Thematic Index Round-Up

MarketVector Indexes™ publishes 61 thematic indexes to cover forward-looking investment concepts grouped into meta themes: Clean Energy, Consumer Trends, Disruptive Technology, Financials 2.0, Health Care Innovation, Materials, NextGen Hardware & Communications, NextGen Software, Thematic Industrials & Infrastructure, Thematic REITS. In Q2 2022, all meta themes returned negative performance with Disruptive Technology (-18%) and Next Gen Software (-19%) least negative and Financials 2.0 (-39%) most negative.

Exhibit 1: Meta Thematic Returns (USD, ending 30 June 2022)

Q3-2019	Q4-2019	Q1-2020	Q2-2020	Q3-2020	Q4-2020	Q1-2021	Q2-2021	Q3-2021	Q4-2021	Q1-2022	Q2-2022
NextGen Hardware & Communications 5.5%	Health Care Innovation 20.1%	Health Care Innovation -8.1%	Clean Energy 49.1%	Clean Energy 42.4%	Clean Energy 54.2%	Financials 2.0 38.6%	Health Care Innovation 10.4%		NextGen Hardware & Communications 16.2%		Disruptive Technology -18.5%
Thematic REITs 4.4%	Clean Energy 15.4%	Financials 2.0 -12.1%	Next Gen Software 47.9%	Disruptive Technology 20.2%	Financials 2.0 38.1%	NextGen Hardware & Communications 10.0%	Thematic Industrials & Infrastructure 8.3%	Disruptive Technology 0.0%			Next Gen Software -18.6%
Clean Energy 0.9%	NextGen Hardware & Communications 13.7%	Clean Energy -14.0%	Health Care Innovation 47.3%	Materials 12.6%		Consumer Trends 9.6%	Disruptive Technology 8.2%			Consumer Trends -7.7%	Thematic Industrials & Infrastructure -18.8%
Consumer Trends -0.3%	Consumer Trends 13.1%	Next Gen Software -15.0%	Financials 2.0 33.5%	Next Gen Software 11.6%	Health Care Innovation 30.9%		NextGen Hardware & Communications 7.8%	Thematic Industrials & Infrastructure -0.6%	Thematic Industrials & Infrastructure 4.3%	Thematic Industrials & Infrastructure -7.9%	Thematic REITs -19.9%
Thematic Industrials & Infrastructure -0.4%		Thematic Industrials & Infrastructure -17.4%	Disruptive Technology 33.0%	Health Care Innovation 9.9%	Next Gen Software 29.5%	Materials 7.1%		NextGen Hardware & Communications -1.9%	Clean Energy 1.0%	Clean Energy -8.6%	NextGen Hardware & Communications -20.0%
Financials 2.0 -1.6%	Next Gen Software 10.4%	Disruptive Technology -17.8%		Consumer Trends 9.9%	Consumer Trends 23.6%	Thematic Industrials & Infrastructure 4.8%	Next Gen Software 7.0%	Health Care Innovation -6.0%	Disruptive Technology -1.2%	NextGen Hardware & Communications -10.8%	Clean Energy -20.5%
Disruptive Technology -2.3%	Disruptive Technology 10.1%	NextGen Hardware & Communications -17.9%	NextGen Hardware & Communications 29.5%	Thematic Industrials & Infrastructure 9.7%	NextGen Hardware & Communications 23.6%	Next Gen Software 3.9%	Materials 6.4%	Consumer Trends -6.0%	Consumer Trends -2.4%	Disruptive Technology -12.9%	Health Care Innovation -21.6%
Next Gen Software -3.9%	Thematic Industrials & Infrastructure 6.9%	Consumer Trends -29.2%	Thematic Industrials & Infrastructure 26.2%	NextGen Hardware & Communications 8.9%	Disruptive Technology 23.5%	Disruptive Technology 1.4%	Consumer Trends 1.4%	Next Gen Software -9.4%	Financials 2.0 -7.3%	Financials 2.0 -14.3%	Consumer Trends -23.0%
Materials -4.9%	Financials 2.0 6.1%	Materials -29.6%	Consumer Trends 23.9%	Financials 2.0 8.1%	Thematic Industrials & Infrastructure 17.8%	Health Care Innovation -2.0%	Clean Energy -1.1%	Clean Energy -10.8%	Next Gen Software -7.6%	Health Care Innovation -14.7%	Materials -31.3%
Health Care Innovation -8.9%						Clean Energy -5.0%	Financials 2.0 -2.9%	Financials 2.0 -13.4%	Health Care Innovation -9.3%	Next Gen Software -19.6%	Financials 2.0 -39.2%

Source: MarketVector Indexes™. Meta Thematic index returns are the equal weighted returns of underlying Thematic indexes listed in Exhibit 2.

