

COMMENTARY

- The S&P Kensho New Economies Composite Index ended the year on a positive note (+9.65% for the quarter, +37.29% for the year), outperforming the S&P Composite 1500<sup>®</sup> by almost 700 basis points.
- All eight sectors posted gains for both the quarter and the full year, with Clean Power being a top performer both for the quarter (+18.21%) and the full year (+62.95%). In a reversal from last quarter, Human Evolution was the top performing sector, up 21%.
- Among Kensho subsectors, Genetic Engineering, which overlaps heavily with Human Evolution, was the top performer, up 30%. Enterprise Collaboration was the laggard, down 2%.

BACKGROUND

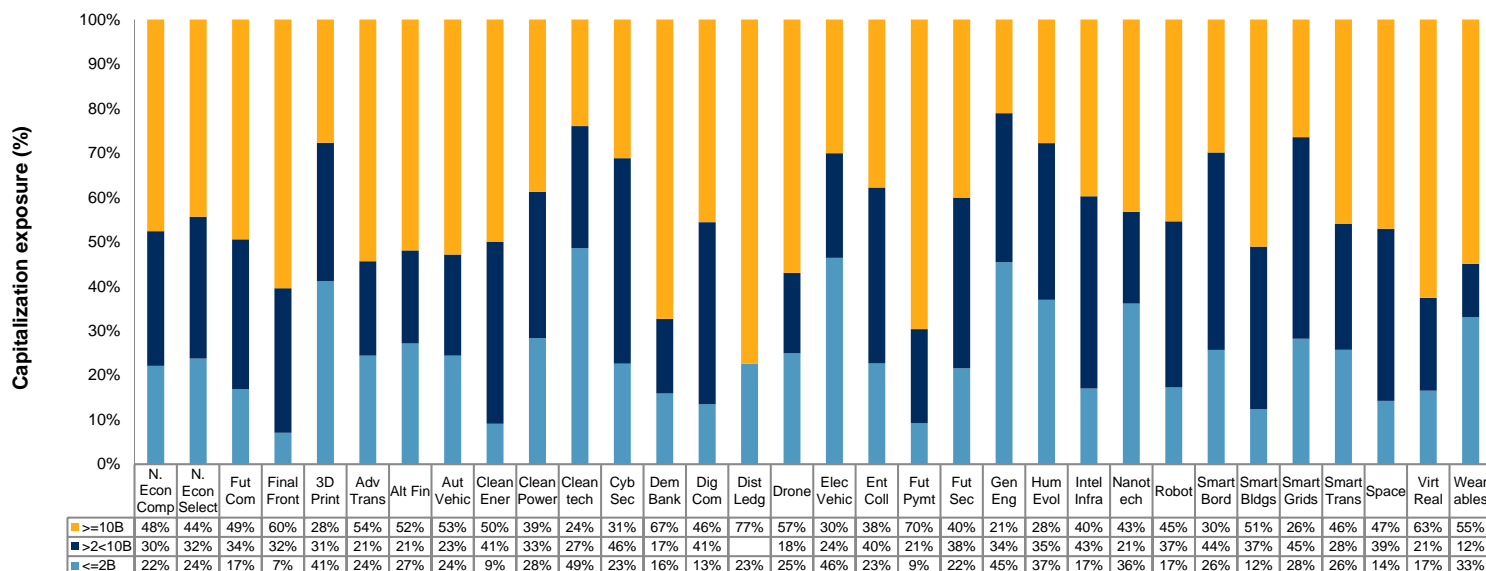
The S&P Kensho New Economies are a family of indices describing the industries and innovations of the Fourth Industrial Revolution. Rapid developments in artificial intelligence and robotics, coupled with exponential processing power and ubiquitous connectivity, are driving structural changes in the global economy, disrupting existing industries and forging new ones.

The S&P Kensho New Economies Composite Index is designed to measure the performance of companies involved in the New Economies 21st Century Sectors, including a dynamically adjusted list of companies drawn from all of the S&P Kensho Subsector Indices. The S&P Kensho New Economies Select Index measures a subset of the five best-performing subsector indices.

