49	9.20	9.30	9.31
Active (%)	1.61	1.59	1.69	2.17	1.40	1.83	1.93	1.64	1.73	1.75
Specific (%)	0.47	0.51	0.61	0.54	-0.47	1.13	1.23	1.08	1.16	0.21
Countries (%)	0.10	0.11	0.02	0.27	0.07	-0.09	-0.09	-0.28	0.01	-0.20
Industries (%)	0.98	0.92	0.96	1.32	0.58	0.31	0.32	0.36	0.03	0.00
Styles (%)	-0.05	-0.06	0.01	0.00	1.10	0.24	0.25	0.27	0.32	1.45
Style Factor Performance Attribution (in %):										
BtoP	-0.69	-0.69	-0.73	-0.77	-0.41	-0.52	-0.52	-0.59	-0.57	-0.26
Earn. Yield	0.11	0.11	0.13	0.02	0.08	0.09	0.10	0.13	0.03	0.06
LT Reversal	-0.17	-0.17	-0.16	-0.14	0.00	-0.14	-0.13	-0.14	-0.11	-0.02
Size	0.01	0.01	0.02	-0.01	-0.00	0.02	0.03	0.01	0.02	0.01
Mid Cap	-0.02	-0.02	-0.01	-0.01	-0.01	0.01	0.01	0.01	0.03	0.03
Momentum	0.02	0.02	0.04	0.07	-0.03	0.18	0.19	0.17	0.15	0.16
Beta	-0.33	-0.33	-0.32	-0.33	-0.35	-0.18	-0.17	-0.14	-0.25	-0.17
Res. Vol.	0.03	0.02	0.01	-0.23	-0.09	0.20	0.20	0.23	0.01	0.14
Leverage	-0.06	-0.06	-0.03	-0.06	-0.04	-0.05	-0.05	-0.03	-0.05	-0.03
Earn. Qlty	0.00	0.00	0.02	-0.02	0.44	-0.10	-0.10	-0.09	-0.12	0.27
Inv. Qlty	0.10	0.10	0.11	0.11	0.44	0.08	0.08	0.09	0.09	0.49
Profitability	0.74	0.73	0.75	1.10	0.84	0.45	0.45	0.46	0.83	0.60
Earn. Var.	0.11	0.11	0.11	0.16	0.12	0.09	0.09	0.08	0.15	0.11
Div. Yield	0.01	0.00	-0.00	-0.04	0.07	0.04	0.04	0.04	-0.01	0.03
Growth	0.01	0.02	0.01	0.06	-0.01	0.00	0.00	0.00	0.03	-0.01
Liquidity	0.08	0.08	0.07	0.12	0.06	0.04	0.04	0.03	0.09	0.03

Period: May 30, 2003 to Mar 29, 2024.

MSCI

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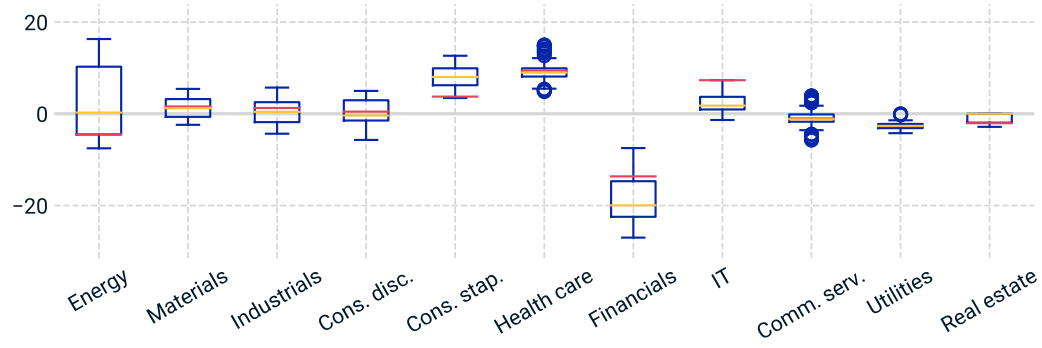
Information Classification: GENERAL

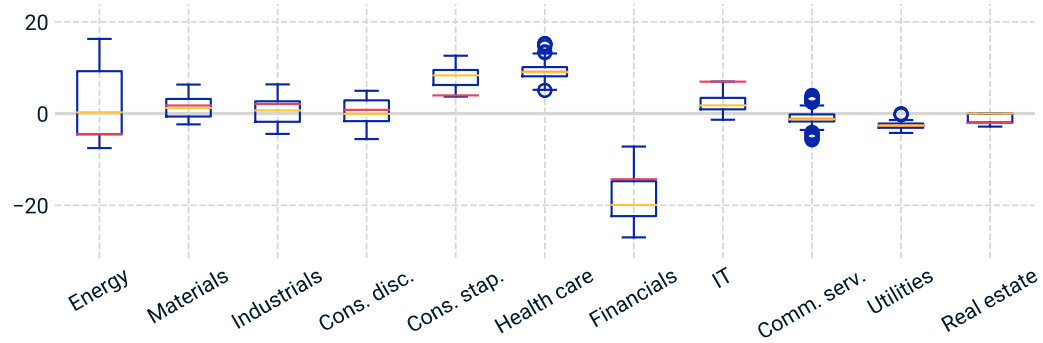
Active Sector Exposures - Quality

(w.r.t MSCI World ex USA Index)

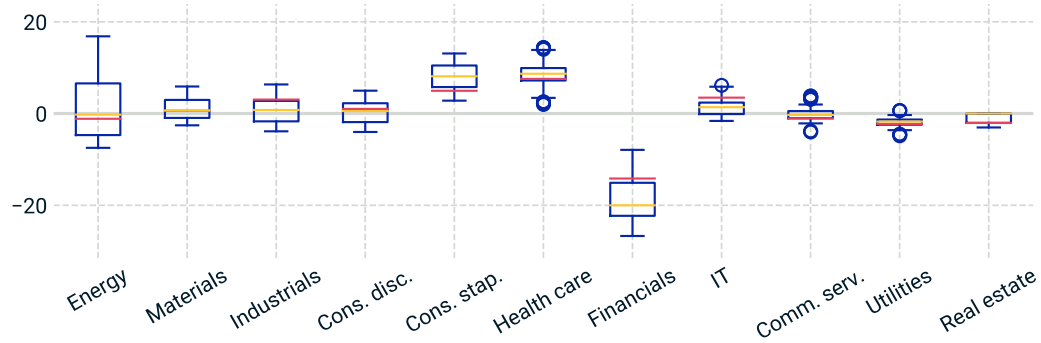
Quality (Simulated) (%)



Quality ROE-DTE Mandatory (%)



Quality FaCS Weighting (%)



Median | Current | Interquartile Range | Min-Max (capped at 1.5 of IQR) | Outliers

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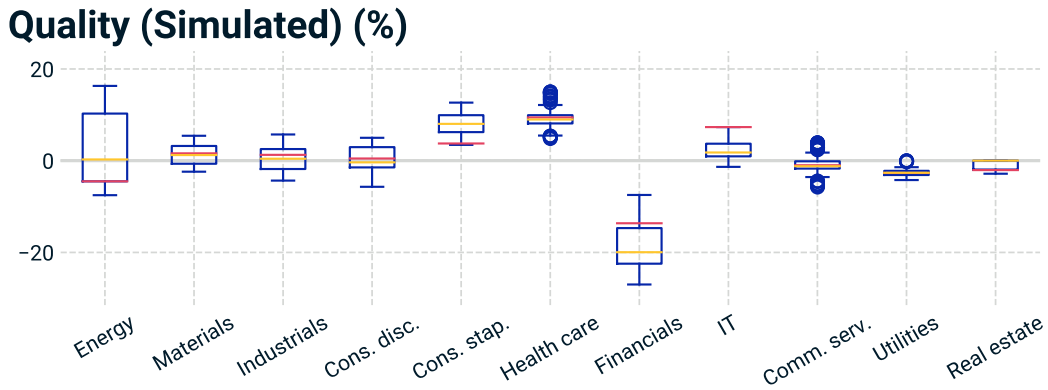
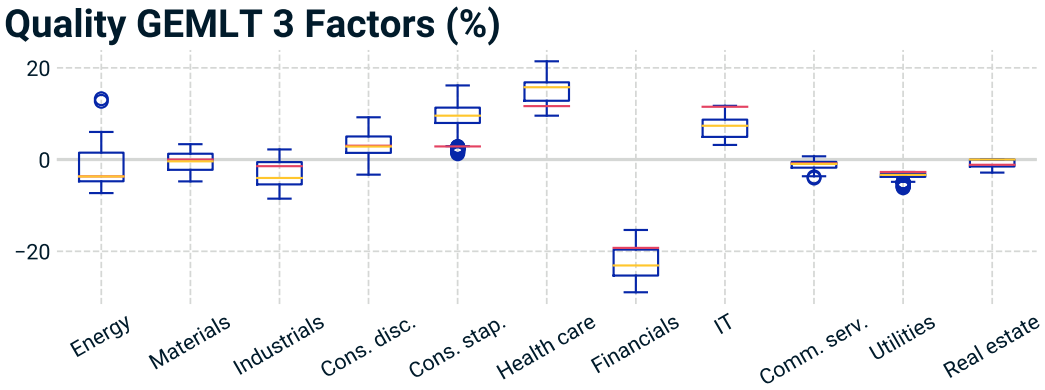
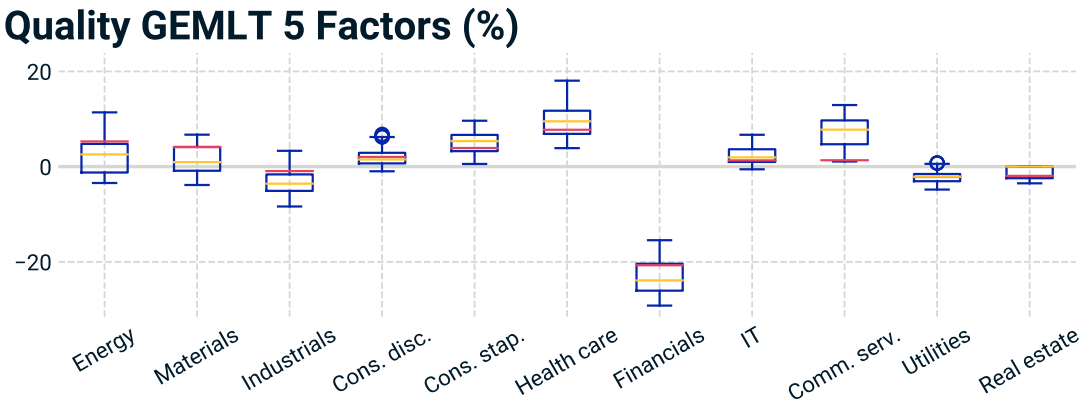
Period: May 30, 2003 to Mar 29, 2024, monthly data.

Active Sector Exposures - Quality

(w.r.t MSCI World ex USA Index)







Median | Current | Interquartile Range | Min-Max (capped at 1.5 of IQR) | Outliers

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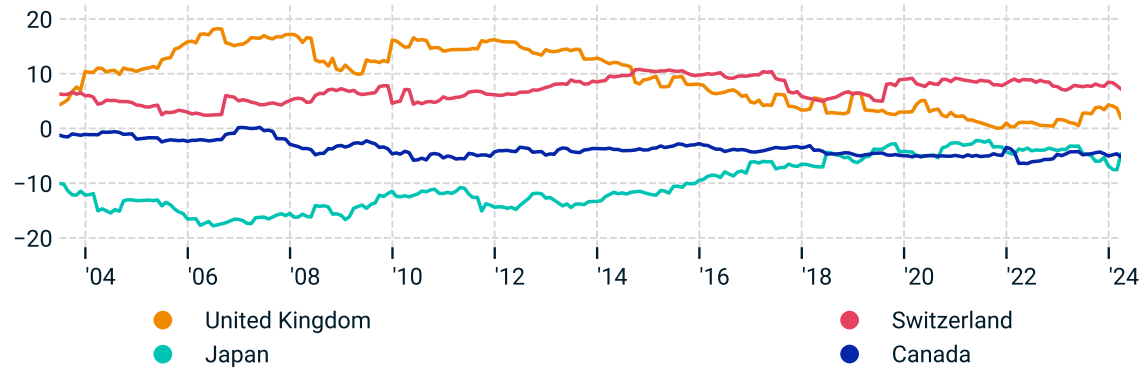
Period: May 30, 2003 to Mar 29, 2024, monthly data.

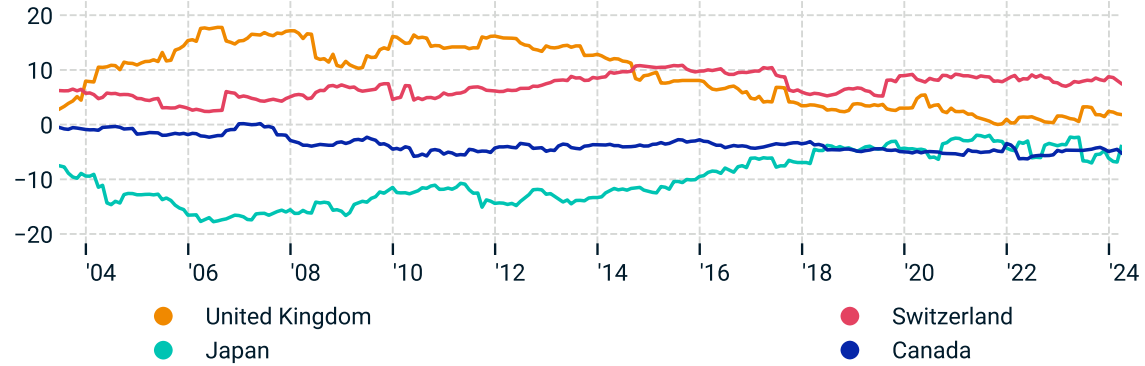
Active Country Exposures – Quality

(w.r.t MSCI World ex USA Index)

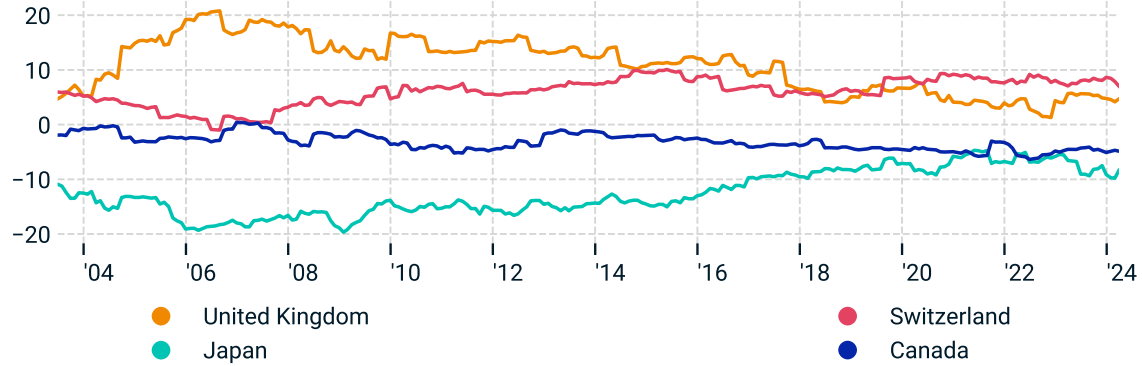
Quality (Simulated) (%)



Quality ROE-DTE Mandatory (%)



Quality FaCS Weighting (%)



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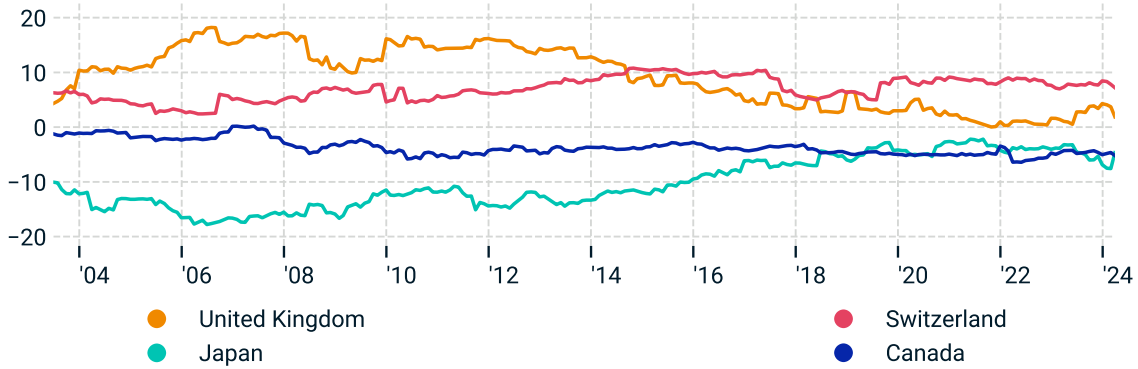
Period: May 30, 2003 to Mar 29, 2024, monthly data.