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Exhibit 2: Thematic Index Returns (USD, ending 30 June 2022)

				Quar	terly Re	turns (U	SD)	Last3	Years (L	JSD)
				Q2-	Q1-	Q4-	Q3-	Ann	Ann	Draw-
Index Ticker Index Name	Meta Theme	Launch Date Base I		2022	2022	2021	2021		Stdev	
BSOLRNTR * BlueStar Solar Energy Industry	Clean Energy			10.3%	-4.3%	-4.1%	-7.5%		42.7%	
BWINDNTR * BlueStar Wind Energy Industry	Clean Energy Clean Energy				-1.7%	-2.2%	0.9%		23.7%	
MVSMOGTR MVIS Global Low Carbon Energy BGTQNTR * BlueStar Global GreenTech	Clean Energy			14.3% 16.4%	-9.0% -9.5%	7.6% 5.3%	-6.7% -5.3%		31.3% 28.1%	
BEVNTR * BlueStar Electric Vehicle Industry	Clean Energy			25.0%			-20.6%		61.6%	
MVHTWOTR MVIS Global Hydrogen Economy ESG	Clean Energy			_	-6.3%	1.8%		33.270	01.070	21.570
BHDROTR BlueStar Hydrogen and NextGen Fuel Cell	Clean Energy			35.2%		-2.6%				
MVFOFTR MVIS Global Future of Food ESG	Consumer Trends			13.2%		-8.5%		14.5%	20.9%	-13.9%
MVBJKTR MVIS Global Gaming	Consumer Trends	05/08/12 12/2	29/06 -1	15.5%	-9.3%	-7.6%	-8.5%			
MVCIRCTR MVIS Global Circular Economy ESG	Consumer Trends	03/16/22 12/3	31/20 -1	16.1%	-5.2%	5.6%	2.2%	-1.6%	32.9%	-28.5%
BEGAMNTR * BlueStar E-Games	Consumer Trends	10/05/18 12/2	29/14 -1	16.4%	-12.2%	1.9%	-10.3%	-14.0%	40.7%	-36.0%
MVESPOTR MVIS Global Video Gaming & eSports	Consumer Trends	07/16/18 12/3	31/14 -1	18.9% -	-11.6%	5.3%	-10.1%	8.8%	23.4%	-11.1%
BVGOGTR BlueStar Global Online Gambling, Video Gaming an	Consumer Trends	03/25/22 12/3	31/20 -1	19.8%	-5.0%	5.7%	-1.3%	6.7%	19.1%	-11.5%
BAUTNTR * BlueStar Autonomous Driving	Consumer Trends	05/10/18 12/2	28/12 -2	21.2%	-17.9%	8.3%	-5.1%	5.9%	20.9%	-17.4%
BETORNTR * BlueStar Europe Travel and Vacation	Consumer Trends			23.3%	-1.0%	-8.0%	1.9%	-7.8%	40.0%	-38.3%
BTOURNTR * BlueStar Travel and Vacation	Consumer Trends				-1.4%	-2.8%	-2.5%			
BCRUZTR BlueStar Hotels, Airlines, and Cruises	Consumer Trends			30.4%	2.5%	-5.8%	-0.6%	C C	25.227	12.004
MVNACBTR MVIS North America Cannabis Industry BSFAONTR * BlueStar Asia Technology	Consumer Trends		, -			-20.3%		6.0%	25.3%	-13.9%
BSEAQNTR * BlueStar Asia Technology BGTHTR BlueStar Israel Global Technology	Disruptive Technology Disruptive Technology			12.5% - 19.3% -		-2.0% -4.3%	-12.6% -5.4%	10 10/	28.0%	-25 5%
	Disruptive Technology			19.3% · 19.8% ·		-4.3% -5.5%	-6.2%		32.8%	
BGTNATR BlueStar Israel Global Technology North America MVDINDTR MVIS Digital India	Disruptive Technology				-9.5%		24.3%		29.2%	
BFNQNTR * BlueStar Fintech	Financials 2.0			25.0%	_	-9.8%	-2.5%	3.470	23.270	22.570
BEBKRNTR * BlueStar E-Brokers and Digital Capital Markets	Financials 2.0			31.1%		-0.2%		-5.4%	29.2%	-22.5%
BUBIDTR BlueStar US Listed E-Brokers and Digital Capital Ma	Financials 2.0					-11.2%				
BBIDSTR BlueStar Global E-Brokers and Digital Capital Mark	Financials 2.0	08/23/21 12/3	31/19 -3	36.0%	-13.0%	-2.6%	-15.8%	10.5%	25.7%	-14.5%
MVDAPPTR MVIS Global Digital Assets Equity	Financials 2.0	03/08/21 02/2	26/21 -7	71.1%	-19.2%	-12.9%	-12.2%	-8.4%	35.1%	-22.2%
BEHCNTR * BlueStar E-Healthcare	Health Care Innovation	01/22/21 12/3	31/15 -1	17.8%	-13.8%	-8.3%	-10.1%			
MVFHCTR MVIS Global Future Healthcare ESG	Health Care Innovation	12/06/21 12/3	31/20 -1	18.1%	-14.3%	-9.6%	-1.0%	21.3%	36.0%	-21.8%