QUARTERLY PERFORMANCE SUMMARY

Composite Indices				Subsectors			
INDEX	QTD	YTD	12M	INDEX	QTD	YTD	12M
New Economies Composite	9.65%	37.29%	37.29%	Genetic Engineering	29.70%	36.38%	36.38%
New Economies Select	11.24%	37.68%	37.68%	Cleantech	23.46%	85.61%	85.61%
S&P Composite 1500 <sup>®</sup>	8.92%	30.90%	30.90%	Autonomous Vehicles	21.77%	38.03%	38.03%
<b>Sectors</b>				Electric Vehicles	19.48%	28.84%	28.84%
INDEX	QTD	YTD	12M	Virtual Reality	14.80%	50.52%	50.52%
Human Evolution	20.94%	31.36%	31.36%	Digital Communities	13.86%	37.28%	37.28%
Clean Power	18.21%	62.95%	62.95%	Wearables	12.26%	29.40%	29.40%
Smart Transportation	14.66%	30.58%	30.58%	Distributed Ledger	11.60%	34.57%	34.57%
Future Communication	11.79%	42.94%	42.94%	Smart Buildings	11.24%	31.18%	31.18%
Intelligent Infrastructure	10.48%	35.73%	35.73%	Nanotechnology	10.71%	28.82%	28.82%
Democratized Banking	6.46%	34.37%	34.37%	Smart Grids	9.88%	41.84%	41.84%
Future Security	5.27%	34.14%	34.14%	Clean Energy	9.45%	34.40%	34.40%
Final Frontiers	1.37%	40.38%	40.38%	Robotics	9.22%	34.44%	34.44%
				Future Payments	8.45%	44.63%	44.63%
				Cyber Security	7.60%	35.47%	35.47%
				Smart Borders	7.17%	51.57%	51.57%
				3D Printing	5.65%	16.67%	16.67%
				Advanced Transport Systems	5.20%	11.56%	11.56%
				Space	3.03%	42.59%	42.59%
				Alternative Finance	1.53%	21.44%	21.44%
				Drones	0.94%	30.53%	30.53%
				Enterprise Collaboration	-2.32%	33.19%	33.19%

PORTFOLIO EXPOSURE ACROSS CAP SPECTRUM



GICS SECTOR EXPOSURE SUMMARY

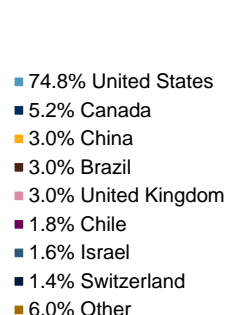
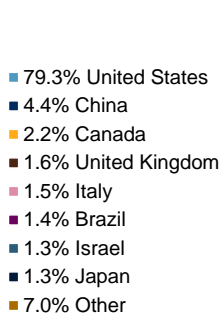
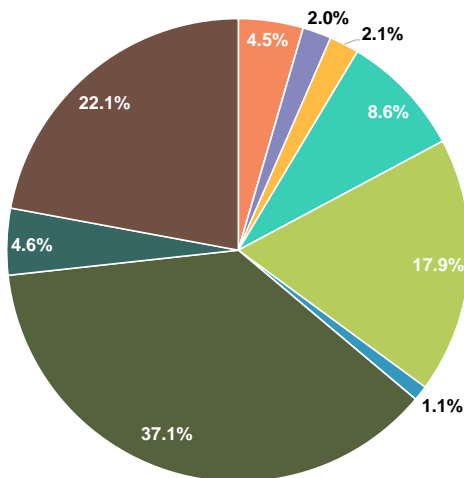
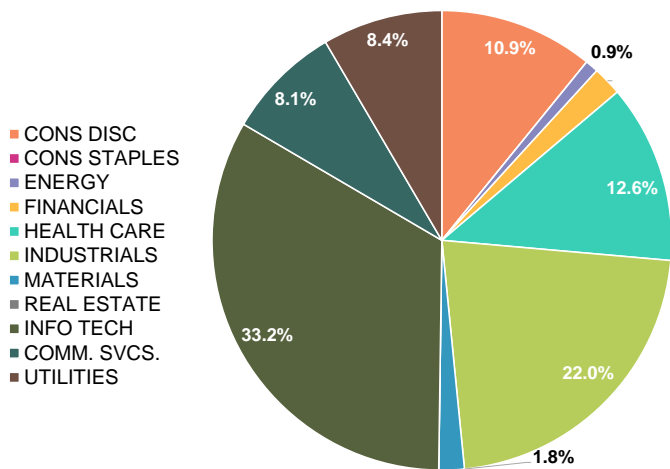
INDEX	CONS DISC	CONS STAPLES	ENERGY	FINANCIALS	HEALTH CARE	INDUSTRIALS	MATERIALS	REAL ESTATE	INFO TECH	COMM. SVCS.	UTILITIES
New Economies Composite	10.85%	0.00%	0.93%	2.05%	12.57%	22.03%	1.79%	0.00%	33.21%	8.12%	8.45%
New Economies Select	4.5%	0.0%	2.0%	2.1%	8.6%	17.9%	1.1%	0.0%	37.1%	4.6%	22.1%
Clean Power	2.9%	0.0%	2.5%	0.0%	0.0%	33.0%	3.8%	0.0%	20.1%	0.7%	37.1%
Democratized Banking	5.0%	0.0%	0.0%	33.3%	1.5%	0.0%	0.0%	0.0%	50.9%	9.3%	0.0%
Final Frontiers	0.0%	0.0%	3.8%	0.0%	0.0%	78.4%	3.4%	0.0%	14.4%	0.0%	0.0%
Future Communication	9.6%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	38.7%	50.8%	0.0%
Future Security	0.0%	0.0%	0.0%	0.0%	3.2%	37.9%	0.0%	0.0%	58.9%	0.0%	0.0%
Human Evolution	0.0%	0.0%	0.0%	0.0%	97.4%	0.0%	0.0%	0.0%	2.6%	0.0%	0.0%
Intelligent Infrastructure	6.8%	0.0%	1.9%	0.0%	0.0%	48.1%	0.0%	0.0%	36.1%	3.6%	3.5%
Smart Transportation	39.3%	0.0%	0.0%	0.5%	0.0%	25.2%	1.3%	0.0%	27.6%	6.1%	0.0%