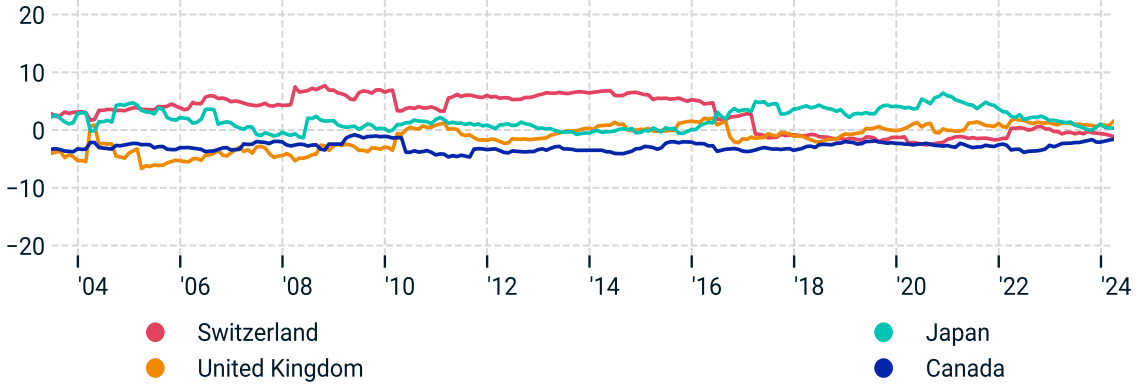
Active Country Exposures – Quality

(w.r.t MSCI World ex USA Index)

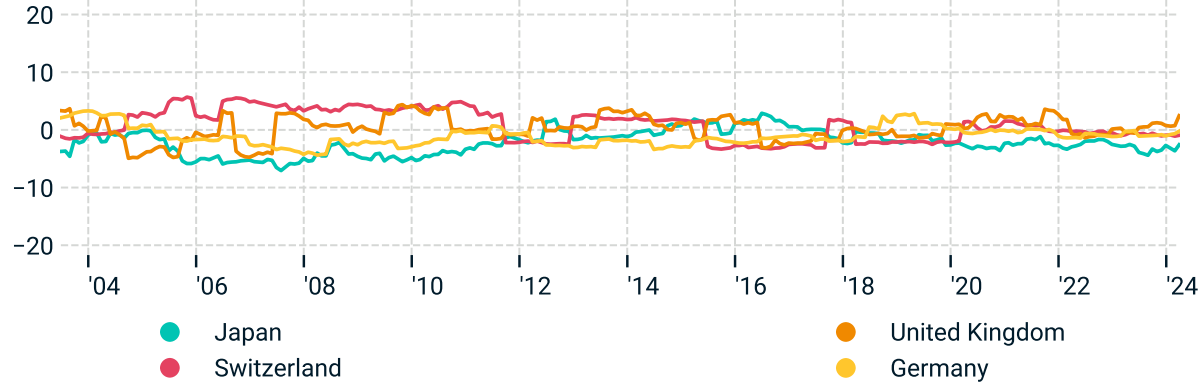
Quality (Simulated) (%)



Quality GEMLT 3 Factors (%)



Quality GEMLT 5 Factors (%)



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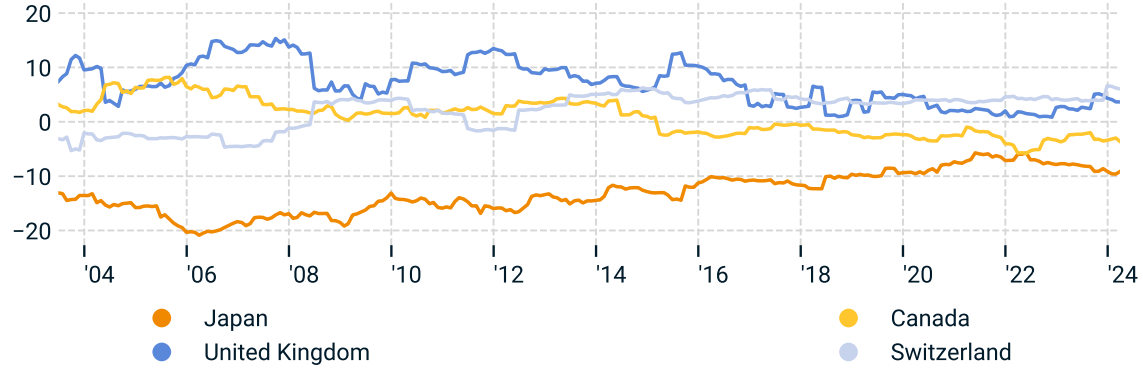
Period: May 30, 2003 to Mar 29, 2024, monthly data.

Information Classification: GENERAL

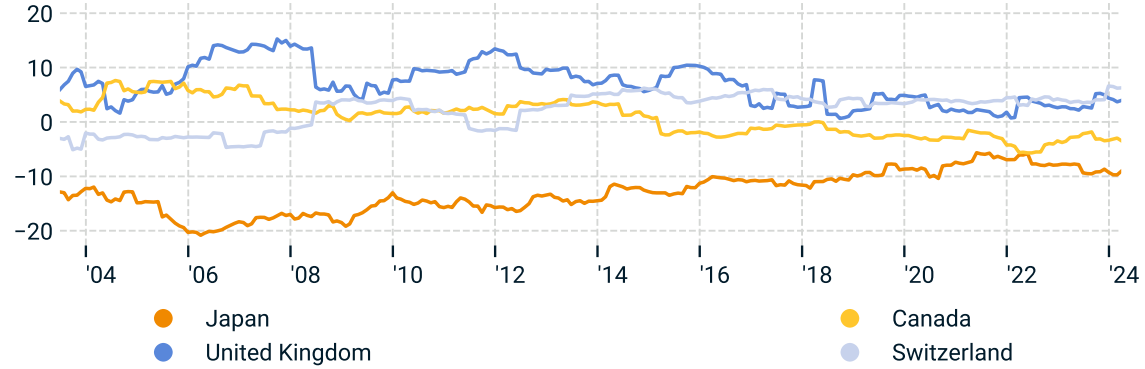
Active Country Exposures – Sector Neutral Quality

(w.r.t MSCI World ex USA Index)

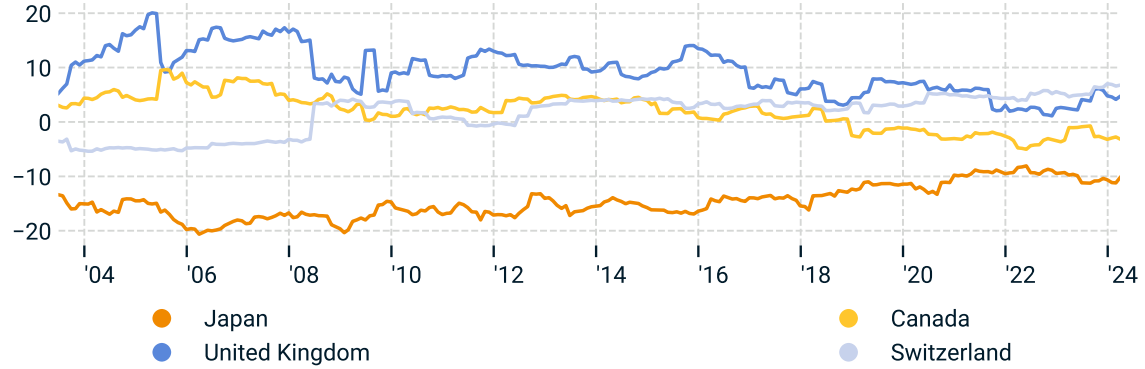
Quality SN (Simulated) (%)



Quality SN ROE-DTE Mandatory (%)



Quality SN FaCS Weighting (%)



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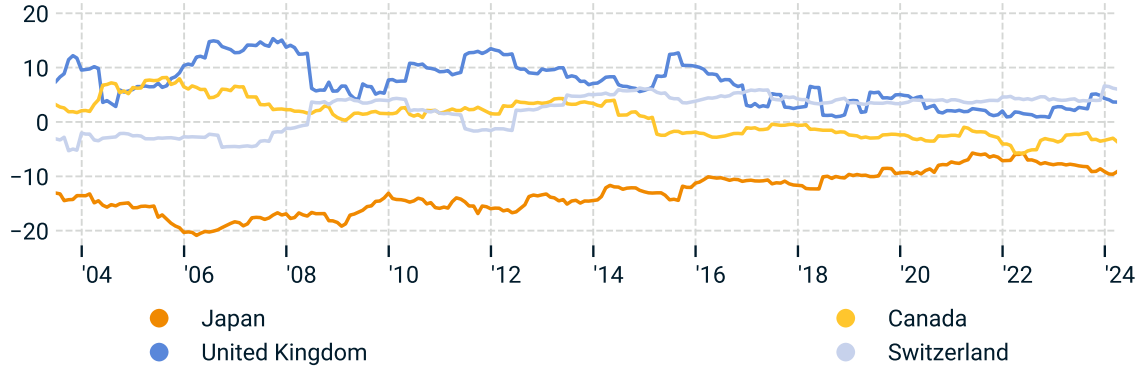
Period: May 30, 2003 to Mar 29, 2024, monthly data.

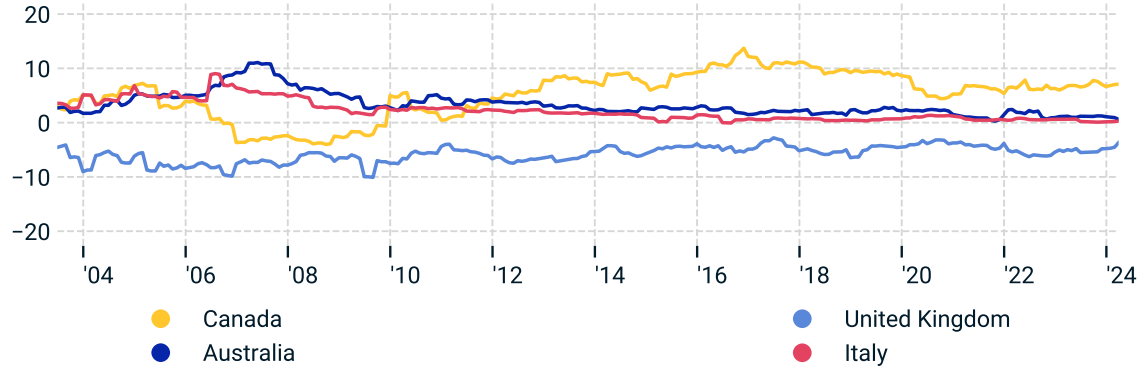
Active Country Exposures – Sector Neutral Quality

(w.r.t MSCI World ex USA Index)

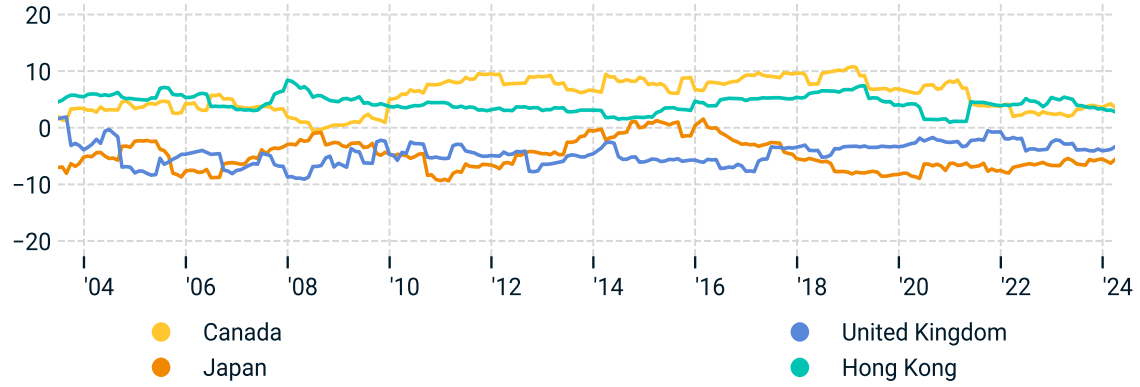
Quality SN (Simulated) (%)



Quality SN GEMLT 3 Factors (%)



Quality SN GEMLT 5 Factors (%)



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Period: May 30, 2003 to Mar 29, 2024, monthly data.