MVBIONTR * MVIS Global Bionic Healthcare ESG	Health Care Innovation	02/09/22 12/3	31/20 -2	22.6%	-4.2%	-3.3%	-1.3%	10.6%	19.8%	-14.1%
BDNANTR * BlueStar Genomic Health Care	Health Care Innovation	05/22/20 12/3	31/15 -2	27.9%	-26.4%	-16.2%	-11.5%	10.8%	19.3%	-13.4%
BMOONTR * BlueStar Agribusiness 50	Materials .			15.7%	9.9%	6.2%	0.7%		36.0%	
MVMOOTR MVIS Global Agribusiness	Materials			17.3%	9.7%	5.8%	0.4%		24.9%	
MVGMETTR MVIS Global Clean-Tech Metals	Materials			21.2%	6.5%	9.5%	0.4%		36.6%	
MVREMXTR MVIS Global Rare Earth/Strategic Metals	Materials Materials			29.6%		12.8%			31.2%	
MVGDXJTR MVIS Global Junior Gold Miners MVDAMTR MVIS Global Digital Assets Mining	Materials			72.5% -	12.4%	11.5%	-17.7%	6.0%	36.6%	-16.4%
BCHNQNTR * BlueStar China Internet Software	Next Gen Software					-17.8%	-29 5%	9.2%	20.4%	-11 4%
BAINTR * BlueStar Artificial Intelligence	Next Gen Software			24.4%	_	-0.8%	-0.1%		34.8%	
BDATATR BlueStar Big Data & Analytics	Next Gen Software		,	28.6%		-9.3%	1.8%		19.7%	
BADTQNTR * BlueStar Digital Advertising	Next Gen Software			32.4%		-2.8%	-9.7%		23.7%	
BGFGNTR * BlueStar Global 5G Connectivity	NextGen Hardware & Communications	07/26/19 12/1	15/15 -1	15.2%	-11.8%	14.0%	-4.2%	23.9%	25.2%	-16.8%
BFIVGTR BlueStar 5G Communications	NextGen Hardware & Communications	01/10/19 12/3	30/16 -1	15.7%	-9.8%	15.5%	-4.2%	21.9%	23.7%	-13.0%
BQTUMTR BlueStar Machine Learning and Quantum Computir	NextGen Hardware & Communications	06/07/18 12/1	18/15 -1	19.4%	-9.1%	11.6%	1.0%	23.9%	25.9%	-16.6%
BUQFCNTR * BlueStar US Machine Learning and Quantum Compt	NextGen Hardware & Communications	03/08/21 12/1	18/15 -1	19.9%	-8.9%	14.8%	-0.2%	13.1%	20.8%	-10.1%
MVSMHTR MVIS US Listed Semiconductor 25	NextGen Hardware & Communications	08/12/11 09/2	29/00 -2	24.4% -	-12.7%	21.2%	-2.2%	13.6%	15.8%	-8.5%
BILINTR * BlueStar Israel Infrastructure	Thematic Industrials & Infrastructure	03/25/22 12/3	31/17 -1	10.9%	6.7%	13.9%	-1.4%	6.2%	23.4%	-15.1%
BLOGRNTR * BlueStar Global Logistics	Thematic Industrials & Infrastructure		29/06 -1			7.9%	3.7%			
BTOTNTR * BlueStar Total Security	Thematic Industrials & Infrastructure		31/15 -1		2.8%	0.6%	-0.9%		21.2%	
MVSPCTR MVIS Global Space Industry ESG	Thematic Industrials & Infrastructure		31/19 -1		1.3%	-9.9%	-1.2%		17.0%	
BDLRTNTR * BlueStar Data Center and Logistics Real Estate	Thematic Industrials & Infrastructure		31/13 -1		-9.3%		-1.4%		25.9%	
BECLGNTR * BlueStar E-Commerce, Payments, and Logistics	Thematic Industrials & Infrastructure		29/06 -1			5.6%	0.3%		26.4%	
BRBTNTR * BlueStar Robotics BUIINTR * BlueStar US Listed Internet Infrastructure	Thematic Industrials & Infrastructure Thematic Industrials & Infrastructure		29/12 -2		_	7.9%	1.0%		22.6%	
BUIINTR * BlueStar US Listed Internet Infrastructure BRB3DTR BlueStar Global Robotics & 3D Printing	Thematic Industrials & Infrastructure Thematic Industrials & Infrastructure		31/15 -2 30/16 -2			5.8%	-5.3%		21.2%	
BECOMNTR * BlueStar E-Commerce US Leaders	Thematic Industrials & Infrastructure		28/12 -3			-8.9%	-3.3%		44.3%	
BURRTNTR * BlueStar Top 10 US Residential Real Estate	Thematic REITs		31/15 -1				-0.5%		28.7%	
MVMORTTR MVIS US Mortgage REITs			30/04 -1			-1.9%	-3.2%	2.370	/0	
MVMVATR MVIS Australia A-REITs (AUD)			29/06 -1		-5.5%	7.4%	4.6%	-10.0%	40.4%	-56.2%
BUORTTR BlueStar Top 10 US Office REITs			31/15 -3		5.5%	5.8%	-3.3%		28.3%	