INDEX	CONS DISC	CONS STAPLES	ENERGY	FINANCIALS	HEALTH CARE	INDUSTRIALS	MATERIALS	REAL ESTATE	INFO TECH	COMM. SVCS.	UTILITIES
3D Printing	0.0%	0.0%	0.0%	0.0%	0.0%	11.0%	26.3%	0.0%	62.7%	0.0%	0.0%
Adv Transport Systems	8.3%	0.0%	0.0%	5.5%	0.0%	47.0%	0.0%	0.0%	21.7%	17.4%	0.0%
Alternative Finance	0.0%	0.0%	0.0%	80.1%	4.7%	0.0%	0.0%	0.0%	11.1%	4.0%	0.0%
Autonomous Vehicles	50.1%	0.0%	0.0%	0.0%	0.0%	5.3%	0.0%	0.0%	39.1%	5.5%	0.0%
Clean Energy	6.6%	0.0%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%	84.3%
Cleantech	4.1%	0.0%	0.0%	0.0%	0.0%	47.8%	5.4%	0.0%	32.9%	0.0%	9.8%
Cyber Security	0.0%	0.0%	0.0%	0.0%	0.0%	18.2%	0.0%	0.0%	81.8%	0.0%	0.0%
Digital Communities	6.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.1%	87.1%	0.0%
Distributed Ledger	6.9%	0.0%	0.0%	16.0%	0.0%	0.0%	0.0%	0.0%	63.8%	13.3%	0.0%
Drones	4.0%	0.0%	3.8%	0.0%	0.0%	74.9%	0.0%	0.0%	14.1%	3.2%	0.0%
Electric Vehicles	62.9%	0.0%	0.0%	0.0%	0.0%	24.5%	2.9%	0.0%	9.7%	0.0%	0.0%
Enterprise Collaboration	0.0%	0.0%	0.0%	0.0%	4.4%	0.0%	0.0%	0.0%	87.7%	7.9%	0.0%
Future Payments	4.3%	0.0%	0.0%	9.9%	0.0%	0.0%	0.0%	0.0%	67.3%	18.4%	0.0%
Genetic Engineering	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Nanotechnology	0.0%	0.0%	0.0%	0.0%	52.1%	12.9%	9.2%	0.0%	25.8%	0.0%	0.0%
Robotics	7.2%	0.0%	2.8%	0.0%	47.3%	28.6%	0.0%	0.0%	14.0%	0.0%	0.0%
Smart Borders	0.0%	0.0%	0.0%	0.0%	17.8%	39.2%	0.0%	0.0%	43.0%	0.0%	0.0%
Smart Buildings	4.0%	0.0%	0.0%	0.0%	0.0%	47.1%	0.0%	0.0%	38.4%	10.5%	0.0%
Smart Grids	7.9%	0.0%	2.5%	0.0%	0.0%	46.9%	0.0%	0.0%	34.1%	0.0%	8.7%
Space	0.0%	0.0%	0.0%	0.0%	0.0%	79.3%	2.9%	0.0%	17.9%	0.0%	0.0%
Virtual Reality	17.2%	0.0%	0.0%	0.0%	0.0%	6.0%	0.0%	0.0%	58.7%	18.0%	0.0%
Wearables	17.8%	0.0%	0.0%	0.0%	48.7%	0.0%	0.0%	0.0%	33.5%	0.0%	0.0%

BREAKDOWN OF INDEX WEIGHT BY TRADITIONAL SECTOR AND COUNTRY

S&P Kensho New Economies Composite

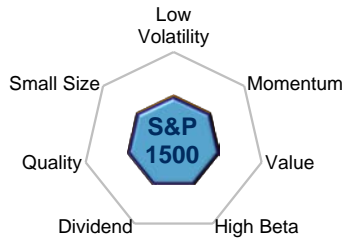
S&P Kensho New Economies Select



KEY TO FACTOR SCORINGS FOR INDICES

Factor Definitions

Each constituent of the S&P 1500 index is provided with a factor "score" for each of Beta, Volatility, Momentum, Dividend, Size, Value and Quality.