Top 20 Constituents – Quality

World ex USA Quality								
Security Name	**Country**	**Sector**	**MSCI World ex USA Index Weight (%)**	**Quality Weight (%)**	**Quality ROE-DTE Mandatory Weight (%)**	**Quality FaCS Weighting Weight (%)**	**Quality GEMLT 3 Factors Weight (%)**	**Quality GEMLT 5 Factors Weight (%)**
NOVO NORDISK B	DENMARK	Health Care	2.2	5.3	5.3	5.3	5.3	5.3
ASML HLDG	NETHERLANDS	Information Technology	2.1	5.0	5.0	5.0	5.0	
NESTLE	SWITZERLAND	Consumer Staples	1.5	3.5	3.5	3.9		
LVMH MOET HENNESSY	FRANCE	Consumer Discretionary	1.3	2.9	2.9	2.9	3.3	
ASTRAZENECA	UNITED KINGDOM	Health Care	1.1	2.9	2.9	3.0	2.8	
ROCHE HOLDING GENUSS	SWITZERLAND	Health Care	0.9	2.5	2.5	2.7	2.6	2.7
NOVARTIS	SWITZERLAND	Health Care	1.1	2.5	2.5	2.5	2.3	3.2
BHP GROUP (AU)	AUSTRALIA	Materials	0.8	2.0	2.0	2.0	1.7	2.1
SAP	GERMANY	Information Technology	1.1	1.9	1.9		3.0	3.1
UNILEVER PLC (GB)	UNITED KINGDOM	Consumer Staples	0.7	1.6	1.6	1.8	1.6	1.6
TOKYO ELECTRON	JAPAN	Information Technology	0.7	1.6	1.6	1.5	1.9	
L'OREAL	FRANCE	Consumer Staples	0.6	1.4	1.5	1.4	2.0	1.9
SCHNEIDER ELECTRIC	FRANCE	Industrials	0.7	1.3	1.3	1.2		
GSK	UNITED KINGDOM	Health Care	0.5	1.2	1.2	1.3	1.2	1.3
HERMES INTERNATIONAL	FRANCE	Consumer Discretionary	0.4	1.2	1.2	1.2	1.4	1.1
AIR LIQUIDE	FRANCE	Materials	0.6	1.1	1.1	0.9		1.3
SANOFI	FRANCE	Health Care	0.6	1.0	1.0	0.8	1.1	
ABB LTD	SWITZERLAND	Industrials	0.4	1.0	1.0	1.1		
ALLIANZ	GERMANY	Financials	0.6	1.0	1.0	0.9		
RELX (GB)	UNITED KINGDOM	Industrials	0.4	1.0	1.0	1.1	1.2	1.3

Simulated Snapshot as of Mar 29, 2024

MSCI

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Information Classification: GENERAL

Top 20 Constituents – Sector Neutral Quality

World ex USA Sector Neutral Quality								
Security Name	**Country**	**Sector**	**MSCI World ex USA Index Weight (%)**	**Quality Weight (%)**	**Quality ROE-DTE Mandatory Weight (%)**	**Quality FaCS Weighting Weight (%)**	**Quality GEMLT 3 Factors Weight (%)**	**Quality GEMLT 5 Factors Weight (%)**
ASML HLDG	NETHERLANDS	Information Technology	2.1	4.7	4.7	4.8		
NOVO NORDISK B	DENMARK	Health Care	2.2	4.0	3.9	3.7	4.5	3.8
LVMH MOET HENNESSY	FRANCE	Consumer Discretionary	1.3	2.9	2.9	2.9	2.8	
NESTLE	SWITZERLAND	Consumer Staples	1.5	2.8	2.8	3.1		
ASTRAZENECA	UNITED KINGDOM	Health Care	1.1	2.0	2.1	2.1		
SHELL	UNITED KINGDOM	Energy	1.1	1.9	1.9	1.8		
ALLIANZ	GERMANY	Financials	0.6	1.8	1.9	1.9		
ROCHE HOLDING GENUSS	SWITZERLAND	Health Care	0.9	1.8	1.9	2.0	1.9	1.8
NOVARTIS	SWITZERLAND	Health Care	1.1	1.6	1.7	1.7		2.2
BHP GROUP (AU)	AUSTRALIA	Materials	0.8	1.6	1.6	1.7	1.6	1.6
ZURICH INSURANCE GROUP	SWITZERLAND	Financials	0.4	1.5	1.6	1.7		
TOTALENERGIES	FRANCE	Energy	0.8	1.4	1.4	1.5		
UNILEVER PLC (GB)	UNITED KINGDOM	Consumer Staples	0.7	1.4	1.3	1.4		
MUENCHENER RUECKVERSICH	GERMANY	Financials	0.4	1.3			1.2	1.2
TOKYO ELECTRON	JAPAN	Information Technology	0.7	1.3	1.3	1.3	1.6	
SCHNEIDER ELECTRIC	FRANCE	Industrials	0.7	1.3	1.3	1.1		
HERMES INTERNATIONAL	FRANCE	Consumer Discretionary	0.4	1.3	1.3	1.2	1.3	1.1
L'OREAL	FRANCE	Consumer Staples	0.6	1.2	1.2	1.0	3.0	2.3
ABB LTD	SWITZERLAND	Industrials	0.4	1.1	1.1	1.1		
TOKIO MARINE HOLDINGS	JAPAN	Financials	0.3	1.1	1.1	1.2		1.0

Simulated Snapshot as of Mar 29, 2024

MSCI

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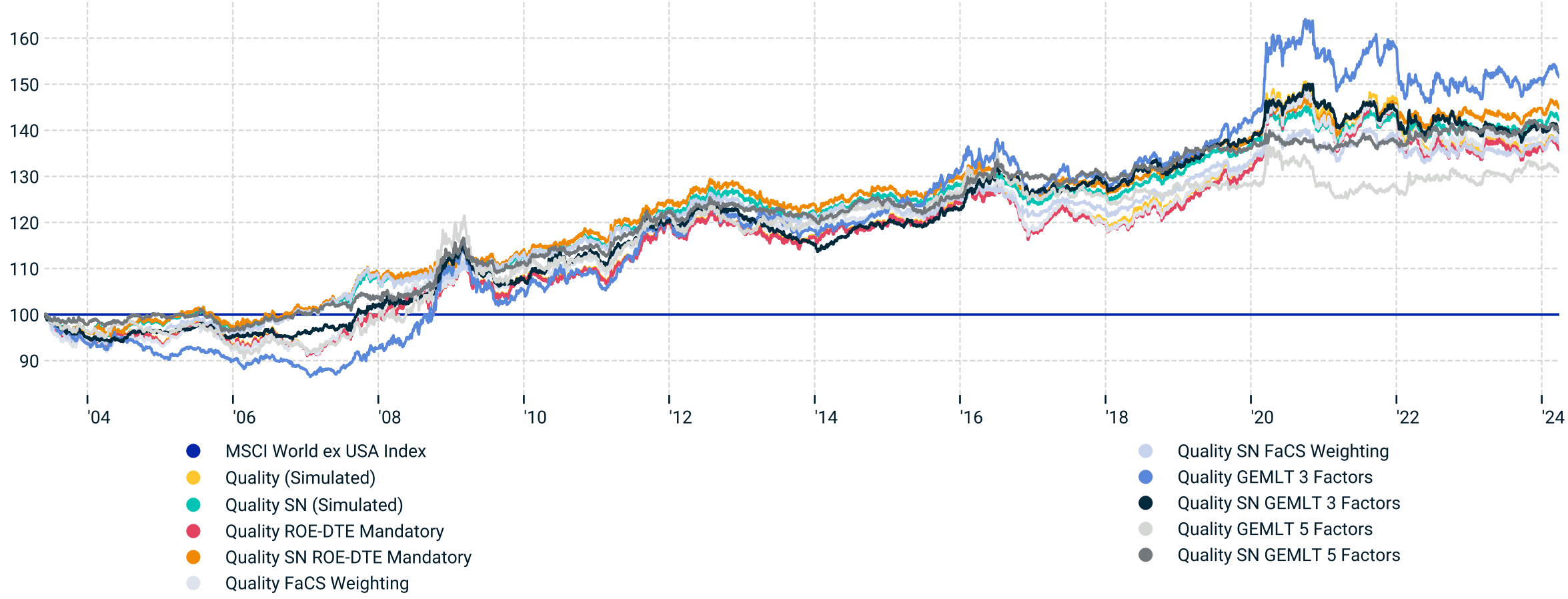
Information Classification: GENERAL

Relative Performance
(w.r.t MSCI World ex USA Index)

Relative Performance



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Information Classification: GENERAL

Transition Analysis

	USA Quality					USA Sector Neutral Quality				
	Quality (Live Index)	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors	Quality (Live Index)	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors
One-way Turnover	9.3%	9.3%	17.6%	23.6%	38.6%	13.8%	12.0%	22.1%	32.9%	48.4%

	World ex USA Quality					World ex USA Sector Neutral Quality				
	Quality (Live Index)	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors	Quality (Live Index)	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors
One-way Turnover	11.9%	10.6%	14.4%	28.3%	43.6%	12.7%	12.6%	17.0%	35.8%	48.1%

Transition simulation during Dec-23 Index Review
One-way Turnover includes changes from Index Review and transition turnover from current (Live) Quality Index

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Information Classification: GENERAL

Transition Analysis – Top Additions and Deletions

World ex USA Quality

Quality ROE-DTE Mandatory		Quality FaCS Weighting		Quality GEMLT 3 Factors		Quality GEMLT 5 Factors	
Top Additions	**Top Deletions**	**Top Additions**	**Top Deletions**	**Top Additions**	**Top Deletions**	**Top Additions**	**Top Deletions**
BROTHER INDUSTRIES @ 0.04%	SAP @ 1.74%	SAFRAN @ 0.75	SAP @ 1.74	DAIICHI SANKYO CO @ 0.81	NESTLE @ 4.20	SHELL @ 3.10	NESTLE @ 4.20
		3I GROUP @ 0.31	AIR LIQUIDE @ 1.08	NTT CORP @ 0.60	SCHNEIDER ELECTRIC @ 1.17	BP @ 1.72	LVMH MOET HENNESSY @ 2.96
		WOOLWORTHS GROUP @ 0.29	MANULIFE FINANCIAL CORP @ 0.36	SUNCOR ENERGY @ 0.54	ALLIANZ @ 1.16	CANADIAN NAT RESOURCES @ 1.52	ASTRAZENECA @ 2.96
		SSE @ 0.27	LONZA GROUP @ 0.30	CRH @ 0.53	SONY GROUP CORP @ 1.09	SUNCOR ENERGY @ 0.99	TOKYO ELECTRON @ 1.24
		DOLLARAMA @ 0.25	FANUC @ 0.28	ADIDAS @ 0.50	AIR LIQUIDE @ 1.08	HITACHI @ 0.94	ALLIANZ @ 1.16

World ex USA Sector Neutral Quality

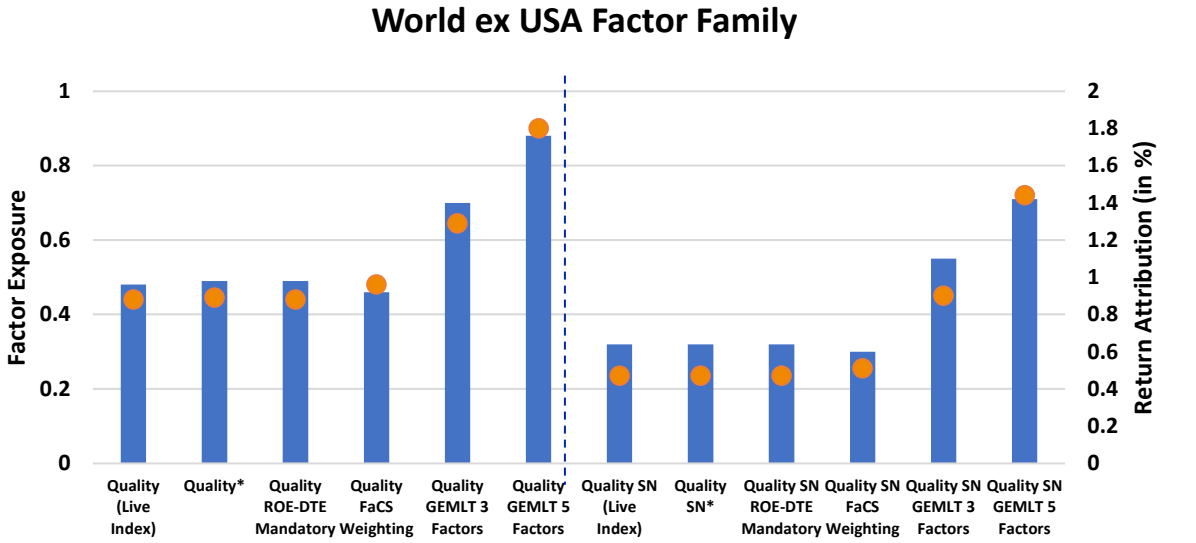
Quality ROE-DTE Mandatory		Quality FaCS Weighting		Quality GEMLT 3 Factors		Quality GEMLT 5 Factors	
Top Additions	**Top Deletions**	**Top Additions**	**Top Deletions**	**Top Additions**	**Top Deletions**	**Top Additions**	**Top Deletions**
PRYSMIAN @ 0.11%	NORDEA BANK (FI) @ 0.68%	SAFRAN @ 0.70	NORDEA BANK (FI) @ 0.68	AIA GROUP @ 2.49	ASML HLDG @ 4.66	SAP @ 3.26	ASML HLDG @ 4.66
		STELLANTIS @ 0.54	SMC CORP @ 0.30	SAP @ 2.04	NESTLE @ 3.41	AIA GROUP @ 1.81	NESTLE @ 3.41
		REPSOL @ 0.53	ASSA ABLOY B @ 0.25	CANADIAN NAT RESOURCES @ 1.34	ASTRAZENECA @ 2.03	CANADIAN NAT RESOURCES @ 1.69	LVMH MOET HENNESSY @ 3.16
		LEGAL & GENERAL GROUP @ 0.35	JAPAN TOBACCO @ 0.20	KEYENCE CORP @ 1.22	ZURICH INSURANCE GROUP @ 1.56	BP @ 1.61	ASTRAZENECA @ 2.03
		CONSTELLATION SOFTWARE @ 0.33	UPM-KYMMENE @ 0.14	SUNCOR ENERGY @ 0.96	NOVARTIS @ 1.54	CONSTELLATION SOFTWARE @ 1.53	ZURICH INSURANCE GROUP @ 1.56

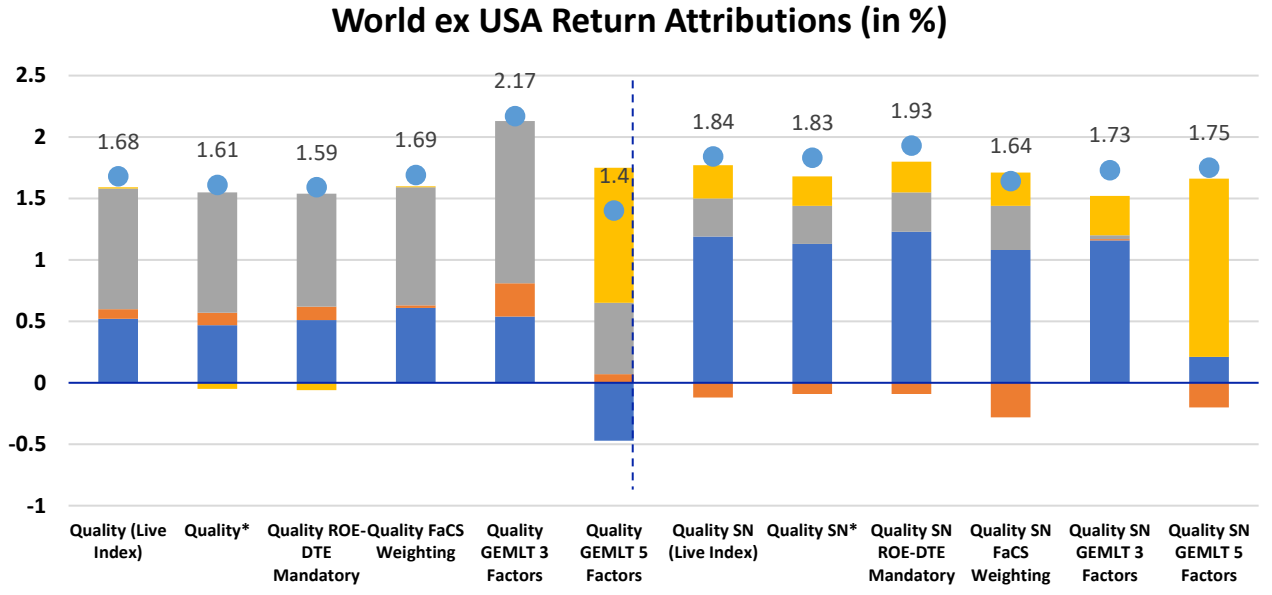
Transition simulation during Dec-23 Index Review

This analysis uses historical back-tested or simulated data. Such performance data is not indicative of future performance, which may differ materially.
Please refer to the disclosures at the end of this presentation for more information.