Source: MarketVector Indexes™. Total Return Indexes, *Net Total Return Indexes

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New Index Launches

MarketVector Indexes™ launched 2 new Thematic indexes for the quarter.

BRB3D	BlueStar® Global Robotics & 3D Printing	Thematic Industrials & Infrastructure	The Index tracks the performance of the largest and most liquid companies involved in the robotics, 3D printing, and computer aided design segments. This is a modified market cap-weighted index, which only includes companies that generate at least 50% of their revenue from robots or manufacturing automation, computer aided design software, or additive manufacturing systems or related materials and software.
BUII	BlueStar® US Listed Internet Infrastructure	Thematic Industrials & Infrastructure	The index tracks the performance of the largest and most liquid US listed companies involved in a range of activities constituting the infrastructure of the internet including application and network services, data center operations, and edge computing solutions. This is a modified market cap-weighted index, which only includes companies that generate at least 50% of their revenue from internet infrastructure.

Licensed Product News

As of Q1 2022, total thematic products licensed stands at \$24bn USD. We are excited to welcome our newest licensed products in Q1 2022.

INDEX TKR	PRODUCT TKF	PRODUCT NAME	DATE LISTED
	1105040		0.440.4400
BFNQNTR	1185263	MTF Sal (4D) Bluestar Fintech	04/06/22
BVGOGNTR	ODDS	Pacer Bluestar Digital Entertainment ETF	05/04/22
BRB3DNTR	BULD	Pacer Bluestar Engineering the Future ETF	05/09/22
BUALTNTR	426410 KS	Hanwha Arirang Top 10 Us Listed Alt Asset Managers MV ETF	06/22/22
MVFOFTR	VEGI LN	VanEck Sustainable Future of Food UCITS ETF	06/29/22
MVSPCTR	JEDI LN	VanEck Space Innovators UCITS ETF	06/29/22

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Thematic Spotlight

As demand in sustainable investing increases, so too have the techniques and data to support sustainable investment solutions aligned with investor's Environment, Social and Governance (ESG) values. While early ethics-based approaches using negative screening remain relevant, new data and research have advanced other approaches allowing asset managers to focus on their primary fiduciary goal: maximizing risk-adjusted returns.

Broadly, asset managers can integrate ESG data and research using one or a combination of the following approaches:

- 1. **Negative screening**: exclusion from companies in certain sectors, industries or activities.
- 2. **Positive screening**: investment or over-weighting toward companies in sectors, industries, projects or business activities leading to positive ESG outcomes.
- Impact and engagement: taking an activist role with issuers and stakeholders to influence and direct outcome.

Passive managers aligned to an index, are often restricted by how much they can take an activist role and are constrained by their stated objective to replicate the index. But this should not limit their ESG objectives.

MarketVector™ believes that well-designed ESG index solutions can be constructed to deliver both performance and ESG objectives. Thematic indexes linked to an ESG sustainable investment objective, integrating ESG data to screen or weight, can target companies based on very specific and granular ESG risk and business activities. MarketVector™ ESG indexes support European SFDR Principal Adverse Impact Standards (PAIs) and UN Sustainable Development Goals (SDGs). As governments around the world mandate stricter ESG requirements for asset managers, there is surging demand for products which clearly align themselves to both "do no harm" and "best in class" standards.

MarketVector™ has partnered with Institutional Shareholder Services (ISS) to use ISS ESG data in designing targeted Thematic ESG indexes. Combining MarketVector™'s deep Thematic index experience with ISS broad ESG expertise will allow clients to build Thematic ESG indexes with the aim of capturing both positive financial performance and positive environmental impact.

To learn more about MarketVector Indexes™ extended family of innovative indexes, please visit http://www.marketvector.com and sign up to join the conversation.

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MarketVector Indexes GmbH

Frankfurt Office Kreuznacher Str. 30 60486 Frankfurt am Main +49 (69) 4056 695 55 New York Office 1350 Avenue of the Americas, Fl 4 New York, NY 10019 (646) 380 2500