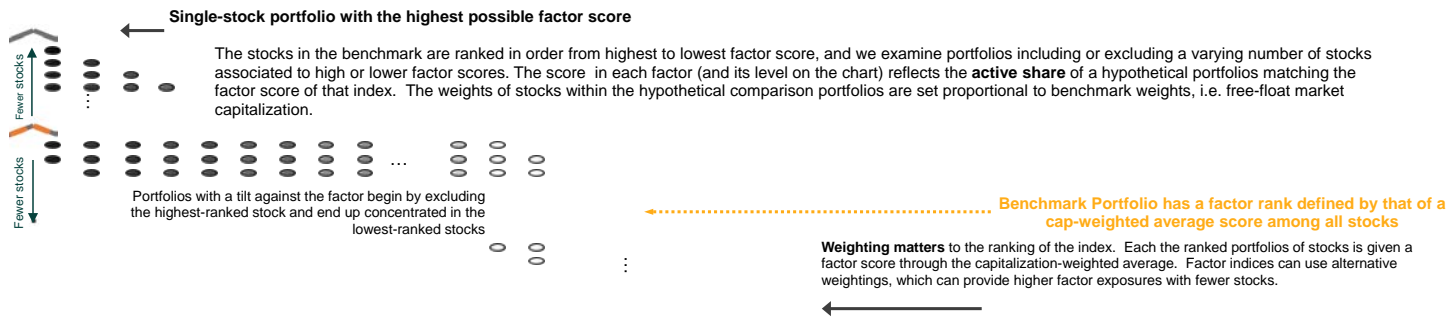
Factor	Measurement at single-stock level
<b>Volatility</b>	Trailing 12-month daily return volatility
<b>Momentum</b>	Twelve-month price change as of one month ago ("13 minus 1 momentum"), divided by the daily volatility during the twelve-month period that ended one month ago. For more details, see the <a href="#">S&amp;P Momentum</a> methodology
<b>Value</b>	The average of (normalized) earnings to price ratio, book to price ratio and sales to price ratio. For more details, see the <a href="#">S&amp;P Value</a> methodology.
<b>Beta</b>	Trailing 1 year beta of stock daily returns to the benchmark's return.
<b>Dividend</b>	Trailing 12-month dividend
<b>Quality</b>	The average of the (normalized) return on equity, the negative of the accruals ratio and the negative of the financial leverage ratio. For more details, see the <a href="#">S&amp;P Quality</a> methodology.
<b>Size</b>	Free-float market capitalization

Index Factor Ranking and Factor Diagram Scaling

Index Scores

Each index is provided a score in each factor from -100% to +100% based on how much of the total capitalization of the benchmark would must be excluded in order to provide a portfolio of stocks with similar exposure to that factor. This is done by examining a ranked series of hypothetical cap-weighted portfolios, including or excluding an increasing number of the stocks with the highest or lowest scores. An illustration of the process may be found at this link.

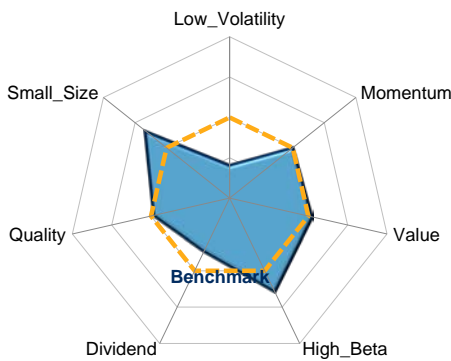
Factor Diagram Axis



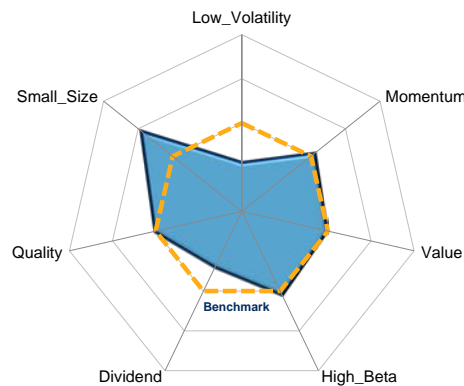
FACTOR EXPOSURE SUMMARY RELATIVE TO S&P 1500

- The diagrams below illustrate factor exposures relative to the S&P 1500 across Kensho sectors.