Information Classification: GENERAL

Summary - FaCS weighting and GEMLT factors





Period: May 30, 2003 to Mar 29, 2024. Active measures are w.r.t respective MSCI market cap benchmark indexes. Active returns are Gross returns annualized in USD. *Existing methodology simulated for comparison with enhancement proposals.

Quality Active Factor Family Exposure

Quality Factors Return Attri. (%)

Specific Return Attribution (%)

Countries Return Attribution (%)

Industries Return Attribution (%)

Styles Return Attribution (%)

Active Return (%)

Note: The Factor Family exposures are calculated using the GEMLT Model. This includes 25% weightage to Profitability, Investment Quality and Earnings Quality each, while 12.5% weightage to Earnings Variability and Leverage each. These weightages align to the simulations of 'Quality GEMLT 5 Factors' and 'Quality GEMLT SN 5 Factors'.
Simulated Indexes use quarterly rebalance frequency.

MSCI

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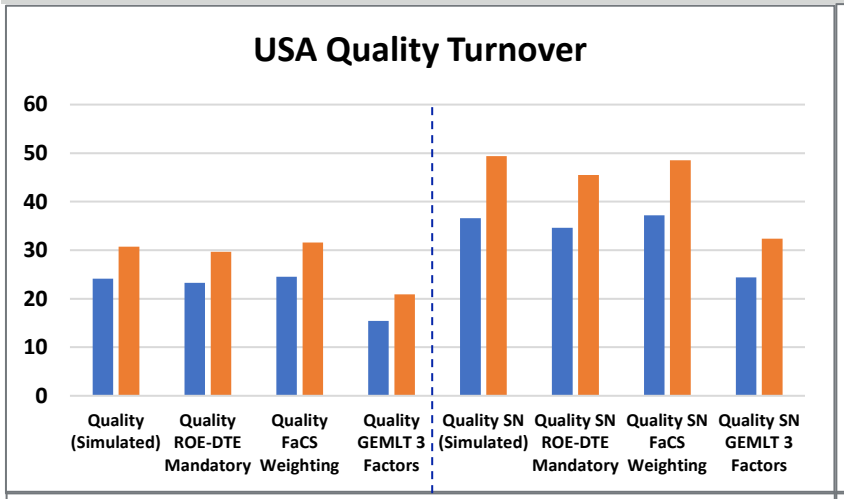
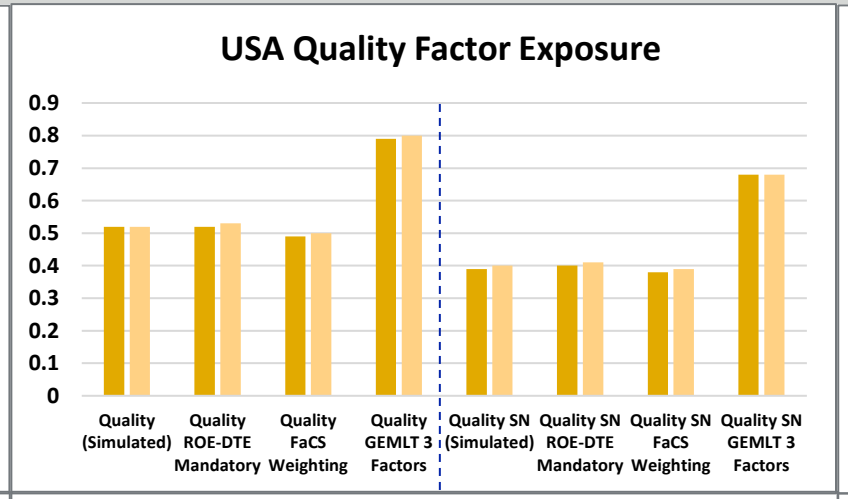
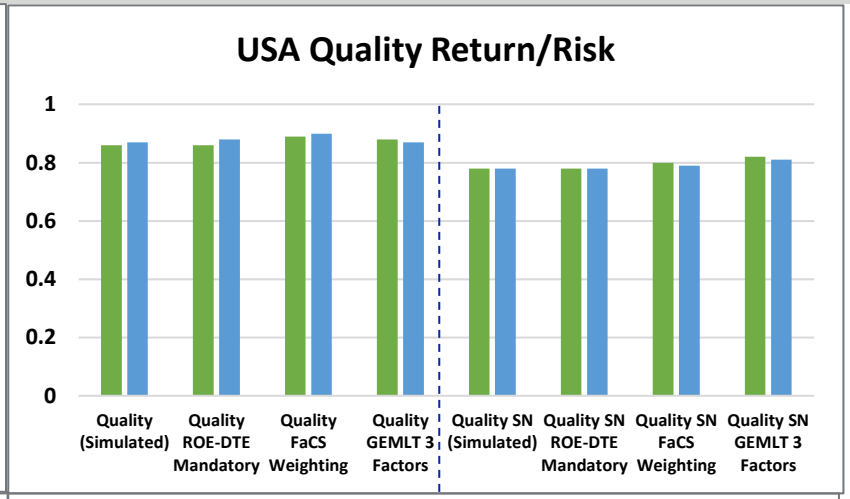
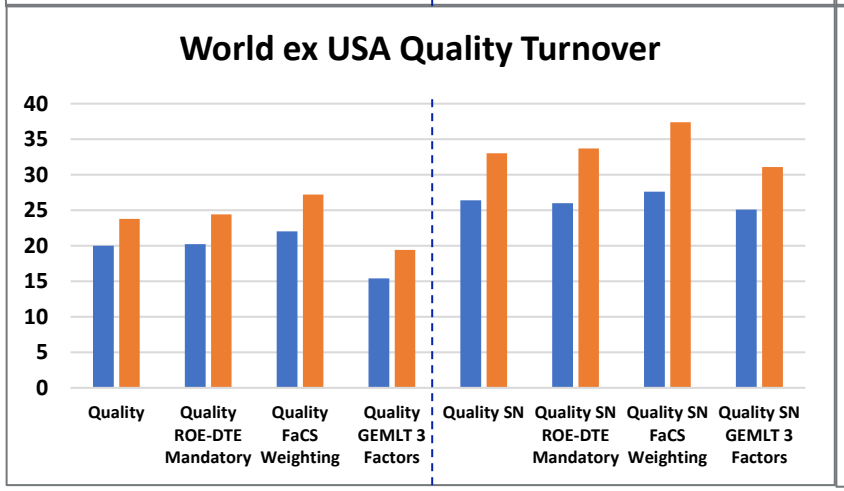
Information Classification: GENERAL

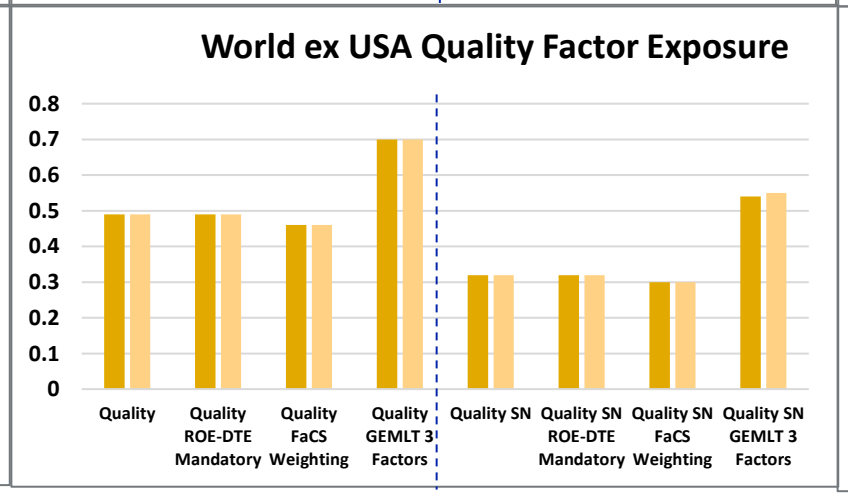
Summary – Turnover, Factor Exposures and Performance

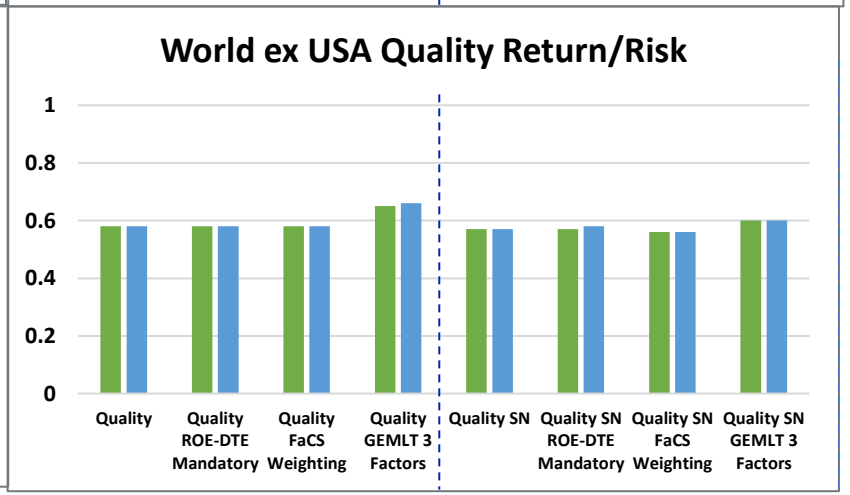












Turnover* (%) | Turnover (%) (Quarterly) | Quality Active Factor Family Exposure** | Quality Active Factor Family Exposure (Quarterly) | Return / Risk | Return / Risk (Quarterly)

Period: May 30, 2003 to Mar 29, 2024. * Annualized one-way index turnover over index reviews ** Active exposures are w.r.t respective MSCI market cap benchmark indexes.
First bar of the 'Quality' and 'Quality SN' variants are the existing methodologies simulated for comparison with enhancement proposals.

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Information Classification: GENERAL

MSCI

Emerging Markets

Information Classification: GENERAL

EM Simulation Summary – FaCS Weighting and GEMLT-based factor definition

		Emerging Markets Quality					Emerging Markets Sector Neutral Quality				
	MSCI EM Index	Quality	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors	Quality	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors
Total Return* (%)	8.9	10.9	10.8	10.8	9.7	9.7	10.4	10.7	10.3	9.1	9.6
Total Risk (%)	20.7	19.2	19.2	19.5	17.7	17.9	19.8	19.8	20.2	19.5	19.5
Return / Risk	0.43	0.56	0.56	0.55	0.55	0.54	0.53	0.54	0.51	0.47	0.49
Tracking Error (%)	--	4.8	4.8	4.7	5.5	5.1	4.1	4.1	4.3	4.0	3.7
Turnover** (%)	7.7	33.3	34.4	36.3	30.8	37.6	44.1	43.9	46.2	42.1	54.4
Quality Active Factor Family Exposure***	--	0.55	0.55	0.53	0.85	1.09	0.30	0.30	0.26	0.57	0.78
Specific Active Return Attribution (%)	--	-0.52	-0.55	-0.68	-1.01	-1.08	0.09	0.20	-0.04	-0.62	-0.24
Countries Active Return Attribution (%)	--	1.27	1.41	1.18	0.60	0.02	0.86	1.01	0.68	-0.15	-0.81
Industries Active Return Attribution (%)	--	0.49	0.53	0.69	0.52	-0.15	0.10	0.14	0.03	0.28	-0.09
Styles Active Return Attribution (%)	--	0.61	0.58	0.59	0.89	2.20	0.59	0.59	0.62	0.99	2.01
Turnover (%) (Semi Annual)	--	27.1	27.7	29.9	24.2	30.5	34.2	34.4	36.0	32.3	44.7
Quality Active Factor Family Exposure (Semi Annual)	--	0.55	0.55	0.54	0.84	1.07	0.29	0.29	0.26	0.56	0.76
Return / Risk (Semi Annual)	--	0.57	0.58	0.56	0.56	0.55	0.51	0.52	0.51	0.48	0.49

Period: May 30, 2003 to Mar 29, 2024. * Gross returns annualized in USD ** Annualized one-way index turnover over index reviews *** Active values are w.r.t MSCI EM (Emerging Markets) Index. Simulated Indexes use quarterly rebalance frequency.
The monthly average number of securities were 200 across EM Quality variants and 225 across the EM Sector Neutral Quality Variants.

Performance (%)	MSCI EM Index	Quality	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors	Quality	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors
1 Yr	9.7	14.0	13.3	13.6	-0.5	13.4	13.6	14.8	16.9	0.3	9.8
3 Yr	-4.5	-0.9	-1.2	-1.6	-6.1	1.6	-2.6	-1.7	-1.5	-6.1	1.7
5 Yr	2.6	5.2	5.0	4.6	1.8	5.7	2.9	3.5	4.3	0.2	4.5
10 Yr	3.4	4.3	4.2	4.3	3.0	5.0	4.1	4.5	4.4	2.4	4.5

Gross returns for the period ending Mar 29, 2024. Returns are annualized for periods longer than a year

MSCI

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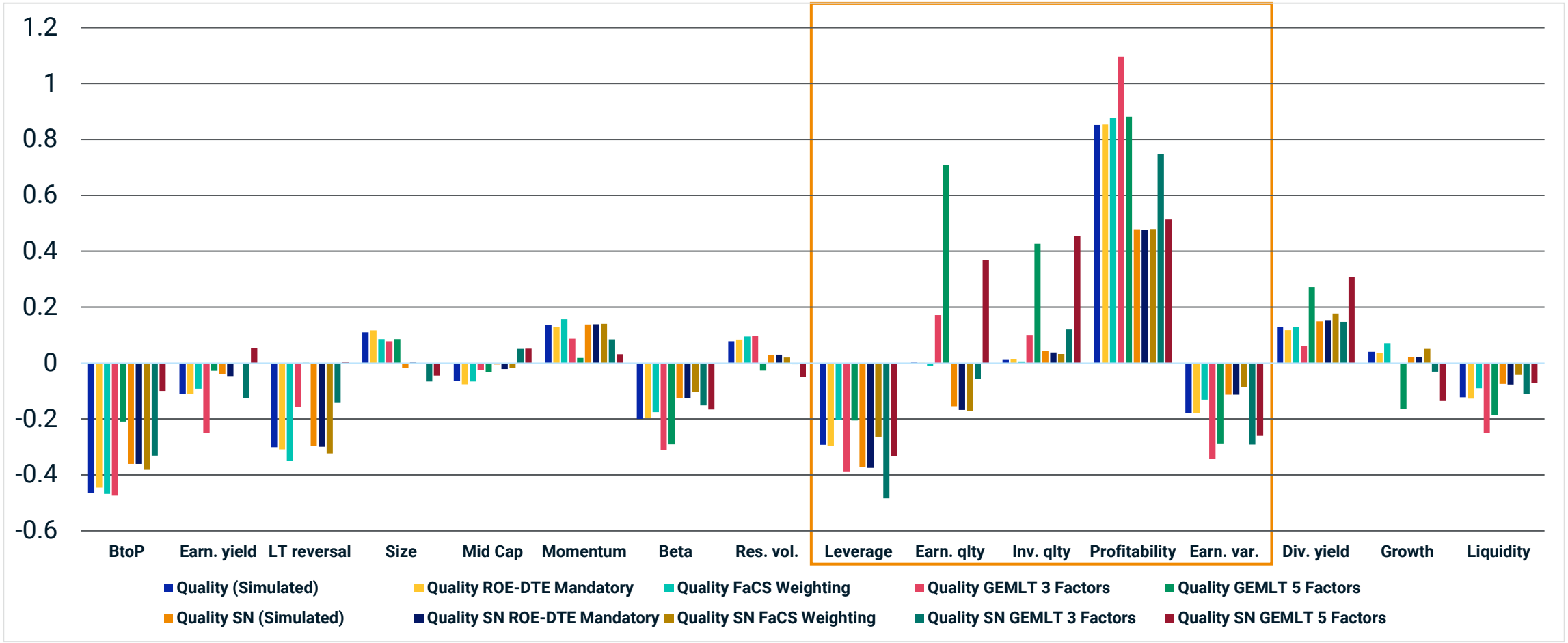
Active GEMLT Factor Exposures

(w.r.t MSCI EM (Emerging Markets) Index)



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Information Classification: GENERAL

GEMLT Active Performance Attribution

(w.r.t MSCI EM (Emerging Markets) Index)

	Emerging Markets Quality					Emerging Markets Sector Neutral Quality				
	Quality	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors	Quality	Quality ROE-DTE Mandatory	Quality FaCS Weighting	Quality GEMLT 3 Factors	Quality GEMLT 5 Factors
Total (%)	10.86	10.85	10.76	9.71	9.70	10.44	10.73	10.34	9.12	9.57
Active (%)	2.00	2.00	1.90	0.85	0.85	1.59	1.88	1.49	0.27	0.72
Specific (%)	-0.52	-0.55	-0.68	-1.01	-1.08	0.09	0.20	-0.04	-0.62	-0.24
Countries (%)	1.27	1.41	1.18	0.60	0.02	0.86	1.01	0.68	-0.15	-0.81
Industries (%)	0.49	0.53	0.69	0.52	-0.15	0.10	0.14	0.03	0.28	-0.09
Styles (%)	0.61	0.58	0.59	0.89	2.20	0.59	0.59	0.62	0.99	2.01
Style Factor Performance Attribution (in %):										
BtoP	-0.62	-0.61	-0.68	-0.65	-0.24	-0.48	-0.48	-0.54	-0.47	-0.13
Earn. Yield	0.07	0.07	0.09	-0.08	0.03	0.08	0.08	0.12	-0.03	0.01
LT Reversal	-0.23	-0.23	-0.26	-0.10	-0.01	-0.14	-0.14	-0.15	-0.08	0.01
Size	-0.01	-0.01	-0.00	-0.07	0.02	0.01	0.01	-0.02	-0.08	-0.01
Mid Cap	-0.05	-0.06	-0.06	-0.02	-0.03	-0.03	-0.03	-0.03	-0.01	-0.01
Momentum	0.57	0.58	0.69	0.25	-0.07	0.63	0.66	0.69	0.29	0.10
Beta	-0.13	-0.14	-0.15	-0.22	-0.15	-0.07	-0.07	0.01	-0.01	-0.03
Res. Vol.	-0.25	-0.26	-0.25	-0.21	0.19	-0.07	-0.08	-0.07	0.16	0.28
Leverage	-0.08	-0.07	-0.07	-0.05	-0.05	-0.05	-0.06	-0.06	-0.02	-0.02
Earn. Qlty	0.02	0.00	0.01	0.13	0.67	-0.15	-0.16	-0.16	-0.08	0.39
Inv. Qlty	0.03	0.03	0.01	0.14	0.54	0.07	0.07	0.05	0.17	0.59
Profitability	0.98	0.96	1.01	1.26	0.99	0.59	0.58	0.61	0.88	0.63
Earn. Var.	0.05	0.06	0.01	0.20	0.16	0.03	0.03	-0.00	0.13	0.16
Div. Yield	0.09	0.08	0.07	0.08	0.12	0.07	0.07	0.09	0.06	0.08
Growth	0.02	0.02	0.05	-0.00	-0.12	0.02	0.02	0.04	-0.02	-0.12
Liquidity	0.16	0.16	0.11	0.24	0.16	0.10	0.10	0.06	0.10	0.07

Period: May 30, 2003 to Mar 29, 2024.

MSCI

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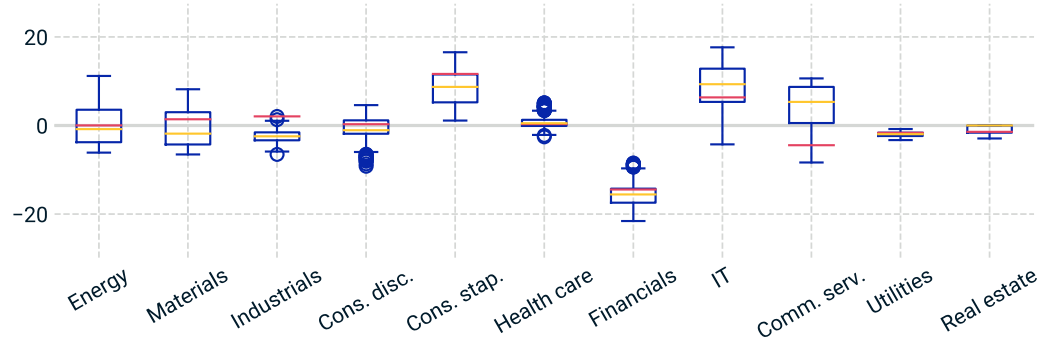
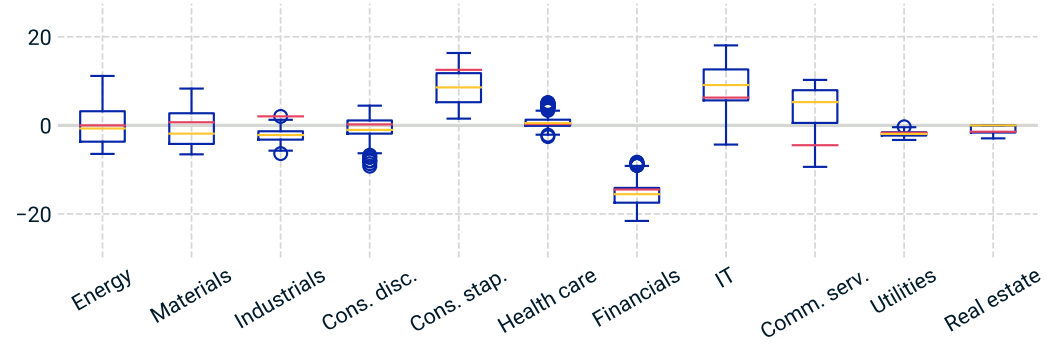
Information Classification: GENERAL

Active Sector Exposures - Quality
(w.r.t MSCI EM (Emerging Markets) Index)

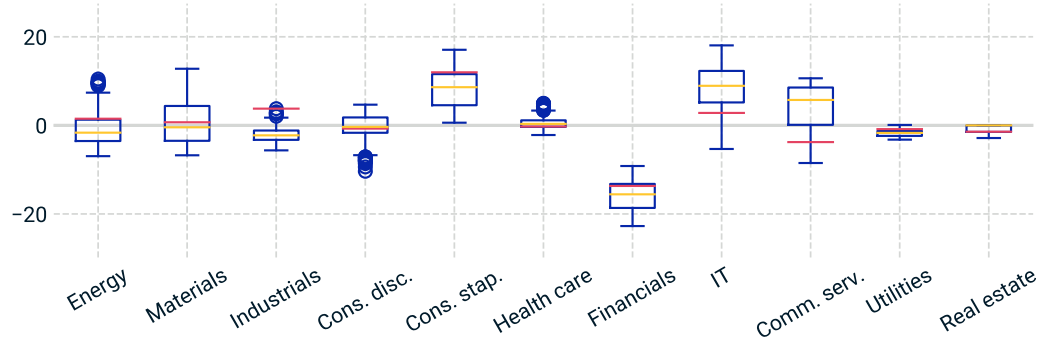
Quality (Simulated) (%)



Quality ROE-DTE Mandatory (%)



Quality FaCS Weighting (%)



Median | Current | Interquartile Range | Min-Max (capped at 1.5 of IQR) | Outliers

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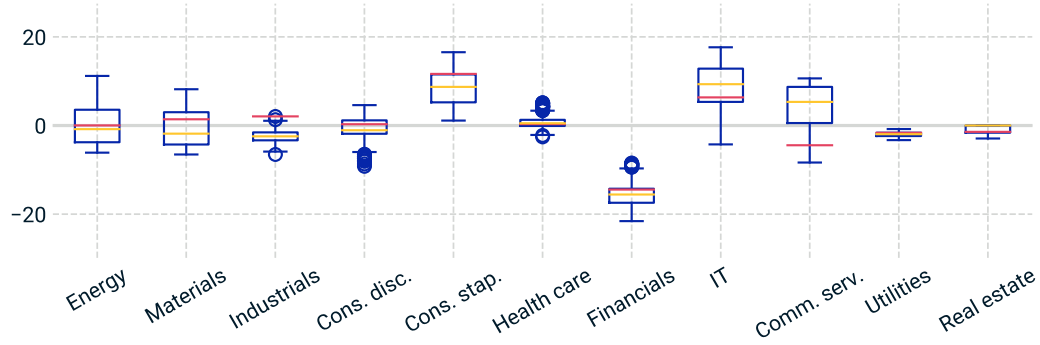
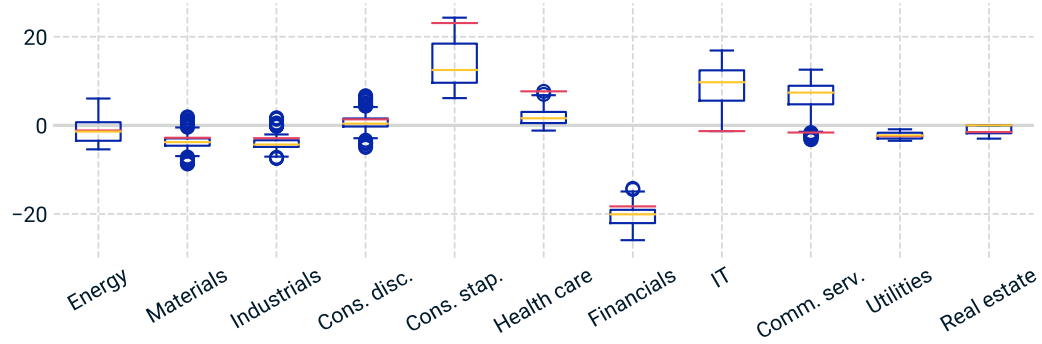
Period: May 30, 2003 to Mar 29, 2024, monthly data.

Active Sector Exposures - Quality
(w.r.t MSCI EM (Emerging Markets) Index)

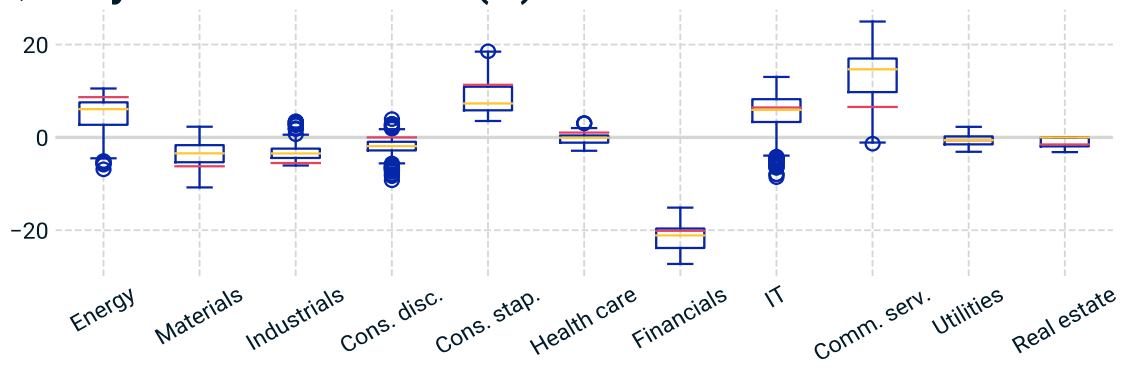
Quality (Simulated) (%)



Quality GEMLT 3 Factors (%)



Quality GEMLT 5 Factors (%)



Median | Current | Interquartile Range | Min-Max (capped at 1.5 of IQR) | Outliers

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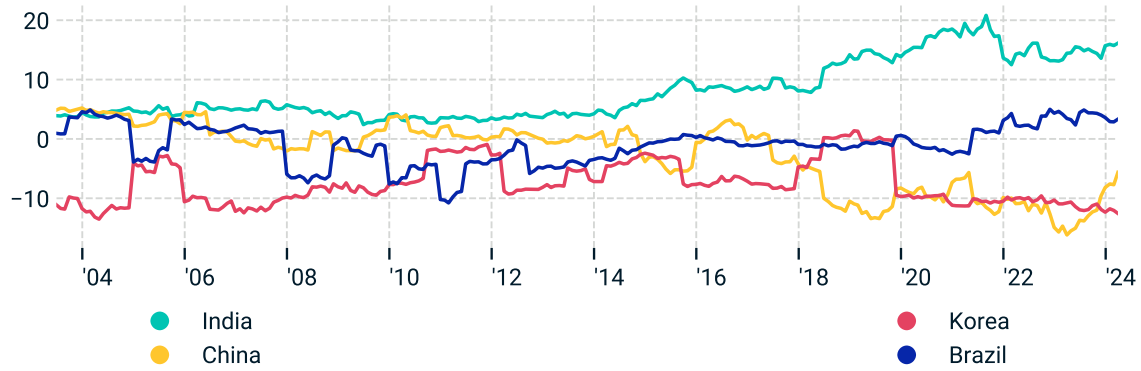
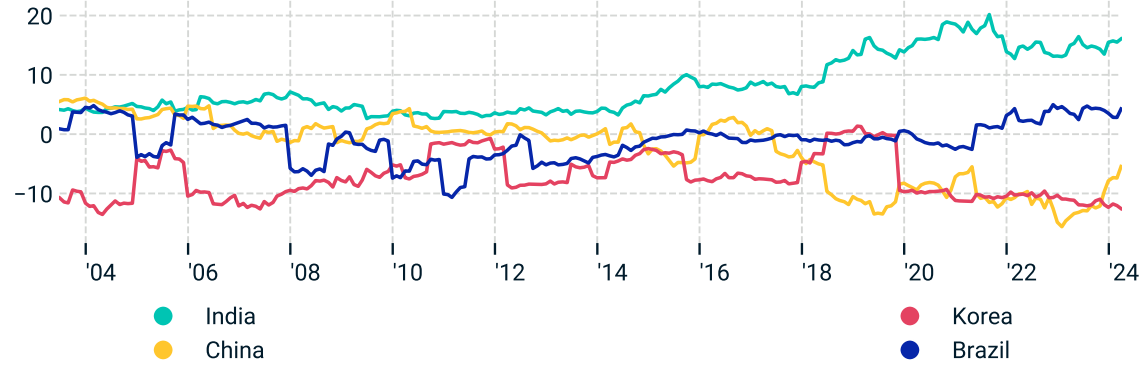
Period: May 30, 2003 to Mar 29, 2024, monthly data.