S&P Kensho New Economies Composite



S&P Kensho New Economies Select



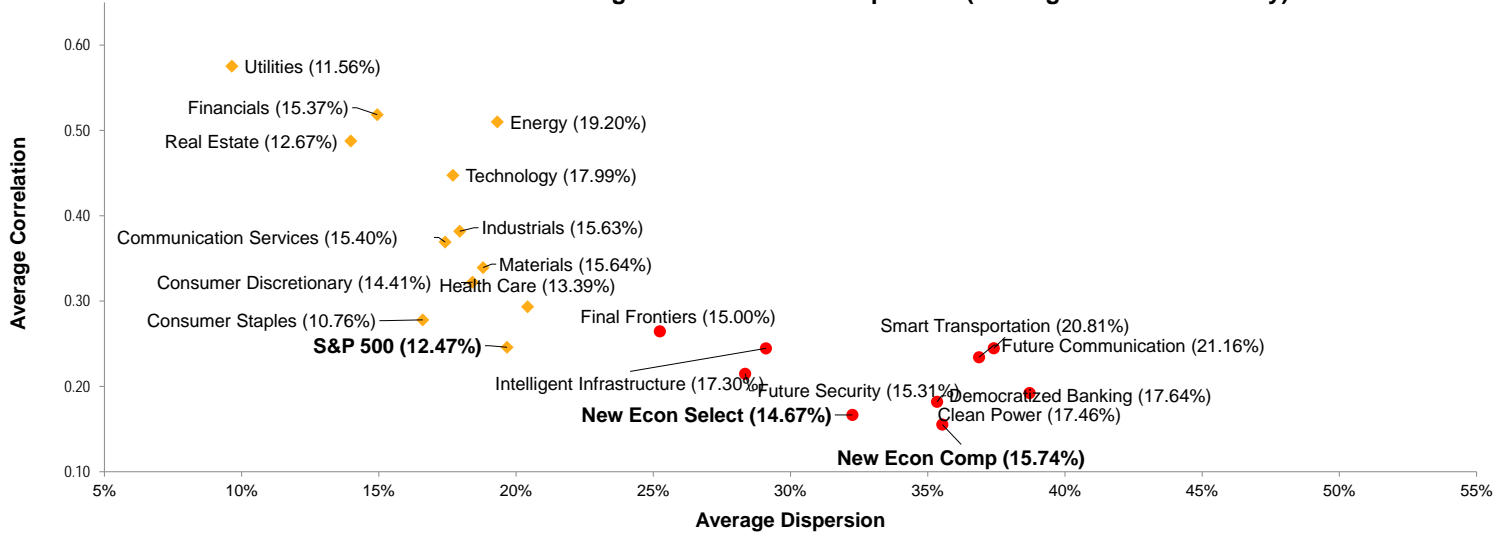
INDEX	LOW VOLATILITY	MOMENTUM	VALUE	HIGH BETA	DIVIDEND	QUALITY	SMALL SIZE
<b>S&amp;P Composite 1500®</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
New Economies Composite	-59.5%	0.0%	4.6%	28.5%	-27.4%	-4.5%	32.8%
New Economies Select	-44.7%	5.3%	-1.6%	4.6%	-30.3%	0.4%	45.4%
Clean Power	-36.8%	4.5%	27.8%	-37.3%	-4.6%	-31.2%	66.1%
Democratized Banking	-49.3%	5.8%	-14.7%	33.5%	-38.9%	4.1%	23.0%
Final Frontiers	-16.3%	43.5%	-4.2%	-0.7%	-4.6%	-10.4%	46.6%
Future Communication	-85.5%	-28.8%	-23.4%	78.4%	-62.6%	-4.5%	19.1%
Future Security	-41.8%	8.5%	-0.3%	9.0%	-25.2%	-6.5%	63.0%
Human Evolution	-77.2%	-19.1%	-35.4%	19.3%	-56.0%	9.3%	59.6%
Intelligent Infrastructure	-66.9%	-23.2%	25.3%	40.0%	-29.9%	6.2%	56.9%
Smart Transportation	-81.5%	-36.1%	66.0%	78.4%	-15.0%	-4.5%	49.3%

COMMENTARY

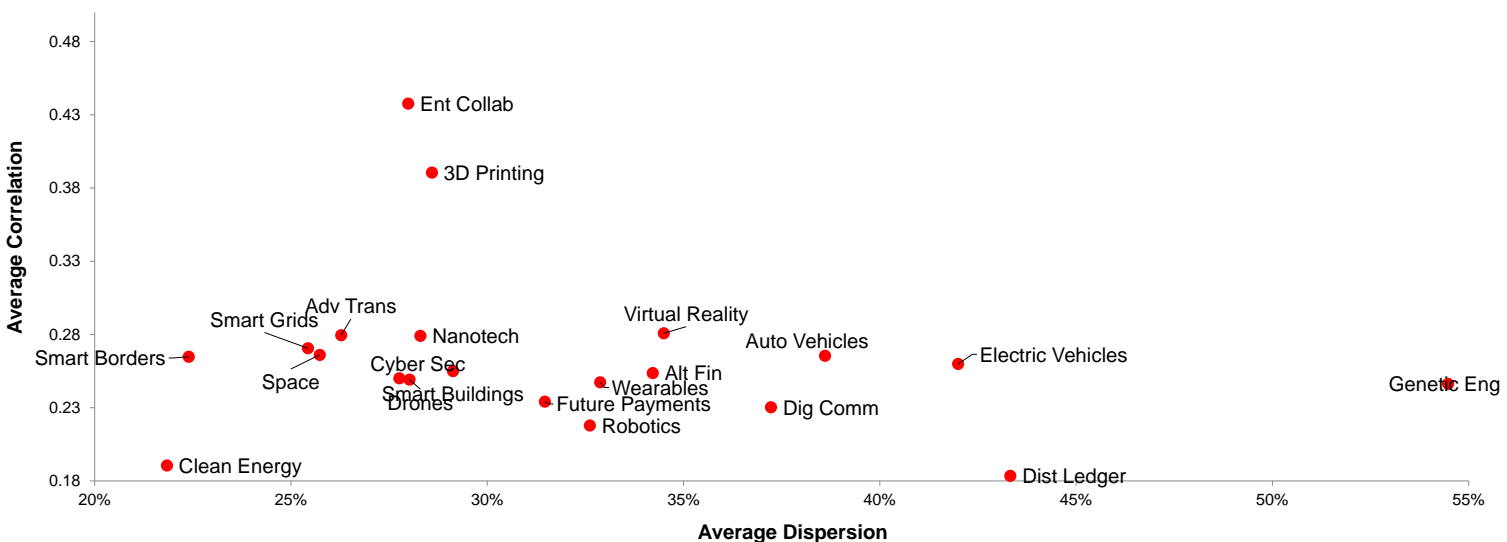
- Dispersion decreased across most S&P 500 and Kensho sectors and subsectors, especially in Human Evolution and Wearables.
- Correlations increased across all S&P 500 sectors and most Kensho sectors and subsectors, especially in Clean Power and Final Frontiers.