Active Country Exposures – Quality
(w.r.t MSCI EM (Emerging Markets) Index)

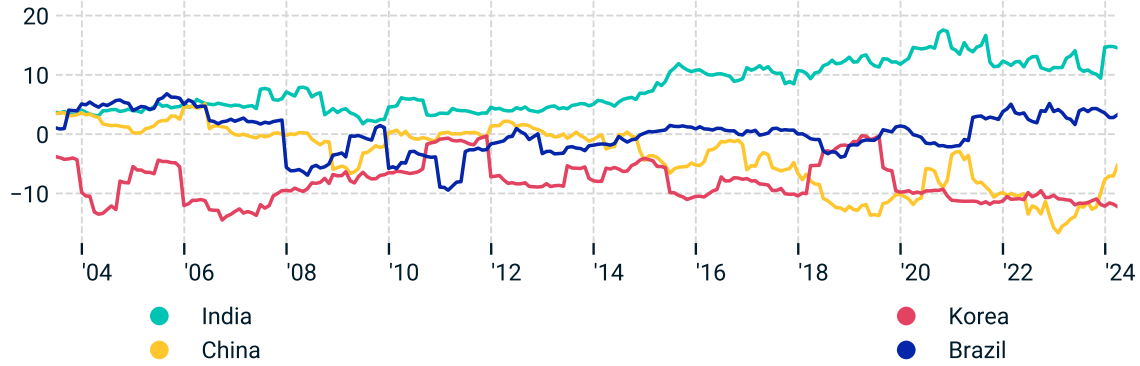
Quality (Simulated) (%)



Quality ROE-DTE Mandatory (%)



Quality FaCS Weighting (%)



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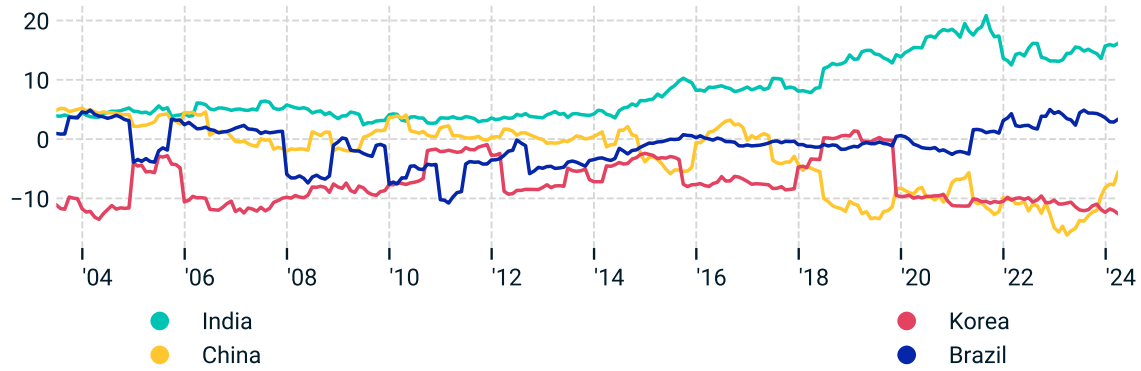
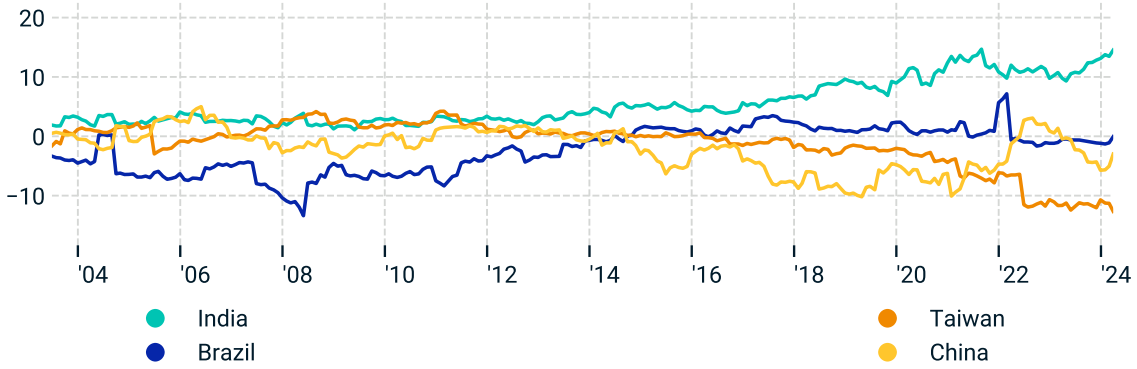
Period: May 30, 2003 to Mar 29, 2024, monthly data.

Active Country Exposures – Quality
(w.r.t MSCI EM (Emerging Markets) Index)

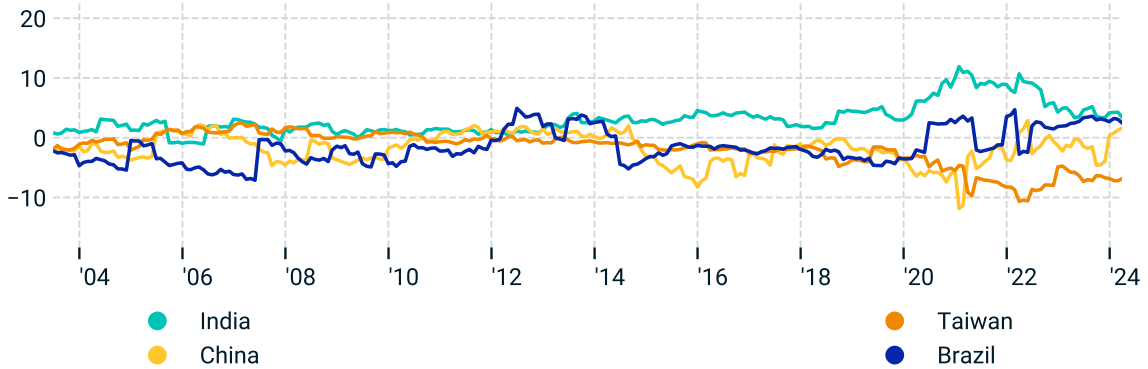
Quality (Simulated) (%)



Quality GEMLT 3 Factors (%)



Quality GEMLT 5 Factors (%)



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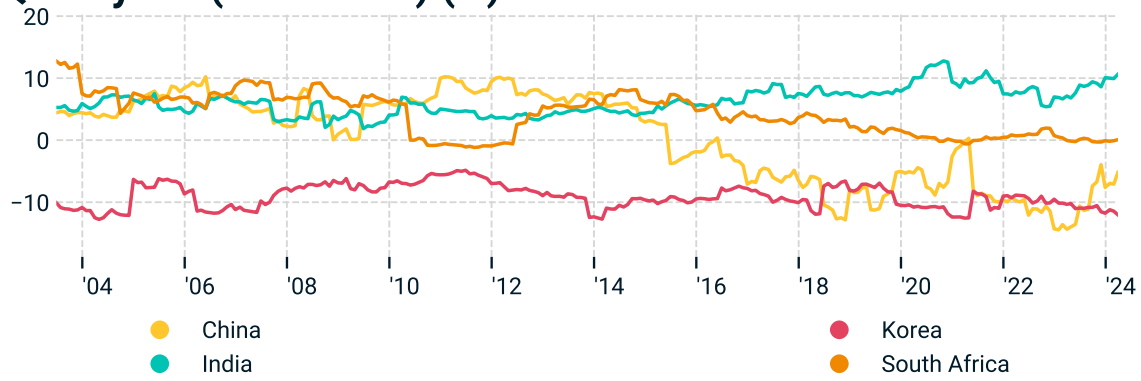
Period: May 30, 2003 to Mar 29, 2024, monthly data.

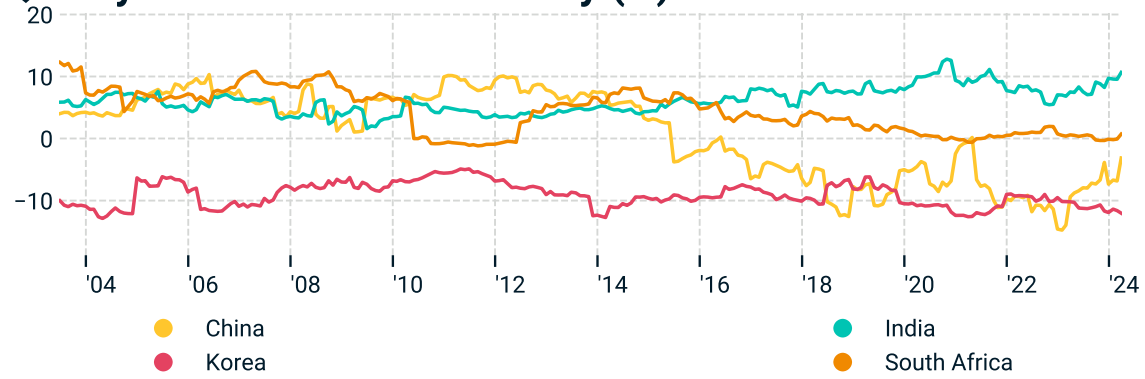
Active Country Exposures – Sector Neutral Quality

(w.r.t MSCI EM (Emerging Markets) Index)

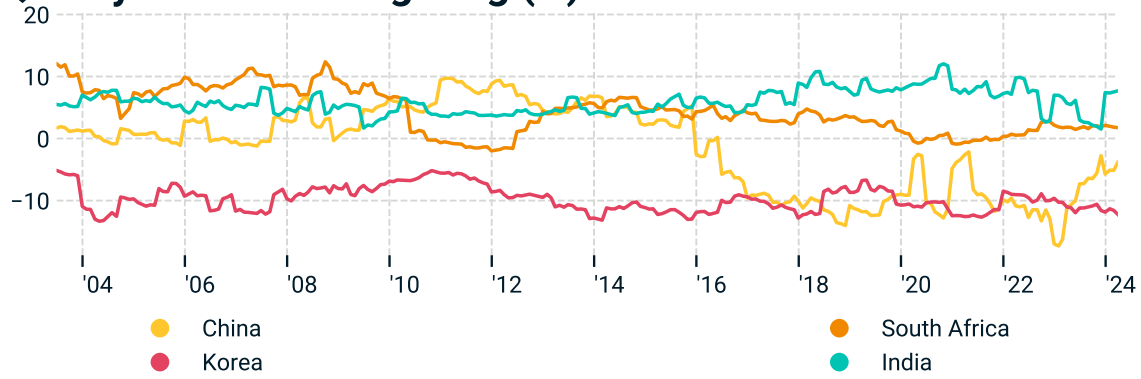
Quality SN (Simulated) (%)



Quality SN ROE-DTE Mandatory (%)



Quality SN FaCS Weighting (%)



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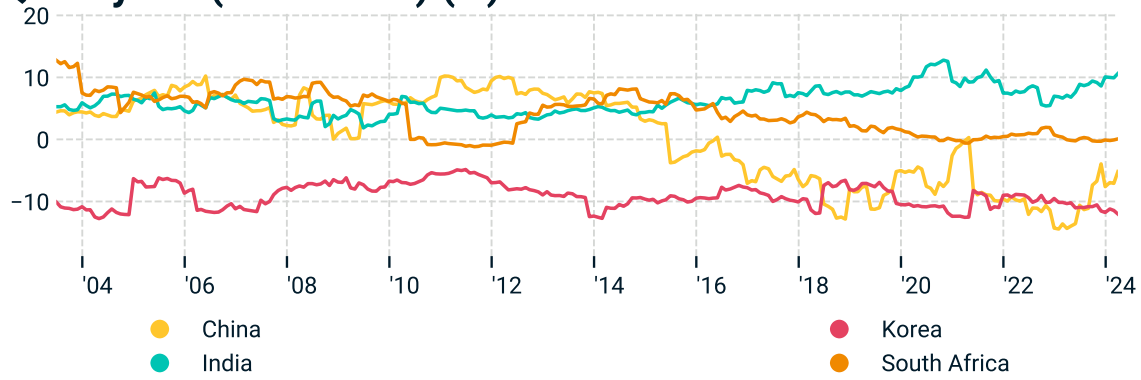
Period: May 30, 2003 to Mar 29, 2024, monthly data.

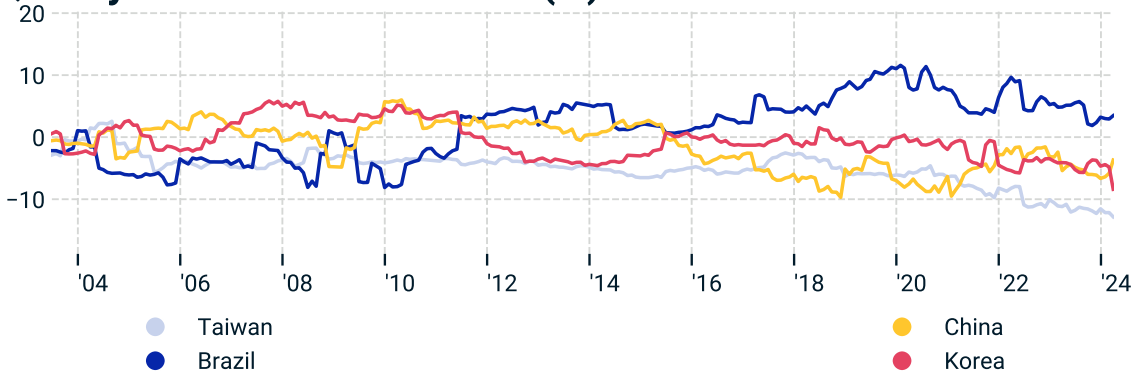
Active Country Exposures – Sector Neutral Quality

(w.r.t MSCI EM (Emerging Markets) Index)

Quality SN (Simulated) (%)



Quality SN GEMLT 3 Factors (%)



Quality SN GEMLT 5 Factors (%)

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Period: May 30, 2003 to Mar 29, 2024, monthly data.