SECTOR DISPERSION AND CORRELATION

S&P 500 and Kensho Sectors Average Correlation and Dispersion (Trailing 12-Month Volatility)



Kensho Subsector Average Correlation and Dispersion (Trailing 12-Month Volatility)



#	Kensho Subsector	1Yr Risk	#	Kensho Subsector	1Yr Risk
1	Alt Fin	21.8%	12	Drones	17.1%
2	Dig Comm	20.7%	13	Genetic Eng	30.5%
3	Dist Ledger	21.4%	14	Nanotech	18.8%
4	Ent Collab	27.9%	15	Robotics	17.7%
5	Electric Vehicles	22.4%	16	Smart Borders	14.4%
6	3D Printing	24.8%	17	Smart Grids	17.4%
7	Adv Trans	18.4%	18	Smart Buildings	17.0%
8	Auto Vehicles	21.5%	19	Space	14.6%
9	Clean Energy	10.4%	20	Virtual Reality	22.4%
10	Cleantech	25.7%	21	Wearables	20.1%
11	Cyber Sec	16.7%	22	Future Payments	17.9%

NOTES

- The charts above decomposed volatility into its two main components: dispersion and correlation. The dispersion and correlation data points are each sector's average monthly value over the trailing 12 months. Trailing annualized volatility is included in parentheses. Index dispersions shown based on calendar month stock-level index-weighted dispersion. Index correlation based on single stock daily total returns during each calendar month. See "Implications of Sector Dispersion" for more information.
- See "At the Intersection of Diversification, Volatility and Correlation" for details on the relationship between correlation and dispersion.
- See "Dispersion: Measuring Market Opportunity" for the definition of index dispersion and more information on the uses of dispersion.

Source: S&P Dow Jones Indices LLC and/or its affiliates. Data as of December 31, 2019. Index performance based on total return (USD). Charts and graphs are provided for illustrative purposes. Past performance is no guarantee of future results.

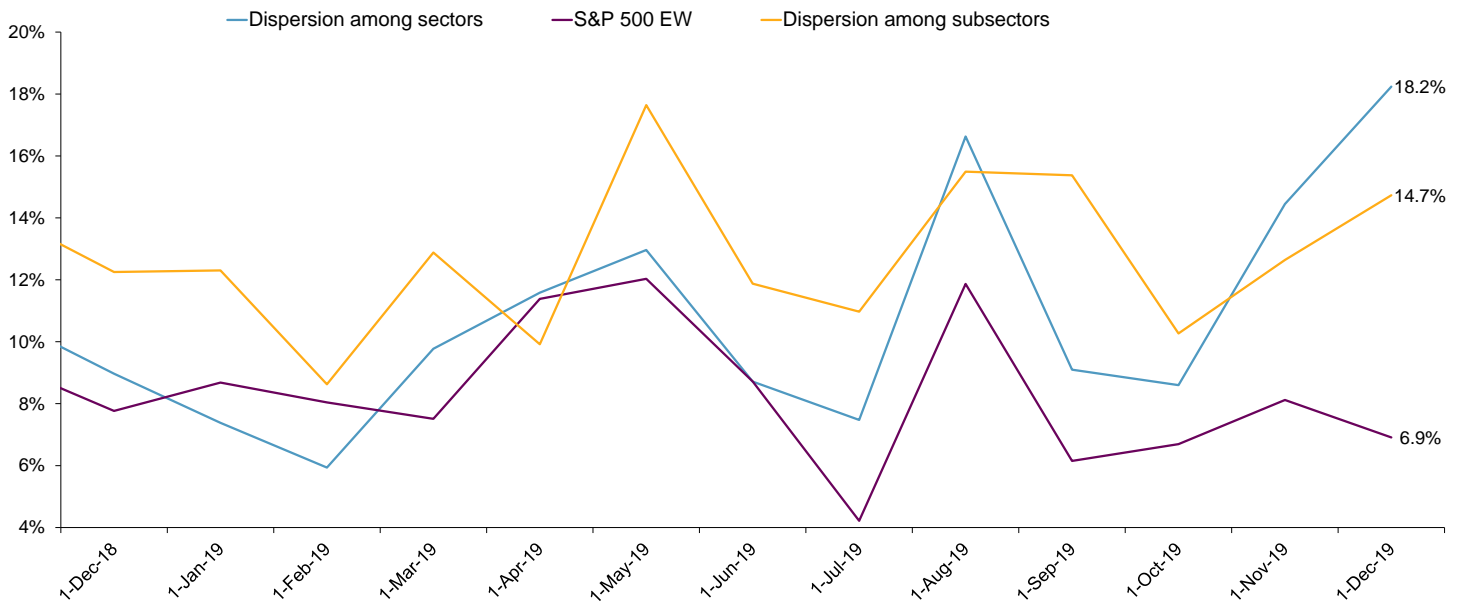
RELATIVE EXCESS RETURN CORRELATIONS - KENSHO SECTORS AND SUBSECTORS

INDEX	Sectors Relative to S&P Composite 1500										Sectors Relative to S&P 500®									
	New Economies Composite	New Economies Select	Democratized Banking	Human Evolution	Clean Power	Final Frontiers	Future Communication	Future Security	Intelligent Infrastructure	Smart Transportation	New Economies Composite	New Economies Select	Democratized Banking	Human Evolution	Clean Power	Final Frontiers	Future Communication	Future Security	Intelligent Infrastructure	Smart Transportation
New Economies Composite	1.00	0.87	0.53	0.57	0.57	0.45	0.64	0.72	0.63	0.52	1.00	0.88	0.56	0.57	0.57	0.48	0.64	0.74	0.67	0.56
New Economies Select	0.87	1.00	0.43	0.47	0.47	0.46	0.51	0.64	0.56	0.37	0.88	1.00	0.46	0.48	0.47	0.49	0.52	0.66	0.60	0.41
Democratized Banking	0.53	0.43	1.00	0.31	0.57	0.03	0.56	0.36	0.30	0.34	0.56	0.46	1.00	0.33	0.57	0.07	0.56	0.38	0.34	0.37
Human Evolution	0.57	0.47	0.31	1.00	0.34	0.09	0.35	0.32	0.17	0.20	0.57	0.48	0.33	1.00	0.35	0.11	0.36	0.34	0.20	0.22
Clean Power	0.57	0.47	0.57	0.34	1.00	-0.02	0.91	0.33	0.18	0.26	0.57	0.47	0.57	0.35	1.00	0.00	0.91	0.34	0.20	0.28
Final Frontiers	0.45	0.46	0.03	0.09	-0.02	1.00	0.02	0.56	0.35	0.08	0.48	0.49	0.07	0.11	0.00	1.00	0.04	0.58	0.39	0.13
Future Communication	0.64	0.51	0.56	0.35	0.91	0.02	1.00	0.42	0.24	0.29	0.64	0.52	0.56	0.36	0.91	0.04	1.00	0.43	0.26	0.31
Future Security	0.72	0.64	0.36	0.32	0.33	0.56	0.42	1.00	0.43	0.25	0.74	0.66	0.38	0.34	0.34	0.58	0.43	1.00	0.47	0.30
Intelligent Infrastructure	0.63	0.56	0.30	0.17	0.18	0.35	0.24	0.43	1.00	0.69	0.67	0.60	0.34	0.20	0.20	0.39	0.26	0.47	1.00	0.71
Smart Transportation	0.52	0.37	0.34	0.20	0.26	0.08	0.29	0.25	0.69	1.00	0.56	0.41	0.37	0.22	0.28	0.13	0.31	0.30	0.71	1.00