Top 20 Constituents – Quality

Emerging Markets Quality								
Security Name	**Country**	**Sector**	**MSCI EM (Emerging Markets) Index Weight (%)**	**Quality Weight (%)**	**Quality ROE-DTE Mandatory Weight (%)**	**Quality FaCS Weighting Weight (%)**	**Quality GEMLT 3 Factors Weight (%)**	**Quality GEMLT 5 Factors Weight (%)**
TAIWAN SEMICONDUCTOR MFG	TAIWAN	Information Technology	8.3	5.7	5.7	5.7		5.6
PDD HOLDINGS A ADR	CHINA	Consumer Discretionary	1.0	4.8	4.7	4.7		
TATA CONSULTANCY	INDIA	Information Technology	0.6	4.7	4.7	4.8	4.8	4.8
INFOSYS	INDIA	Information Technology	0.8	4.5	4.5	4.5	4.5	4.5
MEDIATEK INC	TAIWAN	Information Technology	0.8	4.5	4.4			
VALE ON	BRAZIL	Materials	0.6	3.6	3.6	3.9		
NETEASE	CHINA	Communication Services	0.6	3.4	3.4	3.4		
BANK CENTRAL ASIA	INDONESIA	Financials	0.5	3.0	3.0	3.0		
SAUDI ARAMCO	SAUDI ARABIA	Energy	0.3	2.1	2.1	2.3	3.1	
HINDUSTAN UNILEVER	INDIA	Consumer Staples	0.3	1.9	1.9	1.9		
WALMART MEXICO V	MEXICO	Consumer Staples	0.3	1.9	1.9	2.0	2.8	
KWEICHOW MOUTAI A (HK-C)	CHINA	Consumer Staples	0.2	1.9	1.9	2.0	2.9	1.9
HCL TECHNOLOGIES	INDIA	Information Technology	0.2	1.6	1.6	1.6	2.7	2.1
ITC	INDIA	Consumer Staples	0.2	1.6	1.6	1.6	2.2	1.7
ASIAN PAINTS	INDIA	Materials	0.2	1.4	1.4	1.4	1.7	
TITAN COMPANY	INDIA	Consumer Discretionary	0.2	1.3	1.3	1.4		
WEG ON	BRAZIL	Industrials	0.2	1.3	1.3	1.4	1.7	
NONGFU SPRING CO H	CHINA	Consumer Staples	0.2	1.2	1.2	1.3	1.7	1.0
NESTLE INDIA	INDIA	Consumer Staples	0.1	1.2	1.2	1.3	1.5	1.1
NOVATEK MICROELECTRS	TAIWAN	Information Technology	0.2	1.2	1.1	1.3	1.3	

Simulated Snapshot as of Mar 29, 2024

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Top 20 Constituents – Sector Neutral Quality

Emerging Markets Sector Neutral Quality								
Security Name	**Country**	**Sector**	**MSCI EM (Emerging Markets) Index Weight (%)**	**Quality Weight (%)**	**Quality ROE-DTE Mandatory Weight (%)**	**Quality FaCS Weighting Weight (%)**	**Quality GEMLT 3 Factors Weight (%)**	**Quality GEMLT 5 Factors Weight (%)**
PDD HOLDINGS A ADR	CHINA	Consumer Discretionary	1.0	5.9	6.0	6.1		
TAIWAN SEMICONDUCTOR MFG	TAIWAN	Information Technology	8.3	5.7	5.6	5.5		3.3
NETEASE	CHINA	Communication Services	0.6	4.7	6.6	4.4		
INFOSYS	INDIA	Information Technology	0.8	4.5	4.5	4.4	4.5	2.7
TATA CONSULTANCY	INDIA	Information Technology	0.6	4.0	4.0	4.1	4.7	2.8
BANK CENTRAL ASIA	INDONESIA	Financials	0.5	2.5	2.5	2.8		
VALE ON	BRAZIL	Materials	0.6	2.4	2.4	2.3		
SAUDI TELECOM CO	SAUDI ARABIA	Communication Services	0.3	2.3				2.7
SAUDI ARAMCO	SAUDI ARABIA	Energy	0.3	2.2	2.2	2.2	3.3	
AL RAJHI BANKING & INV	SAUDI ARABIA	Financials	0.6	2.1	2.1	2.4		
BANK RAKYAT INDONESIA	INDONESIA	Financials	0.4	1.6	1.6	1.8		
KOTAK MAHINDRA BANK	INDIA	Financials	0.3	1.3	1.3			
TITAN COMPANY	INDIA	Consumer Discretionary	0.2	1.3	1.3	1.4		
HCL TECHNOLOGIES	INDIA	Information Technology	0.2	1.2	1.3	1.2	2.7	1.4
KWEICHOW MOUTAI A (HK-C)	CHINA	Consumer Staples	0.2	1.2	1.2	1.1	1.2	
BANK MANDIRI	INDONESIA	Financials	0.2	1.0	1.0	1.2		
WEG ON	BRAZIL	Industrials	0.2	1.0	1.0	0.8	1.5	1.1
COAL INDIA	INDIA	Energy	0.1	1.0	1.0	1.0		
NOVATEK MICROELECTRS	TAIWAN	Information Technology	0.2	0.9	0.9	1.0	1.2	
ITC	INDIA	Consumer Staples	0.2	0.9	0.9	0.9	0.9	

Simulated Snapshot as of Mar 29, 2024

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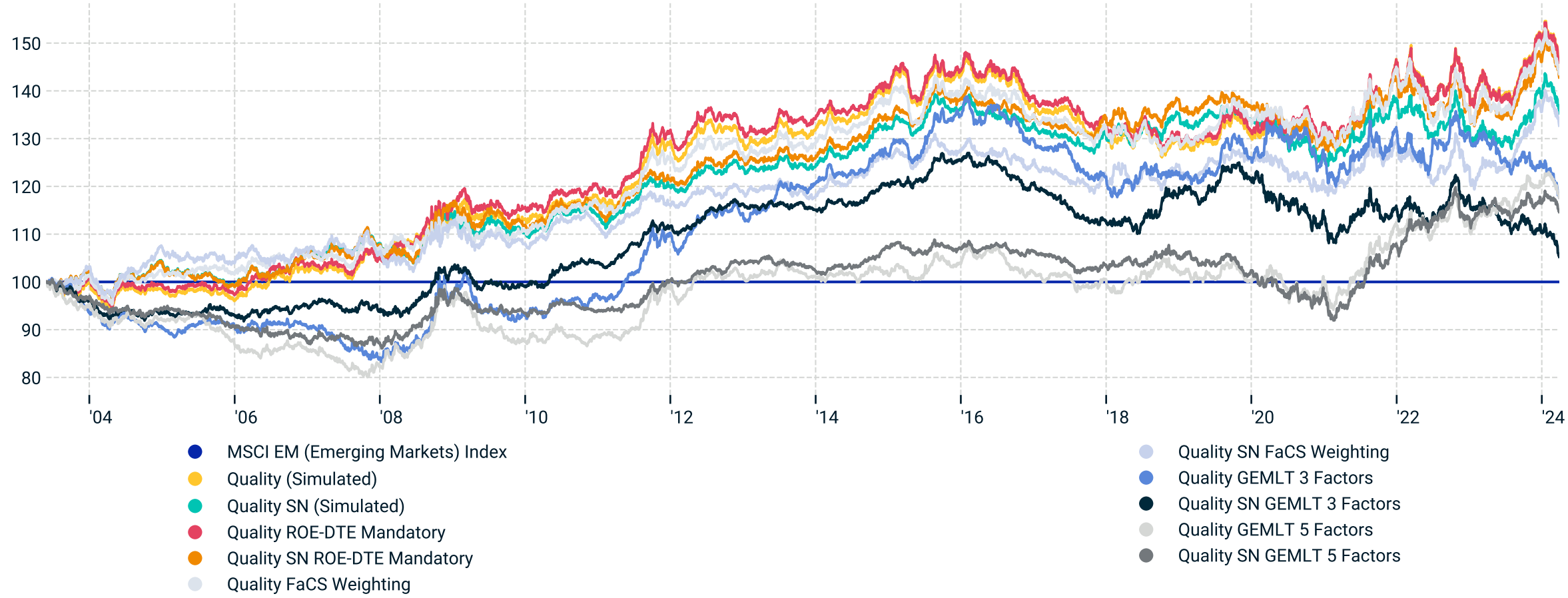
Relative Performance
(w.r.t MSCI EM (Emerging Markets) Index)

Relative Performance



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Simulations with ROE and D/E measures as mandatory

Information Classification: GENERAL

USA Simulation Summary – Quarterly & ROE/DTE Mandatory

		USA Quality					USA Sector Neutral Quality				
	MSCI USA Index	MSCI USA Quality Index	Quality (Simulated)	Quality Qtrly (Simulated)	Quality ROE-DTE Mandatory	Quality ROE-DTE Mandatory Qtrly	MSCI USA Sector Neutral Quality Index	Quality (Simulated)	Quality Qtrly (Simulated)	Quality ROE-DTE Mandatory	Quality ROE-DTE Mandatory Qtrly
Total Return* (%)	10.7	12.2	12.0	12.2	12.1	12.3	11.1	11.1	11.3	11.1	11.1
Total Risk (%)	14.8	14.0	14.0	14.0	14.0	14.0	14.3	14.3	14.3	14.2	14.3
Return / Risk	0.72	0.87	0.86	0.87	0.86	0.88	0.78	0.78	0.78	0.78	0.78
Tracking Error (%)	--	3.7	3.6	3.6	3.6	3.6	2.8	2.8	2.8	2.8	2.9
Turnover (%)**	3.1	25.2	24.1	30.7	23.3	29.7	37.8	36.6	49.4	34.6	45.5
Quality Active Factor Family Exposure***	--	0.52	0.52	0.52	0.52	0.53	0.40	0.39	0.40	0.40	0.41
Specific Active Return Attribution (%)	--	0.01	-0.16	-0.07	-0.13	0.03	-0.44	-0.46	-0.31	-0.40	-0.40
Countries Active Return Attribution (%)	--	-0.06	-0.07	-0.06	-0.07	-0.06	-0.07	-0.08	-0.07	-0.08	-0.08
Industries Active Return Attribution (%)	--	1.25	1.27	1.29	1.29	1.29	0.24	0.26	0.25	0.26	0.27
Styles Active Return Attribution (%)	--	0.34	0.31	0.33	0.29	0.33	0.71	0.67	0.71	0.65	0.63

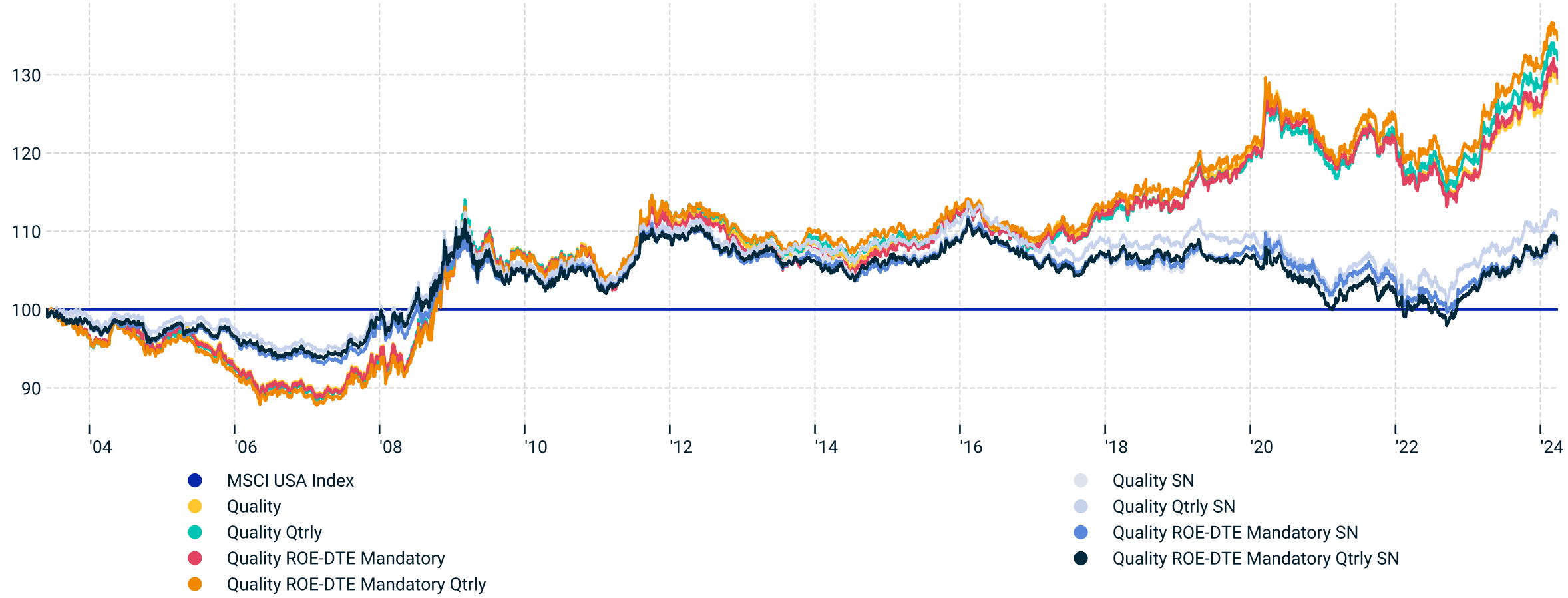
Period: May 30, 2003 to Mar 29, 2024. * Gross returns annualized in USD ** Annualized one-way index turnover over index reviews *** Active values are w.r.t MSCI USA Index.