INDEX	Subsectors Relative to S&P Composite 1500																					
	Digital Communities	Distributed Ledger	Electric Vehicles	Ent. Collaboration	Future Payments	3D Printing	Advanced Transport	Alt Finance	Autonomous Vehicles	Clean Energy	Cleantech	Cyber Security	Drones	Genetic Engineering	Nanotechnology	Robotics	Smart Borders	Smart Buildings	Smart Grids	Space	Virtual Reality	Wearables
Digital Communities	1.00	0.24	0.14	0.42	0.61	0.36	0.13	0.10	0.34	-0.03	0.33	0.42	0.04	0.31	0.36	0.39	0.06	0.27	0.08	-0.02	0.52	0.42
Distributed Ledger	0.24	1.00	0.28	0.07	0.15	0.32	0.26	0.16	0.36	-0.31	0.07	0.33	0.22	0.17	0.15	0.34	0.19	0.22	0.26	-0.03	0.42	0.16
Electric Vehicles	0.14	0.28	1.00	-0.24	-0.09	0.41	0.51	0.32	0.67	-0.08	0.26	0.07	0.25	0.15	0.27	0.40	0.19	0.41	0.52	0.13	0.39	0.16
Ent. Collaboration	0.42	0.07	-0.24	1.00	0.41	0.11	-0.14	0.01	-0.13	-0.09	0.19	0.47	0.20	0.22	0.16	0.08	0.18	-0.01	-0.13	0.09	0.11	0.24
Future Payments	0.61	0.07	-0.03	0.41	1.00	0.22	-0.09	0.01	0.14	0.04	0.25	0.30	-0.09	0.14	0.27	0.29	0.01	0.20	-0.06	-0.09	0.34	0.25
3D Printing	0.36	0.32	0.44	0.11	0.22	1.00	0.28	0.27	0.43	-0.26	0.25	0.36	0.25	0.32	0.43	0.49	0.18	0.40	0.39	0.15	0.64	0.24
Advanced Transport	0.13	0.26	0.51	-0.14	-0.09	0.28	1.00	0.27	0.44	-0.14	0.05	0.23	0.08	0.18	0.37	0.38	0.08	0.37	0.42	0.05	0.20	0.16
Alt Finance	0.10	0.16	0.29	0.01	0.01	0.27	0.27	1.00	0.27	-0.27	0.21	0.23	0.27	0.28	0.21	0.29	0.22	0.24	0.33	0.29	0.12	0.04
Autonomous Vehicles	0.34	0.36	0.65	-0.13	0.14	0.43	0.44	0.27	1.00	-0.16	0.14	0.21	0.14	0.18	0.45	0.42	0.09	0.46	0.49	0.06	0.60	0.34
Clean Energy	-0.03	-0.31	-0.05	-0.09	0.04	-0.26	-0.14	-0.27	-0.16	1.00	0.22	-0.09	-0.21	-0.31	-0.18	-0.29	-0.03	-0.05	-0.09	-0.07	-0.18	-0.07
Cleantech	0.33	0.07	0.27	0.19	0.25	0.25	0.05	0.21	0.14	0.22	1.00	0.08	0.01	0.14	0.10	0.28	0.04	0.12	0.14	0.05	0.18	0.14
Cyber Security	0.42	0.33	0.08	0.47	0.30	0.36	0.23	0.23	0.21	-0.09	0.08	1.00	0.46	0.31	0.37	0.30	0.46	0.37	0.21	0.35	0.39	0.28
Drones	0.04	0.22	0.21	0.20	-0.09	0.25	0.08	0.27	0.14	-0.21	0.01	0.46	1.00	0.17	0.26	0.31	0.71	0.29	0.42	0.74	0.23	0.13
Genetic Engineering	0.31	0.17	0.15	0.22	0.14	0.32	0.18	0.28	0.18	-0.31	0.14	0.31	0.17	1.00	0.34	0.33	0.10	0.20	0.08	0.10	0.29	0.21
Nanotechnology	0.36	0.15	0.27	0.16	0.27	0.43	0.37	0.21	0.45	-0.18	0.10	0.37	0.26	0.34	1.00	0.61	0.30	0.48	0.39	0.24	0.43	0.47
Robotics	0.39	0.34	0.42	0.08	0.29	0.49	0.38	0.29	0.42	-0.29	0.28	0.30	0.31	0.33	0.61	1.00	0.32	0.50	0.48	0.26	0.45	0.36
Smart Borders	0.06	0.19	0.16	0.18	0.01	0.18	0.08	0.22	0.09	-0.03	0.04	0.46	0.71	0.10	0.30	0.32	1.00	0.33	0.44	0.70	0.12	0.11
Smart Buildings	0.27	0.22	0.40	-0.01	0.20	0.40	0.37	0.24	0.46	-0.05	0.12	0.37	0.29	0.20	0.48	0.50	0.33	1.00	0.43	0.22	0.40	0.26
Smart Grids	0.08	0.26	0.50	-0.13	-0.06	0.39	0.42	0.33	0.49	-0.09	0.14	0.21	0.42	0.08	0.39	0.48	0.44	0.43	1.00	0.47	0.32	0.19
Space	-0.02	-0.03	0.12	0.09	-0.09	0.15	0.05	0.29	0.06	-0.07	0.05	0.35	0.74	0.10	0.24	0.26	0.70	0.22	0.47	1.00	0.05	0.06
Virtual Reality	0.52	0.42	0.40	0.11	0.34	0.64	0.20	0.12	0.60	-0.18	0.18	0.39	0.23	0.29	0.43	0.45	0.12	0.40	0.32	0.05	1.00	0.41
Wearables	0.42	0.16	0.18	0.24	0.25	0.24	0.16	0.04	0.34	-0.07	0.14	0.28	0.13	0.21	0.47	0.36	0.11	0.26	0.19	0.06	0.41	1.00

Correlation of weekly S&P 1500 and S&P 500 relative performance, three years to December 31, 2019

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