Performance (%)	MSCI USA Index	MSCI USA Quality Index	Quality (Simulated)	Quality Qtrly (Simulated)	Quality ROE-DTE Mandatory	Quality ROE-DTE Mandatory Qtrly	MSCI USA Sector Neutral Quality Index	Quality (Simulated)	Quality Qtrly (Simulated)	Quality ROE-DTE Mandatory	Quality ROE-DTE Mandatory Qtrly
1 Yr	32.9	42.1	42.2	42.8	42.5	43.0	37.0	37.8	37.9	37.0	38.0
3 Yr	10.9	13.5	13.4	14.8	13.8	14.9	12.1	12.2	13.0	12.2	12.9
5 Yr	15.0	17.3	17.3	17.9	17.5	18.0	15.1	15.1	15.2	15.2	15.1
10 Yr	13.0	15.3	15.1	15.3	15.3	15.4	13.2	13.1	13.4	13.3	13.4

Gross returns for the period ending Mar 29, 2024. Returns are annualized for periods longer than a year

Relative Performance
(w.r.t MSCI USA Index)

Relative Performance



World ex USA Simulation Summary – Quarterly & ROE/DTE Mandatory

		World ex USA Quality					World ex USA Sector Neutral Quality				
	MSCI World ex USA Index	MSCI World ex USA Quality Index	Quality (Simulated)	Quality Qtrly (Simulated)	Quality ROE-DTE Mandatory	Quality ROE-DTE Mandatory Qtrly	MSCI World ex USA Sector Neutral Quality Index	Quality (Simulated)	Quality Qtrly (Simulated)	Quality ROE-DTE Mandatory	Quality ROE-DTE Mandatory Qtrly
Total Return* (%)	7.6	9.2	9.2	9.2	9.1	9.2	9.4	9.3	9.4	9.4	9.5
Total Risk (%)	16.6	15.8	15.8	15.8	15.8	15.8	16.4	16.4	16.4	16.4	16.4
Return / Risk	0.46	0.58	0.58	0.58	0.58	0.58	0.57	0.57	0.57	0.57	0.58
Tracking Error (%)	--	4.3	4.4	4.4	4.4	4.4	2.7	2.8	2.7	2.8	2.7
Turnover (%)**	2.9	20.5	19.8	23.8	20.2	24.4	25.8	26.2	33.0	26.0	33.7
Quality Active Factor Family Exposure***	--	0.48	0.49	0.49	0.49	0.49	0.32	0.32	0.32	0.32	0.32
Specific Active Return Attribution (%)	--	0.52	0.56	0.47	0.55	0.51	1.19	1.22	1.13	1.24	1.23
Countries Active Return Attribution (%)	--	0.08	0.09	0.10	0.07	0.11	-0.12	-0.18	-0.09	-0.18	-0.09
Industries Active Return Attribution (%)	--	0.98	0.91	0.98	0.89	0.92	0.31	0.28	0.31	0.29	0.32
Styles Active Return Attribution (%)	--	0.01	-0.07	-0.05	-0.08	-0.06	0.27	0.22	0.24	0.23	0.25

Period: May 30, 2003 to Mar 29, 2024. * Gross returns annualized in USD ** Annualized one-way index turnover over index reviews *** Active values are w.r.t MSCI World ex USA Index.

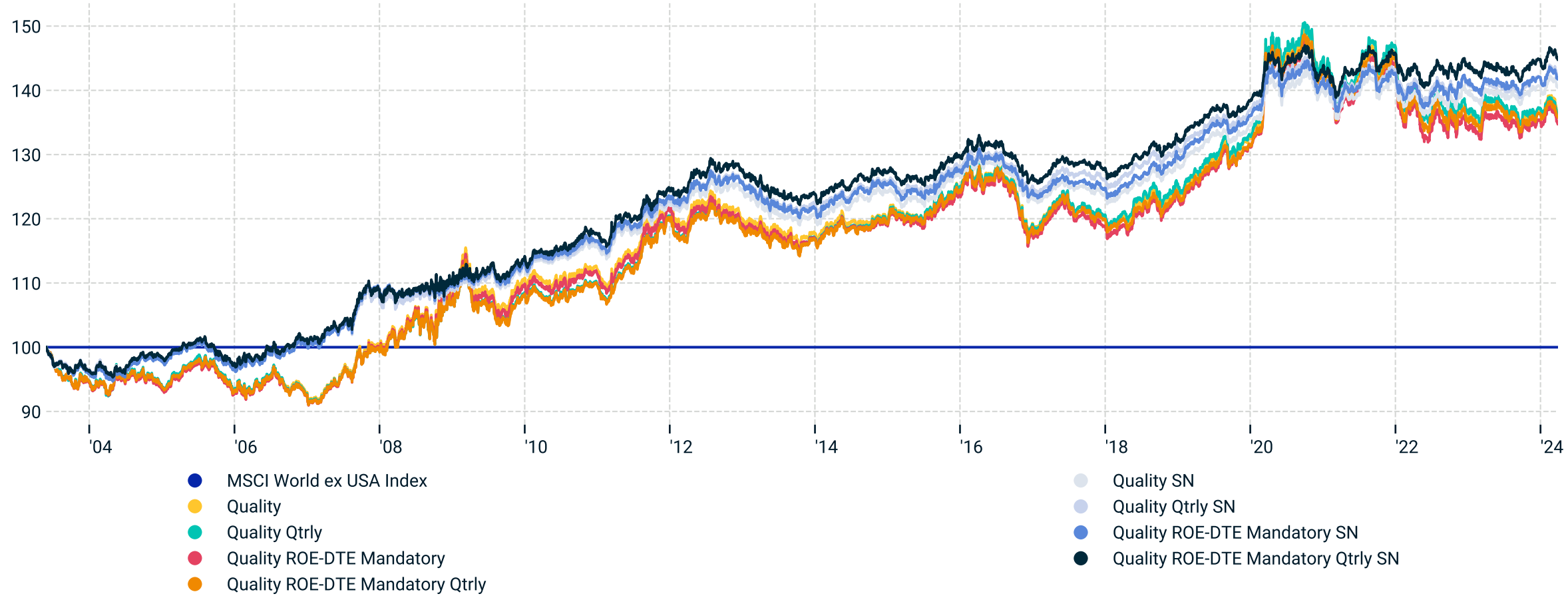
Performance (%)	MSCI World ex USA Index	MSCI World ex USA Quality Index	Quality (Simulated)	Quality Qtrly (Simulated)	Quality ROE-DTE Mandatory	Quality ROE-DTE Mandatory Qtrly	MSCI World ex USA Sector Neutral Quality Index	Quality (Simulated)	Quality Qtrly (Simulated)	Quality ROE-DTE Mandatory	Quality ROE-DTE Mandatory Qtrly
1 Yr	17.9	16.2	16.6	15.7	16.5	16.3	18.0	18.2	18.6	17.9	18.4
3 Yr	5.4	5.3	4.8	4.6	4.8	4.9	6.1	6.2	6.2	6.3	6.4
5 Yr	8.0	9.9	9.5	9.4	9.5	9.6	9.6	9.5	9.4	9.5	9.6
10 Yr	5.4	7.0	6.8	6.9	6.8	6.9	7.1	6.9	6.9	6.9	7.0

Gross returns for the period ending Mar 29, 2024. Returns are annualized for periods longer than a year

Relative Performance

(w.r.t MSCI World ex USA Index)

Relative Performance



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Information Classification: GENERAL

EM Simulation Summary – Quarterly & ROE/DTE Mandatory

		Emerging Markets Quality					Emerging Markets Sector Neutral Quality				
	MSCI EM Index	MSCI EM Quality Index	Quality (Simulated)	Quality Qtrly (Simulated)	Quality ROE-DTE Mandatory	Quality ROE-DTE Mandatory Qtrly	MSCI EM Sector Neutral Quality Index	Quality (Simulated)	Quality Qtrly (Simulated)	Quality ROE-DTE Mandatory	Quality ROE-DTE Mandatory Qtrly
Total Return* (%)	8.9	10.9	10.9	10.9	11.0	10.8	10.2	10.0	10.4	10.3	10.7
Total Risk (%)	20.7	19.4	19.2	19.2	19.1	19.2	19.8	19.8	19.8	19.8	19.8
Return / Risk	0.43	0.56	0.57	0.56	0.58	0.56	0.51	0.51	0.53	0.52	0.54
Tracking Error (%)	--	4.7	4.8	4.8	4.8	4.8	4.2	4.2	4.1	4.2	4.1
Turnover (%)**	7.7	27.1	27.1	33.3	27.7	34.4	35.6	34.2	44.1	34.4	43.9
Quality Active Factor Family Exposure***	--	0.55	0.55	0.55	0.55	0.55	0.30	0.29	0.30	0.29	0.30
Specific Active Return Attribution (%)	--	-0.73	-0.55	-0.52	-0.55	-0.55	-0.30	-0.45	0.09	-0.40	0.20
Countries Active Return Attribution (%)	--	1.31	1.30	1.27	1.45	1.41	0.98	0.94	0.86	1.09	1.01
Industries Active Return Attribution (%)	--	0.70	0.58	0.49	0.62	0.53	0.09	0.09	0.10	0.10	0.14
Styles Active Return Attribution (%)	--	0.57	0.58	0.61	0.56	0.58	0.53	0.60	0.59	0.62	0.59

Period: May 30, 2003 to Mar 29, 2024. * Gross returns annualized in USD ** Annualized one-way index turnover over index reviews *** Active values are w.r.t MSCI EM (Emerging Markets) Index.

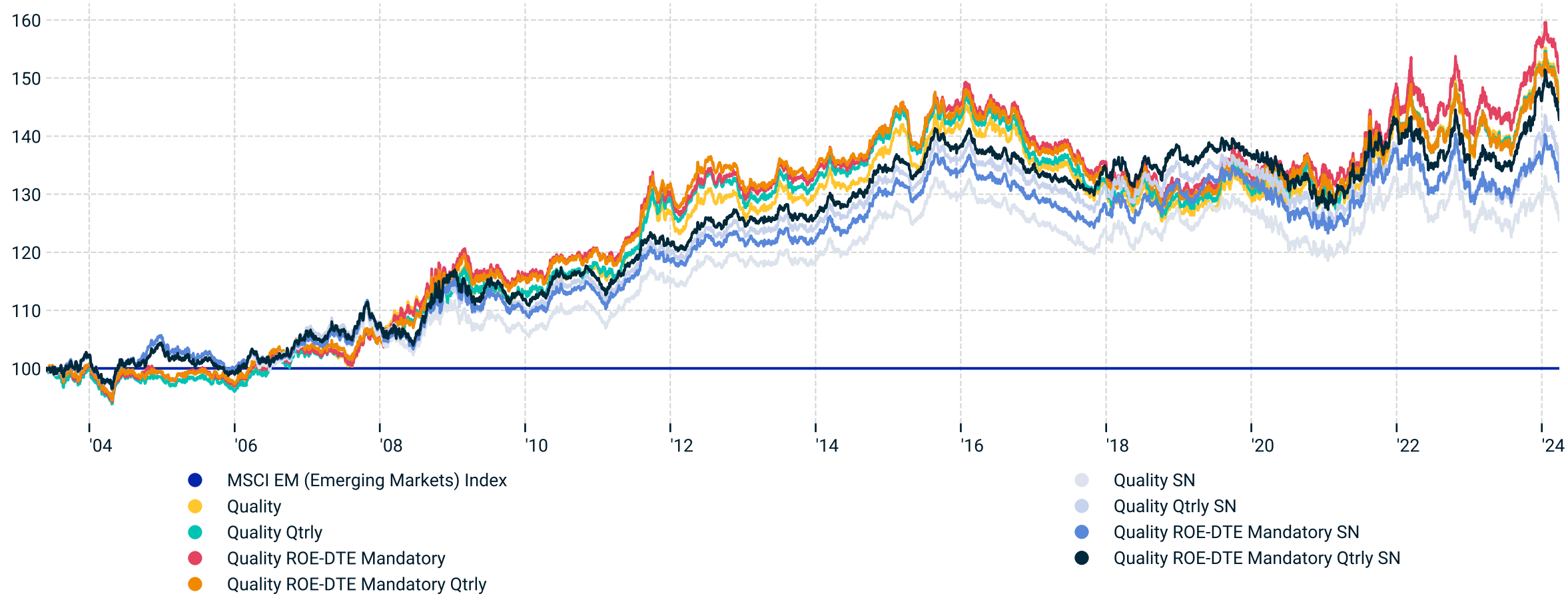
Performance (%)	MSCI EM Index	MSCI EM Quality Index	Quality (Simulated)	Quality Qtrly (Simulated)	Quality ROE-DTE Mandatory	Quality ROE-DTE Mandatory Qtrly	MSCI EM Sector Neutral Quality Index	Quality (Simulated)	Quality Qtrly (Simulated)	Quality ROE-DTE Mandatory	Quality ROE-DTE Mandatory Qtrly
1 Yr	9.7	13.0	14.1	14.0	14.0	13.3	7.8	9.1	13.6	10.7	14.8
3 Yr	-4.5	-1.0	-0.6	-0.9	-0.6	-1.2	-2.9	-3.3	-2.6	-2.9	-1.7
5 Yr	2.6	5.3	5.5	5.2	5.5	5.0	2.9	2.7	2.9	3.0	3.5
10 Yr	3.4	4.5	4.5	4.3	4.6	4.2	3.7	3.8	4.1	4.0	4.5

Gross returns for the period ending Mar 29, 2024. Returns are annualized for periods longer than a year

Relative Performance

(w.r.t MSCI EM (Emerging Markets) Index)

Relative Performance



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Issuer Cap Analysis

Information Classification: GENERAL

Issuer Cap Simulations - USA (Since 2020)

	USA						USA Sector Neutral					
Simulations	**Quality**	**Quality Relaxed IC**	**Quality GEMLT 3 Factors**	**Quality GEMLT 3 Factors Relaxed IC**	**Quality GEMLT 5 Factors**	**Quality GEMLT 5 Factors Relaxed IC**	**Quality**	**Quality Relaxed IC**	**Quality GEMLT 3 Factors**	**Quality GEMLT 3 Factors Relaxed IC**	**Quality GEMLT 5 Factors**	**Quality GEMLT 5 Factors Relaxed IC**
Total Return* (%)	16.0	15.9	17.6	17.4	14.4	14.4	14.5	14.3	16.6	16.5	13.7	13.7
Total Risk(%)	19.4	19.5	19.3	19.4	18.4	18.5	19.9	19.9	20.0	20.0	18.5	18.5
Specific Active Returns (%)	**0.55**	**0.36**	**1.17**	**1.05**	**-1.90**	**-1.99**	**-0.04**	**-0.12**	**0.75**	**0.63**	**-2.35**	**-2.35**
Styles Active Returns (%)	-0.18	-0.16	0.75	0.76	1.31	1.30	0.16	0.18	0.71	0.70	1.68	1.64

Period: Jan 31, 2020 to Mar 29, 2024. * Gross returns annualized in USD ** Active values are w.r.t MSCI USA Index; For 'Relaxed IC' variants the Issuer cap is Max(5%, Issuer weight in MSCI USA Index) instead of 5% in other variants

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Appendix

Risk and Return Metrics

	Definition
Total Return (%)	Annualized index return
Total Risk (%)	Annualized index risk (based on monthly returns)
Return / Risk	Ratio of annualized return and annualized risk
Active Return (%)	Difference of the annualized index return and the annualized benchmark return
Tracking Error (%)	Annualized standard deviation of active returns (based on monthly data)
Average Number of Constituents	Average number of constituents (based on monthly data)
Turnover (%)	Annualized Average one-way index turnover over rebalancing dates

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